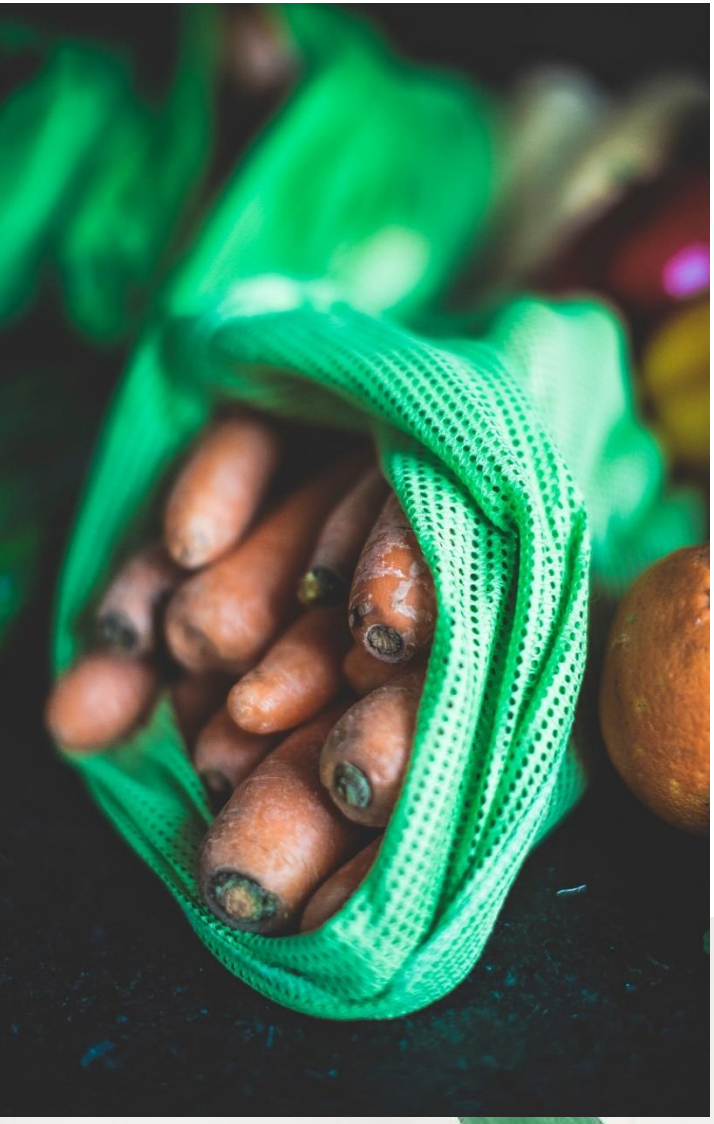
NSW FOGO Deep Dive Education Project Community Survey- Stage 1

micromex research



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Introduction

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Research Objectives

NSW Government is working with councils in NSW with existing food and garden organics (FOGO) services to develop an intervention education campaign to further improve the resource recovery efficiency of FOGO services of existing FOGO households. R esearch was undertaken in council areas with FOGO services to explore household:

- Awareness and understanding of existing FOGO services
- Attitudes towards the current FOGO service
- Current behaviours around food waste
- Perceived benefits of a FOGO service
- Communication and engagement around waste and recycling

The research was conducted online, with 2,654 residents from 26 different LGA's who had a green lid organics bin for food and garden organics, during the period: 17th April to 10th May 2020

Please see Appendix A for Background & Methodology

Sample Profile – Total Sample N = 2,654

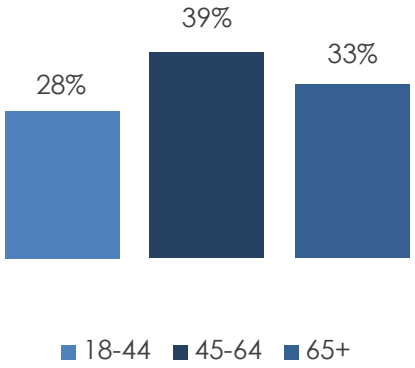
Gender

Female 62%

Male 37%

Other/Prefer not to say 1%

Age



Household type*

Single/living alone 15%

Single parent (children at home) 5%

Couple (children at home) 30%

Couple (no children at home) 38%

Living at home with one or more parents 2%

Group/shared household 3% (unrelated)

Shared household (related) <1%

Other <1%

Multi-generational Household 7%

Housing type

Separate/stand alone house 91%

Townhouse/terrace/semi-detached/villa/duplex with own bins 9%

Ratepayer status

Ratepayer 81%

Non-ratepayer 19%

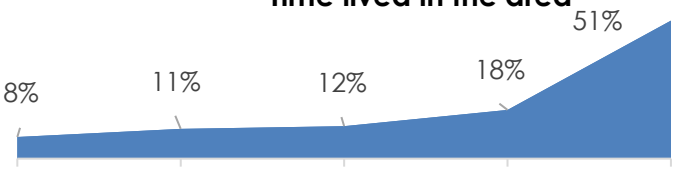
Adults in household

Average: 2.1

Children in household

Average: 0.6

Time lived in the area



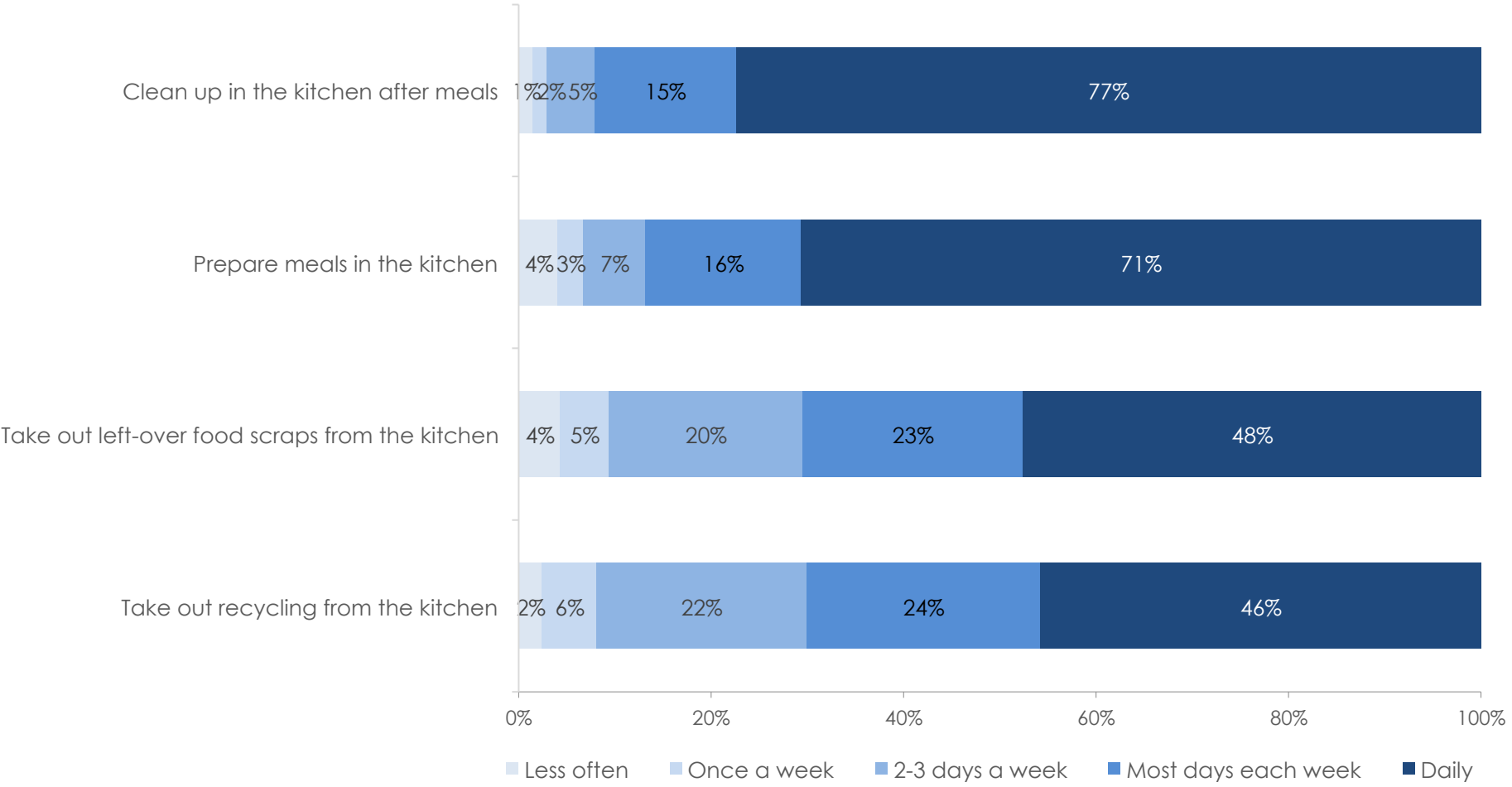
Base: N = 2,654

Please see Appendix B for additional sample profile questions

Note: some 'children at home' include adult children

Sample Profile

Q1. How often, if at all, do you personally do each of the following activities at home?



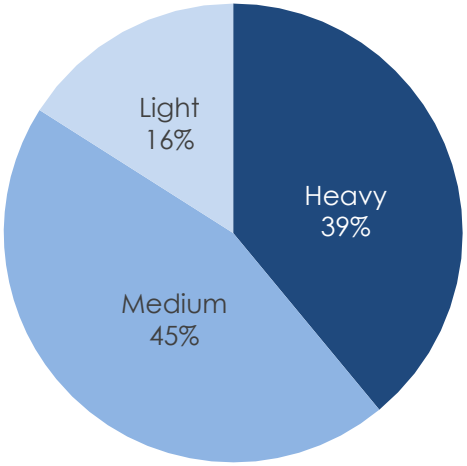
Base: 2,654 (total sample)

99.6% of respondents stated they clean up in kitchen after meals and/or prepare meals in the kitchen and/or take out left-over food scraps from the kitchen at least once a week.

Explanation of Key Breaks

Q1. How often, if at all, do you personally do each of the following activities at home?

Kitchen Involvement



Base: 2,654

This break has been created by the following groups:

Heavy = those that stated they 'prepare meals in the kitchen', 'clean up in the kitchen after meals' and 'take out left-over food scraps from the kitchen' 'daily' for all 3 options.

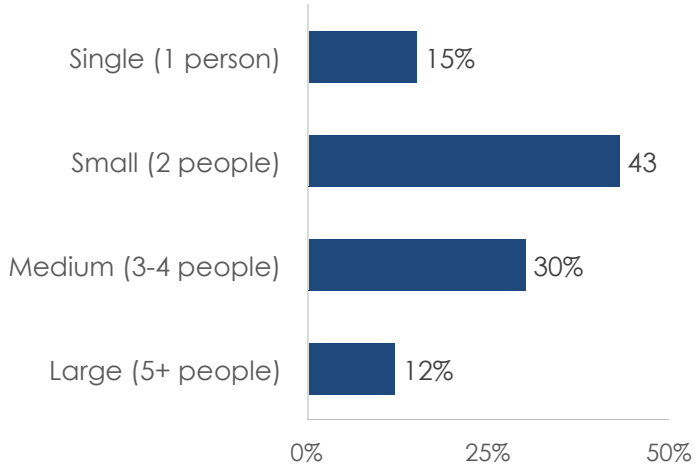
Medium = Those that selected a mixture of 'daily', 'most days each week', '2-3 days a week', 'once a week' or 'less often' for all 3 options.

Light = Those that stated they only 'prepare meals in the kitchen', 'clean up in the kitchen after meals' and 'take out left-over food scraps from the kitchen' 'less often, 'once a week', '2-3 days a week' and/or 'most days a week' for all 3 options. Daily is never selected in this group.

Please note: 'take out recycling from the kitchen' has not been used in this break.

Q3e. How many adults aged 18+ years, including you, live in your home?
Q3f. And how many children aged under 18 years, if any, live in your home?

Household Size



Base: 2,654

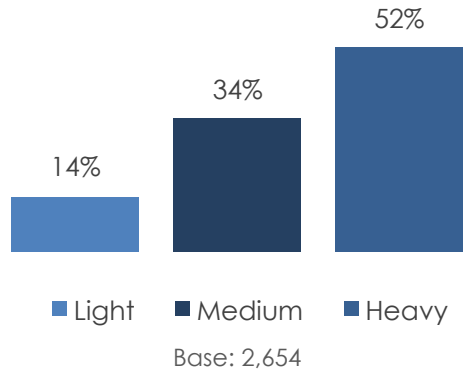
Household size was determined by combining two questions (Q3e and Q3f), which asked the number of adults and children in the household. By combining the results, we are presented with 4 key breaks including; 'single' person households (1 person), 'small' households (2 people), 'medium' households (3-4 people) and lastly, 'large' households (5 or more people).

Please see Appendix B for detailed results

Explanation of Key Breaks

Q3g. Thinking now about meals in your household. In a typical week, how many nights would at least one person in your household prepare dinner in your home (i.e.: excluding take-away, home deliveries, etc)?
Q3h. And in a typical week, how many nights would at least one person in your home eat dinner in your home (whether made at home or take-away/home delivery)?

Frequency of Household Dinner Prep/Consumption



Base: 2,654

Light = 0 to 11 times out of 14

Medium = 12 to 13 times out of 14

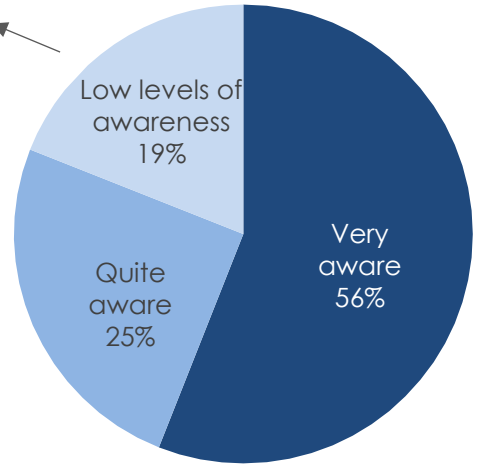
Heavy = All 14 times

Note: max total is 14 as we count number of times for prep AND consumption of dinner in a week.

Q7a. To what extent, if any, were you aware that households in your local government area are allowed to put all of their food scraps into their green lid organics bin?

Awareness of Ability to put Food Scraps in the Green Bin

Low levels of awareness is the nett sub-total of:
- 'Somewhat aware' (8%),
- 'Not really aware' (6%), and
- 'Not at all aware' (5%)



Base: 2,652

The awareness break has been created using Q7a 'were you aware that households in your LGA are allowed to put all of their food scraps into their green lid organics bin?'.
Results have provided us with 3 key breaks to use for cross-analysis, these include: 'very aware', 'quite aware' and the net sub-total of the 3 remaining options of 'low levels of awareness'.

1. Key Findings

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Summary of Results

- ***Responsibility (Q4 – see Pages 23 to 26)***: 66% of respondents believe they are personally 'very responsible' for reducing the amount of waste sent to landfill:
    - Whilst self responsibility was rated somewhat higher on average than responsibility of other entities (e.g.: local Council 61%; other residents 61%; businesses 59%), the generally high scores across entities may indicate a sense of shared or diffused responsibility.

- ***Disposal of Food Waste (Q6 – see Pages 35 to 37)***: Based on ten different food scrap types, 59% of respondents put at least some (even if 'only a little') of one or more food types in the red bin. However, 'Pantry long-life packaged foods' and 'Takeaway/home delivery' foods caused some confusion because of their containers/packaging – if we exclude these two food types, 40% of respondents put at least some of one or more of the other eight food types in the red bin:
    - Food types most frequently placed in the red bin (excluding Pantry and Takeaway) included Bones, Dairy, Fish/seafood, and Meat

- ***Awareness of FOGO (Q7a,b – see Pages 38 to 40)***: **81%** of respondents were 'very' or 'quite aware' that they could put all their food scraps into the green organics bin:
    - Those aware of FOGO, but who put any food items in the red bin were asked an open-ended 'why?' question. Main reasons included:

        Only small amounts are going in for reasons such as contaminated packaging, spoiled food or not enough food waste generated to bother sorting

        Simply easier/more convenient/forgetfulness

        Messiness and smell of food in the green bin

Summary of Results

- ***Positive and Negative FOGO Attitudes (Qs 7c,d, 8, 9 – see Pages 41 to 52)***: A series of questions were asked about likes/benefits and dislikes/challenges of the FOGO system:

Positives

- On an open-ended question, only 13% could not provide at least one like/benefit of the FOGO system. Most comments focussed on the environmental benefits – although 25% of respondents did provide more operational responses – particularly around convenience.

Negatives

- Encouragingly, on an open-ended question about dislikes/challenges of the FOGO system, 47% could not give an answer. Of those who did provide answers, main responses focussed on the green bin becoming smelly/messy/mouldy, and food scraps attracting vermin.

Concerns

- Based on a pre-coded list of 14 different potential FOGO-related issues/concerns, 45% of respondents identified at least one concern as being a 'major/big concern' – in fact, these 45% each selected an average of 4.2 major/big concerns, suggesting a dichotomy between those who don't have any major concerns (55%) and those who tend to have multiple major concerns (45%):
  - Three main themes emerged from the selected concerns: food scraps attracting vermin, bad odours, and not wanting food scraps on kitchen bench/loose in green bin.

Summary of Results

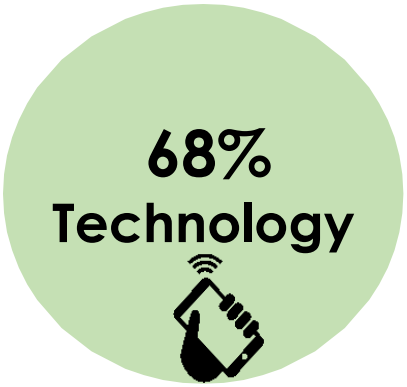
- ***FOGO Users (Q's10-11 – see Pages 55 to 60)***: Some key findings based on those who place food scraps in their green organics bin include:
  - 67% of FOGO users use a kitchen caddy/container with a lid – and 7% use a caddy with lots of holes for air flow, 23% store food scraps in the fridge/freezer.
  - 47% use council-provided compostable bags/bin liners – and 22% buy their own compostable bags/bin liners.
  - 25% wrap their food scraps in newspaper
  - On average, FOGO users are marginally (but significantly) more likely to put food aside for the FOGO bin when preparing meals (7.4 times out of 10) than when cleaning up after a meal (6.9 times out of 10) or cleaning out the fridge/pantry (6.4 times out of 10).

Summary of Results

- ***FOGO Outcomes (Q13 – see Pages 63 to 71)***: Respondents were shown a list of seven FOGO outcomes:
    - Existing awareness of each outcome was relatively high – ranging from 73% to 94%. Awareness was lowest for 'Food scraps sent to landfill in the red bin makes methane and adds to climate change' (73%), 'In many parts of NSW we are running out of landfill space for red bin waste' (78%), and 'Your green lid bin is a comprehensive compost service which can process virtually all food scraps including bones and other animal products' (82%).
    - Based on the total sample, none of the seven outcomes stood out as a key driver/message. However, amongst those not aware of each outcome, there was some sense in the data that:
        - Making people aware of generic outcomes (e.g.: 'Putting food and garden waste in the green lid organics bin is good for the environment', 'Putting food and garden waste in the green lid organics bin is the right thing to do, the community expects us to do it') is less effective,
        - Whereas making them aware of more specific outcomes (e.g.: 'Your green lid bin is a comprehensive compost service which can process virtually all food scraps including bones and other animal products', 'Food and garden waste in your green bin is turned into compost', 'In many parts of NSW we are running out of landfill space for red bin waste') tended to elicit a more favourable response from those who were not aware.

Summary of Results

- ***Engagement (Q's12 and 14 – see Pages 74 to 80)***:
  - 72% of residents said they had received a kitchen caddy from their Council (amongst those FOGO users who use some form of kitchen caddy, 81% claim to have received a caddy from Council).
  - Based on a list of 15 communications channels, the single most preferred means of receiving information from Council about waste and recycling was letterbox drop (48%), followed by stickers on bin (31%):
    - However, when we added items together to form categories, a nett subtotal of 68% of respondents mentioned some form of technology (e.g.: social media, website, email, etc) and 64% mentioned more traditional printed media (e.g.: letterbox drop, stickers, information with rates, fridge magnets).



Summary of Results

DRIVERS:

Correct FOGO behaviours appear to be driven by:

Awareness – those with a greater knowledge of what they are able to dispose of, how to dispose and the impacts are more likely to utilise the FOGO system

Environmental impacts – respondents see the key benefits of the FOGO system to be the ability to recycle food and garden waste and less waste to landfill

Convenience – 11% of respondents find the weekly collections make disposing of food waste correctly easier e.g. reduces the smell. A further 5% believe FOGO disposal is easy and efficient

Summary of Results

ROADBLOCKS:

The research suggests that for some residents the main barriers to using the FOGO service – be they based on real experiences or perceptions – are as follows:

The mess/smell – the smell of the green bin, the attraction of pests and the mess of handling scraps/cleaning up bins was frequently mentioned and identified as major/big concerns

Lack of awareness – not only is there a sense of lack of knowledge of how to dispose of food waste correctly but also a sense of confusion over what types of food waste is permitted in the green bin.

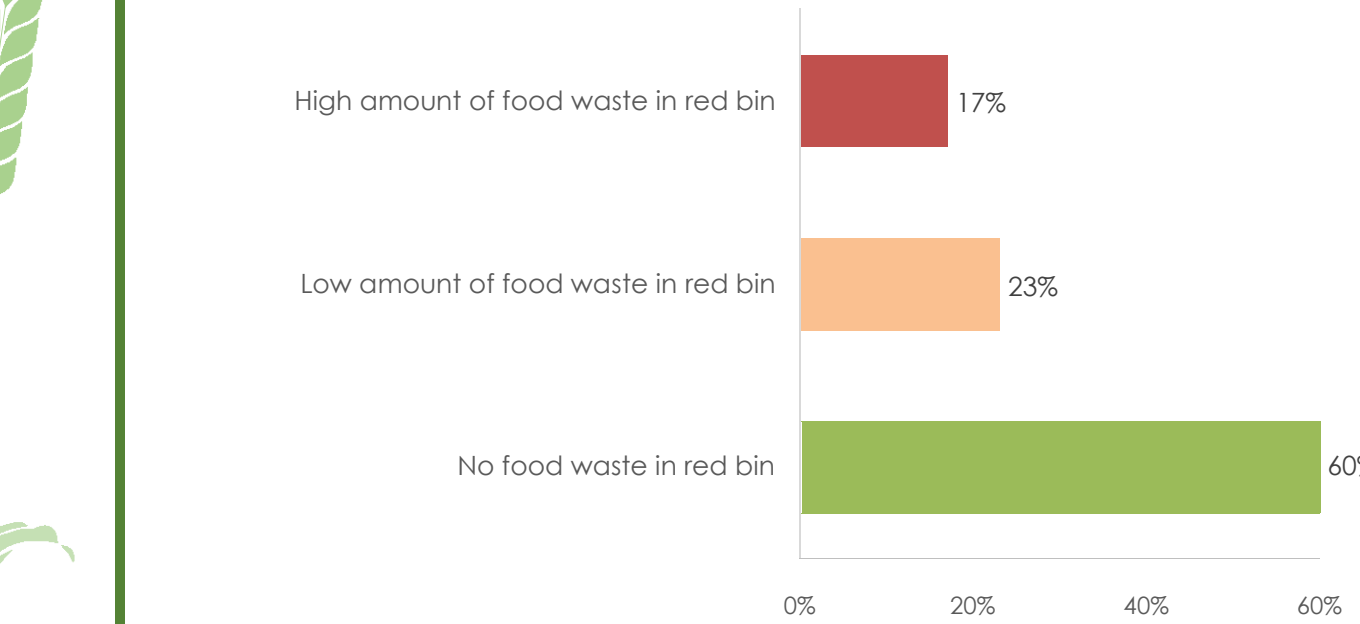
Respondents appear to be commonly placing items such as fish, bones, pantry-items, dairy and takeaway items in the red bin.

19% had low levels of awareness about being able to place food in the green bin.

Attitude – those who tend to place more food in the red bin (see overleaf) were more likely to say they have limited knowledge of FOGO – yet they are considerably more likely to nominate multiple major concerns about the FOGO system. They are also more likely to incorrectly dispose of other items in a less-than-optimum fashion. Our sense is that this may indicate an attitudinal roadblock.

Opportunity – Introduction

Looking at the amount of waste placed in the red bin on Q6 we were able to identify 3 key groups of respondents; high volume, low volume and none based on their selection of 'all', 'most', 'some', 'only a little' and 'none' for each food waste type (in order to create these groups we removed the food waste options of 'pantry long-life packaged foods such as cereal, old cakes mixes, old packets of biscuits, etc.' and 'takeaway/home delivery food such as pizza, meals in plastic takeaway containers, etc.' to avoid any potential confusion around food and packaging).



Our segmentation has identified 17% of residents who are placing a relatively high amount of food waste in the red bin (compared to other residents).

Opportunity: High Volume Red Bin Users – Who?

Outlined below are the main demographics that are more likely to belong to the High Volume Red Bin User Group (i.e.: place more food in the red bin):

- Younger residents (aged 18-44) – significantly and substantially more likely than older respondents to put food scraps in the red bin
- Males (only marginally [and not significantly] more likely than females – but this is interesting because throughout the Report females appear to be more concerned about FOGO and less aware of potential outcomes, yet they are more willing to be engaged with and more likely to change their behaviours – and ultimately they are a little less likely to use the red bin for food scraps)
- Recent newcomers to an area – particularly those who have been in the area for five or less years
- Residents preparing food/dining less frequently at home – significantly more likely
- Larger households/Households with children – only marginally but significantly more likely
- Those with lower levels of awareness of the ability to place food scraps in the green lid organics bin – significantly more likely to place food in red bin (52%) than are those who are 'very aware' of FOGO (only 4% place food in red bin).
- Renters significantly more likely than owners.
- Those who speak a language other than English at home are significantly more likely than those who only speak English

The above provides a demographic profile of ***who*** the High Volume Red Bin Users are – overleaf we compare them to other respondents in an attempt to attitudinally profile them – what messages/triggers may work with them?

Opportunity: High Volume Red Bin Users – Why?

Question:	No food waste in red bin	Low amount of food waste in red bin	High amount of food waste in red bin
Responsibility for reducing waste (Q4)	Personal score: 9.28 Average of all others: 8.64 Gap: 0.64	Personal score: 8.92 Average of all others: 8.31 Gap: 0.61	Personal score: 8.18 Average of all others: 7.86 Gap: 0.32 Have lower responsibility scores overall and a smaller responsibility gap – shared responsibility?
Disposal of household waste (Q5)	More likely to dispose of common household waste using the correct disposal methods		More likely to be disposing of common waste types incorrectly i.e. more food and glass in red bin, more soft plastics in recycling, less beverage containers to Return & Earn
Awareness of ability to place food scraps in the green bin (Q7a)	94% very/quite aware	75% very/quite aware	37% very/quite aware
Challenges/dislikes of FOGO system (Q7d)	49% no challenges/dislikes	46% no challenges/dislikes	Significantly more challenges/dislikes identified (61%). Significantly more likely to state 'not convenient/lazy/habit/time consuming' (11% v 5%)
Identified at least one major/big concern (Q8)	Significantly less likely to identify at least one major/big concern (34%) Average issues: 3.4	Significantly more likely to identify at least one major/big concern (52%) Average issues: 3.9	Significantly more likely to identify at least one major/big concern (77%) Average issues: 5.7
Aware of FOGO outcomes (Q13)	Significantly more aware of all FOGO outcomes		Significantly less aware of all FOGO outcomes – particularly 'comprehensive service', 'makes methane' and 'running out of landfill space'
Likelihood of placing food scraps in the green bin based on outcomes (Q13)	Significantly higher likelihood for all. Food & garden waste turned into compost is most likely to sway them	Awareness of landfill space running out is most likely to sway them	Significantly lower for all. A comprehensive compost system is most likely to sway them
Engagement (Q14)	95% willing to be engaged with – 69% technology-based information	94% willing to be engaged with – 66% technology-based information	90% willing to be engaged with – 64% technology-based information

2. Detailed Results

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Overall Waste Attitudes and Behaviours

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Overall Waste Attitudes and Behaviours

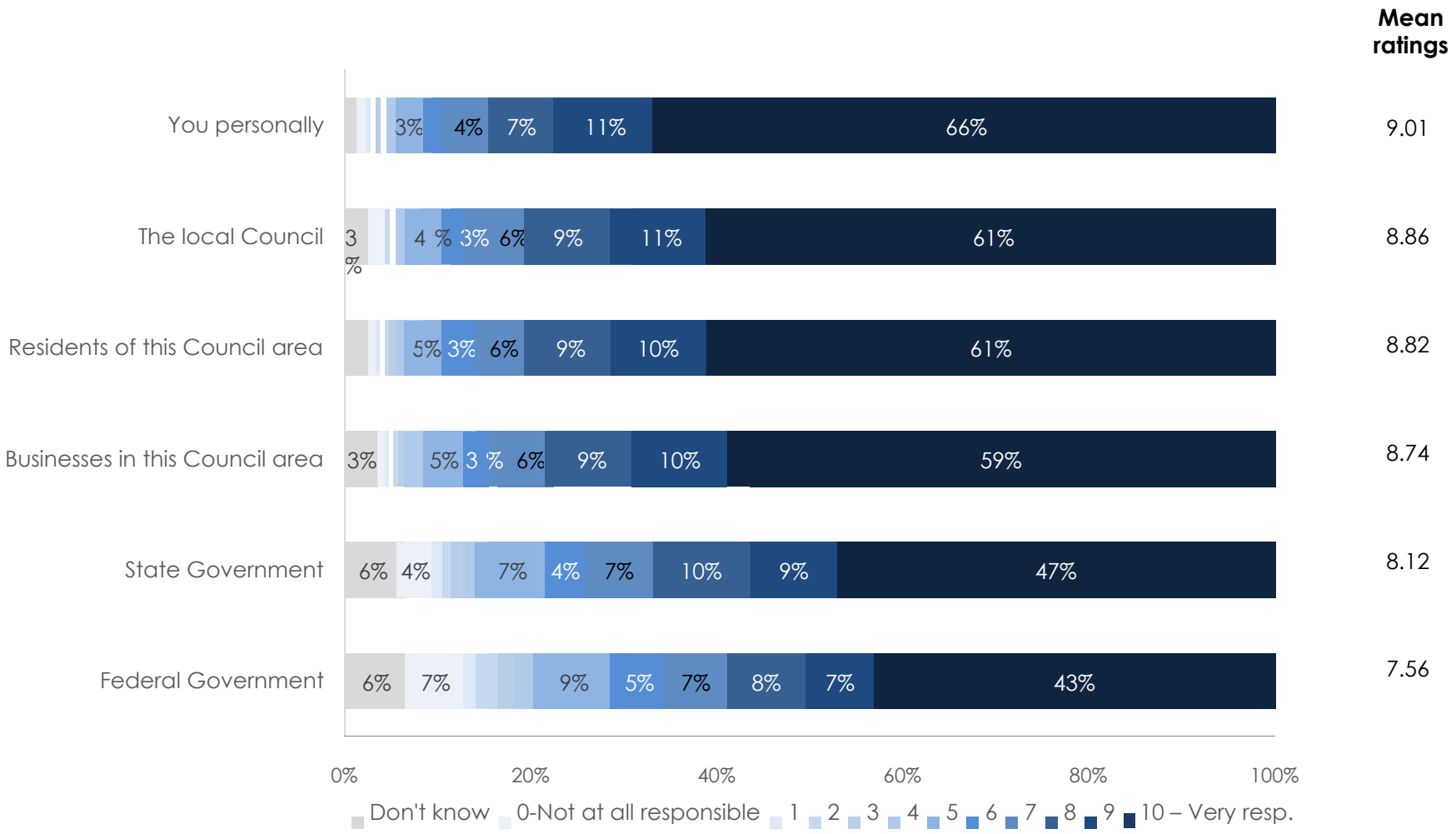
In this first section, we will look, at an overall level, into waste attitudes and behaviours of respondents.

First, we will identify the individual's perceived responsibility compared to the responsibility of others for reducing the amount of waste sent to landfill to determine if respondents feel more responsible than others, less responsible or the responsibility is shared.

Following on from perceived responsibility, we take a brief look at the top 2 disposal methods of general household waste with a focus on disposal methods of food waste by key demographics.

Responsibility for Reducing Waste

Q4. *How responsible, if at all, do you think each of the following people or groups should be for reducing the amount of waste that is sent to landfill?*



Base: N = 2,654 (total sample)
Note: labels ≤2% are not shown above

Note: Don't know responses are not included in the mean
Scale: 0 = not at all responsible, 10 = very responsible

66% of respondents believe they are personally 'very responsible' for reducing the amount of waste sent to landfill. Note however that responsibility scores were also high for a number of other entities (such as local Council, other residents and businesses), which could indicate a sense of shared responsibility – explored further overleaf...

Responsibility for Reducing Waste – Responsibility Gap

Q4. How responsible, if at all, do you think each of the following people or groups should be for reducing the amount of waste that is sent to landfill?

	Overall	Age			Gender		Time Lived in Area			
		18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Personal responsibility	9.01	8.60	9.02	9.33	8.81	9.12	8.87	9.05	9.01	9.04
Average of all others	8.43	8.22	8.51	8.52	8.10	8.61	8.33	8.49	8.36	8.48
Gap	0.58	0.38	0.51	0.81	0.71	0.51	0.54	0.56	0.65	0.56

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Personal responsibility	9.03	9.22	8.84	8.63	8.81	9.12	8.83	9.12	8.95
Average of all others	8.44	8.54	8.35	8.22	8.33	8.48	8.16	8.51	8.45
Gap	0.59	0.68	0.49	0.41	0.48	0.64	0.67	0.61	0.50

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Personal responsibility	8.19	9.04	9.20	8.38	8.82	9.30
Average of all others	7.76	8.47	8.59	7.98	8.23	8.66
Gap	0.43	0.57	0.61	0.40	0.59	0.64

Base: (total sample) Breakdown of base sizes per group are shown on the next page. A significantly higher/lower rating (by group)

Note: Don't know responses are not included in the mean
Scale: 0 = not at all responsible, 10 = very responsible

The above analysis highlights the gaps by key demographic groups for their ratings of personal responsibility and responsibility of others for reducing landfill waste. For instance, younger respondents have a smaller gap whilst older respondents (65+) have a larger gap, potentially suggesting that younger residents may be more susceptible to a sense of shared responsibility.

Responsibility for Reducing Waste

Q4. *How responsible, if at all, do you think each of the following people or groups should be for reducing the amount of waste that is sent to landfill?*

	Age			Gender		Time Lived in Area			
	18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
You personally	8.60	9.02	9.33	8.81	9.12	8.87	9.05	9.01	9.04
The local Council	8.47	8.86	9.18	8.67	8.96	8.68	8.79	8.80	8.96
Residents of this Council area	8.43	8.81	9.15	8.63	8.93	8.68	8.76	8.83	8.88
Businesses in this Council area	8.40	8.74	9.02	8.57	8.84	8.60	8.70	8.76	8.80
State Government	8.06	8.28	7.97	7.70	8.35	8.04	8.26	8.01	8.15
Federal Government	7.71	7.83	7.11	6.87	7.95	7.58	7.84	7.38	7.54
Base	702-731	959-1,009	823-882	912-964	1,554-1,637	462-478	303-319	451-478	1,268-1,347

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
You personally	9.03	9.22	8.84	8.63	8.81	9.12	8.83	9.12	8.95
The local Council	9.00	9.01	8.67	8.61	8.68	8.96	8.66	8.93	8.86
Residents of this Council area	8.88	9.04	8.63	8.48	8.61	8.94	8.67	8.98	8.70
Businesses in this Council area	8.74	8.92	8.54	8.60	8.58	8.83	8.50	8.85	8.71
State Government	7.99	8.19	8.15	7.95	8.06	8.15	7.79	8.12	8.24
Federal Government	7.51	7.50	7.71	7.43	7.66	7.50	7.11	7.59	7.69
Base	356-384	1,063-1,126	757-791	308-321	889-930	1,605-1,692	381-405	1,127-1,188	976-1,029

Base: (total sample)
A significantly higher/lower rating (by group)

Note: Don't know responses are not included in the mean
Scale: 0 = not at all responsible, 10 = very responsible

Younger respondents, males and those living in medium/large households tended to provide lower responsibility scores, including their personal responsibility. The perception of Council's responsibility appears to increase the longer a respondent has lived in an area.

Responsibility for Reducing Waste

Q4. *How responsible, if at all, do you think each of the following people or groups should be for reducing the amount of waste that is sent to landfill?*

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
You personally	8.19	9.04	9.20	8.38	8.82	9.30
The local Council	8.20	8.87	9.03	8.39	8.61	9.12
Residents of this Council area	7.96	8.88	9.01	8.28	8.62	9.09
Businesses in this Council area	8.01	8.76	8.92	8.19	8.53	9.02
State Government	7.50	8.20	8.23	7.74	8.00	8.29
Federal Government	7.05	7.60	7.66	7.29	7.32	7.74
Base	348-362	844-892	1,292-1,368	458-480	613-651	1,411-1,489

Base: (total sample)
A significantly higher/lower rating (by group)

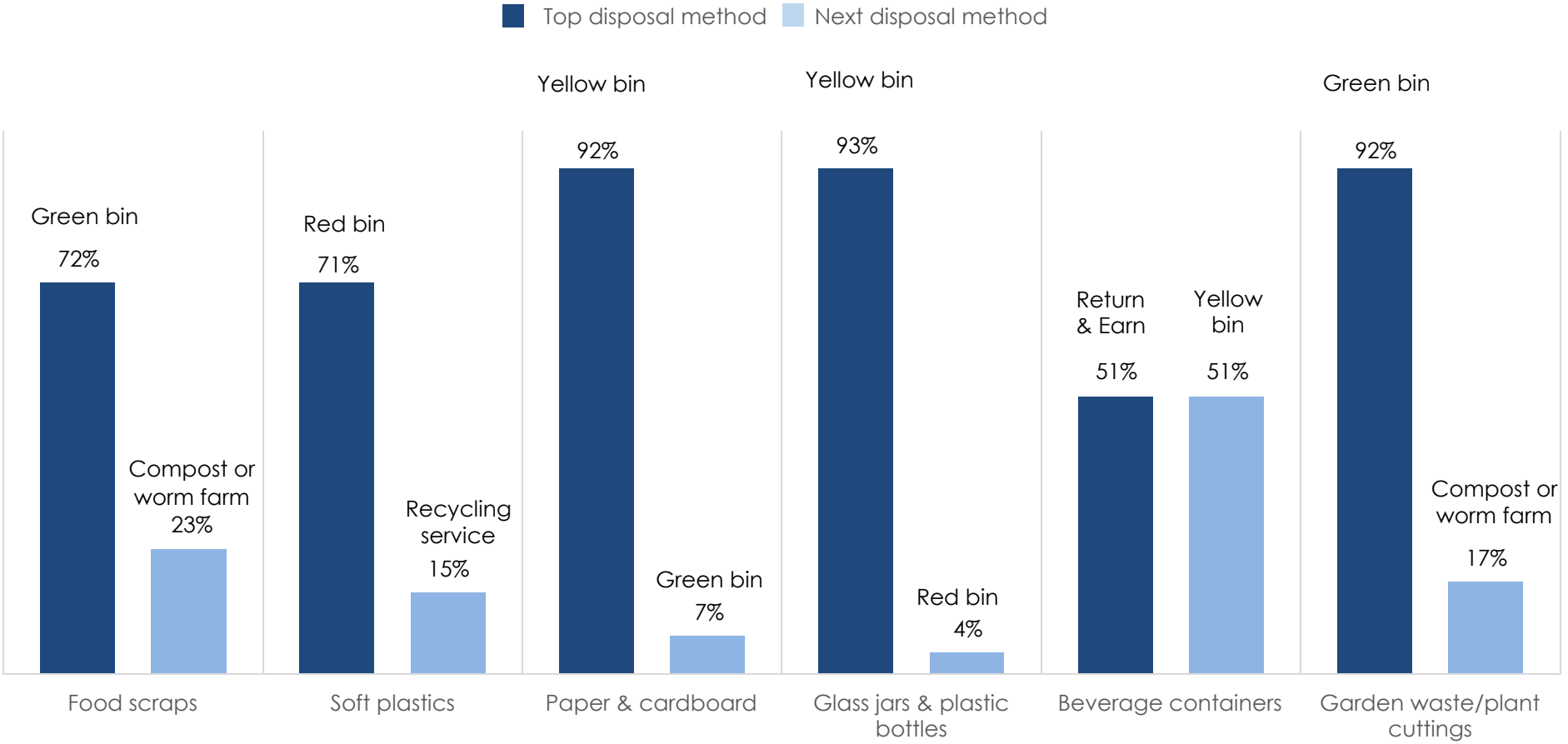
Note: Don't know responses are not included in the mean
Scale: 0 = not at all responsible, 10 = very responsible

Responsibility across all stakeholders is perceived to be higher for those with a heavy frequency of dinner preparation/consumption at home and those that are very aware that they are able to place food scraps in the green bin.

Disposal of Household Waste – Snapshot

Q5. How do you or members of your household usually dispose of the following types of household waste?

Household Waste – Top 2 Disposal Methods per Waste Item



Base: N = 2,654 (total sample)

Above we have shown the top 2 disposal methods for each waste type – for the most part there are encouraging signs in terms of 'higher order' decisions. For instance, note that whilst 93% claim to put 'glass jars and plastic bottles' in their yellow bin, only 51% do so for 'beverage containers', whilst 51% also use 'return and earn' for beverage containers. However, there is a 20% gap between those who place garden organics in their green bin (92%) and those who place food scraps in their green bin (72%).

Disposal of Household Waste – Summary

Q5. How do you or members of your household usually dispose of the following types of household waste?

The table below summarises the results, with each possible combination of waste type and disposal method shown.

We have highlighted those cells where an item could be more appropriately disposed of. Whilst many of the highlighted cells report very small percentages, others suggest areas where Councils can focus their attention in the future.

Waste Type► Disposal Method▼	Any type of food scraps	Soft plastics	Paper and cardboard	Glass jars and plastic bottles	Beverage containers	Garden waste/plant cuttings
Red lid garbage bin	11%	71%	2%	4%	2%	1%
Yellow lid recycling bin	1%	12%	92%	93%	51%	1%
Green lid organics bin	72%	1%	7%	1%	1%	92%
Compost (home or community) or worm farm	23%	<1%	4%	<1%	<1%	17%
Return and Earn Machine or Centre	<1%	1%	<1%	2%	51%	<1%
Feed to animals/pets	15%	0%	<1%	<1%	<1%	2%
Recycling service, e.g. REDcycle program	<1%	15%	1%	1%	4%	<1%
Other	1%	4%	2%	3%	1%	2%
Don't know	<1%	1%	<1%	<1%	<1%	<1%
N/A - we don't have this type of waste	<1%	<1%	<1%	<1%	<1%	<1%

Main incorrect disposal methods

Base: N = 2,654 (total sample)

Please see Appendix B for demographic analysis for disposal methods of each waste type

The pink shading in the above table highlights the main opportunities for better waste management:

- **12% are placing soft plastics in the yellow recycling bin – and only 15% are using specialist recycling services such as REDcycle**
- **11% are placing food waste in the red bin.**

Disposal of Food Scraps (Summary)

Q5. How do you or members of your household usually dispose of the following types of household waste?

Disposal methods of any type of food waste by disposal method

	Green lid organics bin	Compost or worm farm	Feed to animals/ pets	Red lid garbage bin	Yellow lid recycling bin	Recycling service	Return and Earn Machine or Centre	Other
Green lid organics bin	100%	43%	49%	20%	17%	0%	63%	34%
Compost or worm farm	14%	100%	38%	15%	17%	17%	13%	20%
Feed to animals/pets	10%	24%	100%	11%	22%	17%	75%	23%
Red lid garbage bin	3%	7%	8%	100%	4%	17%	13%	9%
Yellow lid recycling bin	<1%	1%	1%	<1%	100%	0%	13%	0%
Recycling service	0%	<1%	<1%	<1%	0%	100%	13%	0%
Return and Earn Machine or Centre	<1%	<1%	2%	<1%	4%	17%	100%	0%
Other	1%	1%	2%	1%	0%	0%	0%	100%

Base: N = 2,654 (total sample)

Note: table totals more than 100% as each respondent could identify multiple disposal methods

The table above shows us the relationship between disposal methods solely for food scraps – for instance, of those placing food in the red bin, 20% are also putting food in the green lid organics bin.

Disposal of Food Scraps (Summary)

Q5. How do you or members of your household usually dispose of the following types of household waste?

Disposal methods of any type of food waste

	Age			Gender		Time Lived in Area			
	18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Green lid organics bin	67%	74%	75%	71%	74%	66%	72%	73%	75%
Compost (home or community) or worm farm	21%	23%	25%	23%	23%	22%	28%	23%	23%
Feed to animals/pets	21%	15%	9%	11%	17%	14%	16%	16%	14%
Red lid garbage bin	16%	10%	8%	13%	10%	18%	14%	11%	8%
Yellow lid recycling bin	1%	<1%	1%	1%	1%	1%	1%	1%	1%
Recycling service, e.g. REDcycle program	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Return and Earn Machine or Centre	1%	<1%	<1%	<1%	<1%	0%	<1%	<1%	<1%
Other	1%	1%	2%	2%	1%	1%	2%	1%	1%
Don't know	1%	<1%	0%	<1%	<1%	1%	0%	1%	<1%
N/A - we don't have this type of waste	0%	<1%	<1%	<1%	<1%	<1%	0%	<1%	<1%
Base	743	1,023	888	975	1,657	485	323	484	1,362

Base: N = 2,654 (total sample)

A significantly higher/lower percentage (by group)

Younger respondents, males and those living in the area for 5 years or less were significantly more likely to state they dispose of their food waste in the red lid garbage bin.

Disposal of Food Scraps (Summary)

Q5. How do you or members of your household usually dispose of the following types of household waste?

Disposal methods of any type of food waste

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Green lid organics bin	69%	74%	73%	69%	73%	72%	70%	74%	72%
Compost (home or community) or worm farm	20%	25%	23%	22%	21%	24%	20%	23%	24%
Feed to animals/pets	8%	12%	18%	26%	21%	12%	13%	15%	16%
Red lid garbage bin	14%	10%	11%	11%	11%	11%	13%	10%	11%
Yellow lid recycling bin	2%	<1%	1%	1%	1%	1%	1%	1%	<1%
Recycling service, e.g. REDcycle program	1%	<1%	0%	<1%	<1%	<1%	<1%	<1%	0%
Return and Earn Machine or Centre	0%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	0%
Other	2%	2%	1%	1%	1%	2%	1%	2%	1%
Don't know	1%	<1%	1%	0%	1%	<1%	1%	<1%	1%
N/A - we don't have this type of waste	<1%	<1%	0%	0%	0%	<1%	<1%	<1%	0%
Base	391	1,133	803	327	941	1,713	412	1,203	1,039

Base: N = 2,654 (total sample)

A significantly higher/lower percentage (by group)

There is some sense in the data that Single person households were more likely than larger households to state they dispose of their food waste in the red lid garbage bin – although from a management perspective the difference may not be meaningful.

Disposal of Food Scraps (Summary)

Q5. How do you or members of your household usually dispose of the following types of household waste?

Disposal methods of any type of food waste

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Green lid organics bin	69%	75%	72%	38%	58%	90%
Compost (home or community) or worm farm	16%	21%	26%	29%	37%	15%
Feed to animals/pets	9%	16%	15%	18%	22%	11%
Red lid garbage bin	17%	10%	10%	36%	13%	2%
Yellow lid recycling bin	4%	<1%	<1%	1%	1%	1%
Recycling service, e.g. REDcycle program	1%	0%	<1%	1%	<1%	<1%
Return and Earn Machine or Centre	1%	<1%	<1%	0%	<1%	<1%
Other	1%	1%	1%	2%	3%	<1%
Don't know	1%	<1%	<1%	1%	0%	<1%
N/A - we don't have this type of waste	1%	<1%	<1%	<1%	<1%	<1%
Base	369	901	1,384	496	656	1,500

Base: N = 2,654 (total sample)

A significantly higher/lower percentage (by group)

Those preparing/eating dinner at home less frequently and those with lower levels of awareness of their ability to place food scraps in the green bin were significantly more likely to state they dispose of their food waste in the red lid garbage bin.

FOGO Attitudes and Usage

micromex research

FOGO Attitudes and Usage

This section explores FOGO attitudes and usage by drilling down into the different disposal methods of specific food waste types (e.g. meat, fish, fruit, dairy, etc.). We will determine the general level of awareness of households to place food scraps in the green lid organics bin and seek to understand why certain respondents continue to place all or some of their food scraps in the red bin.

As we determine why some respondents are not disposing of food waste optimally, we use a mix of unprompted and prompted questions to explore amongst both FOGO Users and Non-users the potential barriers (real or perceived) of the FOGO process and the impact of specific issues/concerns.

Disposal Methods of Different Types of Food Waste – Summary

Q6. Thinking now specifically about food scraps. Approximately how much, if any, of the following food waste types/scraps goes to each of the disposal methods listed below? Answer options: All / Most / Some / Only a little / None – with N/A.

Pages 27-32 earlier (Q5) provided an overview of how respondents dispose of a range of waste items, including the broad category of 'food scraps'. The table below (Q6) is based on a more detailed examination of food scraps, examining disposal methods for ten separate food types.

Figures in the table below are those who said they dispose of ANY of each food type in each method (even if it is 'only a little').

% 'total do'	Overall – place ANY food waste:	Net: 8 food options (excluding pantry and takeaway)	Meat	Fish and other seafood scraps	Bones	Fruit/ vegetables, etc.	Bread and pastry products	Pasta, rice, pulses, etc.	Pantry long-life packaged foods	Dairy products	Takeaway /home delivery food	Left-over cooked foods
In red lid Garbage Bin	59%	40%	21%	22%	25%	11%	17%	16%	32%	24%	38%	18%
In Yellow lid Recycling Bin	32%	5%	1%	1%	1%	1%	1%	1%	11%	2%	26%	1%
In Green lid Organics Bin	84%	83%	57%	58%	62%	71%	59%	54%	44%	48%	32%	59%
Elsewhere	53%	53%	27%	17%	18%	37%	27%	27%	16%	17%	12%	31%
I never have this food waste	N/A	N/A	11%	13%	7%	1%	10%	14%	17%	21%	18%	11%

Top 2 disposal methods

Base: N = 2,654 (total sample)

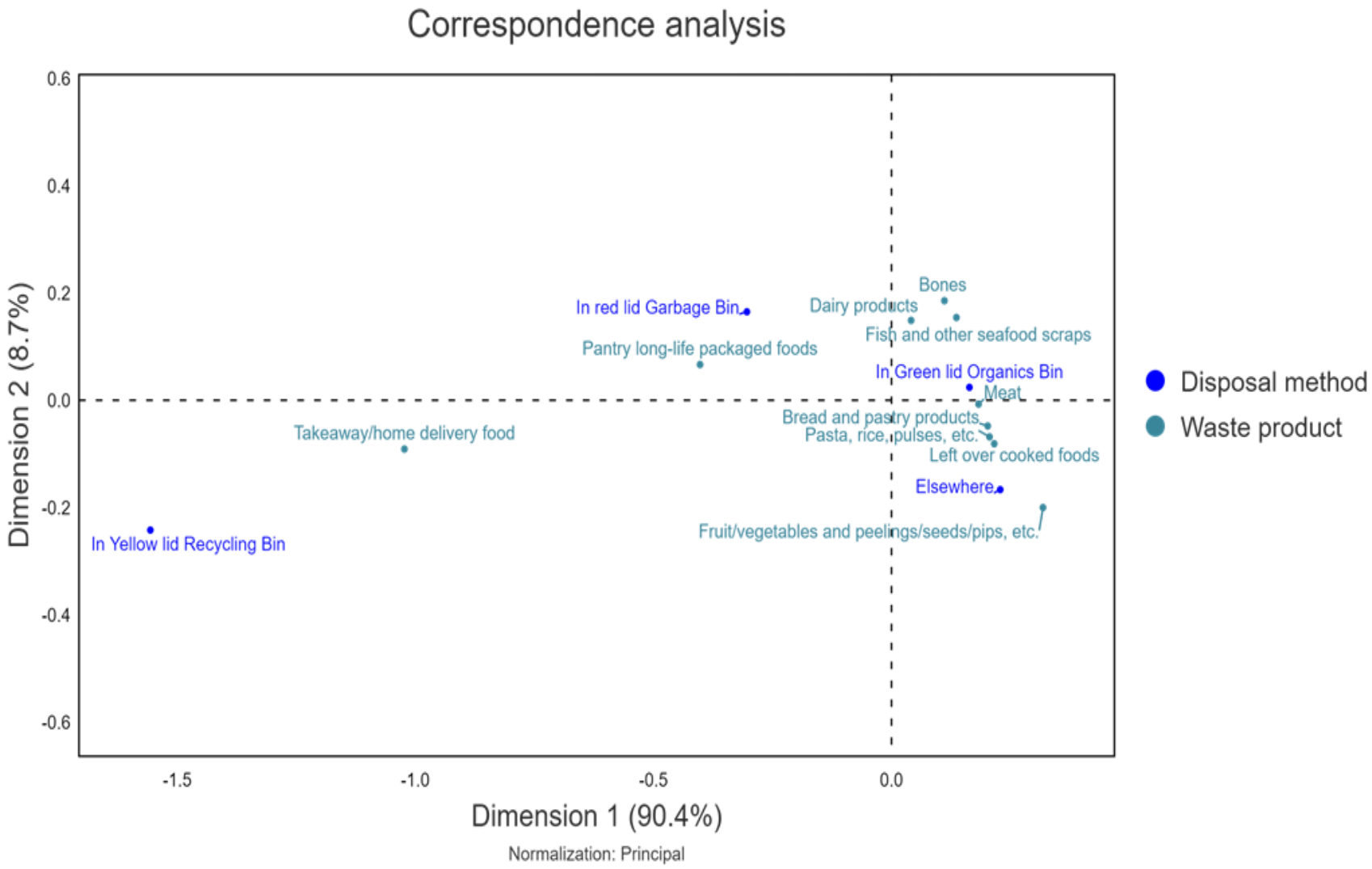
Please see Appendix B for results by key demographics

59% of respondents indicated they place any food scraps (even if 'only a little') in the red bin – incidence was highest for takeaway and pantry foods (if we exclude these options we see the 59% drop to 40% with the greatest change experienced for disposal of food in the yellow bin, 32% to 5%). As we will see on Page 39, this may be due to food being stuck to packaging (and disposal of the packaging itself – note for instance the unusually high numbers of residents selecting the yellow recycling bin, suggesting they may have been thinking about the packaging).

The next page provides a visual representation of waste types that are commonly placed in the same bin.

Disposal Methods of Different Types of Food Waste

Q6. *Thinking now specifically about food scraps. Approximately how much, if any, of the following food waste types/scraps goes to each of the disposal methods listed below? Answer options: All / Most / Some / Only a little / None – with N/A.*



Base: N = 2,654 (total sample)

Disposal Methods of Different Types of Food Waste – Summary (All/Most)

Q6. *Thinking now specifically about food scraps. Approximately how much, if any, of the following food waste types/scraps goes to each of the disposal methods listed below? Answer options: All / Most / Some / Only a little / None – with N/A.*

Repeating the table from the page before last, this table below summarises the results, **highlighting the % of those that dispose of the particular food waste type 'ALL/MOST' and how they dispose of it.**

% 'All/Most'	Overall – place ANY food waste all/most of the time:	Net: 8 food options all/most of the time (excluding pantry and takeaway)	Meat	Fish and other seafood scraps	Bones	Fruit/ vegetables, etc.	Bread and pastry products	Pasta, rice, pulses, etc.	Pantry long-life packaged foods	Dairy products	Takeaway /home delivery food	Left-over cooked foods
In red lid Garbage Bin	44%	31%	13%	16%	19%	6%	11%	12%	20%	17%	24%	12%
In Yellow lid Recycling Bin	19%	3%	1%	1%	1%	1%	1%	1%	7%	1%	14%	1%
In Green lid Organics Bin	76%	76%	47%	50%	52%	58%	49%	46%	33%	40%	21%	46%
Elsewhere	42%	42%	19%	11%	12%	28%	19%	19%	11%	12%	7%	20%

Top 2 disposal methods

Base: N = 2,654 (total sample)

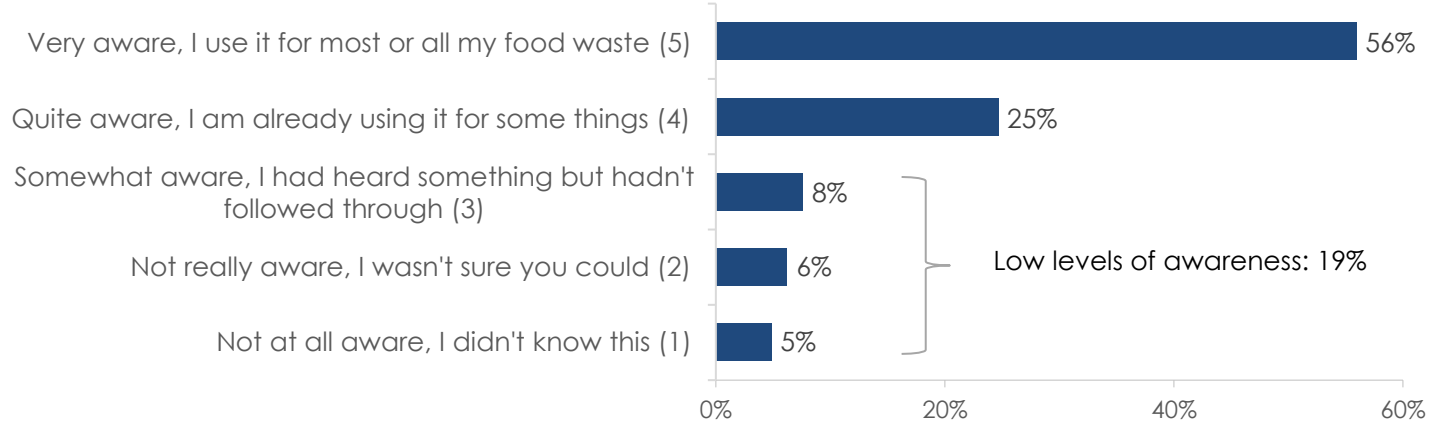
44% place 'All/Most' of at least one food type in their red bin, although again this may be influenced by confusion around Takeaway and Pantry foods (when we exclude Takeaway and Pantry foods, only 31% place 'All/Most' of at least one of the remaining eight food types in their red bin).

Awareness of Ability to Place Food Scraps in the Green Bin

Q7a. To what extent, if any, were you aware that households in your local government area are allowed to put all of their food scraps into their green lid organics bin?

	Overall	Age			Gender		Time Lived in Area			
		18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Mean	4.22	3.97	4.25	4.39	4.24	4.21	3.89	4.11	4.23	4.36
Base	2,652	743	1023	886	973	1657	485	323	483	1361

	Household Size				Kitchen Involvement			Frequency of Household Dinner Prep/Consumption		
	Single	Small	Medium	Large	Light	Medium	Heavy	Light	Medium	Heavy
Mean	4.24	4.29	4.13	4.17	4.12	4.26	4.21	4.02	4.26	4.25
Base	391	1,132	802	327	411	1,203	1,038	369	901	1,382



Base: N = 2,652 (2 respondents did not answer the question) A significantly higher/lower rating (by group)

Scale: 1 = not at all aware, I didn't know this, 5 = very aware, I use it for most or all my food waste

81% of respondents were aware they are allowed to place food scraps in their Green bin. Awareness was significantly lower for younger respondents (18-44), those living in an area for 5 years or less, medium-sized households and those prepping/consuming dinner less frequently at home.

Reasons for Disposing Some or All of Food Scraps in the Red Lid Garbage Bin

Q7b. *[If 'Red lid garbage bin' for 'Food scraps' on Q5a [or any part of Q6] AND Codes 3, 4, or 5 on Q7a, ask] Are there any reasons why your household prefers to dispose of some or all of your food scraps into the red lid garbage bin rather than disposing of it some other way such as putting it all into the green lid organics bin?*

Reason	N = 1,577
The majority/all food scraps go into the green bin/compost/fed to animals/I don't use the garbage bin for food scraps, only for packaging	24%
Only small amounts go into the garbage bin e.g. I have little waste, by accident, mouldy food, food on containers/contaminated packaging/not going to remove from packaging	23%
Easier/more convenient/habit/laziness/forgetfulness	12%
The green bin waste can become smelly/messy/attract maggots/rats	10%
Some items shouldn't go in the green bin e.g. meat, bones, cooked foods, processed foods, yoghurt, etc./only organics in the green bin	7%
Lack of knowledge/if unsure it goes in the garbage	5%
Green bin is not big enough/bins are not emptied frequently enough	4%
We place it in a plastic bag/freeze/mask the smell (e.g. fish, meat) then put in red bin before collection	3%
Don't always have green bags/not enough/don't like them/they are expensive/need more green bags provided by Council	2%
All just garbage/goes to the same place/I don't care	1%
Children/guests place in the wrong bin	1%
I don't have a separate bin for this/no garden	1%
Not enough room to store separate bins	1%
Council use it in the gardens/do not separate their waste, why should we	<1%
Thought it was a good idea	<1%
Told by Council to do so	<1%
Don't know/no reason	29%

Further analysis has suggested that this high percentage could be a misinterpretation of Q6 for pantry and takeaway food options, with residents thinking about the packaging itself.

E.g. 62% of those in this top code stated they dispose of takeaway food and 41% dispose of pantry food in the red bin – but they may be referring to the packaging.

Base: N = 1,577 (respondents aware of FOGO but placing food scraps in the garbage bin)

The key reason for disposing of all or some food scraps in the red lid garbage bin (even though they are aware of FOGO) was that only some or small amounts are going in for reasons such as contaminated packaging, spoiled food or not enough food waste generated to sort. Another key reason was that it was simply easier (12%) and 10% dislike the messiness and smell of food in the green bin.

Reasons for Disposing Some or All of Food Scraps in the Red Lid Garbage Bin

Q7b. [If 'Red lid garbage bin' for 'Food scraps' on Q5a [or any part of Q6] AND Codes 3, 4, or 5 on Q7a, ask] Are there any reasons why your household prefers to dispose of some or all of your food scraps into the red lid garbage bin rather than disposing of it some other way such as putting it all into the green lid organics bin?

Examples of direct comments:

Group: Only small amounts go into the garbage bin e.g. I have little waste, by accident, mouldy food, food on containers/contaminated packaging/not going to remove from packaging:

"Contaminated or non-recyclable packaging"

"I don't have a lot of food scraps, only one person here"

"Depends on the state of the food scraps - mould"

"If the product has never been opened / used at all and I don't have the energy to open each jar and empty it into a green bag to put in the green bin"

Group: The green bin waste can become smelly/messy/attract maggots/rats:

"Smell of fish and meat, we can wrap it if it's going in the red bin"

"I tried using a Fogo bin inside but it gets too smelly and required too much work to keep clean"

"To avoid maggots and smell"

Group: Easier/more convenient/habit/laziness/forgetfulness:

"Can be more convenient on certain nights, as the green bags have changed and are difficult to open or tear too easily"

"The small green compost bins just became another job to clean"

"Convenience mostly"

"It's easier with runny waste"

Group: Some items shouldn't go in the green bin e.g. meat, bones, cooked foods, processed foods, yoghurt, etc./only organics in the green bin:

"I didn't think meat could go in green bin thought is/was only vegetable based organic products"

"I believe that some are not suitable for the green bin"

"Bones and seafood shells aren't allowed in green bin"

"Red meats aren't very biodegradable"

Benefits/Likes of the Food and Garden Waste Bin System

Q7c. *Regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as a benefit to/really like about the food and garden waste bin system?*

Benefits/Likes	N = 2,654
Net: Environmental benefits	**76%**
Can be reused/for compost/food scraps put to good use	41%
Less waste to landfill/in the garbage and other bins	33%
Good for disposing/reusing garden/green waste	9%
Good for the environment/sustainable/beneficial to the planet/less emissions	9%
It is a great/beneficial service	4%
Educational for the community e.g. encourages children to recycle, creates awareness of waste	2%
Happy to use it as long as the materials are recycled properly/more information needed	1%
It is the right thing to do/feel like I am making a difference	1%
Net: Operational/Other benefits	**25%**
Convenience of weekly collection/reduces the smell	11%
Easy/convenient/efficient way to dispose of waste	5%
Allows for better sorting of waste	2%
Receiving biodegradable bin liners/green bags - easy to use/clean/identify	2%
Reduces smell of other bins	2%
Can be used for a variety of materials/allows for other forms of disposal e.g. pizza boxes and dog droppings	1%
Keeps everything clean/tidy/a hygienic method	1%
Reduces number of flies/vermin/pests	1%
Reduction in Council rates/get mulch back from Council	1%
The small kitchen green waste bin is convenient	1%
Would prefer other bins to be emptied weekly	1%
Creates employment e.g. making mulch/manufacturing	<1%
Large bin/plenty of space	<1%
Less contamination of waste/less bacteria	<1%
Reduces illegal dumping of waste	<1%
The bin is a good alternative to a home compost system	<1%
Net: Don't know/I do not see the benefits/do not use it/room for improvement	13%

Base: (total sample)

87% of respondents could suggest at least one benefit of the FOGO system.

Perhaps not surprisingly, most responses were based on environmental benefits – although a net sub-total of 25% also mentioned more operational/other benefits such as 'convenience'.

Benefits/Likes of the Food and Garden Waste Bin System

Q7c. Regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as a benefit to/really like about the food and garden waste bin system?

Examples of direct comments:

Group: Can be reused/for compost/food scraps put to good use:

"Garden waste and food scraps get composted and used to condition what is heavy clay soil"

"It is mulched down and used as fertiliser"

"Compost for garden"

"Maximise the opportunity to recycle compostable waste"

Group: Less waste to landfill/in the garbage and other bins:

"Reducing landfill and reducing carbon production from rotting food"

"Minimise red bin waste"

"Creates a lot more space in the red bin"

"I love that all our food waste goes into the green bin and not landfill"

Group: Convenience of weekly collection/reduces the smell:

"Emptied weekly so more incentive to use it"

"Fantastic system, weekly schedule makes this an easy decision"

"Weekly service absolutely essential in summer especially"

Group: Good for disposing/reusing garden/green waste:

"Being able to dispose of grass and garden clippings"

"Can get rid of lawn clipping and other green waste as well as animal waste"

"It is fantastic to use for outdoor clippings"

"Being able to get rid of green waste that I don't have space or time for it to decompose naturally"

Challenges/Dislikes of the Food and Garden Waste Bin System

Q7d. *And regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as challenging/ really dislike about the food and garden waste bin system?*

Challenges/Dislikes	N = 2,654
The green bin can become smelly/messy/mouldy	24%
Food scraps attract flies, cockroaches, rats, maggots etc.	13%
Issues with green bags e.g. need more, too small, too expensive/Council to provide more kitchen caddy's and bags	6%
Lack of knowledge/education/unsure of what goes into the garbage/others don't follow the guidelines/don't know what days to take the FOGO bin out	5%
Not convenient/laziness/hard to change habits/time consuming	5%
Small bins/our organics bin is often/always full of garden waste/no room for food scraps	5%
The bins are not collected/serviced weekly/often enough	4%
We don't have/use the green bin/don't produce much food waste/shouldn't have to pay for it	3%
Don't like a small kitchen caddy/no room in kitchen/outside for separate bin	2%
I just don't like the system/nowhere for soft plastics/residents should have their own composting systems	2%
It's too messy/fiddly to empty jars and containers of out of date food/hard to separate	2%
The green bin is hard to clean/unhygienic/don't like cleaning it	2%
We have to wrap food/freeze/store/try to mask the smell before collection	2%
Bins are too big/collected too frequently	1%
It's useless unless we can ban plastics altogether or increase fully recyclable options	<1%
It is a waste of ratepayers' money	<1%
I wish the big bins had locks for privacy and security	<1%
Knocked over by dogs in the streets	<1%
No incentives for home composting	<1%
Not sure whether to keep the lid closed or open	<1%
Nothing/no challenges/complaints/happy with the current system/don't know	47%

Base: (total sample)

A nett subtotal of 47% of respondents believe there are no challenges or anything that they dislike about the food and garden waste system. However, almost a quarter (24%) dislike or find it challenging to deal with the smell and mess of food waste in the green bin, and 13% complained about flies/vermin. 6% of respondents would like their council to provide more compostable bags/kitchen caddy's.

Challenges/Dislikes of the Food and Garden Waste Bin System

Q7d. And regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as challenging/ really dislike about the food and garden waste bin system?

Examples of direct comments:

Group: The green bin can become smelly/messy/mouldy:

"It can get a little smelly in summer"

"I don't like the small waste bin in kitchen even if emptied daily it attracts flies and smells"

"Disposal of fish remains/bones challenge us as they can easily begin to smell and animals seek them out in compost"

"Makes the bin inside dirty, even after emptying"

Group: Food scraps attract flies, cockroaches, rats, maggots etc.:

"Every single week there are maggots"

"Insects attracted inside"

"Most food scraps have to be wrapped in durable plastic to avoid rodents, roaches and flies, and goes to red bin"

"Attracting vermin to the bin"

Group: Issues with green bags e.g. need more, too small, too expensive/Council to provide more kitchen caddy's and bags:

"Green bags to put food scraps in are expensive"

"Green bags provided by council for use in house are a bit small at times"

"The little green bags that tear all the time"

"Council should provide biodegradable containers for food waste"

Group: Lack of knowledge/education/unsure of what goes into the garbage/others don't follow the guidelines/don't know what days to take the FOGO bin out:

"It can be confusing"

"Hard to tell exactly what goes in what bin"

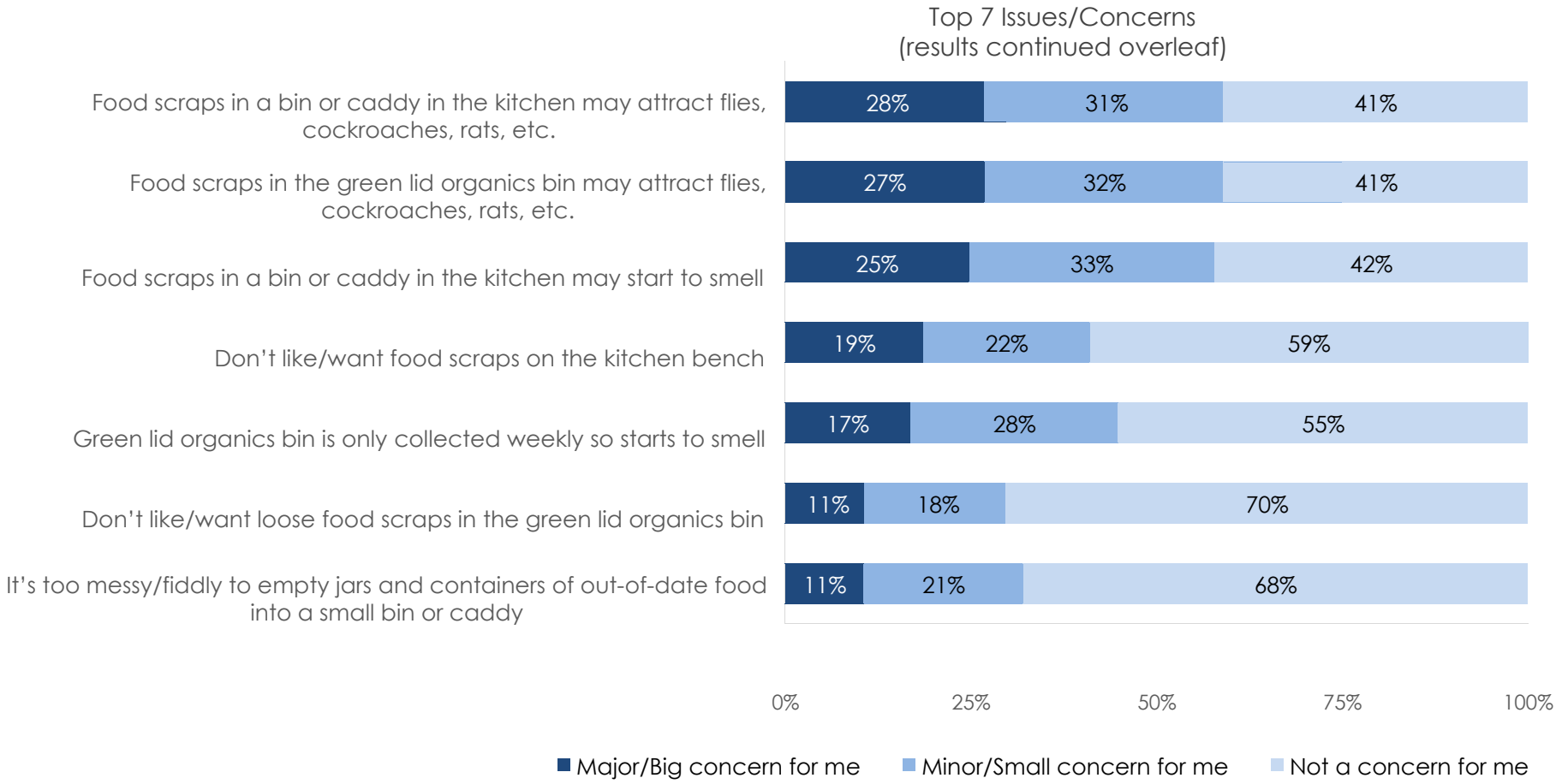
"Challenge is to better educate people as to what goes in each bin"

"People abusing or misusing the service"

This question (Q7d) was an unaided exploration of the challenges/dislikes of the FOGO bin system. Overleaf we examine this further via a more structured aided question.

Issues/Concerns with Placing Food Scraps in the Green Bin

Q8. *Previous research has shown that some people have issues or concerns about putting some or all of their food scraps into their green lid organics bin – even those who put food into their organics bins may have issues or concerns. For each of the issues listed below, could you please indicate how much of a concern, if any, it is for you.*

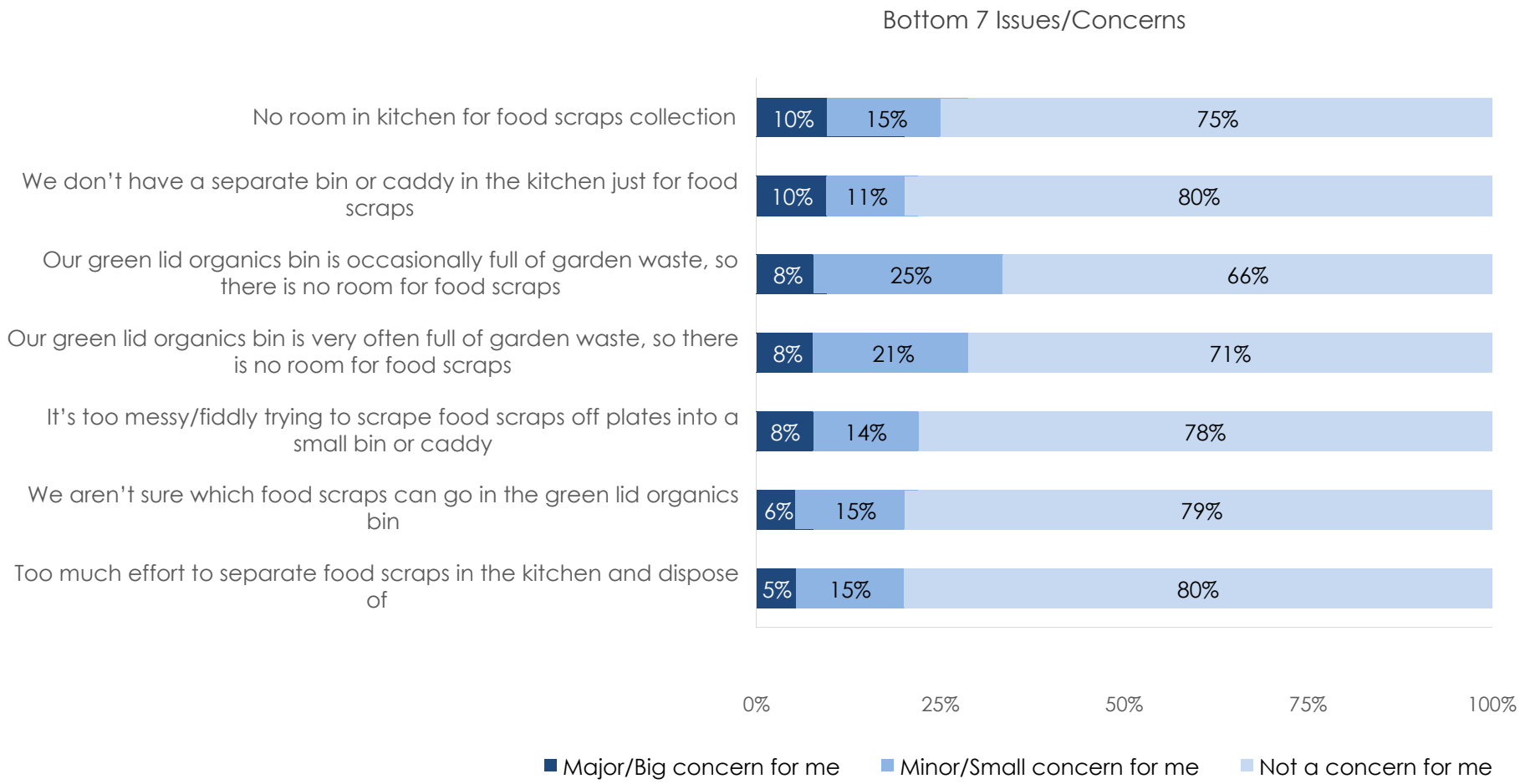


Base: N = 2,654 (total sample)

Three main themes emerge from the top six issues concerns: Concerns about vermin, bad odours and scraps on the kitchen bench and loose in the green bin.

Issues/Concerns with Placing Food Scraps in the Green Bin

Q8. *Previous research has shown that some people have issues or concerns about putting some or all of their food scraps into their green lid organics bin – even those who put food into their organics bins may have issues or concerns. For each of the issues listed below, could you please indicate how much of a concern, if any, it is for you.*

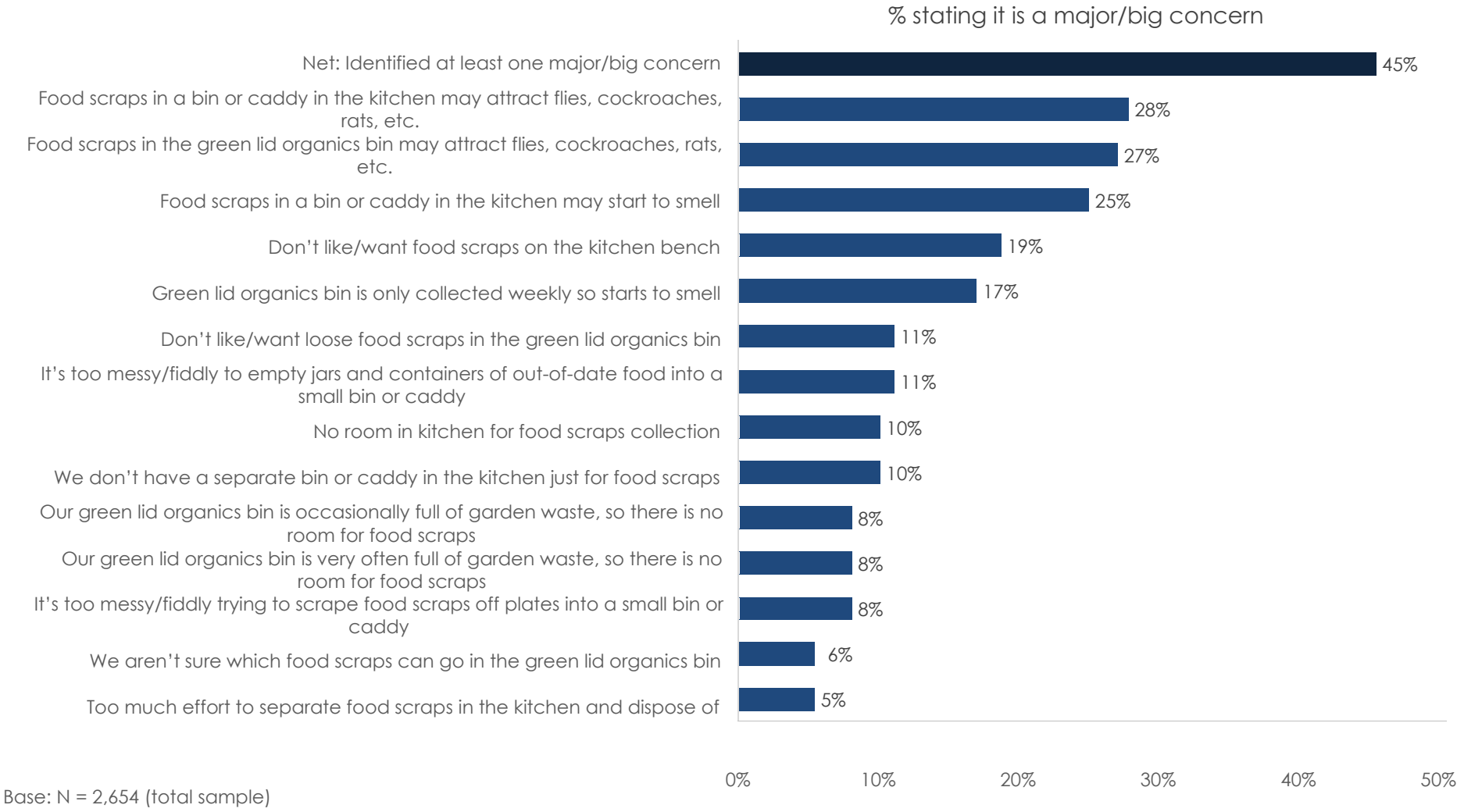


Base: N = 2,654 (total sample)

A nett subtotal of 38% mentioned that their green bin being full 'occasionally' or 'very often' was a major or minor concern.

Issues/Concerns with Placing Food Scraps in the Green Bin

Q8. Previous research has shown that some people have issues or concerns about putting some or all of their food scraps into their green lid organics bin – even those who put food into their organics bins may have issues or concerns. For each of the issues listed below, could you please indicate how much of a concern, if any, it is for you.



Base: N = 2,654 (total sample)

The above chart focusses only on the 'major/big concern' responses. 45% of respondents identified at least one major/big concern within the prompted list. Given that the subtotal of the 14 attributes is 193%, the 45% nett subtotal suggests that on average, those who gave any major concerns gave an average of 4.2 each – in other words, those with concerns appear to have multiple concerns. Please see overleaf for key demographic breakdown of 'major/big concerns'.

Issues/Concerns with Placing Food Scraps in the Green Bin

Q8. *Previous research has shown that some people have issues or concerns about putting some or all of their food scraps into their green lid organics bin – even those who put food into their organics bins may have issues or concerns. For each of the issues listed below, could you please indicate how much of a concern, if any, it is for you.*

% stating it is a major/big concern

	Age			Gender	
	18 - 44	45 - 64	65+	Male	Female
Net: Identified at least one major/big concern	61%	44%	34%	42%	48%
Base	743	1,023	888	975	1,657

	Time Lived in Area				Kitchen Involvement		
	5 years or less	6 – 10 years	11 – 19 years	20+ years	Light	Medium	Heavy
Net: Identified at least one major/big concern	55%	44%	45%	42%	44%	45%	46%
Base	485	323	484	1,362	412	1,203	1,039

	Household Size				Household Type	
	Single	Small	Medium	Large	With children	Other
Net: Identified at least one major/big concern	42%	38%	50%	62%	53%	41%
Base	391	1,133	803	327	941	1,713

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Net: Identified at least one major/big concern	56%	47%	42%	70%	52%	34%
Base	369	901	1,384	496	656	1,500

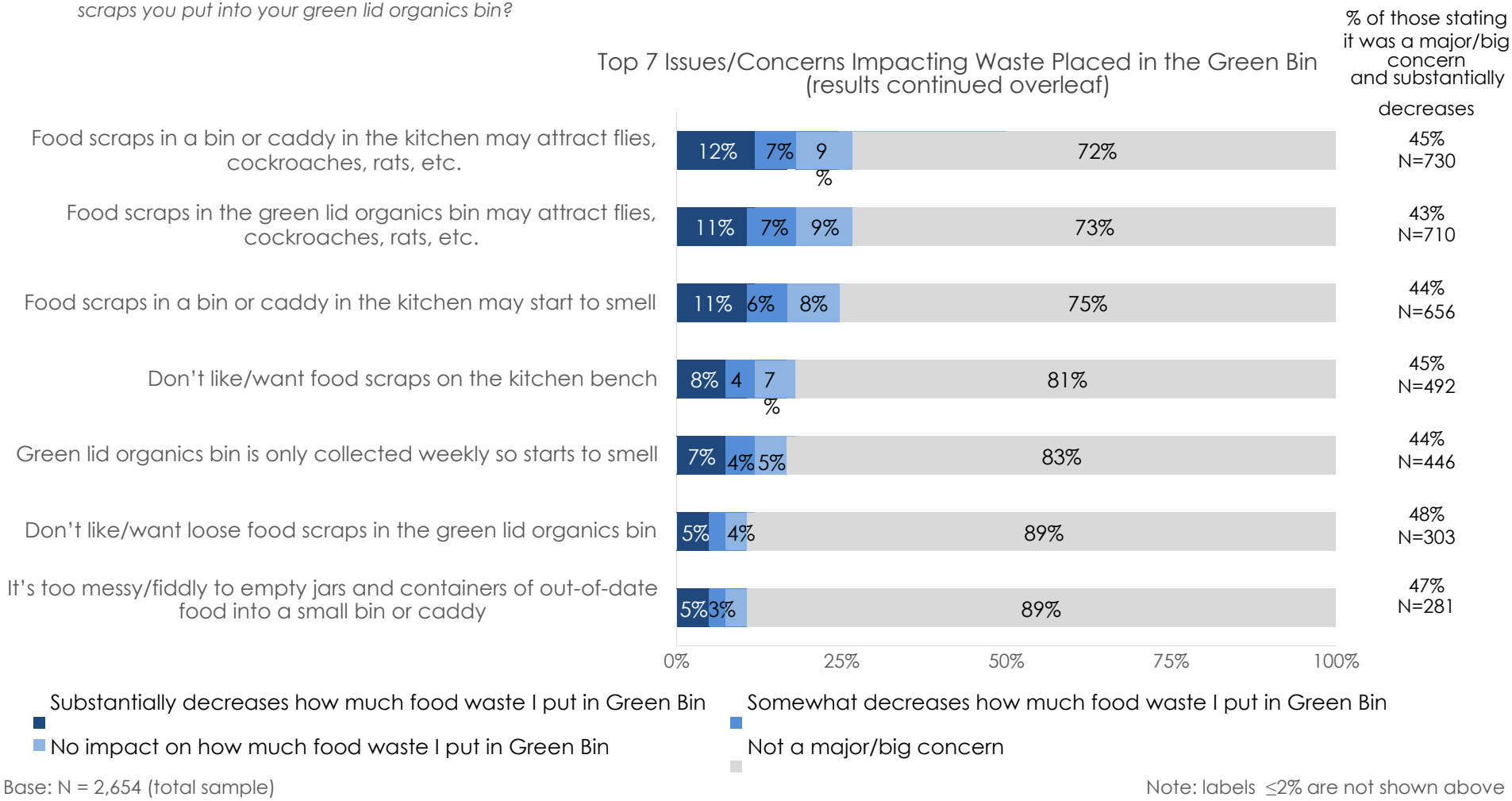
Base: (total sample)

A significantly higher/lower percentage (by group)
Please see Appendix B for detailed results

Younger respondents, females, those living in a council area for 5 years or less, medium-large households, households with children, those preparing/consuming food less nights of the week and lower awareness of food disposal in the green bin are all groups that were significantly more likely, to identify at least one major/big concern in regards to putting food in the green bin.

Impact from Issues/Concerns with Placing Food Scraps in the Green Bin

Q9. *You indicated that the following issues were Major/Big concerns for you… What impact, if any, do each of these concerns have on the amount of food scraps you put into your green lid organics bin?*



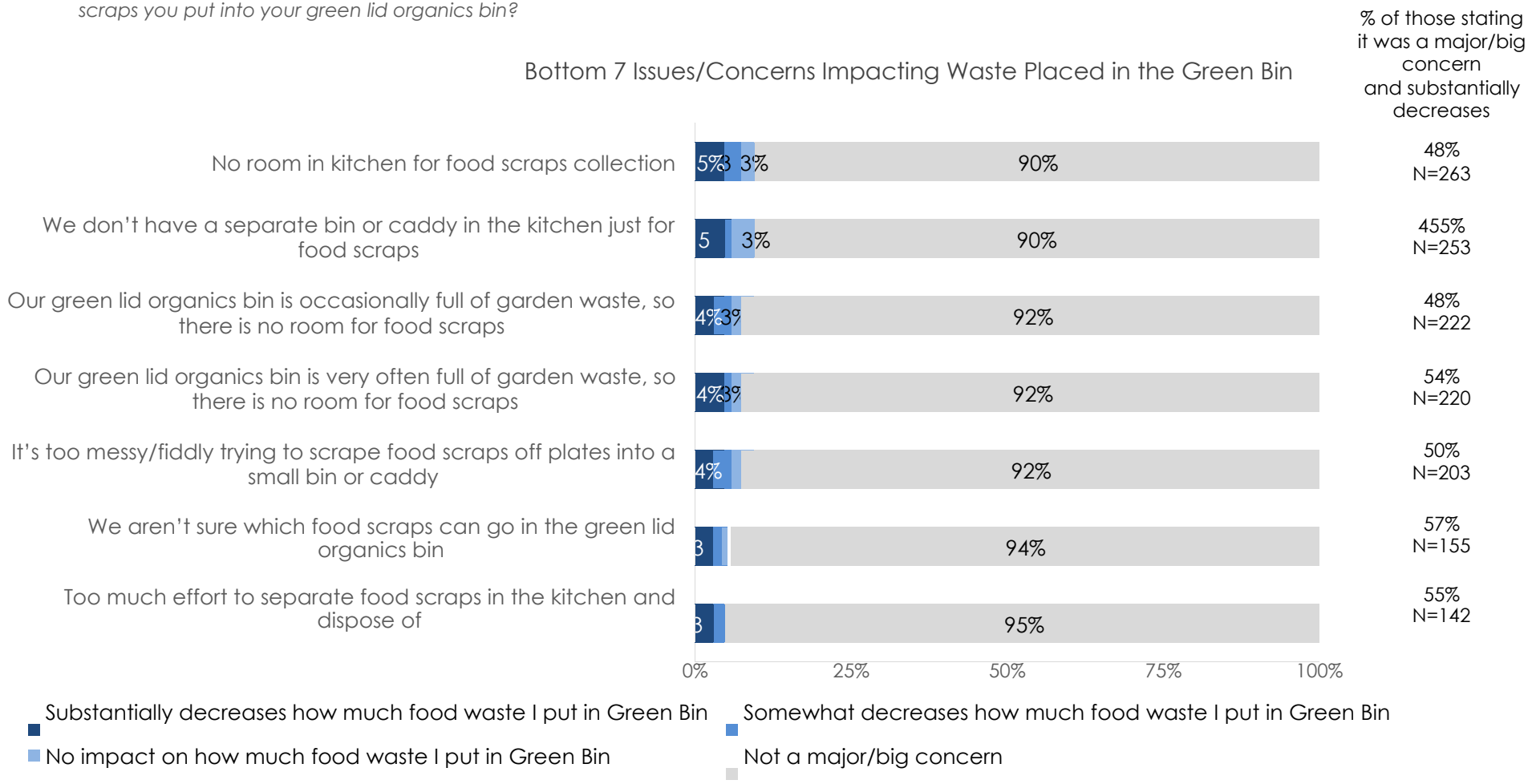
Base: N = 2,654 (total sample)

Note: labels ≤2% are not shown above

A nett subtotal of 16% of respondents stated pest attraction and the smell of a kitchen caddy/bin was a major/big concern that substantially decreases how much food is placed in the green bin (i.e.: selecting major/big concern for bin or caddy in kitchen attracting pests and/or green bin attracting pests and/or bin/caddy in kitchen may start to smell). 7% also believe having only a weekly collection substantially reduces their food waste in the green bin as it starts to smell prior to collection.

Impact from Issues/Concerns with Placing Food Scraps in the Green Bin

Q9. *You indicated that the following issues were Major/Big concerns for you… What impact, if any, do each of these concerns have on the amount of food scraps you put into your green lid organics bin?*



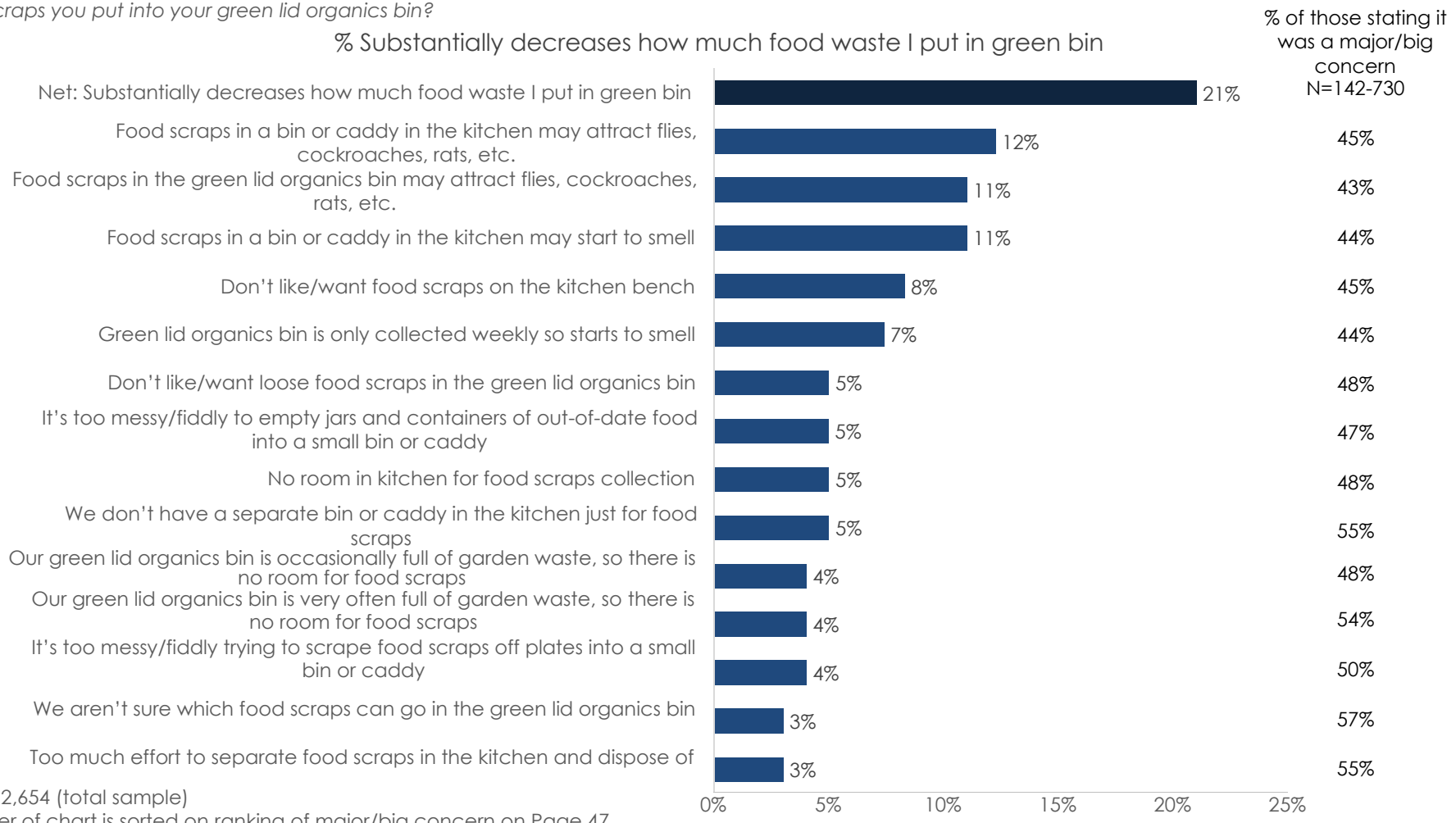
Base: N = 2,654 (total sample)

Note: labels ≤2% are not shown above

The amount of effort required and knowledge of disposable items were the lowest concerns impacting the amount of food waste placed in the green bin.

Impact from Issues/Concerns with Placing Food Scraps in the Green Bin

Q9. *You indicated that the following issues were Major/Big concerns for you… What impact, if any, do each of these concerns have on the amount of food scraps you put into your green lid organics bin?*



Base: N = 2,654 (total sample)
Note: order of chart is sorted on ranking of major/big concern on Page 47.

21% of respondents stated they have at least one major/big concern that substantially decreases the amount of food waste put in their green bin – and as noted earlier, those who mentioned any 'substantial decreases' gave an average of 4.3 each – in other words, they have multiple factors potentially causing them to put less food in their green bin. Please see overleaf for key demographic breakdown of 'substantial decreases'.

Impact from Issues/Concerns with Placing Food Scraps in the Green Bin

Q9. *You indicated that the following issues were Major/Big concerns for you… What impact, if any, do each of these concerns have on the amount of food scraps you put into your green lid organics bin?*

% Substantially decreases how much food waste I put in green bin

	Age			Gender	
	18 - 44	45 - 64	65+	Male	Female
Net: Identified at least one substantial decrease	33%	19%	12%	17%	22%
Base	743	1,023	888	975	1,657

	Time Lived in Area				Kitchen Involvement		
	5 years or less	6 – 10 years	11 – 19 years	20+ years	Light	Medium	Heavy
Net: Identified at least one substantial decrease	31%	22%	20%	17%	18%	21%	21%
Base	485	323	484	1,362	412	1,203	1,039

	Household Size				Household Type	
	Single	Small	Medium	Large	With children	Other
Net: Identified at least one substantial decrease	20%	17%	22%	31%	26%	18%
Base	391	1,133	803	327	941	1,713

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Net: Identified at least one substantial decrease	30%	20%	18%	48%	28%	8%
Base	369	901	1,384	496	656	1,500

A significantly higher/lower percentage (by group)
Please see Appendix B for detailed results

Base: (total sample)

Very similar to results for those identifying a major/big concern, the same demographic groups were more likely to state these concerns substantially decrease how much food waste they put in the green bin (younger respondents, females, those living in a council area for 5 years or less, large households, households with children, those preparing/consuming food less nights of the week and lower awareness of food disposal in the green bin).

FOGO Users

This section is asked of FOGO users only i.e. those disposing of at least some food scraps in the green lid organics bin (based on Q5a and/or Q6).

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FOGO Users

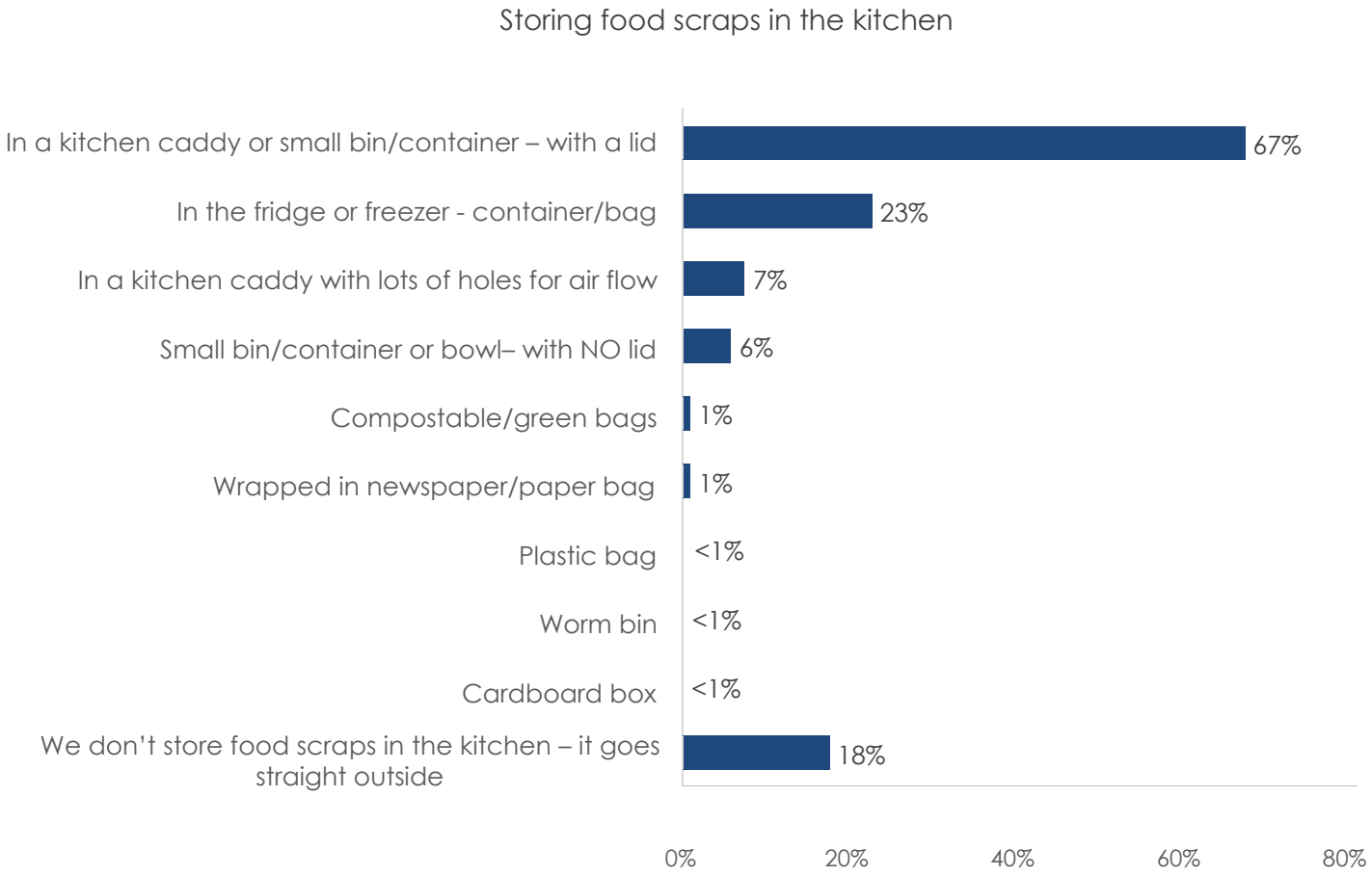
This section is asked of FOGO users only i.e. those disposing of at least some food scraps in the green lid organics bin (based on Q5a and/or Q6).

Throughout this section we will explore the behaviours of food waste disposal of FOGO users in the kitchen, specifically how they store/wrap their food scraps and how often they take their food scraps out to the green lid organics bin.

Storage of Food Scraps Before Placing in the Bin

Q10a. You mentioned earlier that at least some of your food scraps are placed in your green lid organics bin. The following questions are specifically about how you deal with the food scraps you put in the green lid organics bin.

How, if at all, do you currently store food scraps in your kitchen, before taking them outside to the green lid organics bin?



Base: N = 2,278 (FOGO users)

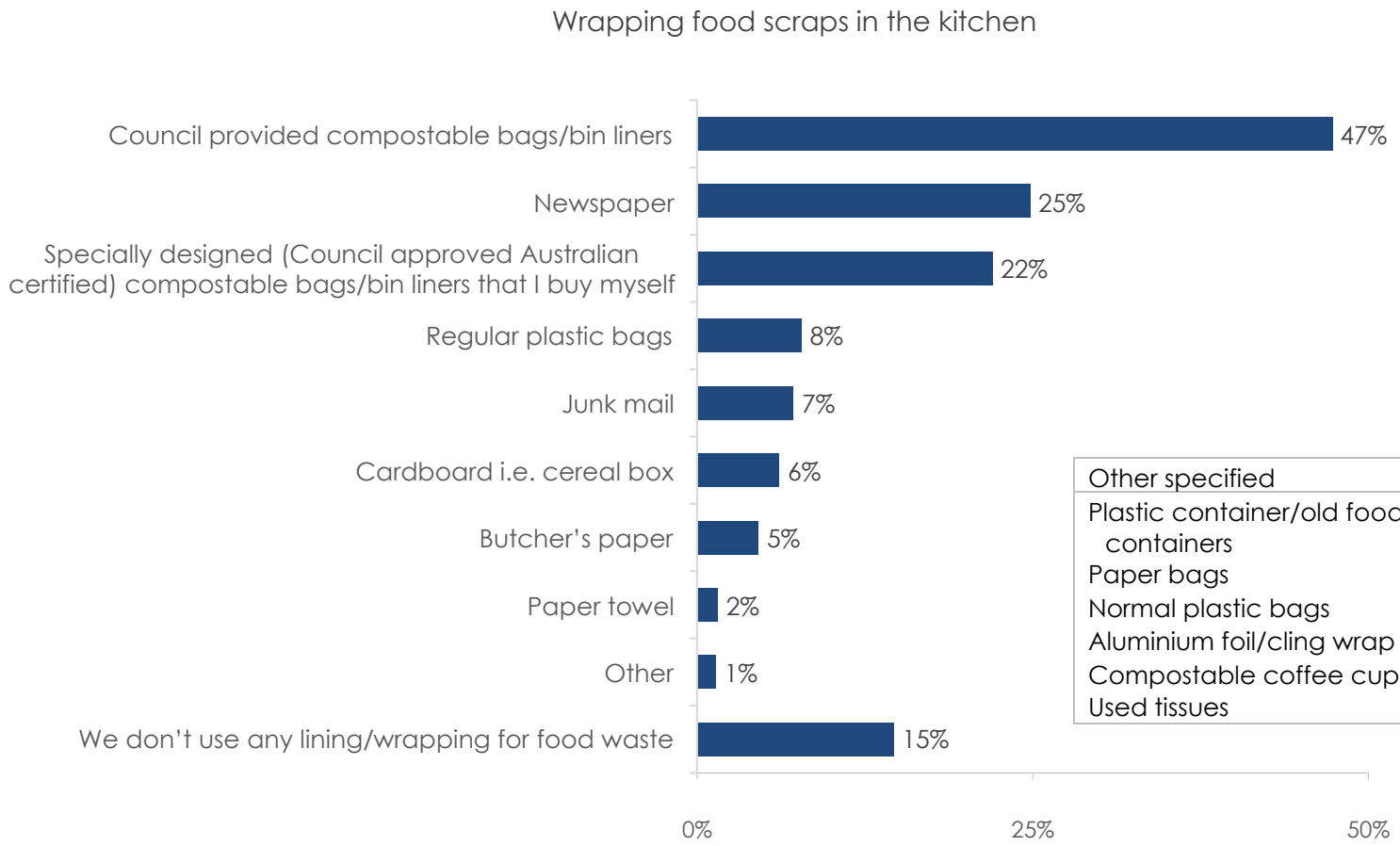
Please see Appendix B for results by key demographics

67% of FOGO users store their food scraps in a kitchen caddy/bin/container with a lid prior to taking out to the green bin. Almost a quarter (23%) store their food in the fridge or freezer.

Almost one in five FOGO users (18%) say they don't store food in their kitchen at all – it goes straight outside.

Wrapping Food Scraps Before Placing in the Bin

Q10b. Which, if any, of the following do you use to help hold food scraps, either as a caddy/container liner or for wrapping scraps?



Other specified	Count
Plastic container/old food containers	13
Paper bags	11
Normal plastic bags	6
Aluminium foil/cling wrap	1
Compostable coffee cups	1
Used tissues	1

Base: N = 2,278 (FOGO users)

Please see Appendix B for results by key demographics

Half of respondents that identified as FOGO users are using council provided compostable bags/bin liners to wrap their food scraps. A quarter are using newspaper and 22% are using other approved compostable bags.

Wrapping & Storing Food Scraps

Q10a. You mentioned earlier that at least some of your food scraps are placed in your green lid organics bin. The following questions are specifically about how you deal with the food scraps you put in the green lid organics bin.

How, if at all, do you currently store food scraps in your kitchen, before taking them outside to the green lid organics bin?

Q10b. Which, if any, of the following do you use to help hold food scraps, either as a caddy/container liner or for wrapping scraps?

Store► Wrap▼	Overall	In a kitchen caddy or small bin/container/kitchen caddy with lots of holes for air flow	In the fridge/freezer - container/bag	Small bin/container or bowl– with NO lid	Other	We don't store food scraps in the kitchen – it goes straight outside
Council provided compostable bags/bin liners	47%	55%	46%	29%	36%	27%
Newspaper	25%	23%	36%	39%	44%	29%
Specially designed compostable bags/bin liners that I buy myself	22%	27%	25%	12%	11%	10%
Regular plastic bags	8%	7%	11%	17%	13%	11%
Junk mail	7%	6%	8%	11%	9%	11%
Cardboard i.e. cereal box	6%	5%	8%	17%	2%	10%
Butcher's paper	5%	4%	9%	10%	2%	6%
Paper towel	2%	2%	2%	4%	2%	1%
Other	1%	1%	2%	1%	2%	2%
We don't use any lining/wrapping for food waste	15%	8%	10%	28%	4%	38%
Base	2,278	1,624	514	132	45	399

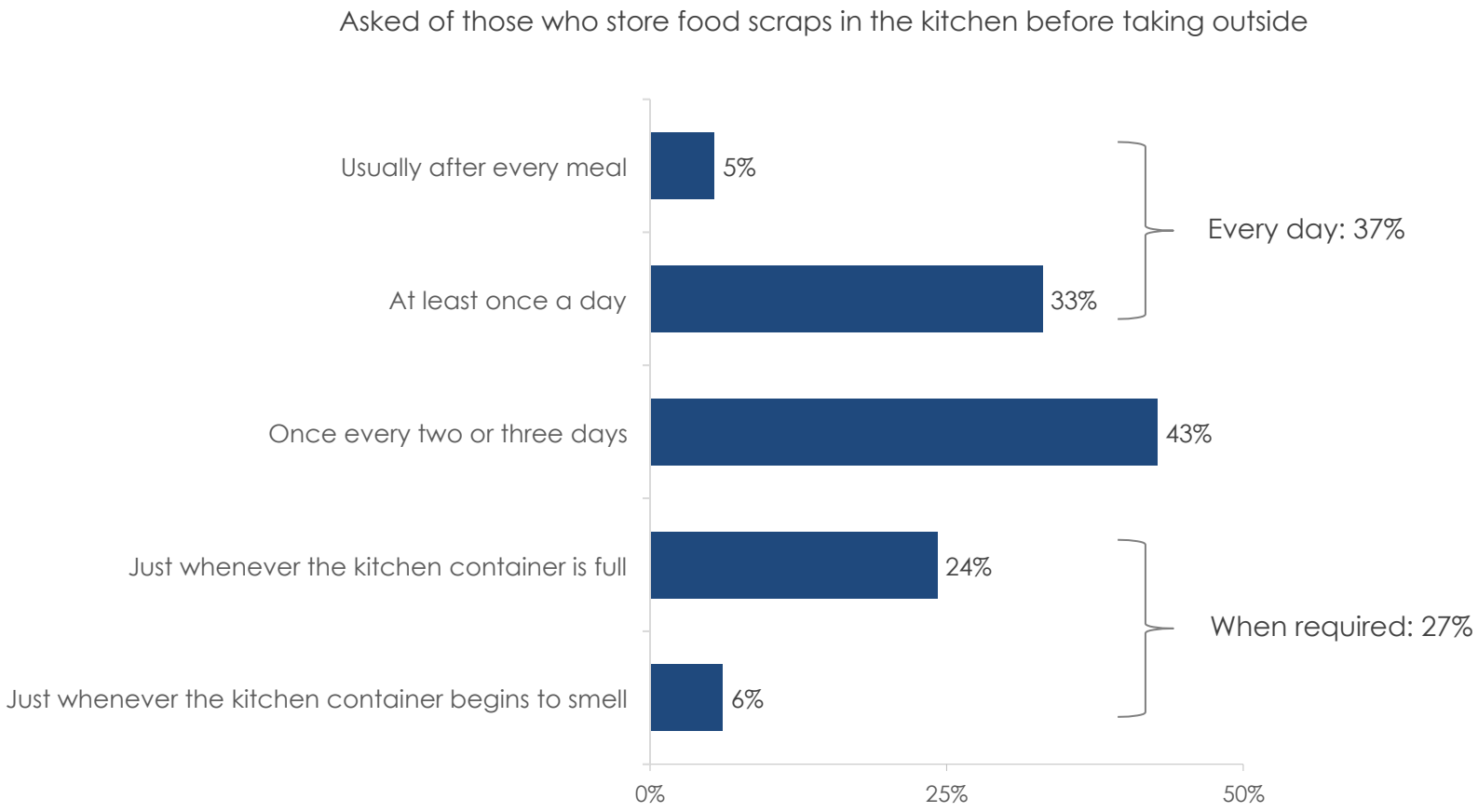
Base: (FOGO users)

A significantly higher/lower percentage (by item used to store food scraps)

Those storing their food scraps in a kitchen bin/caddy are more likely to use compostable bags, whilst those storing in the fridge/freezer are more likely to use other items such as newspaper, plastic bags, cardboard and butchers paper.

Frequency of Taking Food Scraps Out to the Bin

Q10c. [If NOT 'We don't store food scraps in the kitchen…' on Q10a] On average, how often do you take the food scraps you have stored in the kitchen to your green lid organics bin outside?



Base: N = 1,884 (FOGO users/store food scraps in the kitchen)

Note: total % exceeds 100% as respondents could select multiple answers
Please see Appendix B for results by key demographics

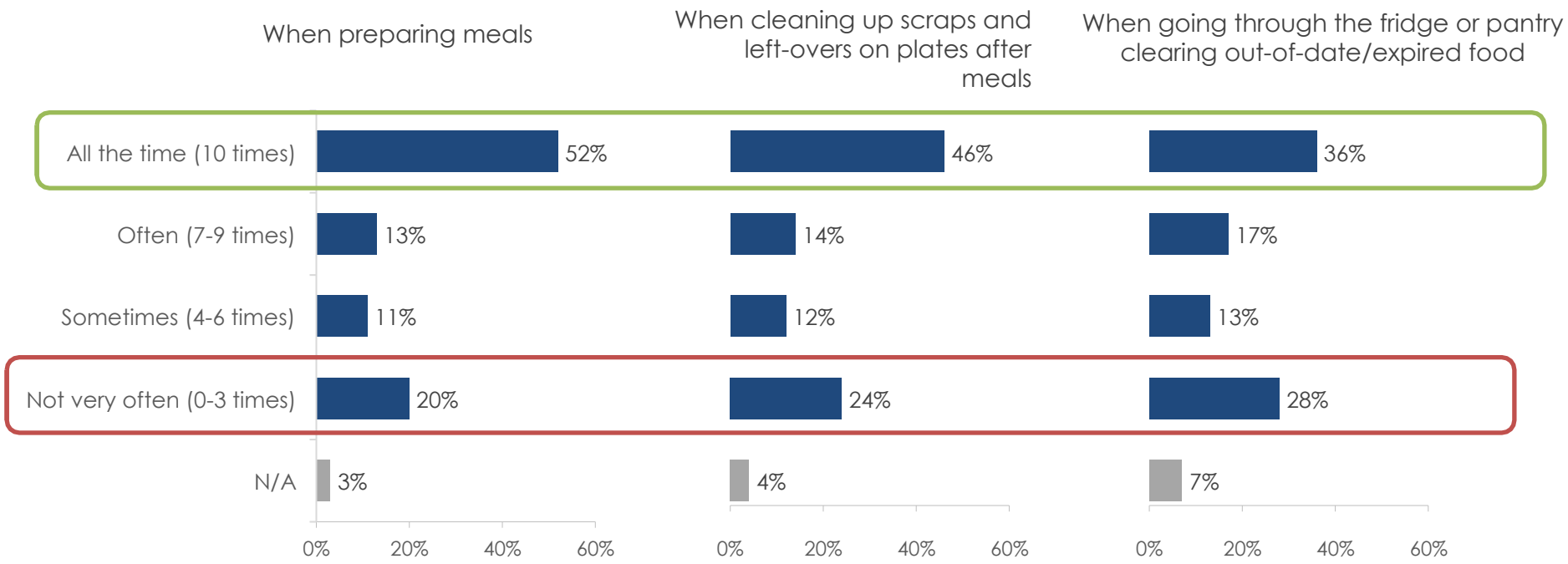
37% of FOGO users that are storing food scraps in the kitchen before taking them outside, state they take their sorted food scraps out every day on average.

Number of Times Food Scraps Go Into the Green Bin

Q11. *Food scraps can be generated at different stages of the meal process. For every ten times you or your family does each of the following things and there are any food scraps, how many times, if at all, would you put at least some of those scraps aside to go to the green lid organics bin?*

How many times (out of 10) would you put at least some of your food scraps aside to go in the green bin…

	Overall	When preparing meals	When cleaning up scraps and left-overs on plates after meals	When going through the fridge or pantry clearing out-of-date/ expired food
Average # of times:	6.9 times	7.4 times	6.9 times	6.4 times



Base: N = 2,278 (FOGO users)

Whole numbers in brackets were used to calculate the average number of times (0-10)

On average, for every 10 times FOGO users are preparing meals they are putting food scraps aside 7.4 times to go in the green bin – this drops to 6.4 out of 10 times when clearing out expired food. Overleaf we explore average times by key demographics.

Number of Times Food Scraps Go into the Green Bin – Demographic Summary

Q11. Food scraps can be generated at different stages of the meal process. For every ten times you or your family does each of the following things and there are any food scraps, how many times, if at all, would you put at least some of those scraps aside to go to the green lid organics bin?

How many times (out of 10) would you put at least some of your food scraps aside to go in the green bin…

	Overall	Age			Gender		Time Lived in Area			
		18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Average of all 3 actions	6.9	6.6	7.0	7.0	6.8	7.0	6.6	7.0	6.9	6.9

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Average of all 3 actions	6.8	7.0	6.7	6.8	6.8	6.9	6.9	6.9	6.9

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Average of all 3 actions	5.9	7.3	6.9	4.7	5.6	7.8

Base: N = 2,278 (FOGO users)
Please see Appendix B for further breakdown of demographic analysis

Whole numbers were used to calculate the average number of times (0-10)
A significantly higher/lower rating (by group)

On average, younger respondents, those preparing/consuming dinner less at home and those less of aware of what can go in the green bin were significantly less likely to place their food scraps aside often to put out in the green bin.

FOGO Benefits

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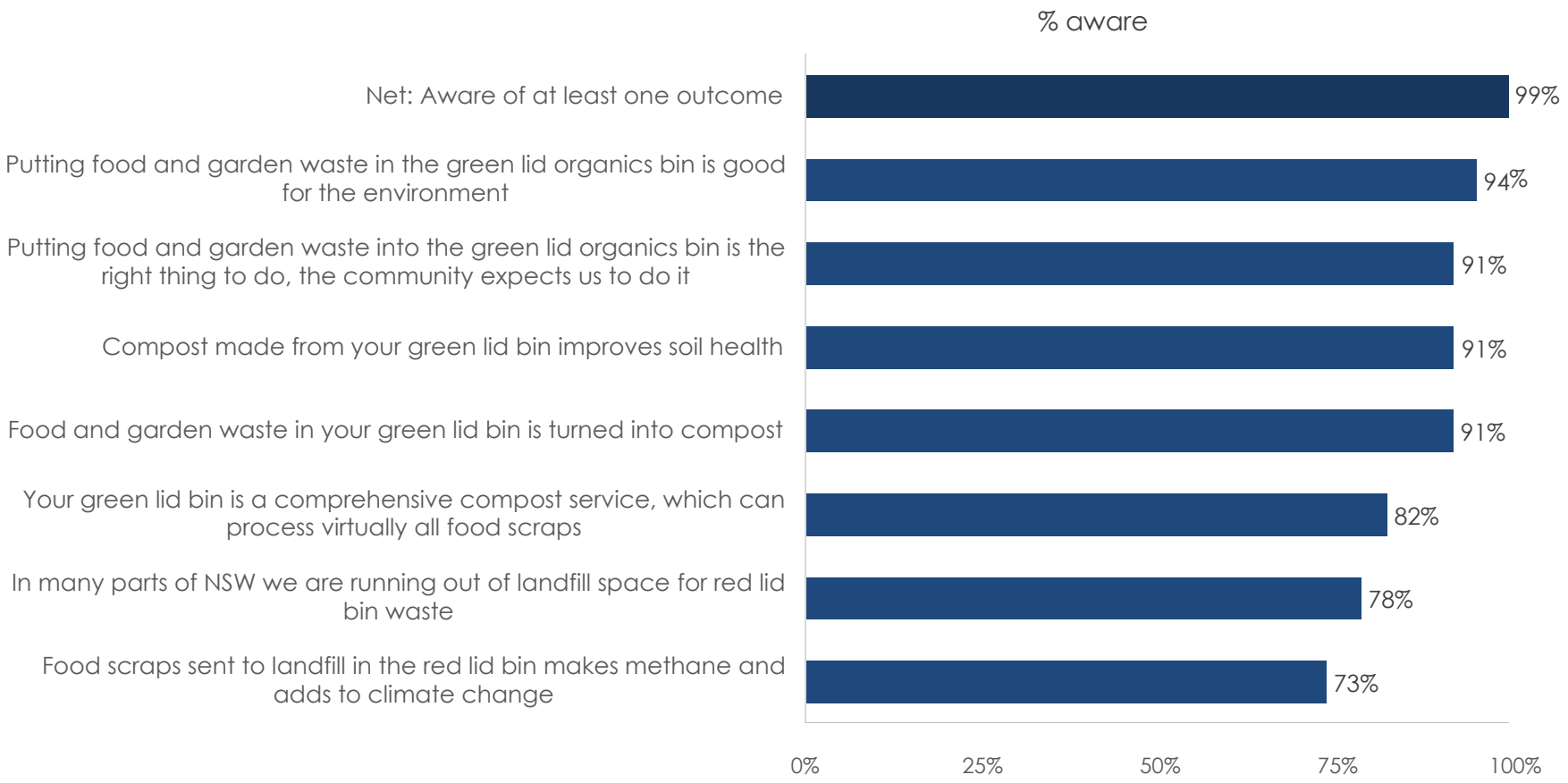
FOGO Benefits

Within this section we seek to determine respondent's awareness of seven specific FOGO-program benefits and the likely impact these benefits have on their food waste disposal behaviours.

Awareness of FOGO Outcomes

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. Before today, were you aware of that outcome?



Base: N = 2,654 (total sample)

99% are aware of at least one of the above outcomes. 94% are aware that correctly disposing of food scraps in the green bin is good for the environment, but they appear to be less aware of some of the details, with just 73% aware food scraps sent to landfill creates methane that adds to climate change.

Awareness of FOGO Outcomes

Q13. *Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. Before today, were you aware of that outcome?*

% aware	Age			Gender		Time Lived in Area			
	18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Putting food and garden waste in the green lid organics bin is good for the environment	92%	95%	97%	94%	95%	89%	93%	96%	96%
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	87%	91%	95%	91%	92%	85%	89%	92%	94%
Compost made from your green lid bin improves soil health	84%	92%	97%	93%	90%	88%	89%	91%	93%
Food and garden waste in your green lid bin is turned into compost	84%	92%	95%	93%	90%	85%	88%	93%	93%
Your green lid bin is a comprehensive compost service, which can process virtually all food scraps, including bones and other animal products	74%	82%	88%	84%	81%	68%	79%	82%	87%
In many parts of NSW we are running out of landfill space for red lid bin waste	63%	80%	88%	81%	77%	69%	74%	78%	83%
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	61%	74%	83%	79%	70%	65%	70%	74%	77%
Base	743	1,023	888	975	1,657	485	323	484	1,362

Base: (total sample)

A significantly higher/lower percentage (by group)

Awareness of the majority of FOGO related outcomes was significantly lower amongst those aged 18-44, females and those living in a council area for shorter period of time.

Awareness of FOGO Outcomes

Q13. *Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. Before today, were you aware of that outcome?*

% aware	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Putting food and garden waste in the green lid organics bin is good for the environment	95%	95%	93%	94%	94%	95%	93%	96%	94%
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	92%	92%	90%	91%	90%	92%	90%	92%	91%
Compost made from your green lid bin improves soil health	94%	94%	88%	89%	89%	93%	90%	91%	92%
Food and garden waste in your green lid bin is turned into compost	93%	93%	89%	90%	89%	92%	91%	90%	92%
Your green lid bin is a comprehensive compost service, which can process virtually all food scraps, including bones and other animal products	84%	83%	78%	82%	81%	83%	79%	82%	83%
In many parts of NSW we are running out of landfill space for red lid bin waste	83%	83%	72%	72%	71%	82%	77%	78%	79%
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	77%	77%	68%	68%	67%	77%	74%	71%	76%
Base	391	1,133	803	327	941	1,713	412	1,203	1,039

Base: N = 2,654 (total sample)

A significantly higher/lower percentage (by group)

Medium to large households and households with children were less likely to be aware that food/garden waste in the green bin is turned into compost, landfill space for red lid bin waste is running out in NSW and the impacts on climate change.

Awareness of FOGO Outcomes

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. Before today, were you aware of that outcome?

% aware	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Putting food and garden waste in the green lid organics bin is good for the environment	88%	95%	96%	83%	95%	98%
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	86%	92%	93%	70%	92%	98%
Compost made from your green lid bin improves soil health	85%	91%	93%	80%	91%	95%
Food and garden waste in your green lid bin is turned into compost	86%	90%	94%	76%	91%	96%
Your green lid bin is a comprehensive compost service, which can process virtually all food scraps, including bones and other animal products	79%	81%	83%	44%	80%	95%
In many parts of NSW we are running out of landfill space for red lid bin waste	74%	76%	81%	61%	79%	83%
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	70%	71%	76%	54%	72%	80%
Base	369	901	1,384	496	656	1,500

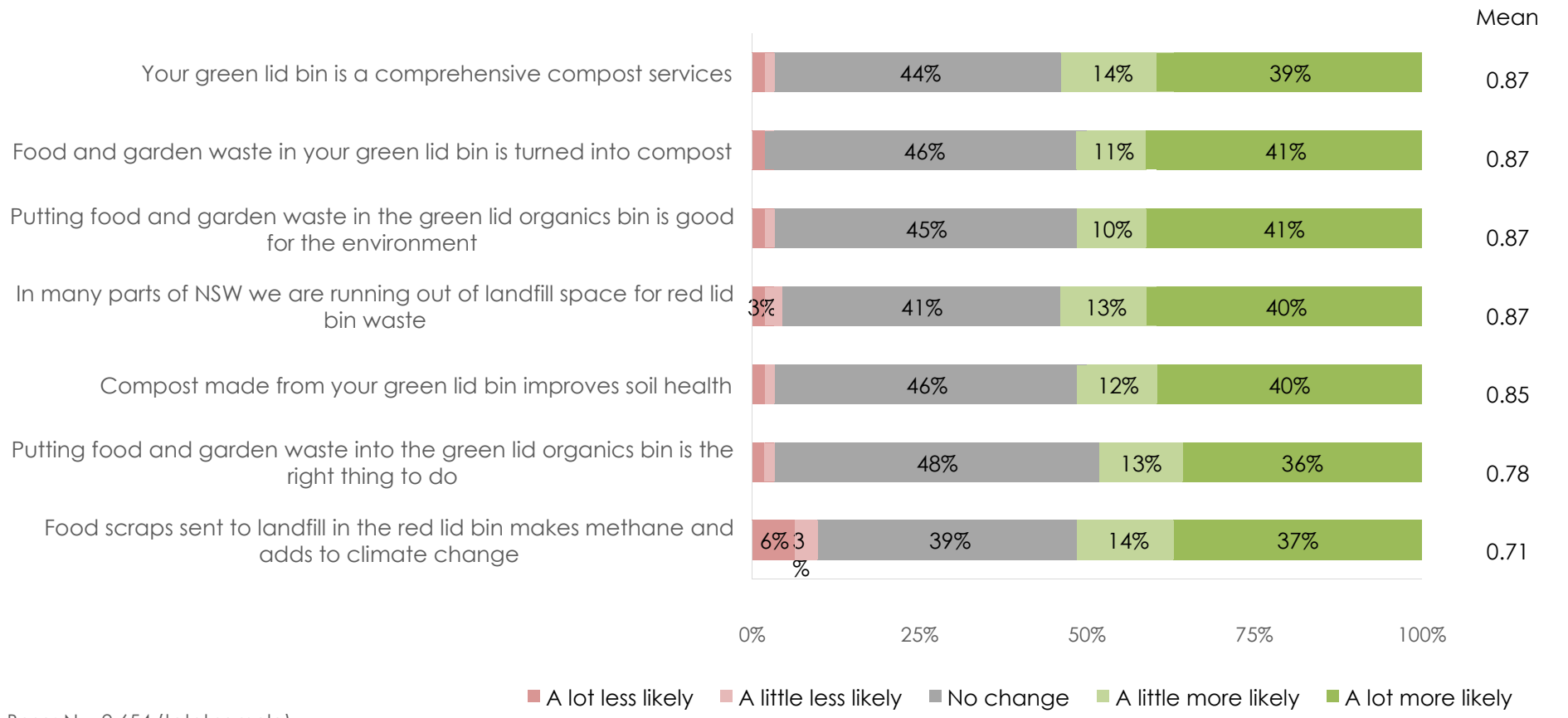
Base: N = 2,654 (total sample)

A significantly higher/lower percentage (by group)

Those with low levels of awareness of their ability to place food items in the green bin were also significantly less aware of all FOGO outcomes.

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?



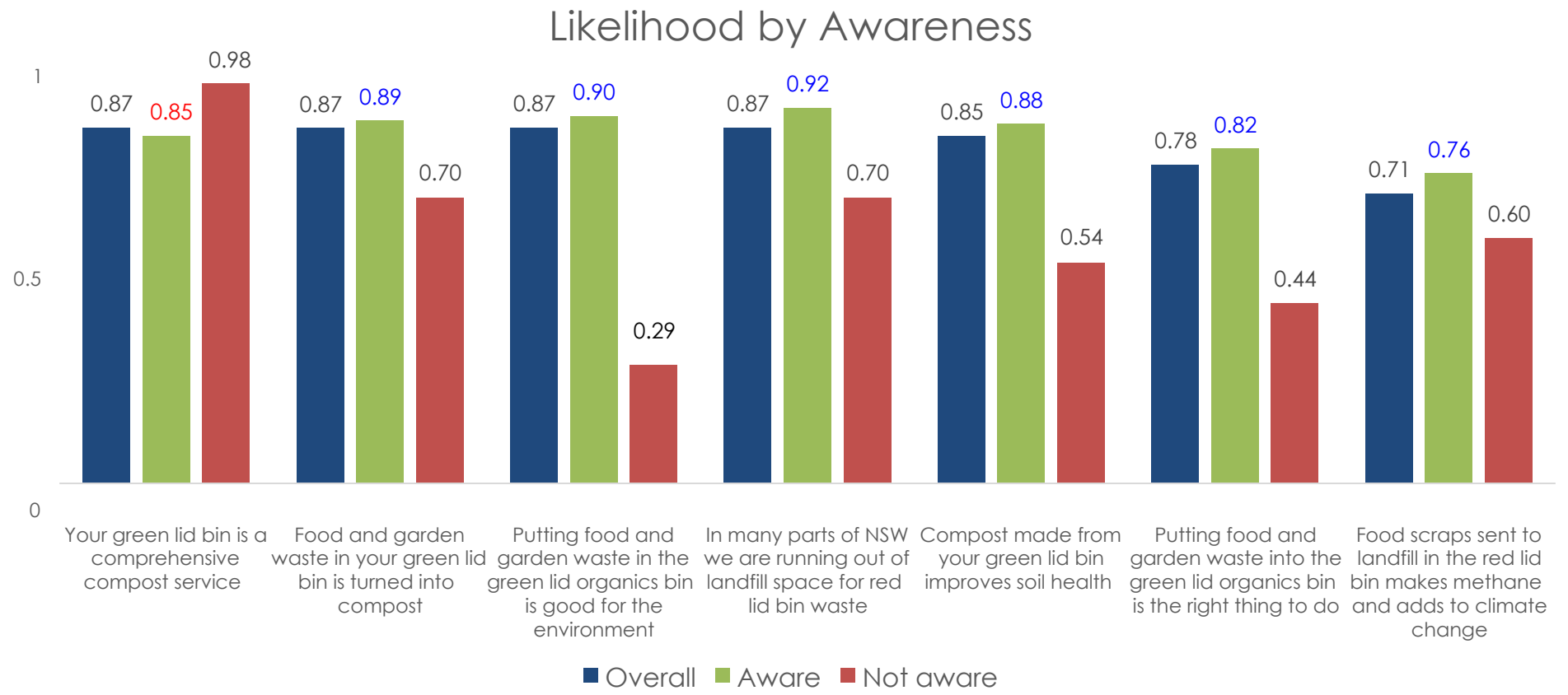
Base: N = 2,654 (total sample)
Note: labels ≤2% are not shown above

Scale: -2 = a lot less likely, 2 = a lot more likely

In a sense, none of the listed 'outcomes' stood out as a key driver of future behaviour. Looked at in reverse, only one of the outcomes (the methane/climate change outcome) generated a noticeable negative response (relative to the other statements).

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes by Awareness

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?



Scale: -2 = a lot less likely, 2 = a lot more likely

Base: N = 2,654 (total sample)

A significantly higher/lower likelihood (compared to those unaware)

The above chart cross-analyses how likely each outcome is to encourage greater FOGO use, based on those who were already aware/not aware of each of the outcomes. The 'not aware' bars (red) are based on sample sizes of between 147 and 709, which may explain in part their volatility. However, our sense is that making people aware of generic outcomes (e.g.: 'good for the environment', 'right thing to do') is less effective than making them aware of more specific outcomes (e.g.: 'comprehensive compost service which can process virtually all food scraps', 'FOGO waste is turned into compost', 'running out of landfill').

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes

Q13. *Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?*

	Age			Gender		Time Lived in Area			
	18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Your green lid bin is a comprehensive compost service	0.83	0.85	0.93	0.76	0.94	0.92	0.84	0.89	0.86
Food and garden waste in your green lid bin is turned into compost	0.81	0.83	0.96	0.79	0.92	0.86	0.80	0.92	0.88
Putting food and garden waste in the green lid organics bin is good for the environment	0.86	0.83	0.93	0.80	0.92	0.90	0.83	0.93	0.85
In many parts of NSW we are running out of landfill space for red lid bin waste	0.90	0.81	0.92	0.76	0.94	0.93	0.85	0.91	0.84
Compost made from your green lid bin improves soil health	0.77	0.83	0.95	0.77	0.91	0.87	0.82	0.87	0.85
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	0.72	0.76	0.86	0.70	0.84	0.77	0.72	0.81	0.79
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	0.79	0.67	0.70	0.61	0.78	0.75	0.69	0.78	0.68
Base	743	1,023	888	975	1,657	485	323	484	1,362

A significantly higher/lower rating (by group)
Scale: -2 = a lot less likely, 2 = a lot more likely

Base: N = 2,654 (total sample)

Now knowing FOGO outcomes, females indicated they are significantly more likely to adjust their behaviours. Those aged 18-44 are significantly more likely to place food scraps in the green bin knowing the impacts of methane on climate change.

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes

Q13. *Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?*

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Your green lid bin is a comprehensive compost service	0.85	0.94	0.85	0.72	0.83	0.90	0.89	0.89	0.85
Food and garden waste in your green lid bin is turned into compost	0.88	0.95	0.81	0.72	0.81	0.90	0.84	0.88	0.87
Putting food and garden waste in the green lid organics bin is good for the environment	0.88	0.94	0.83	0.71	0.84	0.89	0.87	0.86	0.88
In many parts of NSW we are running out of landfill space for red lid bin waste	0.88	0.94	0.82	0.73	0.80	0.91	0.86	0.92	0.82
Compost made from your green lid bin improves soil health	0.86	0.95	0.79	0.69	0.79	0.89	0.80	0.86	0.87
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	0.76	0.87	0.74	0.61	0.72	0.82	0.76	0.77	0.81
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	0.63	0.76	0.72	0.65	0.70	0.72	0.68	0.76	0.67
Base	391	1,133	803	327	941	1,713	412	1,203	1,039

A significantly higher/lower rating (by group)

Scale: -2 = a lot less likely, 2 = a lot more likely

Base: N = 2,654 (total sample)

Large households and households with children are significantly less likely to change their behaviours after knowing most outcomes. However, small households are significantly more likely to adjust their behaviours now.

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Your green lid bin is a comprehensive compost service	0.64	0.93	0.90	0.79	0.77	0.94
Food and garden waste in your green lid bin is turned into compost	0.64	0.89	0.92	0.71	0.73	0.99
Putting food and garden waste in the green lid organics bin is good for the environment	0.66	0.92	0.89	0.73	0.74	0.97
In many parts of NSW we are running out of landfill space for red lid bin waste	0.66	0.92	0.89	0.72	0.75	0.97
Compost made from your green lid bin improves soil health	0.65	0.89	0.88	0.67	0.75	0.96
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	0.61	0.80	0.81	0.62	0.68	0.88
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	0.43	0.81	0.73	0.47	0.59	0.85
	369	901	1,384	496	656	1,500

A significantly higher/lower rating (by group)

Base: N = 2,654 (total sample)

Scale: -2 = a lot less likely, 2 = a lot more likely

Those who prepare/consume dinner at home less frequently and those with lower levels of awareness of their ability to place food scraps in the green bin, are significantly less likely to change their behaviours.

Communications

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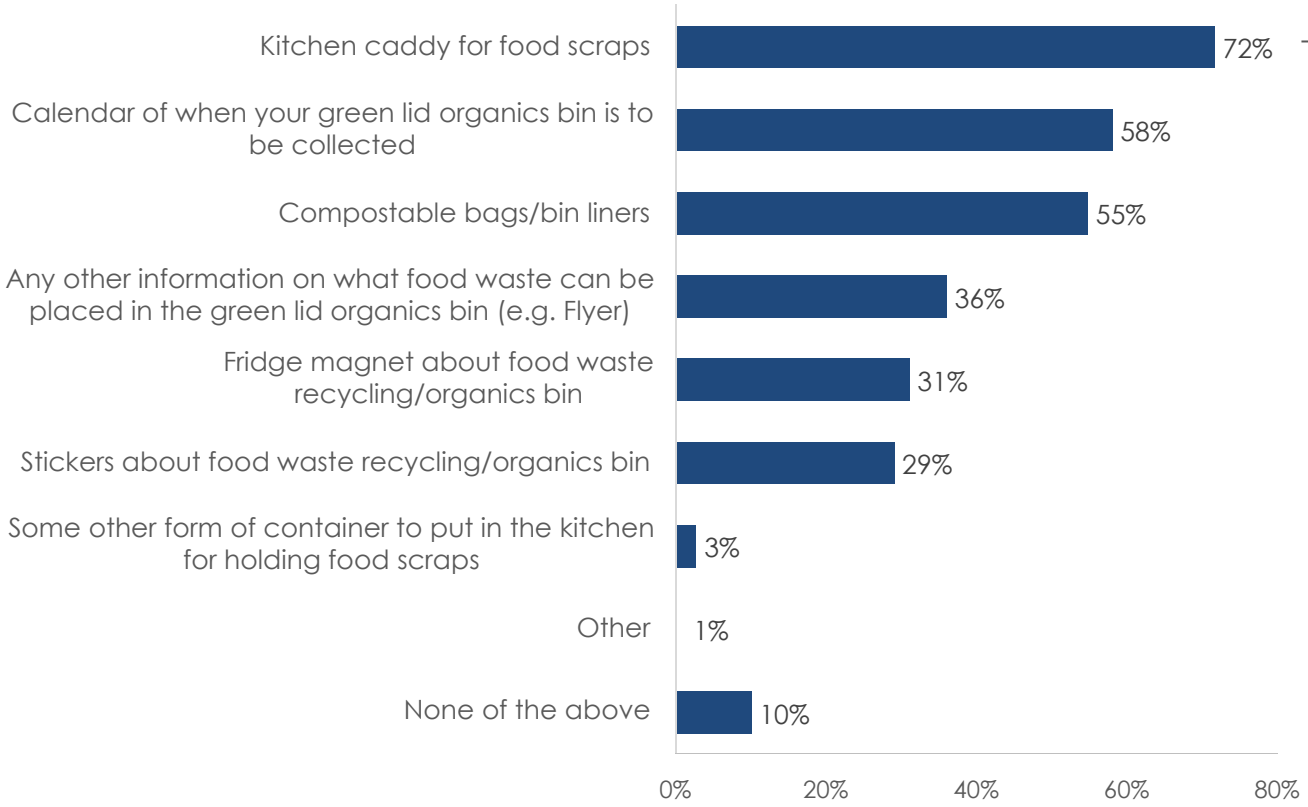
Communications

In this section we shift our focus to communicating and engaging with the community in regards to FOGO services, by identifying past FOGO items/information received from their local Council, and the best ways to engage/communicate with the community for future information around waste and recycling.

Receiving Items on Food Waste from Council

Q12. Thinking now about your local Council, which, if any of the following items have you ever received from your current local Council?



81% of respondents who stated they use a kitchen caddy (with a lid and/or with holes for air flow) (on Q10a) have received a kitchen caddy from Council.

Other specified	Count
Waste app	13
Compost bin	4
Surveys on waste	3
Community garden	1
Satchel for batteries, etc.	1
Worm farm	1
Don't know	2

Base: N = 2,621 (33 respondents did not answer the question)

Please see Appendix B for results by demographics

The majority of respondents (72%) have received a kitchen caddy for food scraps from their local council.

Receiving Items on Food Waste from Council

Q12. Thinking now about your local Council, which, if any of the following items have you ever received from your current local Council?
Q10b. Which, if any, of the following do you use to help hold food scraps, either as a caddy/container liner or for wrapping scraps?

Item used to store/wrap food scraps (Q10b)► Items ever received from Council (Q12)▼	Council provided compostable bags/bin liners	Newspaper	Specially designed compostable bags/bin liners that I buy myself	Regular plastic bags	Junk mail	Cardboard i.e. cereal box	Butcher's paper	Paper towel
Kitchen caddy for food scraps	90%	69%	74%	52%	66%	60%	59%	83%
Compostable bags/bin liners	92%	41%	46%	33%	38%	45%	45%	37%
Base	1,078	566	502	177	163	139	104	35

Base: N = 2,621 (33 respondents did not answer question 12)

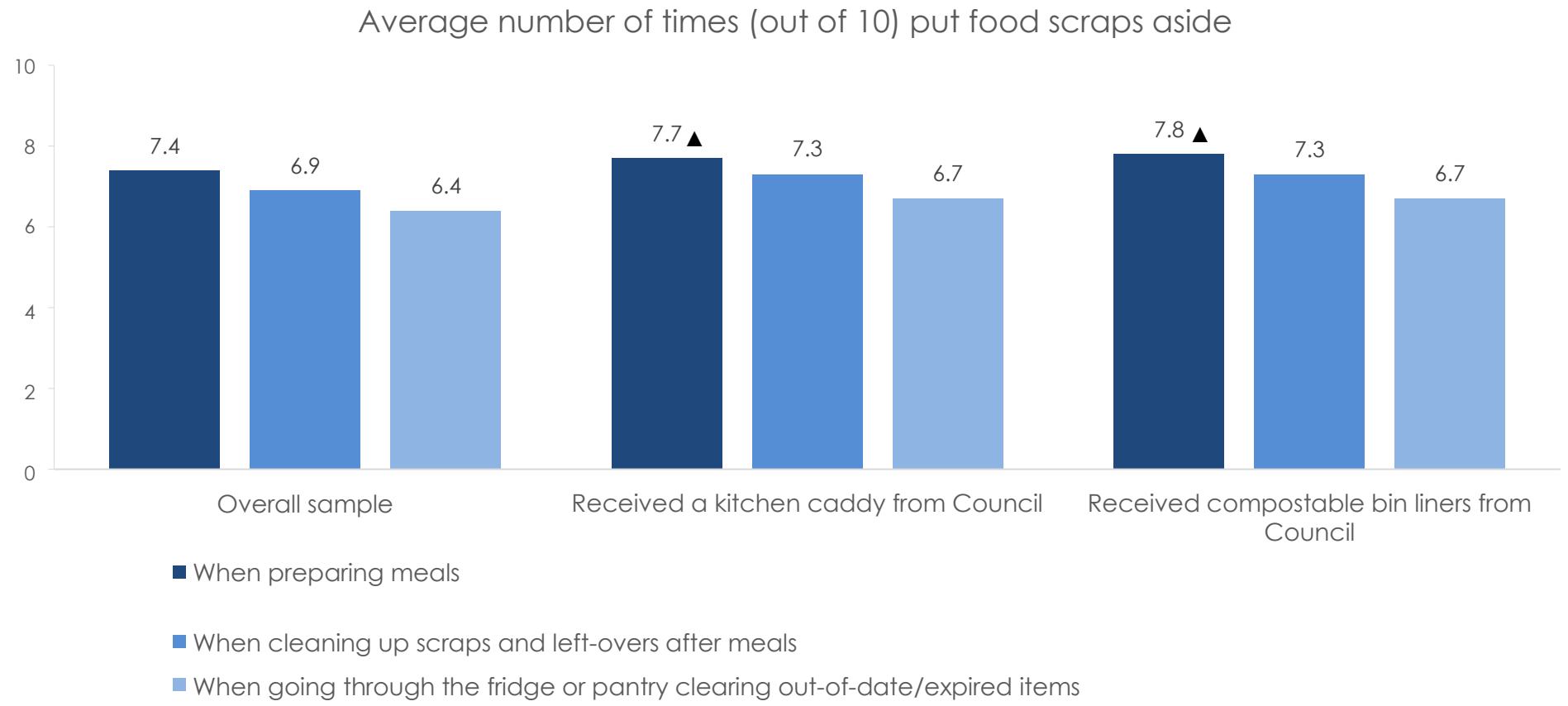
A significantly higher/lower percentage (by group)

The vast majority of those with compostable bags/liners supplied by Council are using them.

Receiving Items on Food Waste from Council

Q12. *Thinking now about your local Council, which, if any of the following items have you ever received from your current local Council?*

Q11. *Food scraps can be generated at different stages of the meal process. For every ten times you or your family does each of the following things and there are any food scraps, how many times, if at all, would you put at least some of those scraps aside to go to the green lid organics bin?*



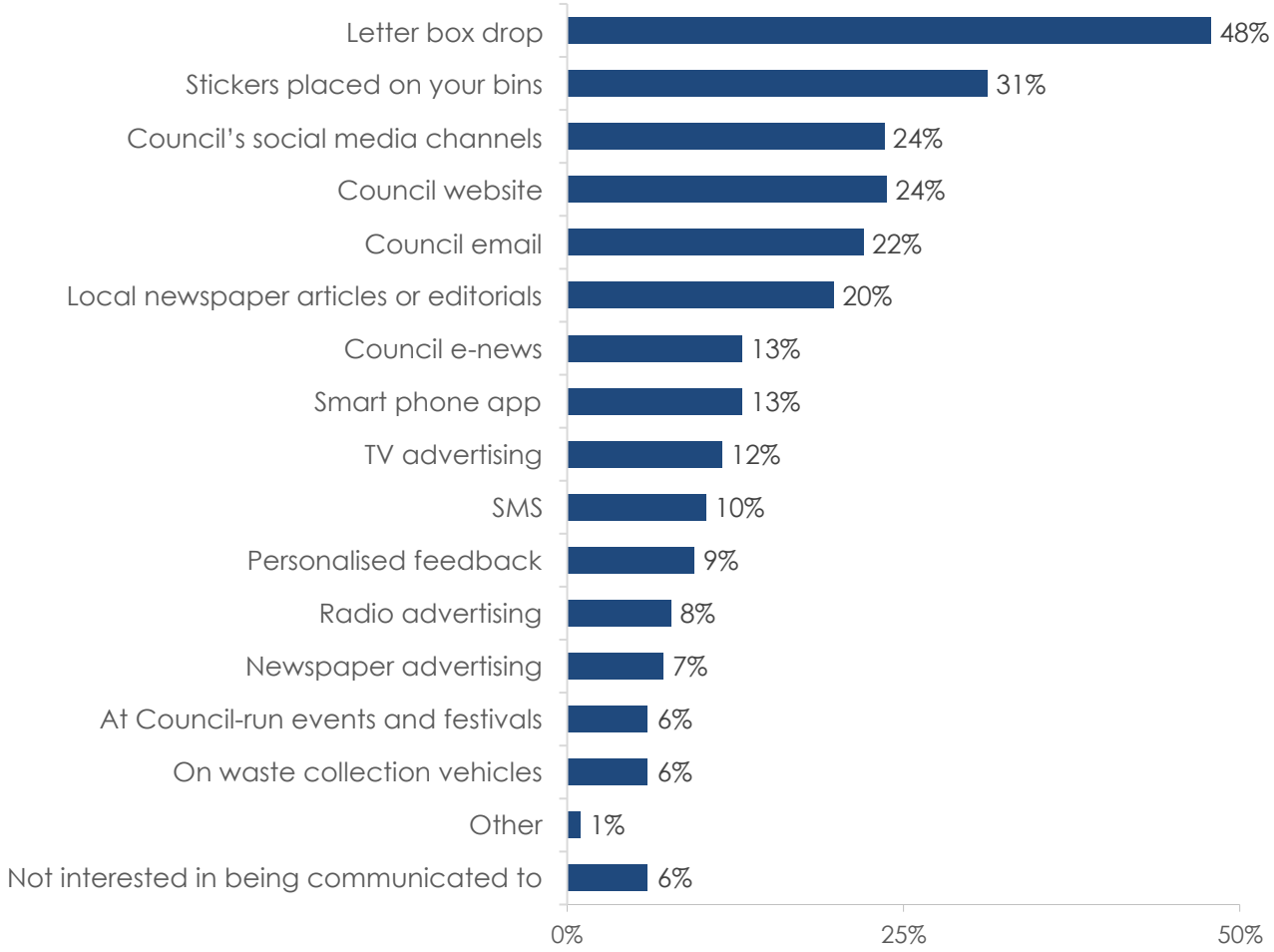
Base: Overall N = 2,278 (FOGO user), Items received from Council N = 1,227-1,666

▲▼= significantly higher/lower (compared to overall)

There is some suggestion in the above chart that those who have received a kitchen caddy or bin liners from Council are a little more likely to put food scraps aside to go in the green bin.

Engaging with the Community about Waste & Recycling

Q14. *Thinking now about how your local Council can engage with you… Which, if any, of the following are the best ways for your local Council to engage and provide you with information around waste and recycling?*



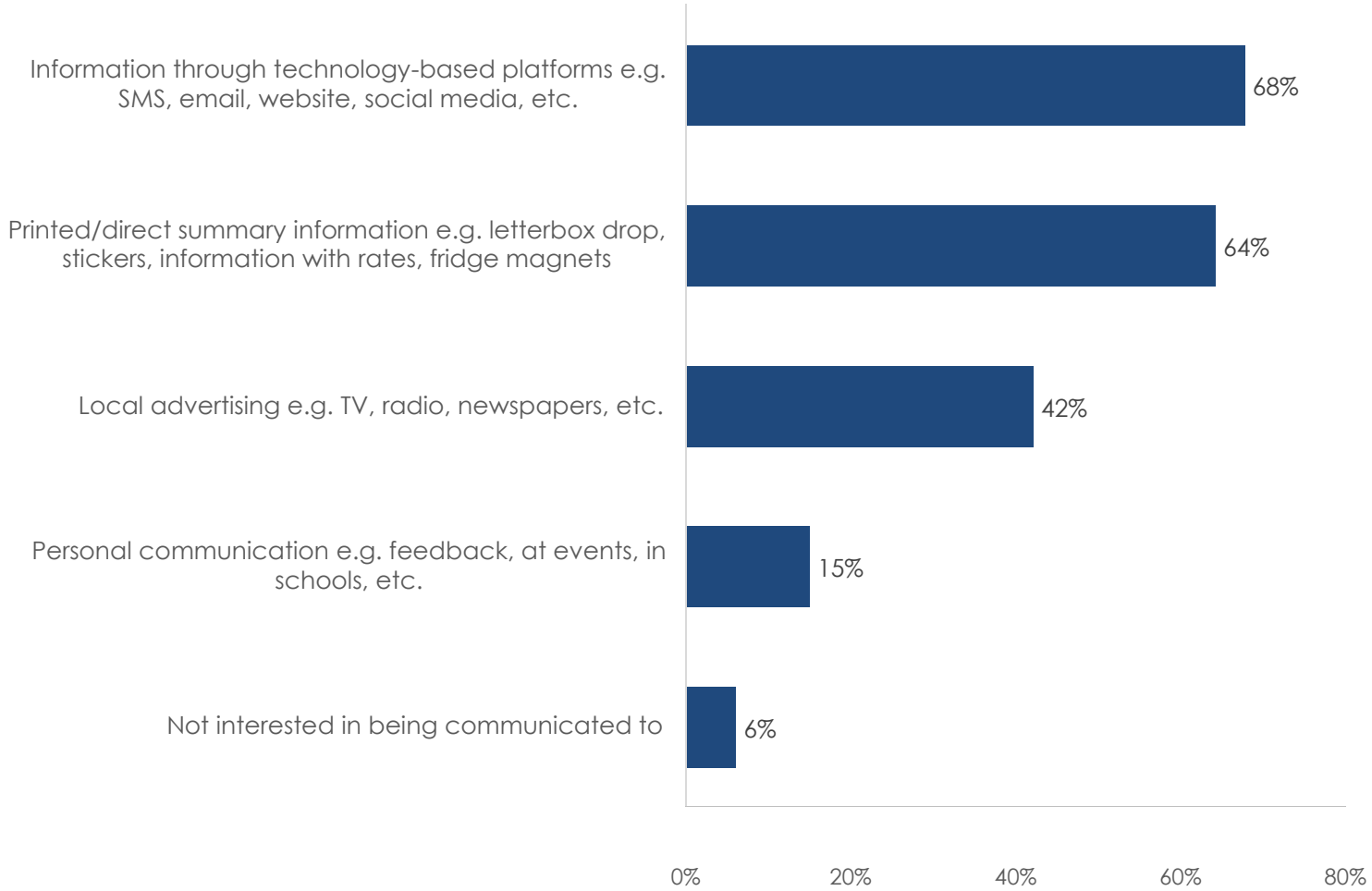
Base: N = 2,654 (total sample)

Please see Appendix B for results by demographics and other specified

Letter box drop was the most frequently mentioned way for Council to best engage with their community regarding waste and recycling, followed by stickers on bins and information posted on the Council website and social media platforms.

Engaging with the Community about Waste & Recycling

Q14. *Thinking now about how your local Council can engage with you… Which, if any, of the following are the best ways for your local Council to engage and provide you with information around waste and recycling?*



Base: N = 2,654 (total sample)

Although letter box drop was the most common communication method individually, looking at net groups we can see information through technology-based platforms was the preferred method overall, closely followed by printed/direct summary information. It can be suggested these methods provide residents the ability to keep the information on hand for quick reference when top of mind.

Engaging with the Community about Waste & Recycling

Q14. *Thinking now about how your local Council can engage with you… Which, if any, of the following are the best ways for your local Council to engage and provide you with information around waste and recycling?*

	Age			Gender		Time Lived in Area			
	18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
Information through technology-based platforms	71%	70%	63%	65%	70%	66%	69%	68%	68%
Printed/direct summary information	58%	63%	70%	63%	65%	62%	58%	60%	68%
Local advertising	35%	39%	52%	45%	40%	36%	40%	43%	44%
Personal communication	19%	13%	14%	13%	16%	19%	16%	15%	13%
Not interested in being communicated to	8%	6%	4%	7%	5%	6%	6%	5%	6%
Base	743	1,023	888	975	1,657	485	323	484	1,362

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
Information through technology-based platforms	66%	67%	69%	69%	70%	66%	65%	69%	67%
Printed/direct summary information	65%	67%	62%	59%	61%	66%	63%	67%	61%
Local advertising	44%	46%	36%	41%	36%	45%	43%	42%	42%
Personal communication	10%	16%	14%	18%	16%	15%	15%	15%	15%
Not interested in being communicated to	7%	4%	7%	7%	7%	6%	8%	5%	6%
Base	391	1,133	803	327	941	1,713	412	1,203	1,039

Base: (total sample)

A significantly higher/lower percentage (by group)

Younger respondents and females were more likely to state the best way to engage with them is through technology-based platforms, additionally younger respondents and females prefer personal communication. Those living in an area for 5 years or less were significantly more likely to prefer personal communication from Council.

Engaging with the Community about Waste & Recycling

Q14. *Thinking now about how your local Council can engage with you… Which, if any, of the following are the best ways for your local Council to engage and provide you with information around waste and recycling?*

	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin		
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware
Information through technology-based platforms	67%	71%	66%	61%	66%	70%
Printed/direct summary information	53%	65%	67%	60%	65%	65%
Local advertising	38%	42%	43%	39%	42%	43%
Personal communication	13%	15%	15%	13%	14%	16%
Not interested in being communicated to	11%	4%	6%	9%	7%	4%
Base	369	901	1,384	496	656	1,500

Base: (total sample)

A significantly higher/lower percentage (by group)

Those dining at home less frequently and those with low levels of awareness of disposing food scraps in the green bin appear to be more difficult to transition to new behaviours as they are marginally more likely to state they are not interested in being communicated to than other groups.

Red Bin Users

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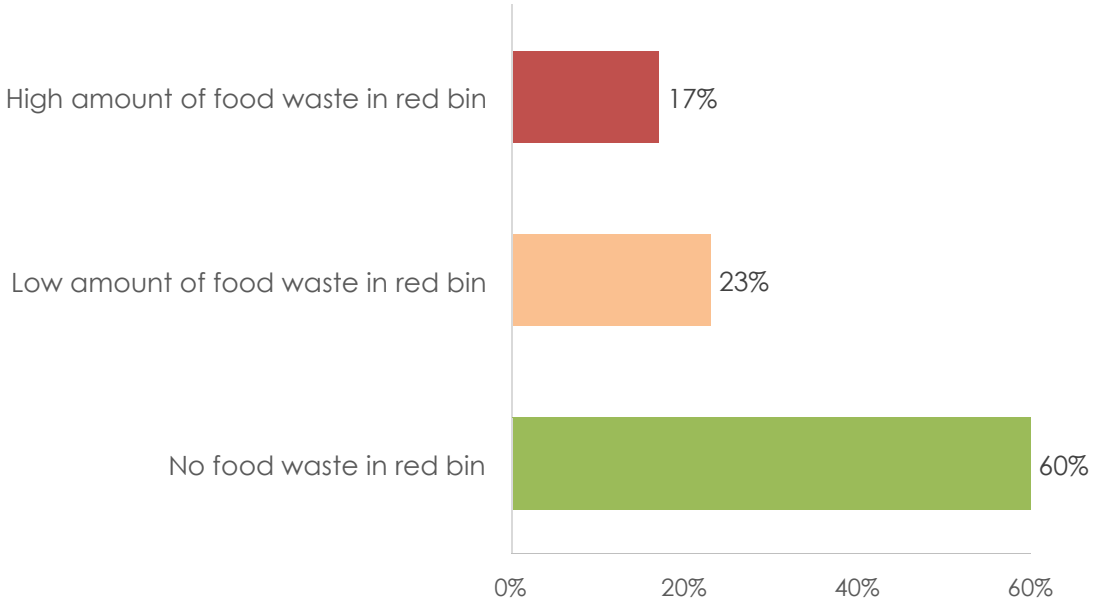
Volume of Food Waste in Red Bin

The purpose of this section is to identify potential opportunity target market(s) to improve the diversion efficiency of FOGO services so that more of the food waste put in kerbside bins is put into the existing FOGO bins rather than red bins. Our starting point is to identify those who are more likely to be placing food in the red garbage bin (note that we have not focussed on those who don't use FOGO because they may compost all their food – so instead, we are focussing on those who are more likely to use the red bin for food scraps).

Looking at the amount of waste placed in the red bin on Q6 we were able to identify 3 key groups of respondents; high volume, low volume and none based on their selection of 'all', 'most', 'some', 'only a little' and 'none' for each food waste type.

It should be noted that in order to create this group we removed the food waste options of 'pantry long-life packaged foods such as cereal, old cakes mixes, old packets of biscuits, etc.' and 'takeaway/home delivery food such as pizza, meals in plastic takeaway containers, etc.' to avoid any potential confusion around food and packaging.



Base: N = 2,654 (total sample)

Group Definition:

In order to create these groups we assigned a value to each option selected i.e.: 'all' (4), 'most' (3), 'some' (2), 'only a little' (1) and 'none' (0). We then calculated the total value per respondent to determine their grouping e.g. we had the 8 food waste types and the highest value is 4 then if a respondent selected all (4) for every food type their total score would be 32.

High red bin users were identified to have a total score of 11 to 32 for putting food in their red bin.

Low users had a total score of 1 to 10.

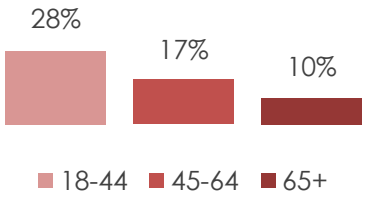
Respondents with a total score of zero (selecting 'none'/no response for all) were classified as 'no food waste in the red bin'.

Our segmentation has identified 17% of residents who are placing a relatively high amount of food waste in the red bin (compared to other residents). On the next page we will show the profile of these high volume red bin users.

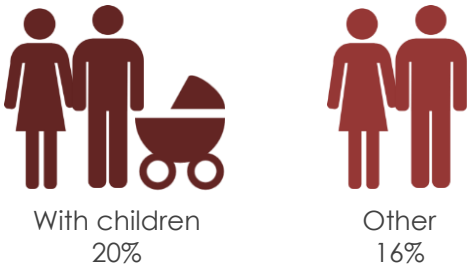
Profile of High Volume Red Bin Users - % to Total Sample N = 2,654

Gender

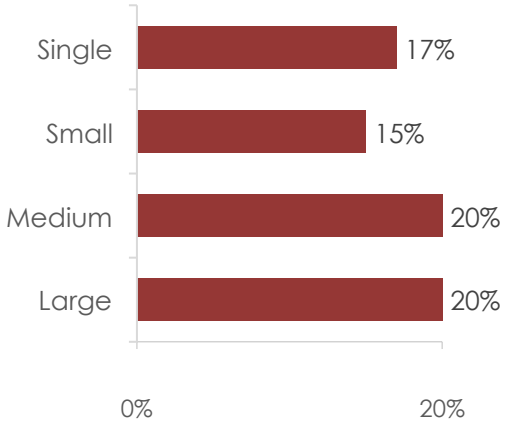
Age



Household Type

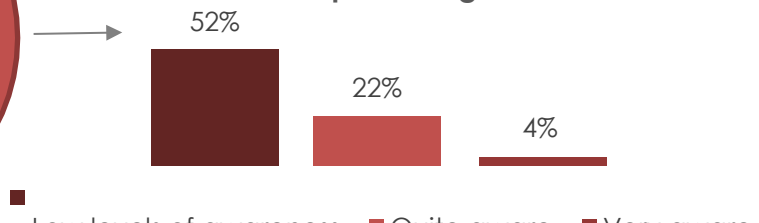


Household size

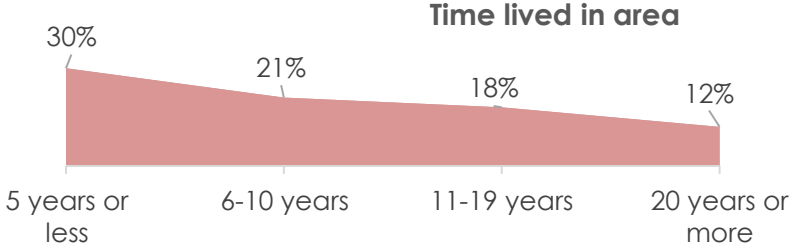


17% of our total sample are 'high volume red bin users'

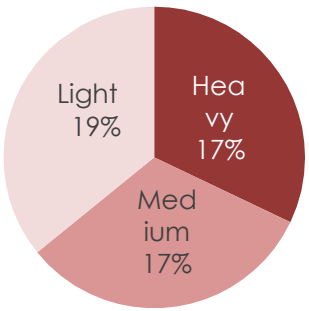
Awareness of ability to put food scraps in the green bin



Time lived in area



Kitchen Involvement



Base: N = 2,654

Based on the above results we can determine that those respondents placing a high volume of food in the red bin are more likely to be younger and have low levels of awareness of FOGO disposal.

Profile by User Type

	Overall	Age			Gender		Time Lived in Area			
		18 - 44	45 - 64	65+	Male	Female	5 years or less	6 – 10 years	11 – 19 years	20+ years
No food waste in red bin	60%	46%	62%	70%	56%	62%	49%	54%	62%	65%
Low amount of food waste in red bin	23%	26%	22%	21%	25%	21%	21%	24%	20%	24%
High amount of food waste in red bin	17%	28%	17%	10%	19%	17%	30%	21%	18%	12%
Base	2,654	743	1,023	888	975	1,657	485	323	484	1,362

	Household Size				Household Type		Kitchen Involvement		
	Single	Small	Medium	Large	With children	Other	Light	Medium	Heavy
No food waste in red bin	62%	63%	56%	57%	57%	62%	56%	60%	62%
Low amount of food waste in red bin	22%	22%	24%	23%	23%	22%	25%	23%	21%
High amount of food waste in red bin	17%	15%	20%	20%	20%	16%	19%	17%	17%
Base	391	1,133	803	327	941	1,713	412	1,203	1,039

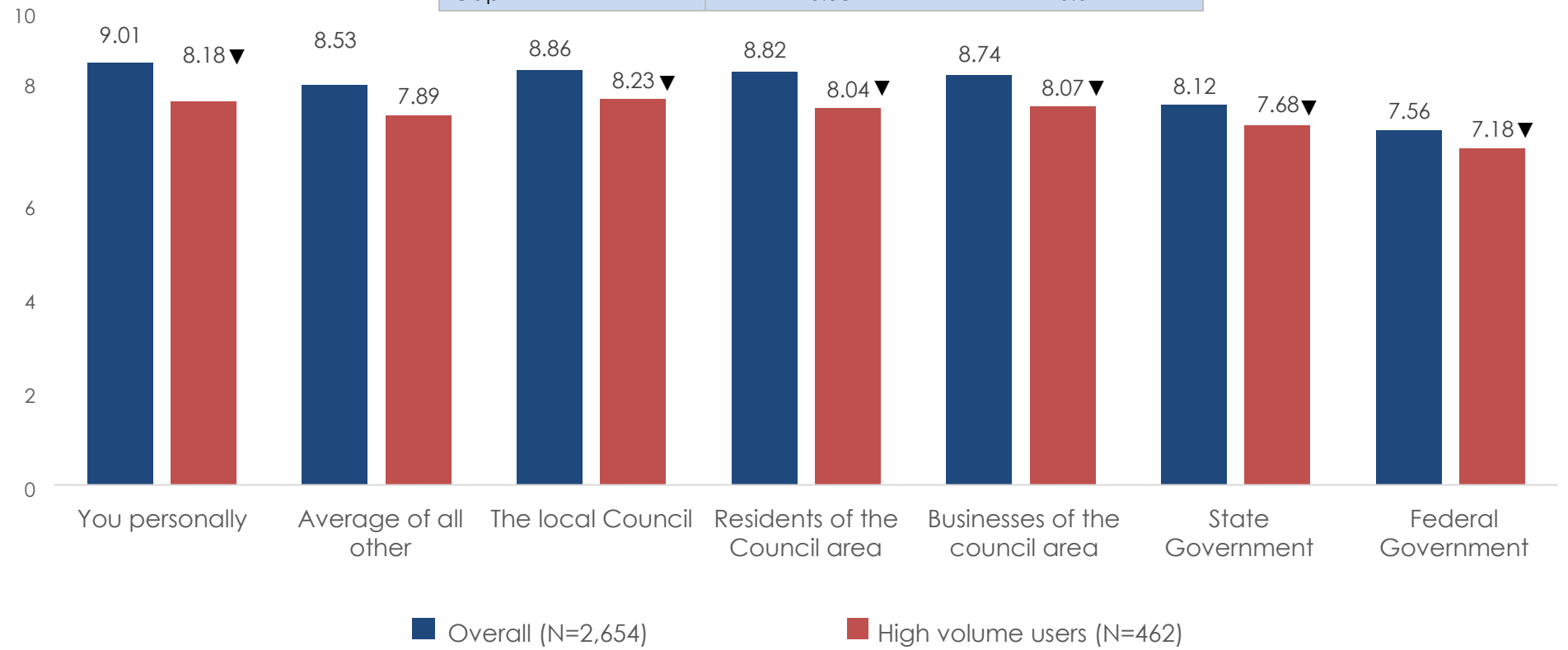
	Frequency of Household Dinner Prep/Consumption			Awareness of Ability to put Food Scraps in the Green Bin			Ratepayer status		NESB	
	Light	Medium	Heavy	Low levels of awareness	Quite aware	Very aware	Ratepayer	Non-ratepayer	Yes	No
No food waste in red bin	45%	58%	66%	18%	50%	78%	63%	46%	52%	61%
Low amount of food waste in red bin	26%	24%	20%	29%	28%	18%	22%	24%	18%	23%
High amount of food waste in red bin	29%	18%	14%	52%	22%	4%	14%	31%	31%	16%
Base	369	901	1,384	496	656	1,500	2,156	498	200	2,454

The tables above provide demographic profiles of all three red bin user groups, to allow for comparisons. For instance, overall 60% put no food waste in the red bin – but amongst 18-44 year olds significantly fewer (only 46%) put no food waste in the red bin, whilst amongst those aged 65+ significantly more (70%) put no food in the red bin.

Responsibility for Reducing Waste – Responsibility Gap

Q4. *How responsible, if at all, do you think each of the following people or groups should be for reducing the amount of waste that is sent to landfill?*

	Overall	High volume user
Personal responsibility	9.01	8.18▼
Average of all others	8.43	7.86▼
Gap	0.58	0.32



Base: (total sample/respondents who place a high volume of food waste in the red bin)
▲▼= significantly higher/lower (compared to overall)

Note: Don't know responses are not included in the mean
Scale: 0 = not at all responsible, 10 = very responsible

The High Volume Red Bin Users generally gave lower responsibility scores than did the total sample across all groups. However, note that the gap between their personal responsibility and average responsibility of all others is smaller than for the total sample (0.32 cf. 0.58) – this may suggest that the High Volume Red Bin Users take less personal ownership/have a greater sense of shared or diffused responsibility than do the others.

Disposal of Household Waste – Summary

Q5. How do you or members of your household usually dispose of the following types of household waste?

The table below summarises the results, with each possible combination of waste type and disposal method shown.

We have highlighted those cells where an item could be more appropriately disposed of. Whilst many of the highlighted cells report very small percentages, others suggest areas where Councils can focus their attention in the future.

Waste Type► Disposal Method▼	Any type of food scraps	Soft plastics	Paper and cardboard	Glass jars and plastic bottles	Beverage containers	Garden waste/plant cuttings
Red lid garbage bin	11% **(47%)**	71% **(69%)**	2% **(4%)**	4% **(10%)**	2% **(5%)**	1% **(3%)**
Yellow lid recycling bin	1% **(2%)**	12% **(24%)**	92% **(92%)**	93% **(87%)**	51% **(56%)**	1% **(2%)**
Green lid organics bin	72% **(43%)**	1% **(2%)**	7% **(4%)**	1% **(2%)**	1% **(2%)**	92% **(91%)**
Compost (home or community) or worm farm	23% **(21%)**	<1% **(1%)**	4% **(3%)**	<1% **(2%)**	<1% **(1%)**	17% **(11%)**
Return and Earn Machine or Centre	<1% **(1%)**	1% **(1%)**	<1% **(1%)**	2% **(3%)**	51% **(41%)**	<1% **(0%)**
Feed to animals/pets	15% **(10%)**	0% **(0%)**	<1% **(1%)**	<1% **(1%)**	<1% **(<1%)**	2% **(1%)**
Recycling service, e.g. REDcycle program	<1% **(<1%)**	15% **(4%)**	1% **(2%)**	1% **(2%)**	4% **(4%)**	<1% **(0%)**
Other	1% **(1%)**	4% **(3%)**	2% **(2%)**	3% **(2%)**	1% **(<1%)**	2% **(2%)**
Don't know	<1% **(<1%)**	1% **(1%)**	<1% **(<1%)**	<1% **(1%)**	<1% **(<1%)**	<1% **(<1%)**
N/A - we don't have this type of waste	<1% **(0%)**	<1% **(0%)**	<1% **(0%)**	<1% **(0%)**	<1% **(0%)**	<1% **(<1%)**

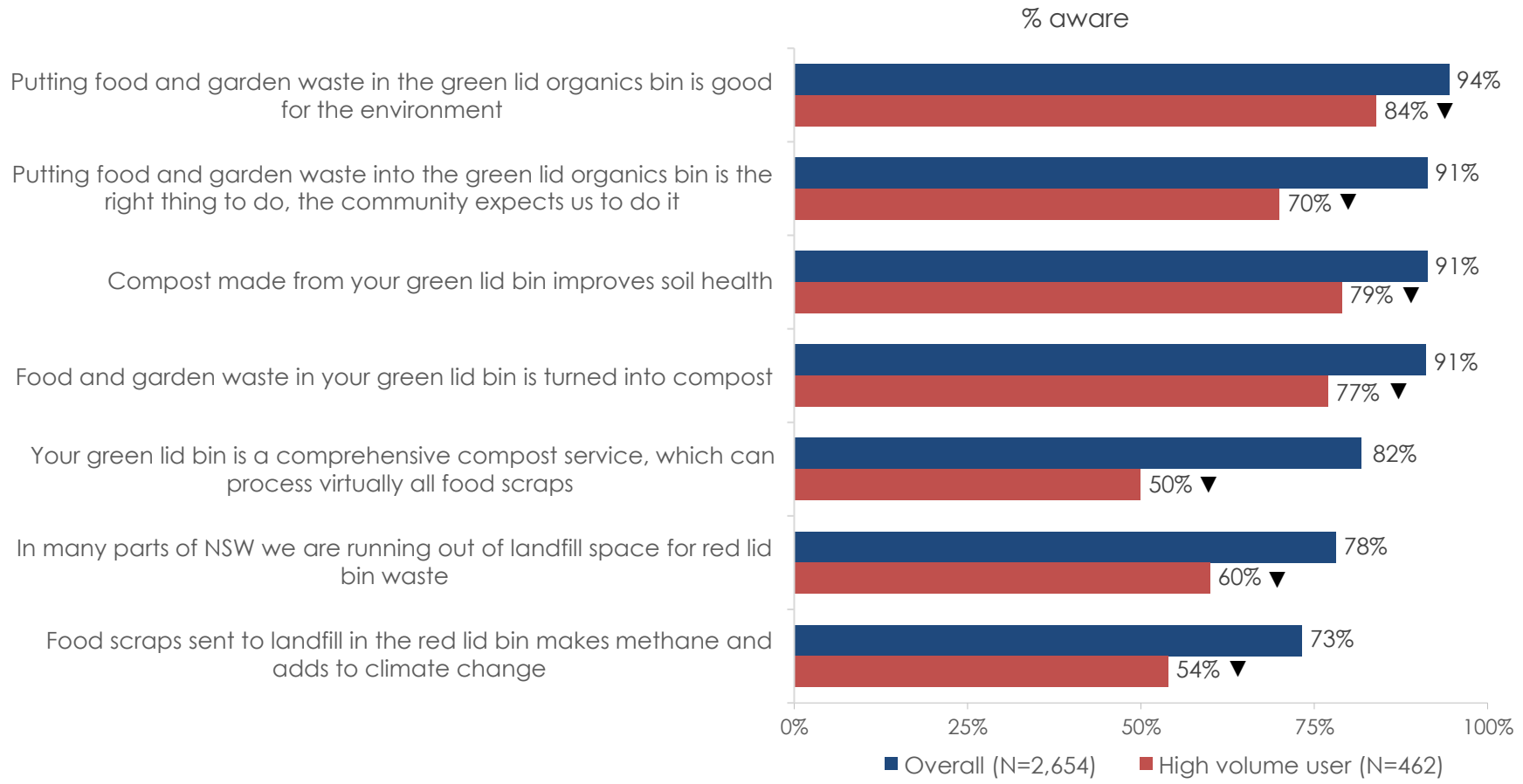
Main incorrect disposal methods

Base: Overall N = 2,654, high volume red bin user N = 462 (shown in brackets)

This table appeared earlier (see Page 28) – however, in the above version we have added the results of high volume red bin users (in brackets). This group has a significantly greater number placing any type of food scraps in the red bin – and a higher proportion are putting soft plastics in the yellow bin and more glass jars/plastic bottles in the red bin. In other words, their waste/recycling behaviours beyond food disposal are a little sub-par.

Awareness of FOGO Outcomes

Q13. *Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. Before today, were you aware of that outcome?*



Base: (total sample/respondents who place a high volume of food waste in the red bin)

▲▼= significantly higher/lower (compared to overall)

Awareness of FOGO outcomes was significantly lower amongst those using the red bin more frequently on all seven outcome messages.

Likelihood of Placing Food Scraps in the Green Bin Based on Outcomes

Q13. Listed below are several potential outcomes of putting both garden waste and food scraps into your green lid organics bin. To what extent, if at all, does/would that outcome make you more or less likely to use your green lid organics bin for food scraps?

	Overall	High volume user
Your green lid bin is a comprehensive compost service	0.87	0.71▼
Food and garden waste in your green lid bin is turned into compost	0.87	0.66▼
Putting food and garden waste in the green lid organics bin is good for the environment	0.87	0.67▼
In many parts of NSW we are running out of landfill space for red lid bin waste	0.87	0.66▼
Compost made from your green lid bin improves soil health	0.85	0.66▼
Putting food and garden waste into the green lid organics bin is the right thing to do, the community expects us to do it	0.78	0.57▼
Food scraps sent to landfill in the red lid bin makes methane and adds to climate change	0.71	0.47▼
Base	2,654	462

▲▼= significantly higher/lower (compared to overall)

Base: (total sample/respondents who place a high volume of food waste in the red bin)

Scale: -2 = a lot less likely, 2 = a lot more likely

Likelihood of changing behaviours after reading the outcomes were lower for high volume users compared to the overall.

Benefits/Likes of the Food and Garden Waste Bin System

Q7c. *Regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as a benefit to/really like about the food and garden waste bin system?*

Benefits/Likes	Overall N = 2,654	High volume user N = 462
Net: Environmental benefits	**76%**	**68%▼**
Can be reused/for compost/food scraps put to good use	41%	28%▼
Less waste to landfill/in the garbage and other bins	33%	24%▼
Good for disposing/reusing garden/green waste	9%	13%▲
Good for the environment/sustainable/beneficial to the planet/less emissions	9%	9%
It is a great/beneficial service	4%	3%
Educational for the community e.g. encourages children to recycle, creates awareness of waste	2%	<1%
Net: Operational benefits	**25%**	**22%**
Convenience of weekly collection/reduces the smell	11%	8%
Easy/convenient/efficient way to dispose of waste	5%	5%
Allows for better sorting of waste	2%	3%
Receiving biodegradable bin liners/green bags - easy to use/clean/identify	2%	1%
Reduces smell of other bins	2%	1%
Net: Don't know/I do not see the benefits/do not use it/room for improvement	13%	23%▲

Note: responses <2% have not been shown above
Base: (total sample/respondents who place a high volume of food waste in the red bin)

▲▼= significantly higher/lower (compared to overall)

High volume red bin users were significantly less likely to identify benefits of the food and garden waste system (87% overall compared to 77% of high volume red bin users).

High Volume Red Bin User Challenges/Dislikes

Q7d. And regardless of whether or not you put food scraps into your green organics bin, what, if anything, do you see as challenging/ really dislike about the food and garden waste bin system?

Challenges/Dislikes	Overall N = 2,654	High volume user N = 462
The green bin can become smelly/messy/mouldy	24%	23%
Food scraps attract flies, cockroaches, rats, maggots etc.	13%	11%
Issues with green bags e.g. need more, too small, too expensive/Council to provide more kitchen caddy's and bags	6%	5%
Lack of knowledge/education/unsure of what goes into the garbage/others don't follow the guidelines/don't know what days to take the FOGO bin out	5%	8%▲
Not convenient/laziness/hard to change habits/time consuming	5%	11%▲
Small bins/our organics bin is often/always full of garden waste/no room for food scraps	5%	4%
The bins are not collected/serviced weekly/often enough	4%	5%
We don't have/use the green bin/don't produce much food waste/shouldn't have to pay for it	3%	5%▲
Don't like a small kitchen caddy/no room in kitchen/outside for separate bin	2%	3%
I just don't like the system/nowhere for soft plastics/residents should have their own composting systems	2%	2%
It's too messy/fiddly to empty jars and containers of out of date food/hard to separate	2%	4%▲
The green bin is hard to clean/unhygienic/don't like cleaning it	2%	2%
We have to wrap food/freeze/store/try to mask the smell before collection	2%	1%
Bins are too big/collected too frequently	1%	<1%
It's a useless unless we can ban plastics altogether or increase fully recyclable options	<1%	0%
It is a waste of ratepayers' money	<1%	0%
I wish the big bins had locks for privacy and security	<1%	0%
Knocked over by dogs in the streets	<1%	0%
No incentives for home composting	<1%	0%
Not sure whether to keep the lid closed or open	<1%	0%
Nothing/no challenges/complaints/happy with the current system/don't know	47%	39%▼

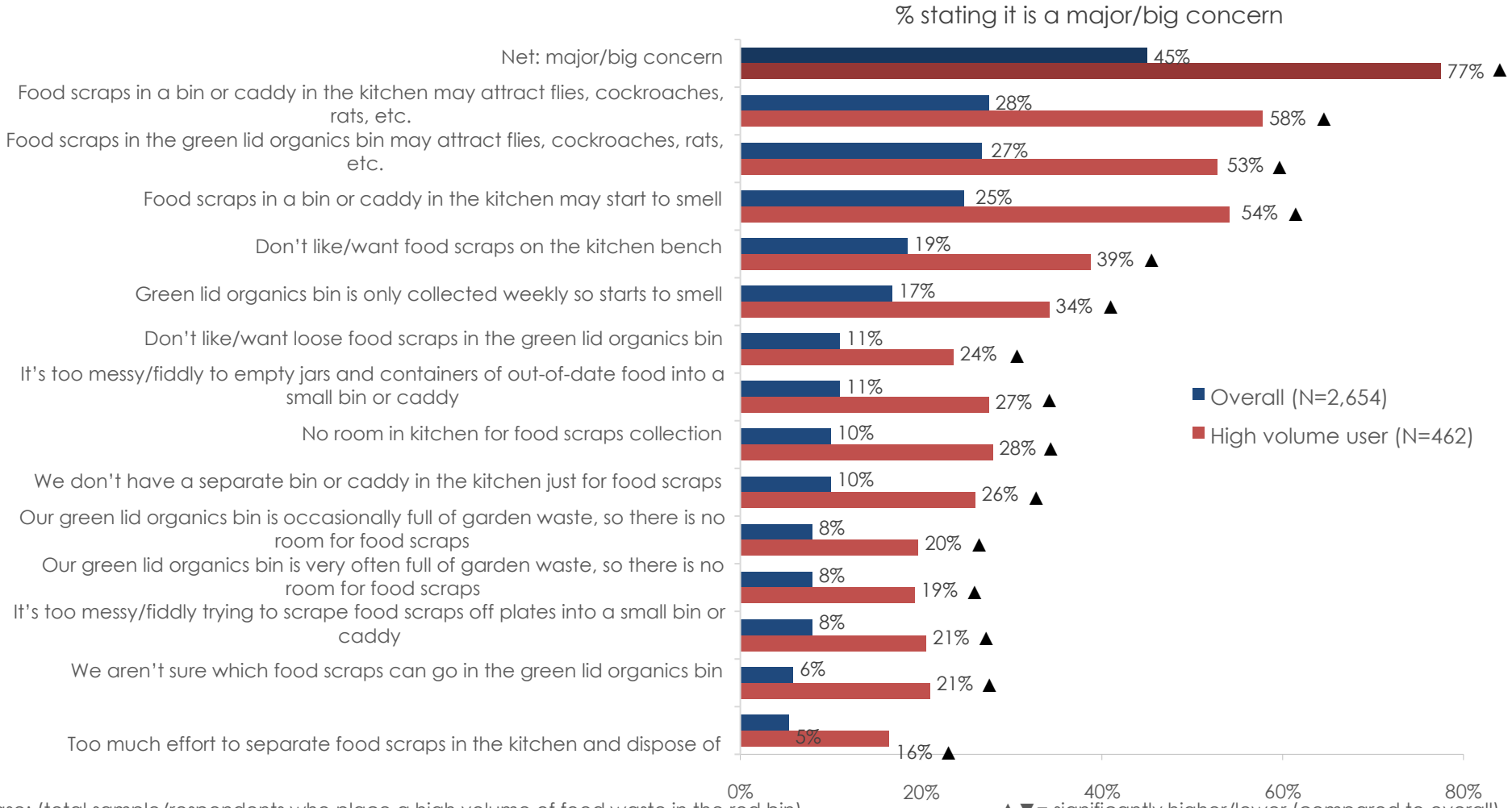
Base: (total sample/respondents who place a high volume of food waste in the red bin) ▲▼= significantly higher/lower (compared to overall)

47% of the total sample was unable to mention any challenges/dislikes unaided – whilst this was only 39% amongst the High Volume Red Bin Users, perhaps the surprise is that the difference wasn't greater.

There are some significant differences in terms of specific answer codes, although most are too small to be 'meaningful' from a policy sense. That said, the 11% of 'not convenient/laziness…' mentions amongst the High Volume Red Bin Users is worth noting.

High Volume Red Bin User Concerns

Q8. *Previous research has shown that some people have issues or concerns about putting some or all of their food scraps into their green lid organics bin – even those who put food into their organics bins may have issues or concerns. For each of the issues listed below, could you please indicate how much of a concern, if any, it is for you.*



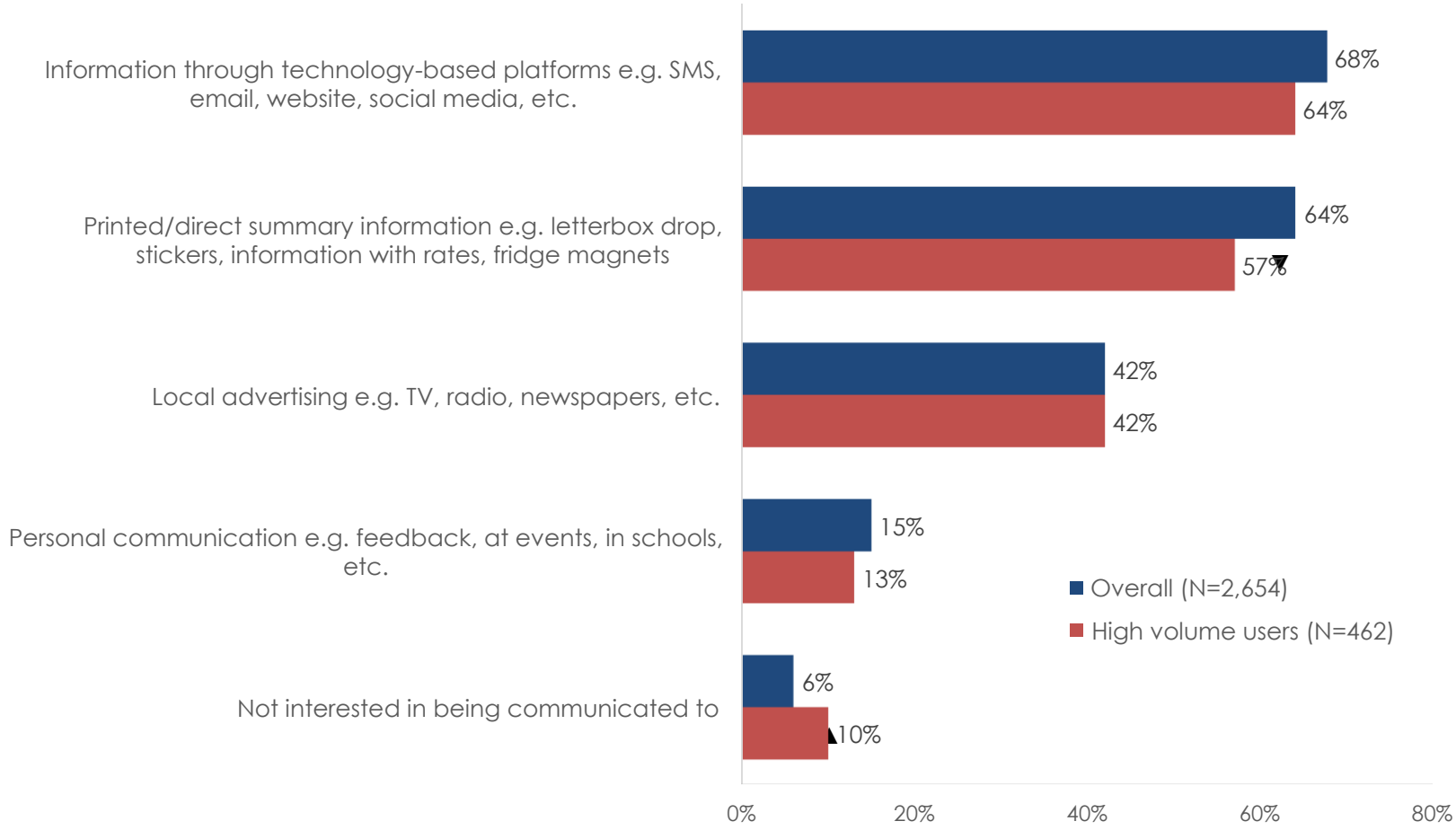
Base: (total sample/respondents who place a high volume of food waste in the red bin)

▲▼= significantly higher/lower (compared to overall)

On the previous page we noted that the 'no concern' scores for total sample and the High Volume Red Bin Users were perhaps closer than we would have expected. However, on this aided question concern for prompted issues was much greater amongst those using the red bin more frequently, with 77% stating at least one of the issues is a major/big concern (and 5.7 issues per person) compared to 45% of the total sample (and 4.2 issues per person). This may suggest an attitudinal rather than process barrier to using methods other than the red bin to dispose of food scraps.

Engaging with High Volume Red Bin Users

Q14. *Thinking now about how your local Council can engage with you… Which, if any, of the following are the best ways for your local Council to engage and provide you with information around waste and recycling?*



Base: (total sample/respondents who place a high volume of food waste in the red bin)

▲▼= significantly higher/lower (compared to overall)

Technology-based communication was preferred by 64% of high volume users, followed by printed/direct summarised information (57%).

Encouragingly, only 10% of the High Volume Red Bin Users do not wish to be communicated with.

3. Appendix A: Background & Methodology

Background & Methodology

Sample selection

An initial total of 2,702 online surveys were completed. However, after the removal of some sub-standard surveys (i.e.: clearly not completed properly) we were left with a final complete data set of 2,654 surveys.
A sample size of 2,654 residents provides a maximum sampling error of plus or minus 1.9% at 95% confidence. This means that if the survey was replicated with a new universe of N=2,654 residents, 19 times out of 20 we would expect to see the same results, i.e. +/- 1.9%.

For the survey under discussion the greatest margin of error is 1.9%. This means, for example, that an answer such as 'yes' (50%) to a question could vary from 48% to 52%.

Interviewing

Interviewing was conducted in accordance with The Research Society Code of Professional Behaviour.

Prequalification

Participants in this survey were pre-qualified as being over the age of 18, having an organics bin for garden and other waste, having their own separate bin (i.e. do not share bins with others), and living in one of 26 known FOGO LGA's.

Data analysis

The data within this report was analysed using Q Professional.

Significance difference testing is a statistical test performed to evaluate the difference between two measurements. To identify the statistically significant differences between the groups of means, 'One-Way Anova tests' and 'Independent Samples T-tests' were used. 'Z Tests' were also used to determine statistically significant differences between column percentages.

Within the report, blue and red font colours are used to identify statistically significant differences between groups, i.e., gender, age, LGA type, time lived in area, household size, household type, level of kitchen involvement, frequency of household dinner prep/consumption and awareness of being able to put food scraps in the green lid organics bin.

Percentages

All percentages are calculated to the nearest whole number and therefore the total may not exactly equal 100%.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