



LIFTING THE LID

STUDENT ATTITUDES AND BEHAVIOURS TOWARDS RECYCLING AND WASTE



national union of students



CONTENTS

- 4 • EXECUTIVE SUMMARY
- 6 • INTRODUCTION
- 7 • METHODOLOGY
- 9 • RESEARCH FINDINGS
- 38 • OPPORTUNITIES FOR HIGHER EDUCATION
- 40 • ACKNOWLEDGEMENTS AND MORE INFORMATION

EXECUTIVE SUMMARY

Recycling and sustainable practices have never been more important to higher education institutions. Aside from the reputational benefits of being recognised as an environmentally responsible organisation, successful recycling and resource management practices also bring financial benefits. As of this year (2013), higher education institutions will be required to report the emissions associated with waste arisings as part of carbon accounting requirements set by the Higher Education Funding Councils. Landfill tax has also just increased to £72 per tonne and will rise again in 2014 to £80 per tonne, increasing the financial incentive to avoid sending any recyclable or recoverable materials to landfill.

Understanding the behaviour and attitude of students towards recycling and waste is key to institutions that are looking to improve their environmental performance through less carbon-intensive disposal methods. Yet relatively little is known about how students feel about recycling and what affects their actions when it comes to disposing of waste.

The research for this report has focused on students in higher education, aiming to improve our understanding of student attitudes and behaviours to waste and recycling, what motivates them and what barriers they are facing when trying to recycle, and their experiences of recycling whilst at university.

To gather information in these areas, an online survey was distributed and secured responses from 2,563 students. The research was promoted as a 'campus lifestyle' survey in order to counteract any bias and ensure the survey sample was reflective of the UK student population as a whole.

HEADLINE FINDINGS

Whilst the research uncovered positive progress in recycling participation amongst the student population, it also highlighted a wide range of missed opportunities that would increase and improve recycling and other waste behaviours.

- + There is a gap between the proportion of committed recyclers within the student population and the UK as a whole – just over half (54.8 per cent) of students are committed recyclers compared to 75 per cent of the UK population.
- + Almost 10 per cent (8.2 per cent) of students do not recycle at all – around half of these (47.2 per cent) are first year students.
- + Approximately half of respondents think they are doing all they can in terms of the range and volume of materials recycled, but the remainder need further support in order to achieve this, particularly on campus.
- + Respondents living in halls of residences and first year students are more likely to need additional support to achieve improvements in recycling and waste behaviour. Over a quarter of respondents in university-owned halls of residences are not aware of the recycling collection from where they live during term time.
- + Respondents living off-campus are less likely to be aware of the campus recycling system. Under half of respondents (46.9 per cent) living in privately rented houses were aware of the recycling scheme on campus.
- + Recycling behaviour is fairly consistent with over half of respondents reporting that they recycle the same at university as they do during university holidays, and in comparison with this time last year. First year students are, however, more likely to be recycling less at university than other year groups (for example, 14.5 per cent of first years report recycling less at university than during holidays, compared to 10.6 per cent of second year students).
- + Environmental benefits are reported to be a key motivator for respondents who recycle, along with a belief that they are doing the right thing (75.5 per cent recycle to avoid waste going to landfill and 67.8 per cent think that by recycling they are doing the right thing).
- + A lack of awareness of the recycling collections from where they live (39 per cent) and a perception that no one else in their accommodation recycles (24.3 per cent) are the main barriers facing those who are not currently recycling. Working to improve awareness and develop initiatives which encourage recycling as a social norm will be crucial in overcoming these barriers.
- + Respondent suggestions for improvements to recycling systems both on campus and in term time accommodation are focused on increasing bin provision, with 51.7 per cent proposing an increased number of bins on campus, and 47.7 per cent proposing this change in their term time accommodation. It will be important to consider the visibility and location of bins, as well as the physical number, when making improvements.
- + Half of respondents do not recall receiving information on recycling, either on campus (50.1 per cent) or in their term time accommodation (50 per cent) since joining university. This suggests there is an opportunity for increased and improved communication from higher education institutions.
- + Respondents report a preference for online communication, such as emails, from their university (25.5 per cent). However, recall of 'physical' communication is greater with 28.8 per cent recalling posters by their university on recycling. Knowing what can and cannot be recycled is the most common type of information recalled by respondents.

INTRODUCTION

The latest government figures suggest once more that household recycling is increasing across the UK. The proportion of household waste sent for recycling, composting or re-use in England between January and December 2011 was 42.9 per cent. However, previous research has shown that commitment to recycling varies significantly by socio-demographic factors, one of these being age.

Though the influence of age remains a contentious issue, research for the Cabinet Office¹ found that younger people aged 16 to 34 were more likely to be apathetic towards recycling and more inclined to adopt a consumerist approach. More recently, research conducted by YouGov on recycling of bulky items – such as electrical items or furniture – found that those aged 18 to 24 were least likely to dispose of items in an environmentally friendly way², with less than half recycling (46 per cent of a sample of 2,024 British adults) compared to 62 per cent of those aged 35 to 44. But how do these findings translate to the higher education student population in particular? This research aimed to uncover the attitudes and behaviours of the UK student population towards recycling and waste.

Understanding more about students' attitudes and behaviour towards waste is key to most higher education institutions, particularly given the forthcoming introduction of scope three emissions (which includes emissions associated with waste) as part of the carbon emissions reporting requirements set by Higher Education Funding Councils. Institutions looking to reduce their emissions through less carbon intensive disposal approaches, such as recycling, will need an improved understanding of the behaviour and attitudes of their students.

Expanding more broadly, given the changes in the funding landscape of higher education, performance on issues of sustainability is one aspect that students may increasingly consider. For example, NUS Services research on behalf of the Higher Education Academy revealed that approximately 80 per cent of respondents felt that sustainable development was something their university should actively incorporate and promote³. Again, understanding current perceptions of services offered in this area will be essential to improvement.

Looking beyond targets, higher education can be seen as a key moment of change in an individual's lifetime, often involving moving away from home for the first time. Research has suggested that these 'moments of change' are significant opportunities for influencing behaviour. During their time in higher education, young people begin to forge independent identities and develop the competencies and skills that will guide them through later life. University students can therefore be described as a 'captive audience' for targeting with appropriate behaviour change interventions.

NUS Services research in this field on behalf of Defra⁴ found that in terms of energy use, interventions based on price, competition and raising awareness may influence behaviour positively at this moment of change. This research presents an opportunity to investigate how recycling behaviour might also be positively influenced at this moment of change.

METHODOLOGY

RESEARCH APPROACH

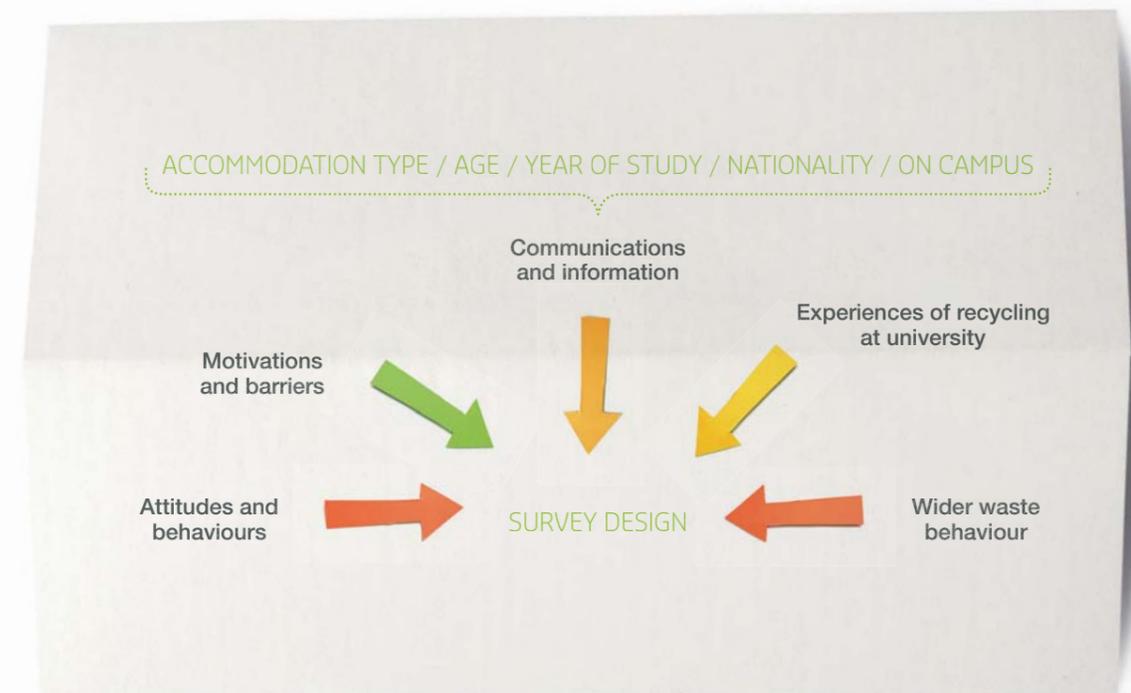
The overarching aim of this research was to deepen the understanding of student attitudes and behaviour towards recycling and waste.

An online survey, applying quantitative methodologies to measure student attitudes and behaviours, was completed. The NUS Extra mail database was used to provide access to 50,000 students across the UK who were targeted with an HTML email. The HTML email directed respondents to an allocated web page for the project where the survey could be accessed.

The survey was promoted as a 'campus lifestyle' survey to avoid biasing the sample towards those with predispositions either towards or against environmental issues. Completion was incentivised with a £750 prize fund.

The survey was designed to capture data on a range of issues relating to recycling and waste, from current levels of recycling to motivations and barriers, and experiences of recycling services during their time in higher education. *Figure one* below describes the main question fields included within the survey.

➤ FIGURE ONE SURVEY FLOW



¹ <http://webarchive.nationalarchives.gov.uk/+/http://www.cabinetoffice.gov.uk/media/cabinetoffice/strategy/assets/mori.pdf>

² <http://yougov.co.uk/news/2010/03/13/1-3-brits-admit-they-dont-recycle-household-goods/>

³ http://www.heacademy.ac.uk/assets/documents/esd/Student_attitudes_towards_and_skills_for_sustainable_development.pdf

⁴ <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16193>

THE SURVEY SAMPLE

The survey achieved a sample of 2,563 responses. This level of responses is statistically representative of the UK student population at a 99 per cent confidence level, with a 2.6 per cent margin of error. Students at the Open University were excluded due to the remote nature of study in operation at the institution.

As directed, respondents will not necessarily have answered every question in the survey and, in some instances, will have given more than one response. As such, the number of responses taken into account have been included in brackets next to the relevant question / option in this report.

Throughout the following section, results are frequently broken down according to accommodation type. The following provides an indication of the respondent characteristics in each accommodation type.



Halls of residences	Privately rented accommodation	With parents	In own home
72.3 per cent of respondents living in university-owned halls of residence are 18 to 20 years old.	37.8 per cent of respondents in privately rented houses are aged 18 to 20 years, but only 16.9 per cent of respondents in privately rented apartments / flats fall into this age range.	49 per cent of respondents living with their parents are 18 to 20 years old.	1.6 per cent of respondents living in their own home are 18 to 20 years old.
71.9 per cent are UK citizens in university-owned halls.	80.4 per cent privately renting houses are UK citizens.	96.1 per cent are UK citizens.	95.2 per cent are UK citizens.
99.4 per cent in university-owned halls are full time students.	93.3 per cent in privately rented houses are full time students.	88.6 per cent are full time students.	53.8 per cent are full time students.
76.1 per cent in university-owned halls are first year students.	35.7 per cent in privately rented houses are second year students.	40.8 per cent are first year students.	34.4 per cent are first year students.

RESEARCH FINDINGS

This section of the report presents in detail the findings from the survey research according to the following themes:

- + Attitudes and behaviours towards recycling
- + Awareness of recycling facilities
- + Use of recycling facilities
- + Influence of university on recycling behaviour
- + Motivations and barriers to recycling
- + Improving recycling performance
- + Wider waste behaviours: re-use and prevention
- + Information and communications
- + Participation in environmental initiatives

ATTITUDES AND BEHAVIOURS TOWARDS RECYCLING

A series of value and behaviour statements were asked in order to classify respondents according to the WRAP (Waste and Resources Action Programme) committed recycler metric – a measure of commitment to recycling that has been used across the UK as a whole.

Figure two shows that just over half of respondents can be classified as committed recyclers (54.8 per cent). This is lower than the proportion of committed recyclers found in the UK population as a whole, which latest figures suggest to be around 75 per cent⁵. Previous research highlighted that younger people tend to lead more transient, time pressured lives affecting their ability to develop habitual behaviours such as recycling⁶. Specific barriers for the student population are identified later in this report (see ‘Motivations and barriers to recycling’).

Of particular note for higher education institutions are the almost 10 per cent of student respondents who report not recycling at all. This represents a clear opportunity for engagement with this sector, along with the non-committed recyclers, to improve recycling performance across the institution. The demographic characteristics of these non-recyclers are highlighted here.

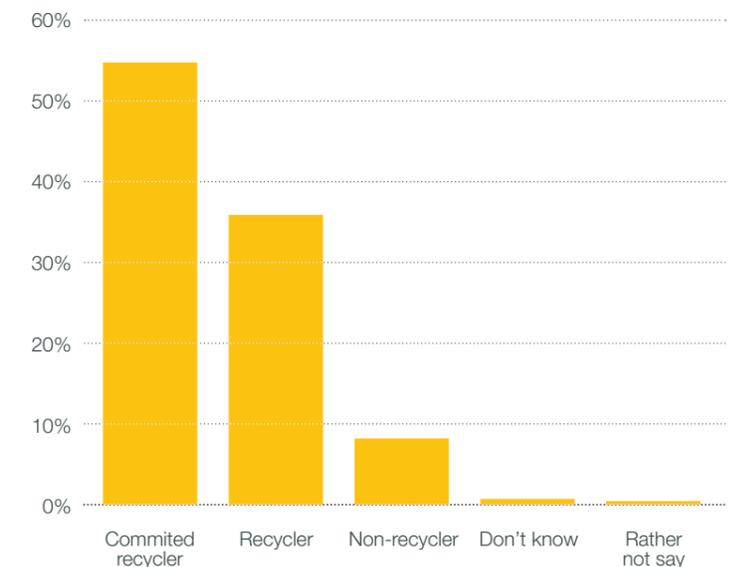
COMMITTED RECYCLERS

A committed recycler is described as someone who...

- + Says recycling is very or quite important to them.
- + Says they recycle a lot or everything that can be recycled.
- + Says they recycle even if it requires additional effort.

In October 2011, 75 per cent of the UK population classified themselves as committed recyclers.

FIGURE TWO COMMITTED RECYCLER METRIC [2,563]



⁵ Personal communication with WRAP.

⁶ http://www.wrap.org.uk/sites/files/wrap/Barriers_to_Recycling_at_Home_Technical_Report.pdf

Looking in more depth at the level of effort respondents are willing to go to in order to recycle their waste, there are some clear differences according to the type of accommodation they reside in during term time. *Figure three* demonstrates that those living in their own home are most likely to recycle even if it requires additional effort (79.6 per cent). Respondents living in university-owned halls are significantly less likely to recycle if it requires additional effort than those living in privately rented houses (63.8 per cent compared to 55.4 per cent). Respondents living in privately owned halls of residence were even less likely to make additional effort to recycle, with only 40.1 per cent agreeing compared to 55.4 per cent in university-owned halls of residence.

NON-RECYCLERS

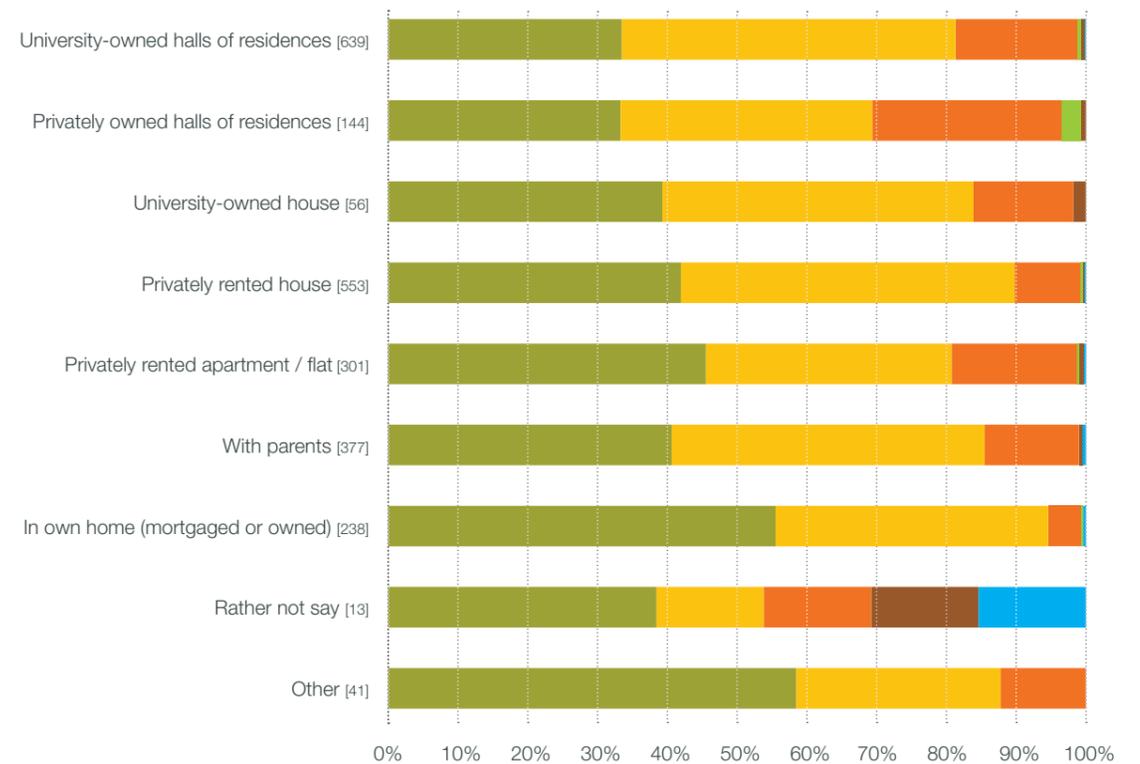
- + 73.7 per cent are UK citizens studying in the UK.
- + 52.8 per cent are aged between 18 and 20 years old.
- + 92.9 per cent are full time students.
- + 47.2 per cent are first year students.
- + 24.6 per cent live in privately rented houses and 21.1 per cent live in University-owned halls of residence.
- + 26.1 per cent live with / share a kitchen with one other person and 20.2 per cent live with three other people.

Continuing to look in more detail at the recycling behaviour of respondents, *figure four* again highlights differences according to accommodation type in terms of the proportion of waste respondents report to be recycling.

FIGURE FOUR AMOUNT RECYCLED

Which of these statements best describes how much you recycle?

- I recycle everything that can be recycled
- I recycle a lot, but not everything that can be recycled
- I recycle sometimes
- I do not recycle
- Don't know
- Rather not say



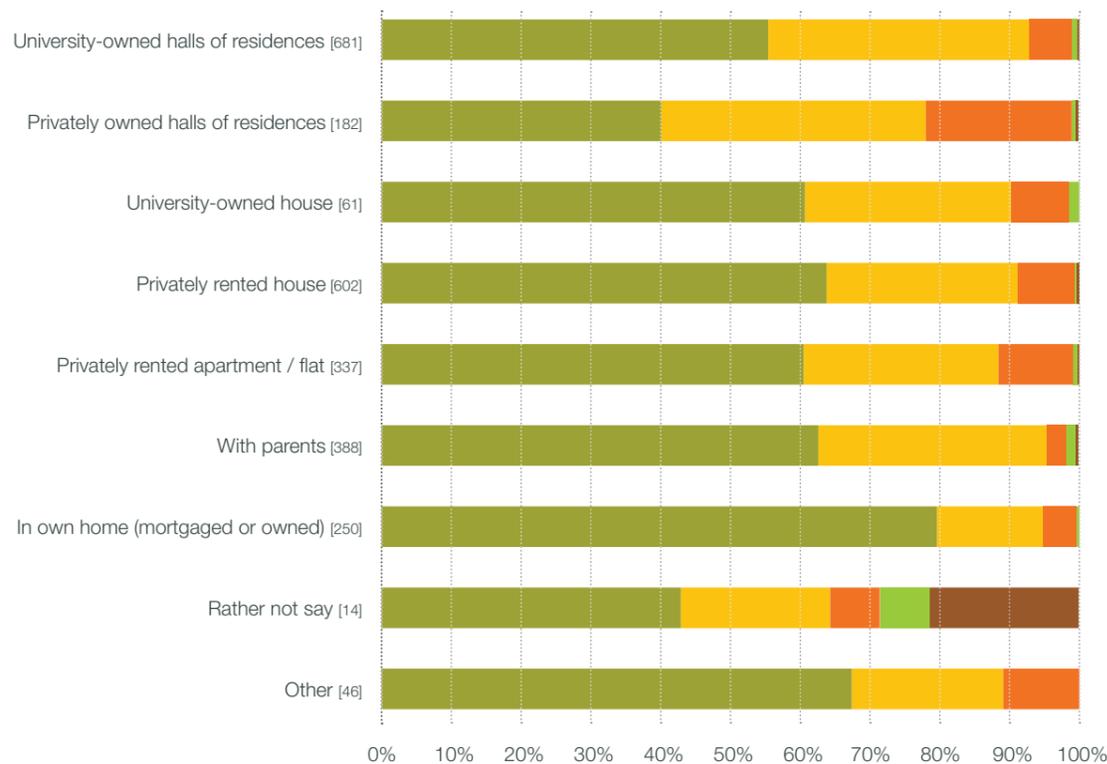
Again, respondents living in halls of residences perform badly in terms of their recycling behaviour compared to students living in other types of term time accommodation. For example, respondents living in university-owned halls reported being significantly less likely to 'recycle everything that can be recycled' than those living in privately rented houses (33.5 per cent compared to 42 per cent).

The difference in behaviour between students according to ownership of halls of residence is highlighted further when we see that respondents living in university-owned halls are significantly more likely to 'recycle a lot, but not everything that can be recycled' than privately owned halls (47.9 per cent, compared to 36.1 per cent).

FIGURE THREE EFFORT LEVELS AND RECYCLING

Which of these statements best describes your attitude to recycling?

- I recycle even if it requires additional effort
- I do not recycle
- I recycle if it does not require additional effort
- Don't know
- Rather not say



Student respondents were also questioned on the extent to which these recycling behaviours had become habitual by expressing their agreement with a series of 12 statements which form the Habit Self-Report Index⁷. This tool was developed to measure perceptions of habit strength for a particular behaviour – in this case, recycling. The results showed that recycling is perceived to be most strongly engrained as a habit for those residing in their own home (see figure five). The strength of habit is lowest for those living in university-owned accommodation or the private equivalent.

The results presented thus far show the strong influence of accommodation type on recycling behaviour with those living in halls of residences recycling less than residents in other types of accommodation. One suggested reason behind these findings is the level of responsibility required of students living in each of these types of accommodation, with privately rented houses and flats requiring residents to adopt greater levels of responsibility for running a household than is required when living in halls of residences.

Attitudes towards recycling are also affected by respondents' living circumstances, with those living in privately rented accommodation more likely to see recycling as 'very important' than university halls residents (see figure six), with 40.8 per cent ranking recycling as very important compared to 31.4 per cent.

Figure seven shows that respondents living in university-owned halls are significantly less likely to be aware of a recycling collection from where they live during term time than respondents living in privately rented houses and those in their own home (71.8 per cent compared to 85.9 per cent and 84.3 per cent respectively).

Figure seven also shows a clear difference in awareness of the university recycling system around the campus, with those not living in university-owned accommodation significantly less aware of the system than those in university halls of residence (for example, 70.8 per cent of respondents living in university-owned halls are aware of the campus recycling system, however, only 46.9 per cent of respondents living in privately rented houses are aware of the system).

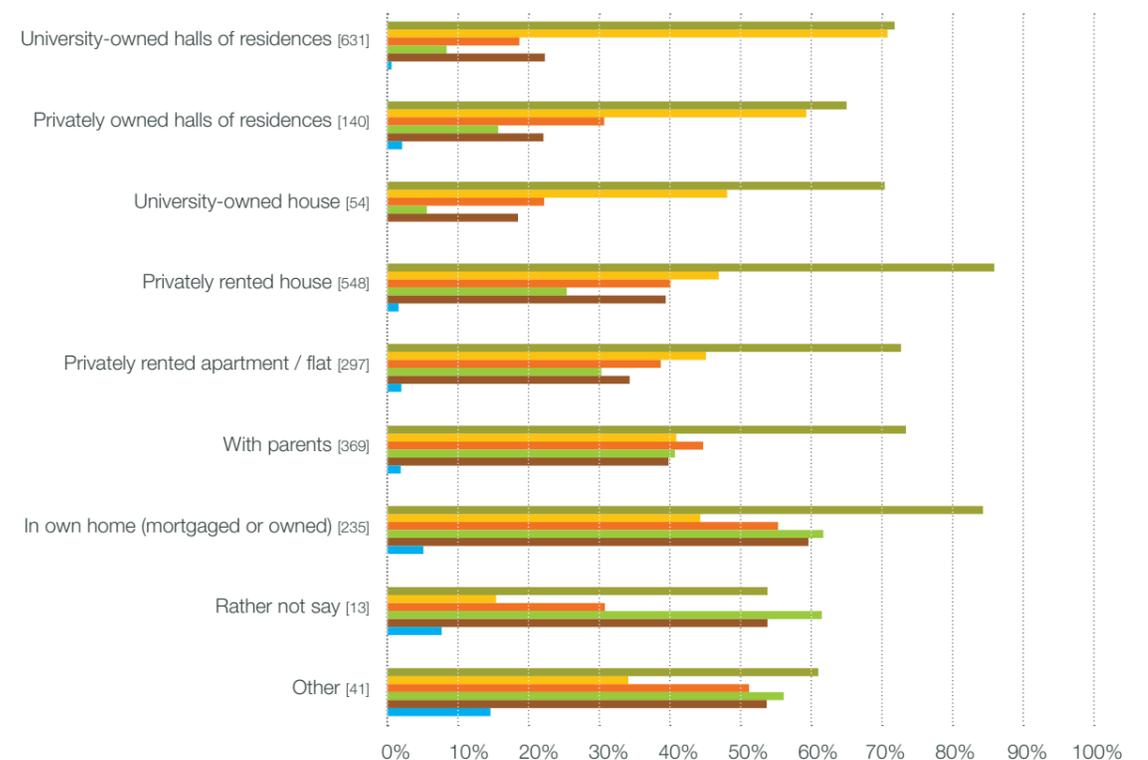
AWARENESS OF RECYCLING FACILITIES

Previous research has indicated that recycling behaviour is strongly influenced by the facilities and services available to individuals⁸. Translating this to the higher education setting, respondents to the survey were asked to indicate which facilities and services were available to them. Once again we see that accommodation type is influential in the levels of awareness reported by respondents.

FIGURE SEVEN AWARENESS OF FACILITIES FOR RECYCLING

What facilities for recycling are you aware of?

- Recycling collection from where I live during term time
- Bring sites (e.g. supermarkets, bottle banks)
- Charity shops
- University recycling system around the campus
- Household waste recycling centres
- Other



⁸ http://www.wrap.org.uk/sites/files/wrap/Barriers_to_Recycling_at_Home_Technical_Report.pdf

FIGURE FIVE STRENGTH OF HABIT

To what extent do you agree with the 12 statements describing how you relate to recycling?

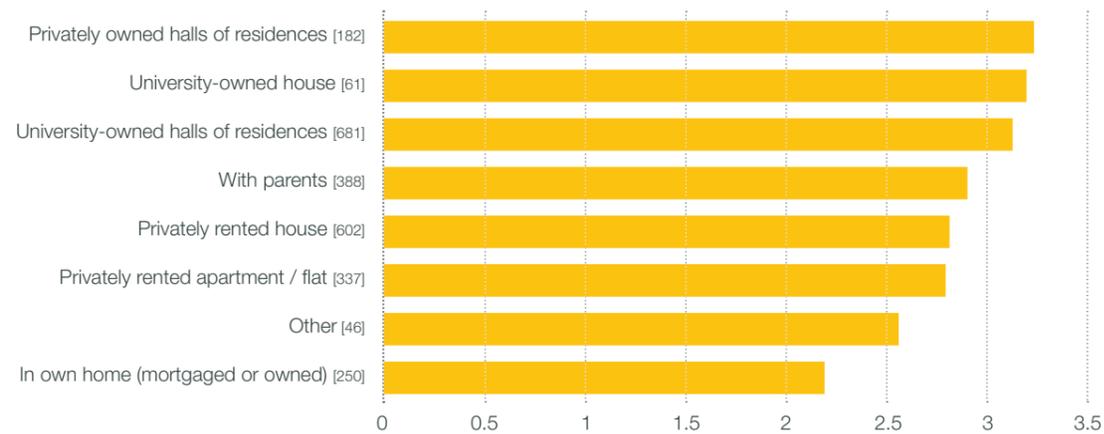
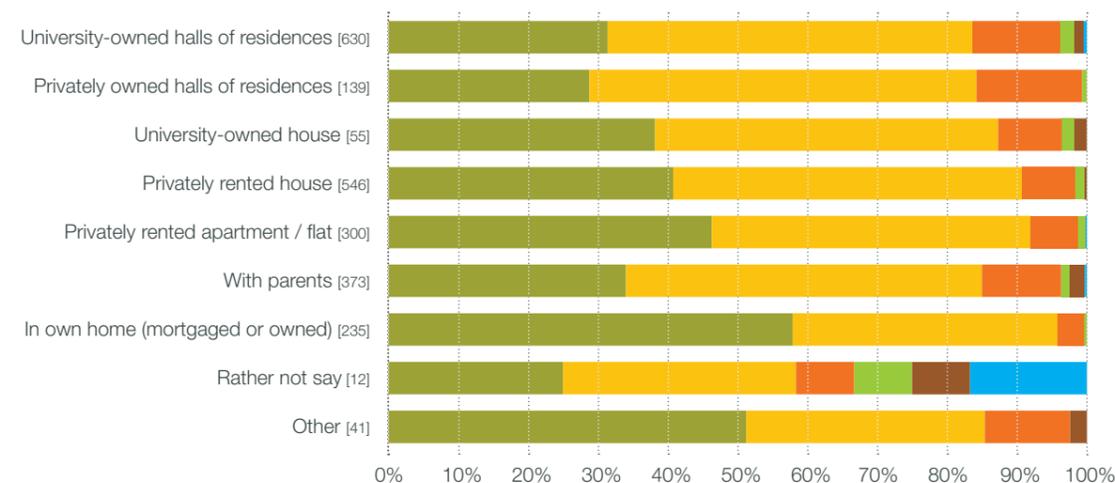


FIGURE SIX ATTITUDES TOWARDS RECYCLING

Thinking about recycling your waste, which of these statements best describes how important recycling is to you personally?

- Very important
- Not very important
- Don't know
- Quite important
- Not at all important
- Rather not say



⁷ Verplanken, B. and Orbell, S., 2003. Reflections on past behavior: A self-report index of habit strength. *Journal of Applied Social Psychology*, 33 (6)

In terms of what these collection facilities look like, respondents reported a wide range of containers in use both on campus and at their term time accommodation. However, *figure eight* highlights almost a fifth of respondents have no idea what the recycling system on their campus looks like (17.9 per cent). This presents an opportunity to ensure that recycling containers / receptacles are clearly signed and are well located, and that the recycling system is well publicised, to maximise the recycling rates achieved on campus. The characteristics of these respondents who are unable to recall the recycling system at their campus are highlighted here.

RECYCLING SYSTEM RECOGNITION

- + 20.7 per cent of final year respondents compared to 17.9 per cent first year students do not know what the recycling system on campus looks like (non-significant difference).
- + 19.2 per cent of respondents living in privately rented houses do not know what the recycling system on campus looks like compared to 10.2 per cent of halls residents.
- + 19.1 per cent of female respondents do not know what the recycling system on campus looks like compared to 15.3 per cent of males.

USING THE RECYCLING FACILITIES

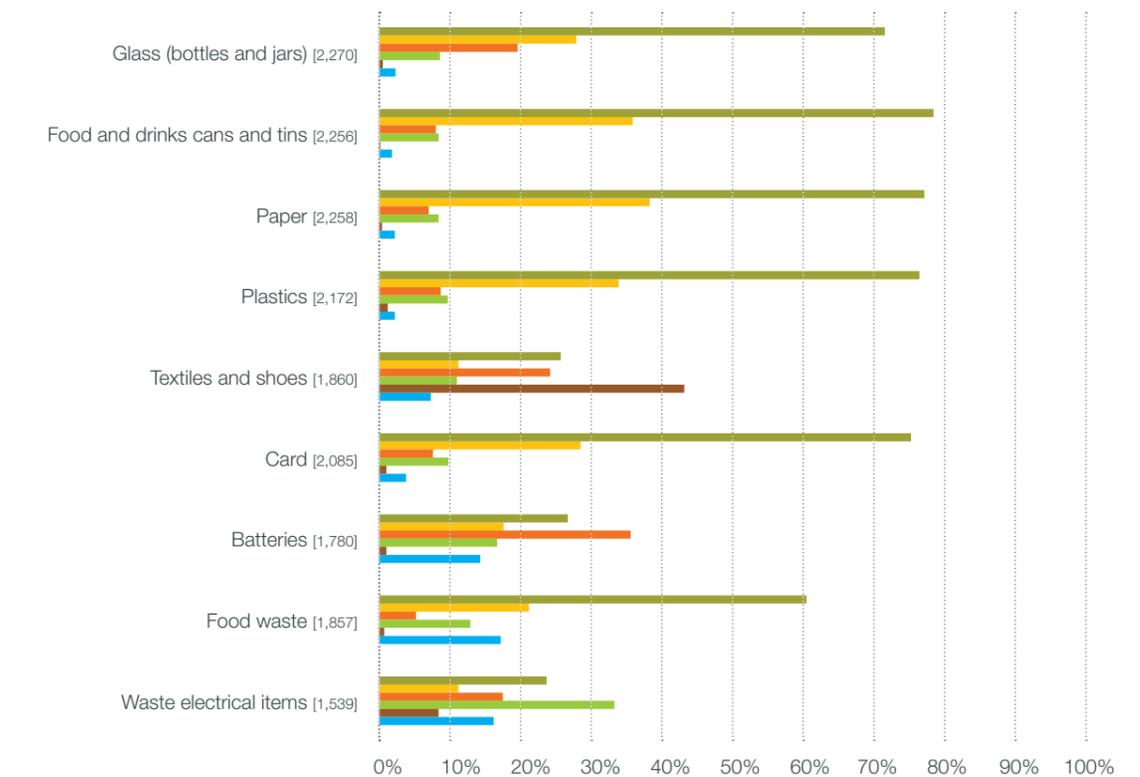
Use of recycling facilities occurs to a greater extent at respondents' term time accommodation, in comparison with on campus. *Figure nine* shows that over half of respondents report recycling paper, glass, plastics, tins and cans, card and food waste where they live at university (for example, 78.5 per cent of respondents report recycling food and drink cans and tins through the recycling collection where they live during term time).

Few respondents report recycling textiles and shoes, waste electrical items and batteries from where they live during term time. However, alternative methods of recycling are sought for disposal of these items, such as supermarket bring sites and charity shops. Ensuring students are aware and able to access these additional recycling opportunities is key to maximising recycling rates across the range of recyclable materials.

FIGURE NINE RECYCLING BEHAVIOUR AT UNIVERSITY

Which materials do you recycle and where do you recycle them?

- Recycling collection from where I live during term time
- Bring sites (e.g. supermarkets, bottle banks)
- Charity shops
- University recycling system around the campus
- Household waste recycling centres
- Other

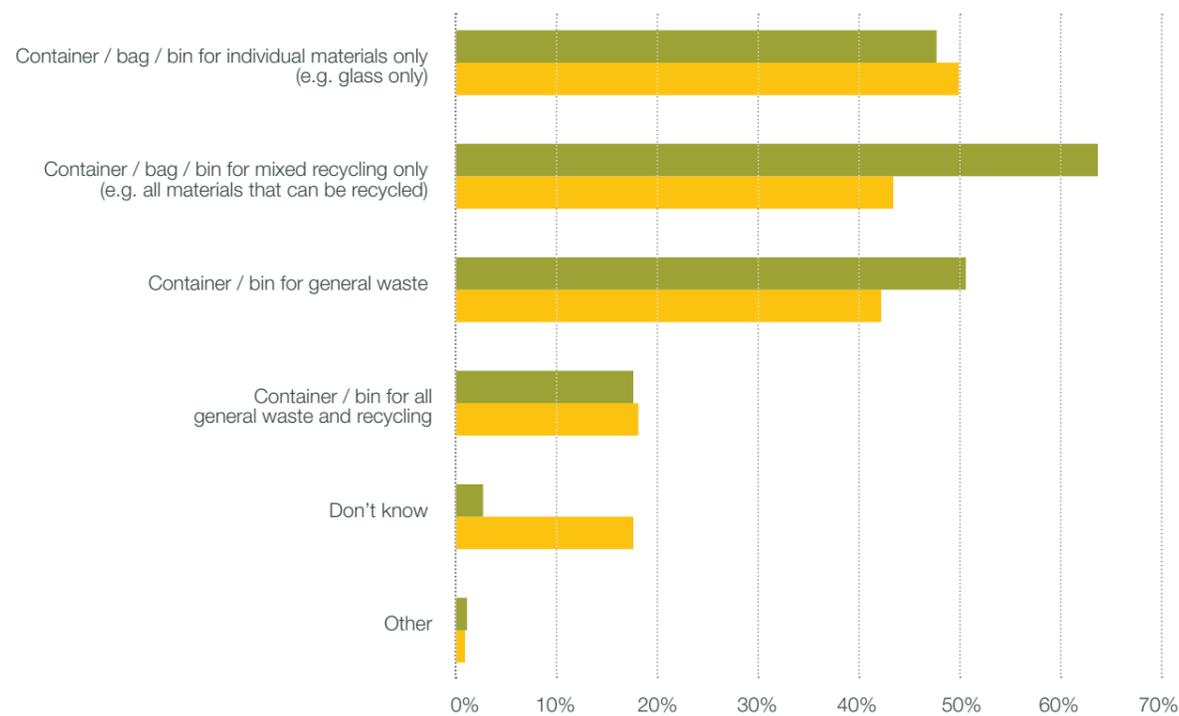


The results show there is scope for improving the levels of recycling whilst on campus – in particular, for food waste and glass, with only 21.2 per cent and 27.9 per cent recycling these materials on campus.

FIGURE EIGHT RECYCLING SYSTEMS IN PLACE ON CAMPUS AND IN TERM TIME ACCOMMODATION

What do these recycling facilities look like?

- The recycling collection from where you live during term time [2,024]
- The university recycling system around the campus [1,842]



INFLUENCE OF UNIVERSITY ON RECYCLING BEHAVIOUR

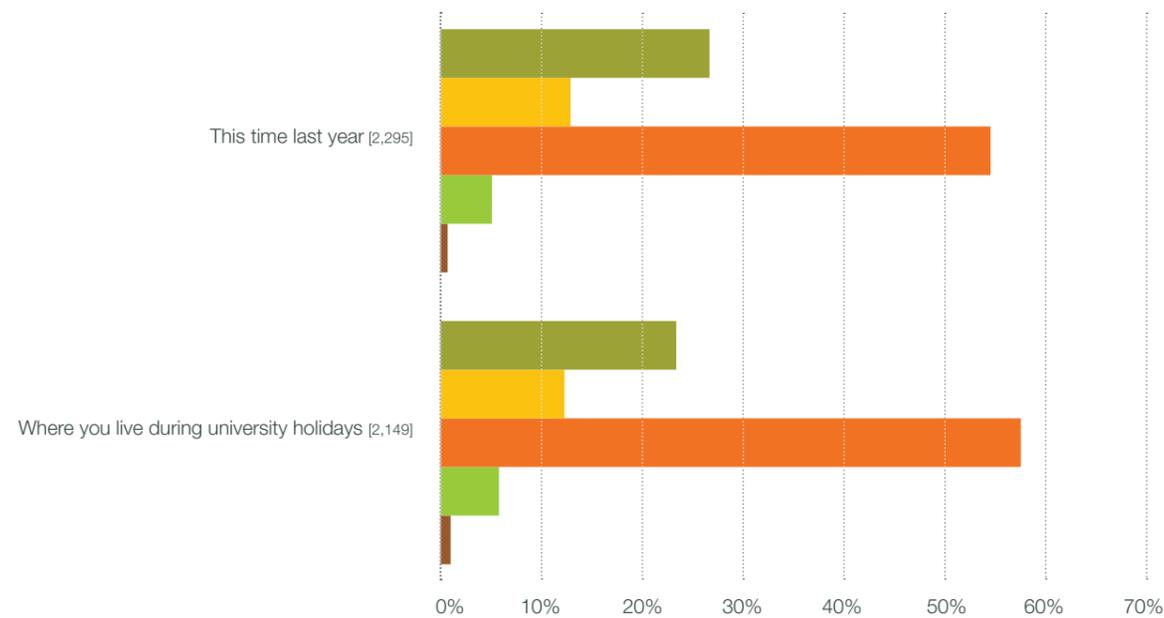
Comparing the current recycling behaviour to the recycling behaviour conducted during university holidays and also to a year ago, over half of respondents report no change in their recycling (for example, 57.6 per cent are recycling the same as they would where they live during university holidays). Just over 10 per cent report recycling less and, of these, international students from the EU are more likely to be recycling less (though on a non-significant basis) than this time last year and also than where they live during holidays than UK or non-EU respondents (for example, 17.7 per cent of EU international students report recycling compared to 12.3 per cent UK students).

The responses from first year students also show a significant negative influence of university on their recycling behaviour in comparison with responses from second and third year students. Just over 17 per cent report recycling less than last year, compared to just nine per cent of third year students. Similarly, 14.5 per cent of first years report recycling less than in their university holidays, significantly less than the proportion of second years who report recycling less (10.6 per cent).

FIGURE 10 DIFFERENCES IN RECYCLING BEHAVIOUR ACCORDING TO LOCATION AND TIME

Compared with this time last year / your accommodation during holidays, would you say the amount of waste you recycle has increased, decreased or stayed the same?

- Recycling more
- Recycling the same
- Recycling less
- Don't know
- Rather not say



Elaborating on the reasons behind this reduction in recycling compared to where they were living last year, or compared to where they live during university holidays, respondents revealed that they were limited by the recycling services provided at university. Figure 11 outlines the main reasons given for recycling less in an open response question.

FIGURE 11 REASONS FOR RECYCLING LESS AT UNIVERSITY

If you are recycling less, please tell us why.

Reason	Count
Limits to services offered	160
More facilities elsewhere	68
Not easy	46
Influenced by other people (e.g. cannot motivate flatmates)	22
Lack of information	15
Too busy / lack of time	15
Less consumption	12
Limited by space in accommodation or in the bin	11
Someone else recycles	9
Distrust of recycling providers	2

RECYCLING LESS AT UNIVERSITY

Respondents say they are recycling less at university because...

"I wouldn't even consider not recycling at home. Whereas here (especially if I'm cleaning up after a party) I often do not bother due to the sheer amount of waste being left and the fact we only have one bin in our kitchen."

— Female, first year student, privately owned halls of residence

"At home it's a lot easier to keep on top of it. Some of my other flatmates do not recycle."

— Male, third year student, privately owned halls of residence

The importance of recycling service provision is evident from the reasoning given by those who felt they were recycling more than where they were living last year, or compared to where they live during university holidays. A better recycling service was seen as the main reason for improvement in recycling behaviour whilst at university. These findings emphasise the importance of developing a recycling system that is appropriate to the needs of the student population at each institution.

FIGURE 12 REASONS FOR RECYCLING MORE AT UNIVERSITY

If you are recycling more, please tell us why.

Reason	Count
Improvement or change in services offered	277
Easy	76
Awareness has increased	59
Engrained habit	39
Duty / responsibility to help, environmental reasons	35
Using more materials which can be recycled	22
Move to more independent living	18
Received encouragement / incentive (e.g. money or fines) to recycle	16
Living with people who recycle	14
Recycling on behalf of others (e.g. flatmates)	13

RECYCLING MORE AT UNIVERSITY

Respondents say they are recycling more at university because...

"It's easier during term time to recycle as we just fill bags with mixed items – we do not have to separate it ourselves so it's just easier. At home it has to be separate before recycling it and also you can't recycle as many different items as you can in Leicester."

— Female, second year student, privately rented house

"When in my first year, I was a bit new to how recycling worked."

— Male, third year student, privately rented house

Figures 13 and 14 also indicate an opportunity to improve the recycling systems in place at higher education institutions across the UK, in particular the on-campus recycling systems, with only a third of respondents rating them as very convenient (31.9 per cent) or very easy (33.5 per cent).

FIGURE 13 RANKING THE CONVENIENCE OF RECYCLING FACILITIES

Thinking about how convenient it is for you personally to recycle your waste, would you say it is...?

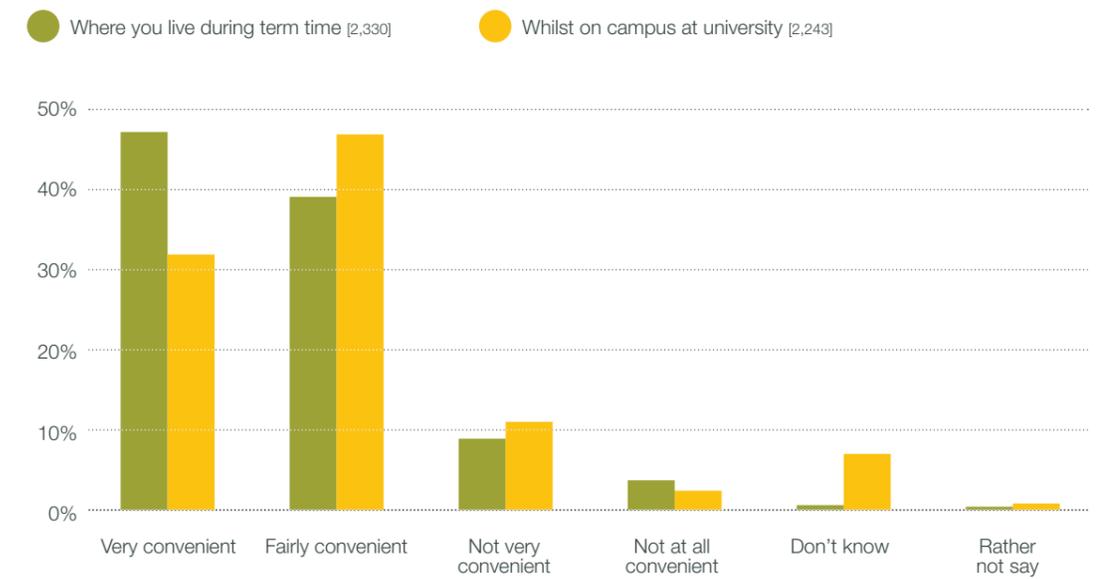
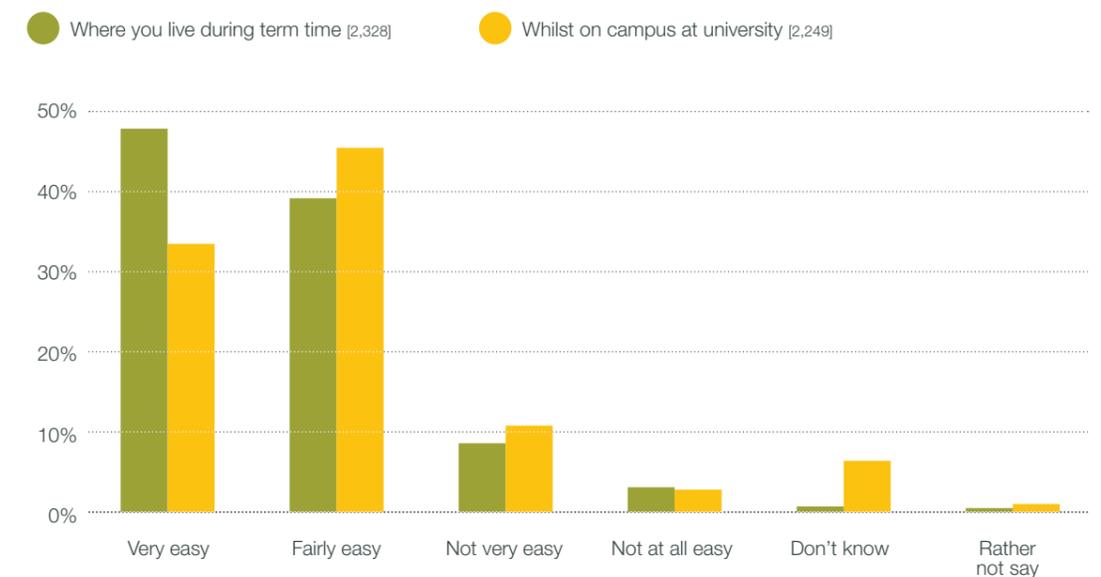


FIGURE 14 RANKING THE EASE OF USE OF RECYCLING FACILITIES

Thinking about how easy it is for you personally to recycle your waste, would you say it is...?



In terms of improving their own behaviour, responses reveal that whilst approximately half feel that they are doing all they can in terms of recycling, a large proportion of the student population is still in need of further support in order to improve both the range and proportion of materials they recycle.

Of particular interest is the fifth of respondents who are thinking about changing either the number of materials they recycle (20 per cent) or the proportion of waste they recycle – e.g. more glass or more paper (18.9 per cent). Institutions should aim to capitalise on this proportion of the student population who are ready to make changes, but need further support in order to do so. Characteristics of these respondents are highlighted here.

MAKING CHANGES TO RECYCLING BEHAVIOUR

- + International students (non-EU) are more likely to be thinking about making changes than UK students – 18.8 per cent of UK students compared to 25.2 per cent of non-EU international students are thinking about increasing the number of materials, and 17.8 per cent of UK students compared to 24.7 per cent of non-EU international students are thinking about increasing the amount of recycling.
- + First year respondents are more likely to be thinking about making changes than second and third year respondents on a non-significant basis – 21.5 per cent of first year students compared to 18.8 per cent of second year and 18.7 per cent of third year students are thinking about increasing the number of materials, whilst 20.5 per cent of first years compared to 17.4 per cent of second years and 17.6 per cent of third years are thinking about increasing the amount of recycling they do.
- + Respondents in university halls are more likely to be considering making changes than those in privately rented houses – 24.9 per cent living in university halls of residence compared to 20.1 per cent living in privately rented houses are thinking about increasing the number of materials they recycle and 21.3 per cent of university halls residents compared to 17.4 per cent of those living in privately rented houses are thinking about increasing the amount of recycling they're currently doing.

MOTIVATIONS AND BARRIERS TO RECYCLING

In order to develop recycling systems that encourage an increase in recycling rates, it is important to consider the specific motivations and barriers facing the student population.

Figure 16 highlights the key motivations for those that recycle, demonstrating clearly that the environmental benefits associated with recycling play a large role in encouraging positive recycling behaviour.

Three quarters of respondents who recycle (75.5 per cent) report being motivated by the fact that recycling reduces the amount of waste going to landfill. Sixty-nine per cent are also motivated by recycling in order to save resources. This matches the motivations of the UK population as a whole, with the most important motivation identified nationally as 'doing my bit for the environment' (though this is a higher proportion than the student population at 90 per cent⁹). Two thirds of respondents who recycle also say they do so due to a belief that it is the right thing to do (67.8 per cent).

MOTIVATION FOR COMMITTED RECYCLING

- + Committed recyclers are more likely than recyclers to be motivated by guilt (44.9 per cent, compared to 10.7 per cent) and a sense that recycling is the right thing to do (74.1 per cent, compared 16.5 per cent).
- + Committed recyclers are more likely than recyclers to be motivated by a perception that 'everyone else does it' (9.3 per cent compared to 3.2 per cent).

Making further comparisons between the UK population and the student population reveal that this sector of the population are less motivated by the behaviour of their peers with only 11.6 per cent recycling because 'everyone else does it', compared to 17 per cent of the UK population.

FIGURE 15 INTENTION AND ABILITY TO CHANGE RECYCLING BEHAVIOUR

Here are some changes that people might make to their lifestyles. For each one, please tell us which answer applies to you personally at the moment.

- Increase the number of different materials I recycle (e.g. recycle food waste and plastics as well as cans and card) [2,317]
- Increase the amount of recycling I do (e.g. recycling more plastic, more card) [2,284]

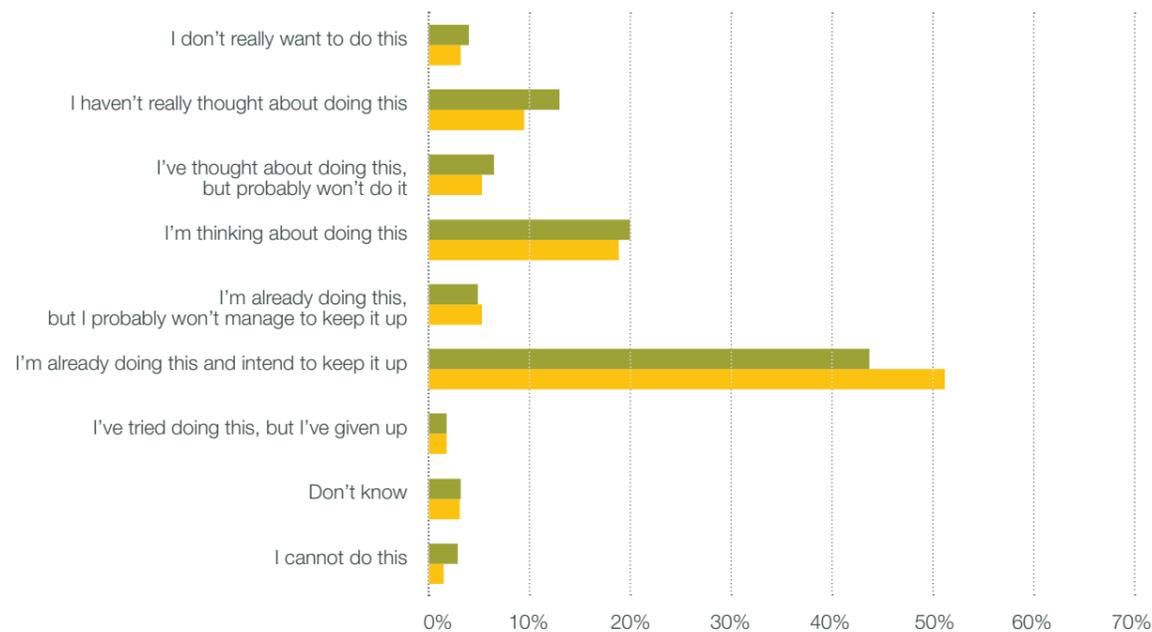
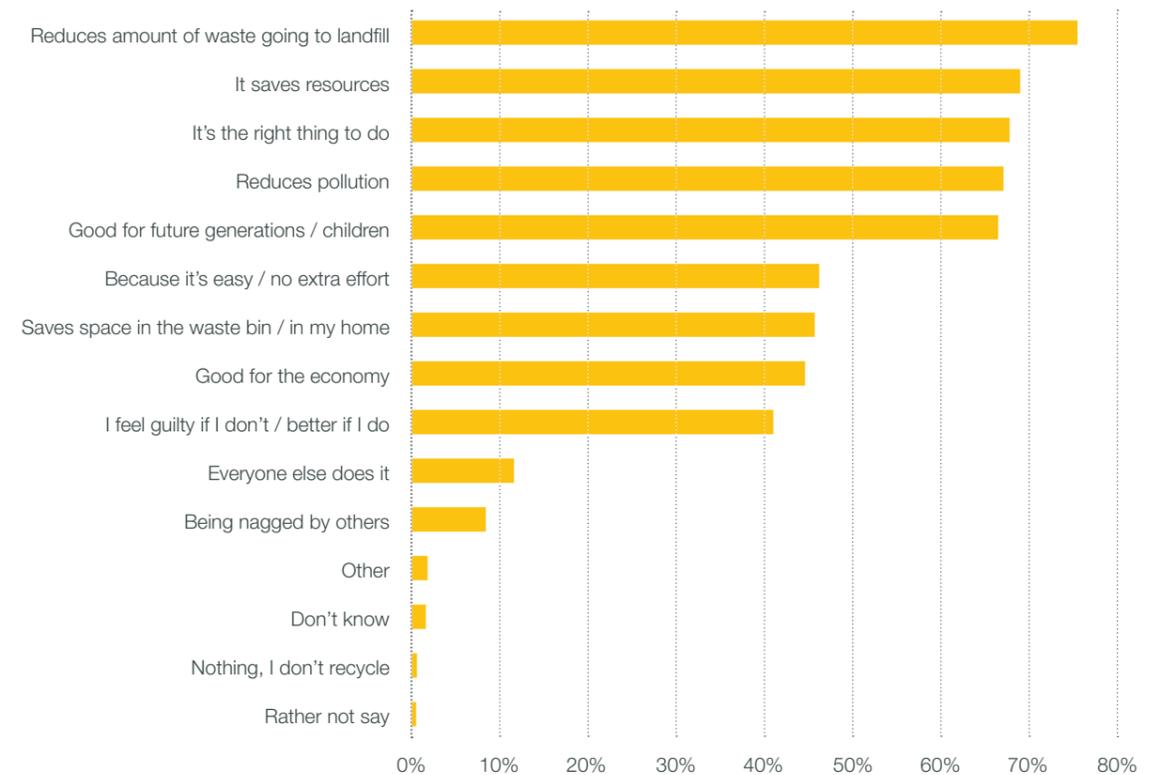


FIGURE 16 MOTIVATIONS FOR RECYCLING [2,325]

Which of the following, if any, motivates you to recycle?

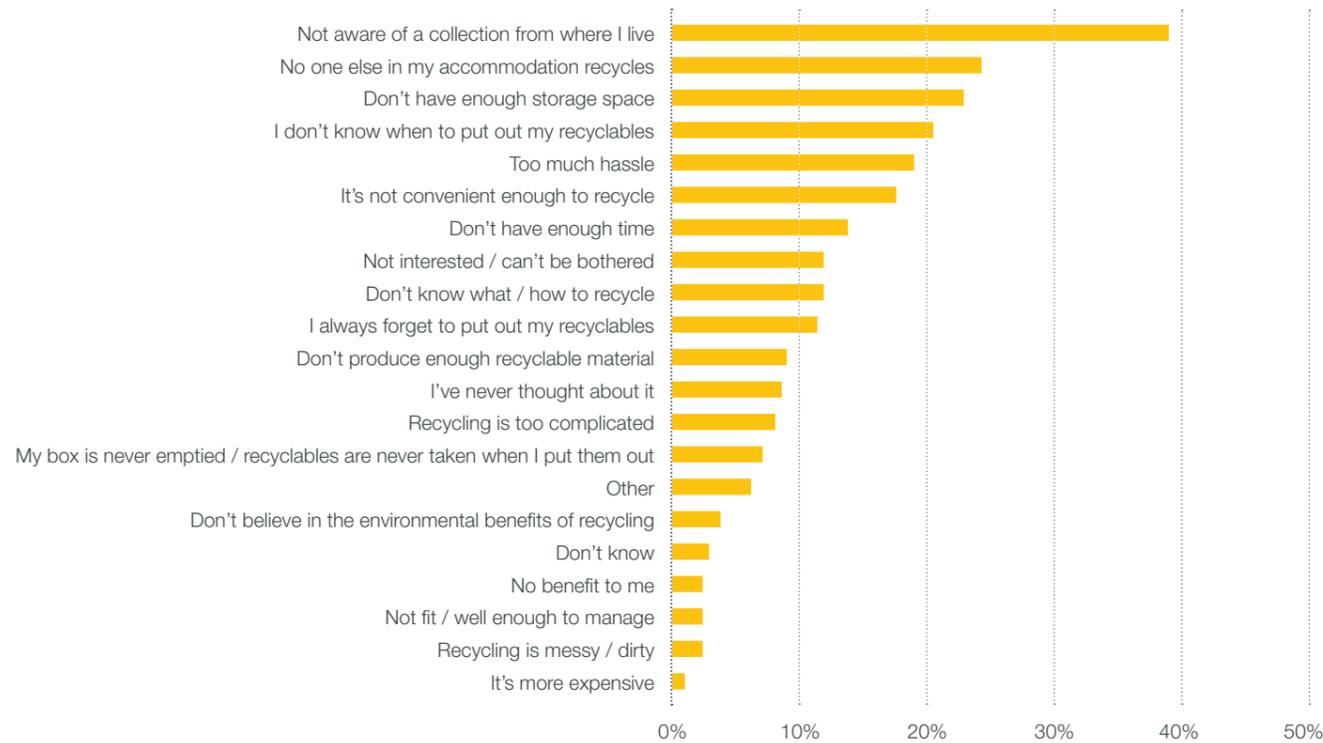


⁹ http://www.wrap.org.uk/sites/files/wrap/Barriers_to_Recycling_at_Home_Technical_Report.pdf

In terms of barriers to recycling, a lack of awareness and influence of social norms form the main barriers for respondents who are not currently recycling (39 per cent and 24.3 per cent respectively).

FIGURE 17 BARRIERS TO RECYCLING [210 – SAID THEY DO NOT RECYCLE]

You said that you don't recycle... why don't you recycle, or why did you stop recycling?



Raising awareness of recycling facilities and working to develop social norms – for example, through the development of participatory initiatives – are two key ways institutions can help students overcome these barriers.

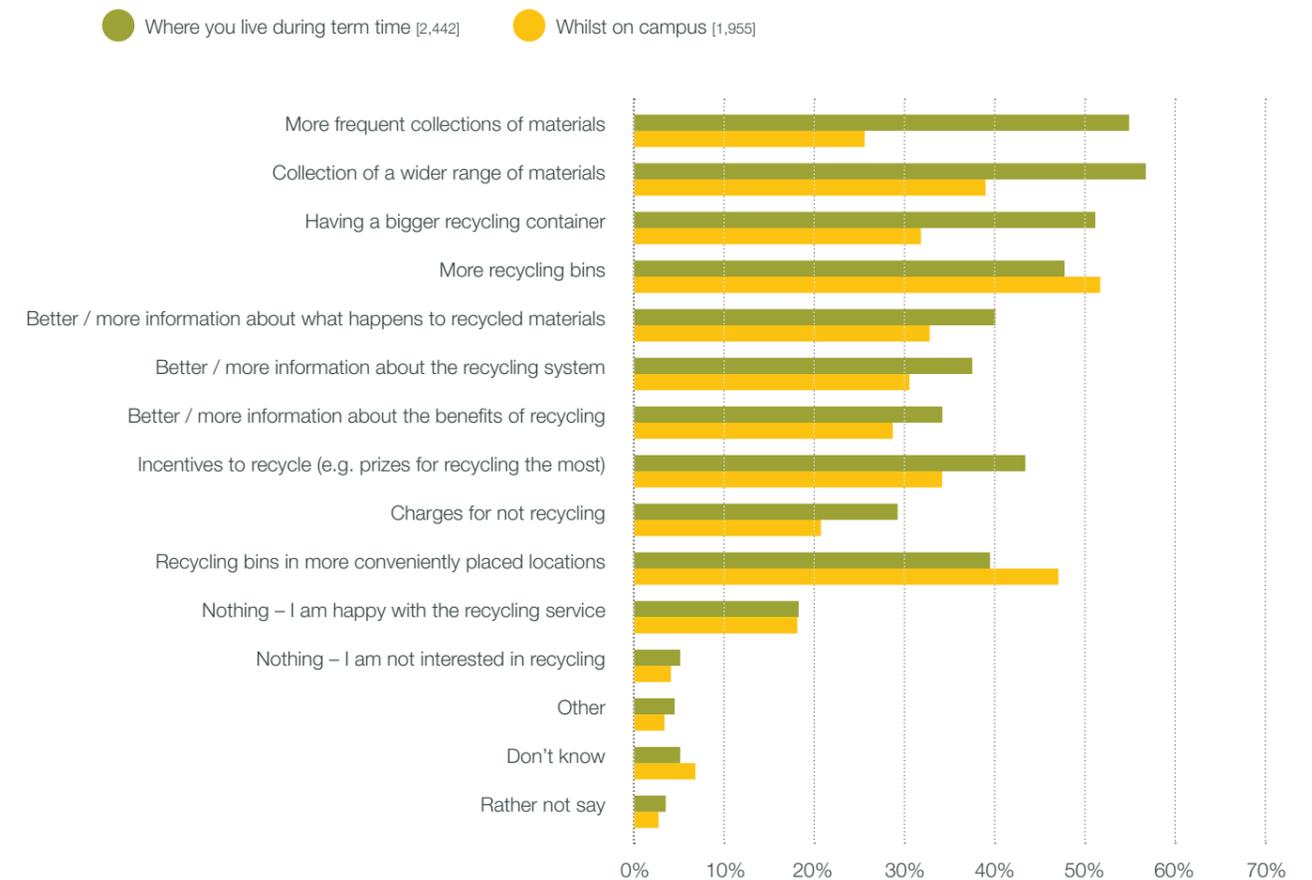
Further analysis revealed that respondents living in privately operated halls of residences are more likely (on a non-significant basis) to be facing several barriers to recycling – for example, a lack of awareness of recycling collections (47.6 per cent compared to 33.3 per cent in university-owned halls), a lack of storage space for recyclables (28.6 per cent compared to 17.8 per cent in university-owned halls) and a sense that no one else in their accommodation recycles (38.1 per cent compared to 26.7 per cent in university-owned halls).

IMPROVING RECYCLING PERFORMANCE

To increase recycling on campus, the main improvement identified by respondents was to provide more bins (51.7 per cent) and to place bins in more convenient locations (47.1 per cent). When thinking about the recycling services where they live during term time, a wider range of improvements are suggested by respondents – for example, recycling a wider range of materials (56.8 per cent) and increasing the frequency of collections (54.9 per cent). Introducing larger recycling containers is another desired improvement (51.2 per cent).

FIGURE 18 IMPROVEMENTS TO ENCOURAGE MORE RECYCLING, OR TO START RECYCLING

What, if anything, would persuade you to start recycling or to recycle more?



WIDER WASTE BEHAVIOURS: RE-USE AND PREVENTION

Respondents were also asked about their waste behaviour more widely, including re-use and waste prevention. As with recycling, re-use can be seen as being influenced by the accommodation type respondents are living in during their time at university.

Those currently living in halls of residence are less likely to report handing in items for re-use than those living in privately rented accommodation (30.7 per cent of respondents living in university halls of residence have handed in items for re-use compared to 55 per cent of respondents living in privately rented houses). This can be seen as a reflection of the age and stage of university career of the typical halls resident.

Books (66.6 per cent), clothes (74.9 per cent) and shoes (44.9 per cent) are the most commonly donated items for re-use. The main motivation for donating items for re-use is to support the charities that items are donated to (71.8 per cent) and a desire to lengthen product lifetimes (68.7 per cent).

FIGURE 21 RE-USE BEHAVIOUR

Since you have been at university, have you handed any unneeded items — such as books, clothes, stationery, electrical appliances or cooking appliances — to be reused by others (e.g. to charity, to the university)?

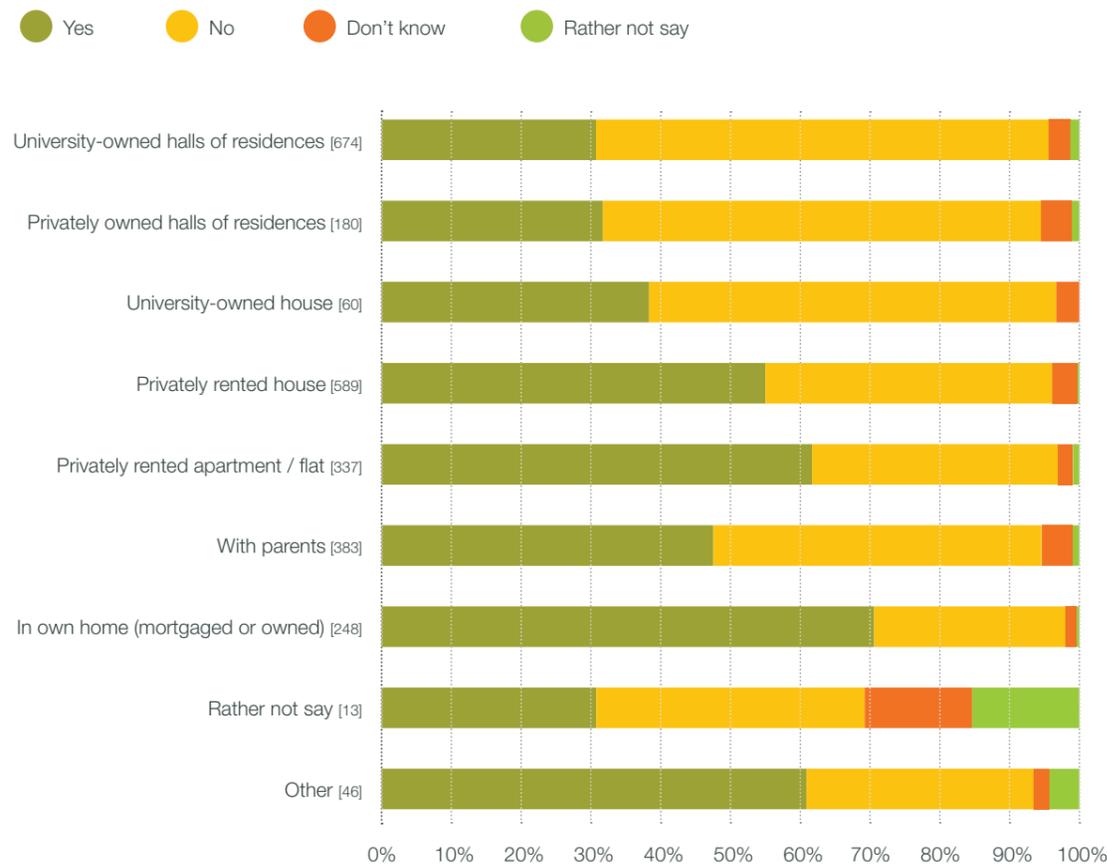
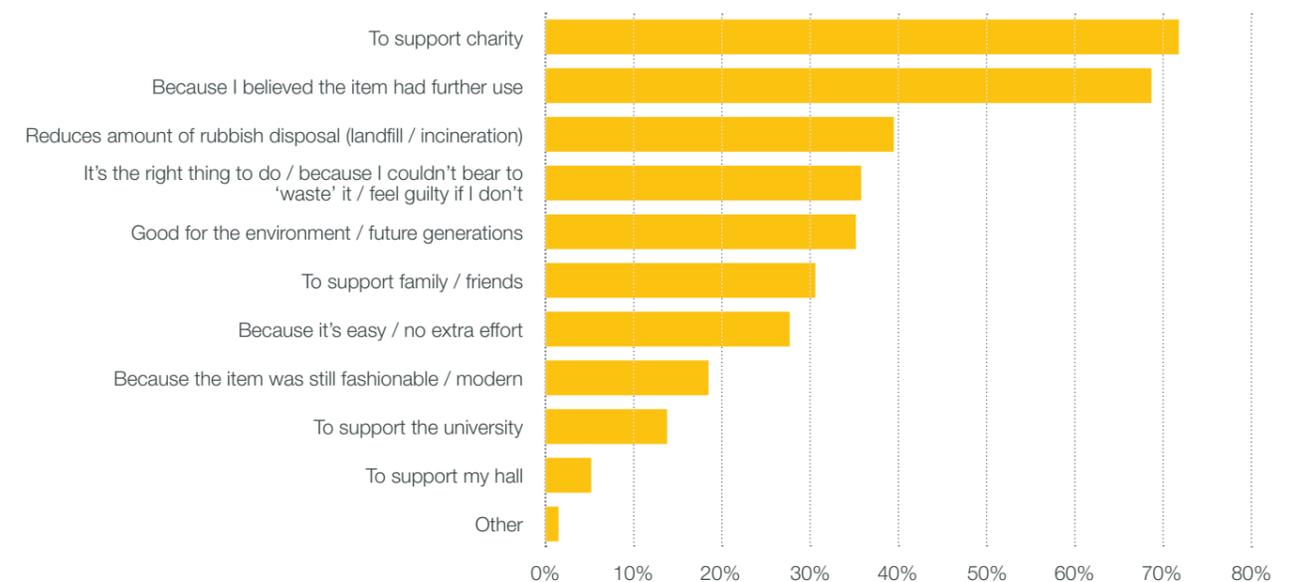


FIGURE 22 MOTIVATIONS FOR RE-USE

Why did you choose to hand over items to be reused?



The main reason given by those who had not donated items for re-use since starting university is a lack of any items to donate (75.9 per cent). First year respondents reported being more likely to have no items to donate than final year respondents (82.1 per cent and 66.8 per cent respectively). However, this is likely to be a reflection of their stage of university career, as anecdotal evidence has highlighted the large volume of waste created when students leave their term time accommodation at the end of the academic year¹⁰.

Other research has also highlighted that those aged 18 to 24 are most likely to dispose of bulky items – such as electrical items or furniture – in an environmentally unfriendly way¹¹, with less than half recycling (46 per cent of a sample of 2,024 British adults) compared to 62 per cent of those aged 35 to 44. Low student car ownership¹² also presents a potential barrier for re-use, reducing ability to access household waste recycling centres. A role therefore exists for institutions to support re-use behaviours – for example, through the provision of collection initiatives.

¹⁰ <http://www.bbc.co.uk/news/uk-england-bristol-18681880>

¹¹ <http://yougov.co.uk/news/2010/03/13/1-3-brits-admit-they-dont-recycle-household-goods/>

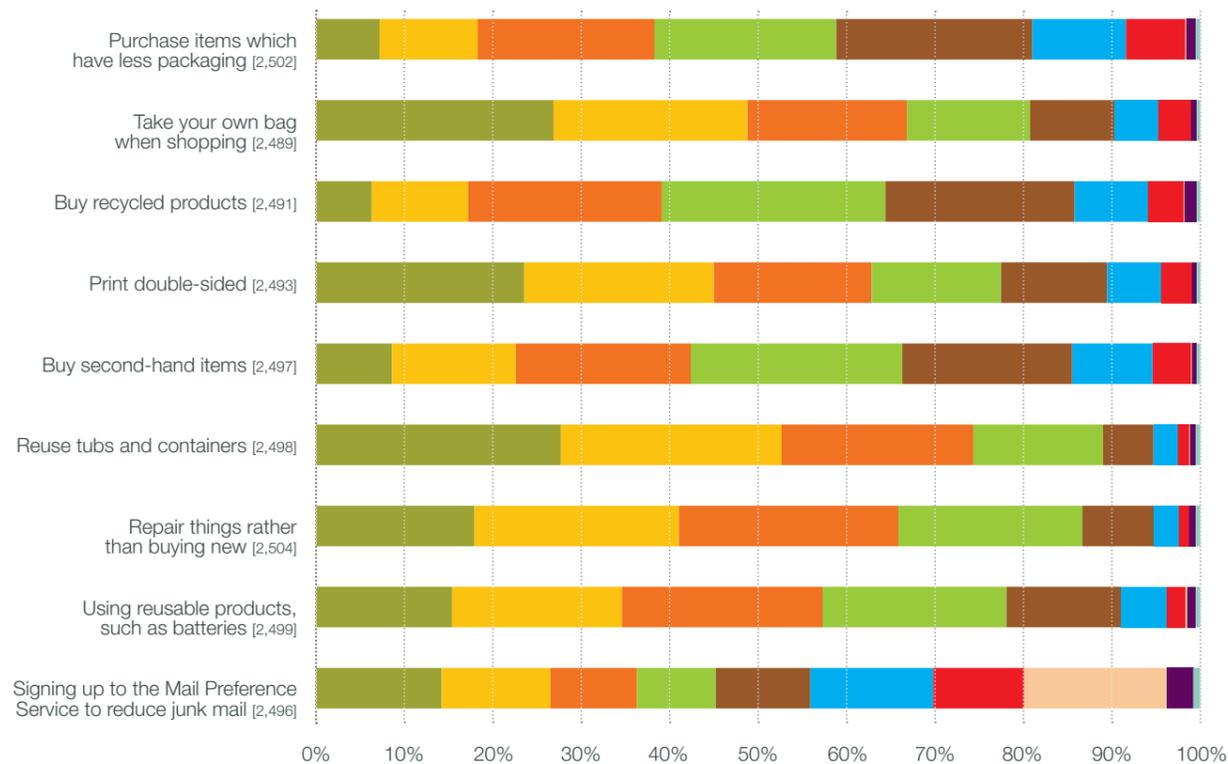
¹² The percentage of 17 to 20-year-olds with driving licences fell from 48 per cent in the early 1990s to 35 per cent in 2010. <http://www.guardian.co.uk/politics/2011/sep/25/end-of-motoring>

Consistent uptake of waste prevention behaviours was found to be relatively low with the exception of reusing containers and avoiding plastic bag use (27.7 per cent and 26.8 per cent report that these behaviours are a 'way of life').

FIGURE 23 WASTE PREVENTION BEHAVIOURS

How much effort do you personally go to in order to do the following...?

- Way of life
- A fair amount
- Not very much
- I don't do this at all
- Don't know
- A great deal
- A little
- None at all
- I don't know what this is
- Rather not say



INFORMATION AND COMMUNICATIONS

The main barrier experienced by non-recyclers was a lack of awareness of the recycling service where they live during term time. As such, information and communication will form a key part of moving these individuals towards participation in recycling.

Considering the sample as a whole, there appears to be a wider need for communication and information provision on recycling services at institutions, with only half of respondents able to recall having received information on recycling since starting university (see figure 24 – 50 per cent do not recall seeing information about recycling where they live during term time and 50.1 per cent do not recall seeing information about recycling on campus). This again reinforces the importance of developing appropriate communications to maximise participation in recycling across institutions.

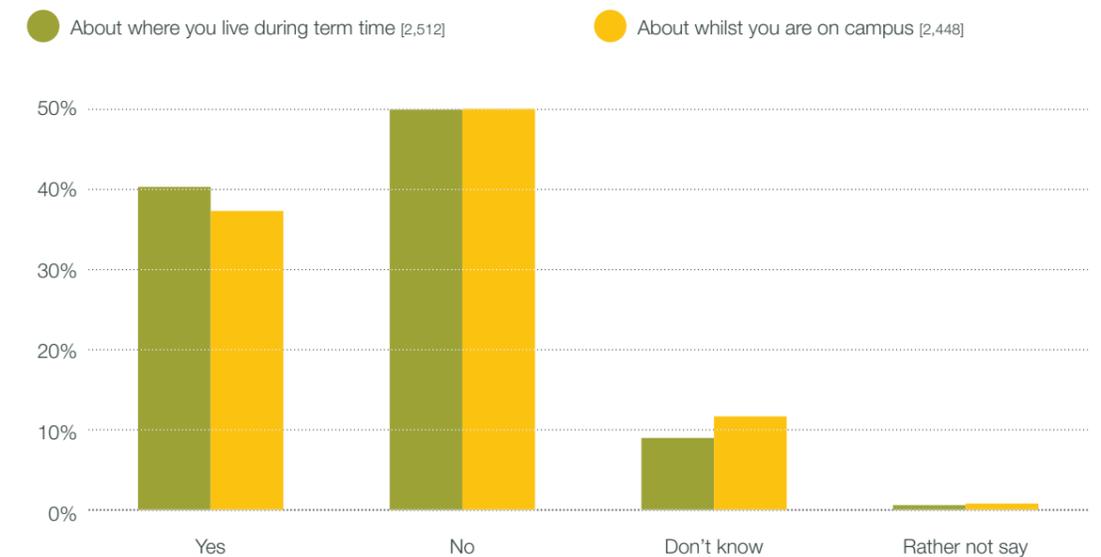
INFORMATION RECALL

Committed recyclers are more likely to recall information...

- + Only 23.7 per cent of non-recyclers recalled seeing information on recycling where they live during term time compared to 45.7 per cent of committed recyclers.
- + 30.4 per cent of non-recyclers recalled seeing information about recycling on campus compared to 40.7 per cent of committed recyclers.

FIGURE 24 RECALL OF INFORMATION PROVISION SINCE JOINING UNIVERSITY

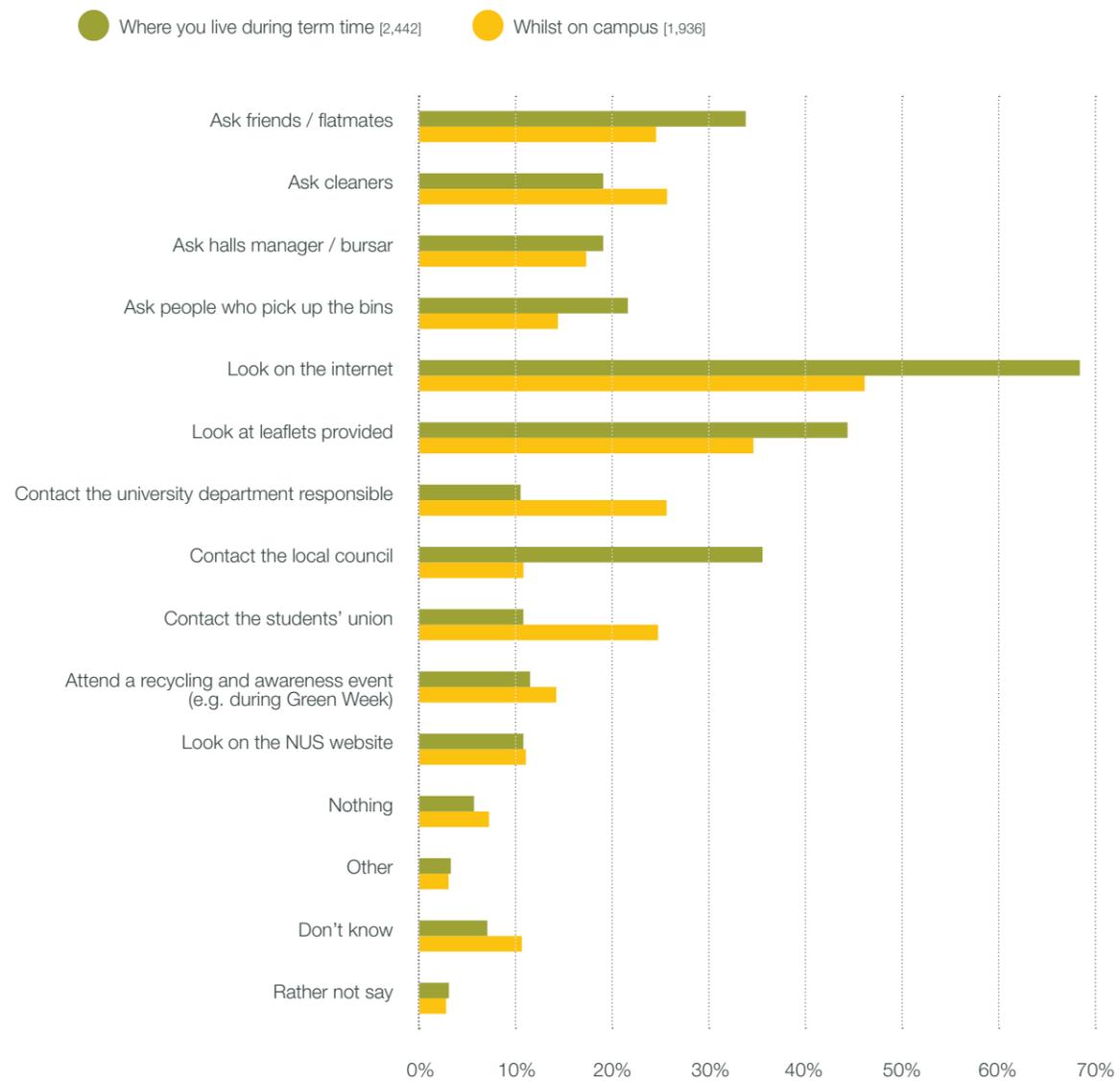
Have you seen or heard any promotional material about recycling since you have been at university?



When asked where they would look (proactively) for information on recycling where they live, the internet was the most popular source of information specified (68.4 per cent) followed by consulting leaflets provided by the relevant organisation (44.4 per cent). The same sources would be used to find out information about the recycling system on campus, although to a lesser extent overall (46.1 per cent and 34.6 per cent respectively – see figure 25).

FIGURE 25 SOURCES USED WHEN SEEKING INFORMATION ON RECYCLING

Where would you look if you wanted information about the recycling and waste services?

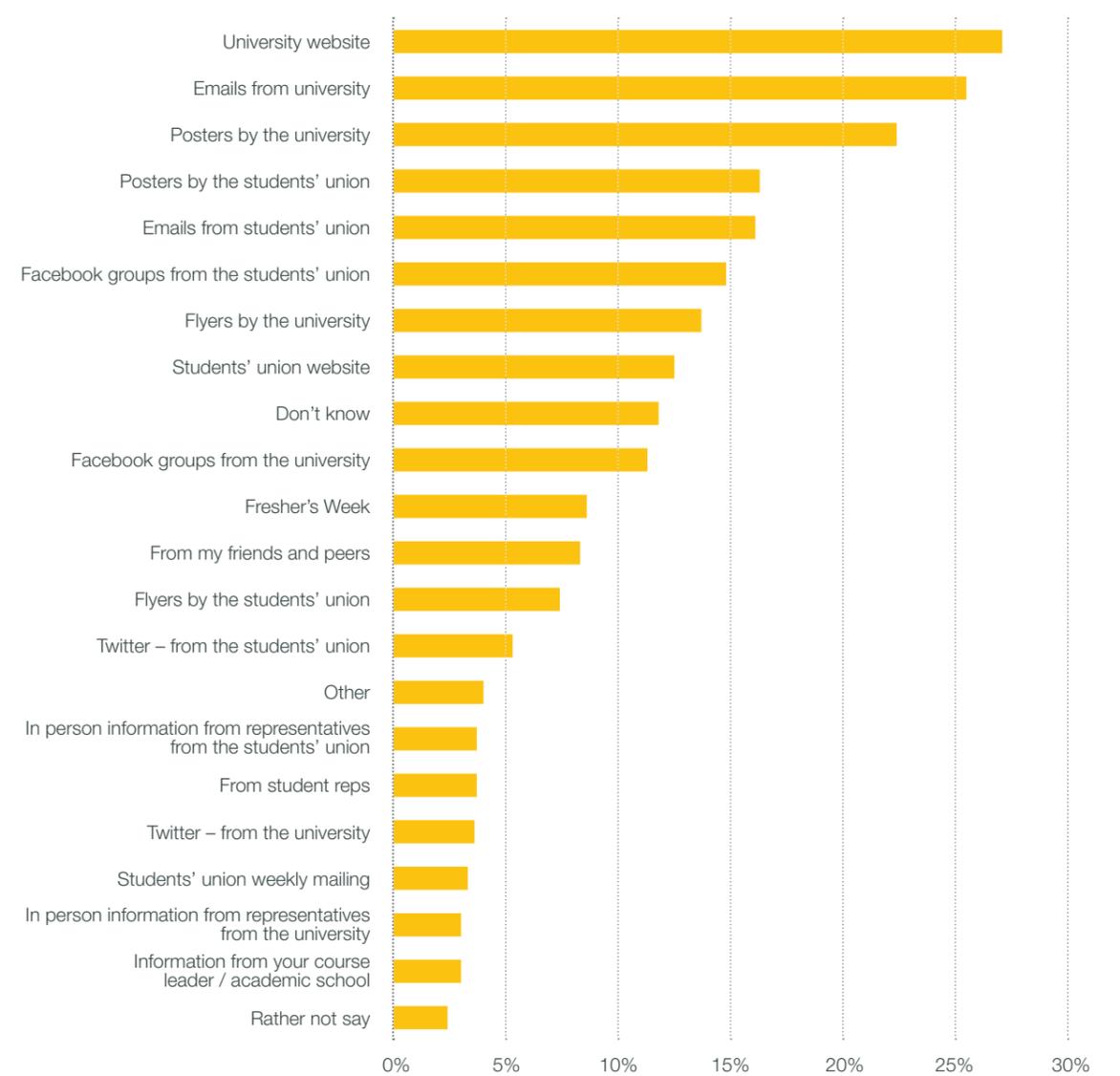


When asked about their preferences for receiving information (as opposed to proactively seeking information), respondents favour online communications – for example, 27.1 per cent would like to receive information via the university website and 25.5 per cent indicated a preference for information via emails from the university.

There is also a preference for more traditional forms of communication on recycling – for example, through posters created by the university (22.4 per cent). The favour shown for communications from their institution can be seen as a reflection of the authority institutions are able to exert in encouraging their students to recycle.

FIGURE 26 PREFERRED METHODS OF RECEIVING INFORMATION

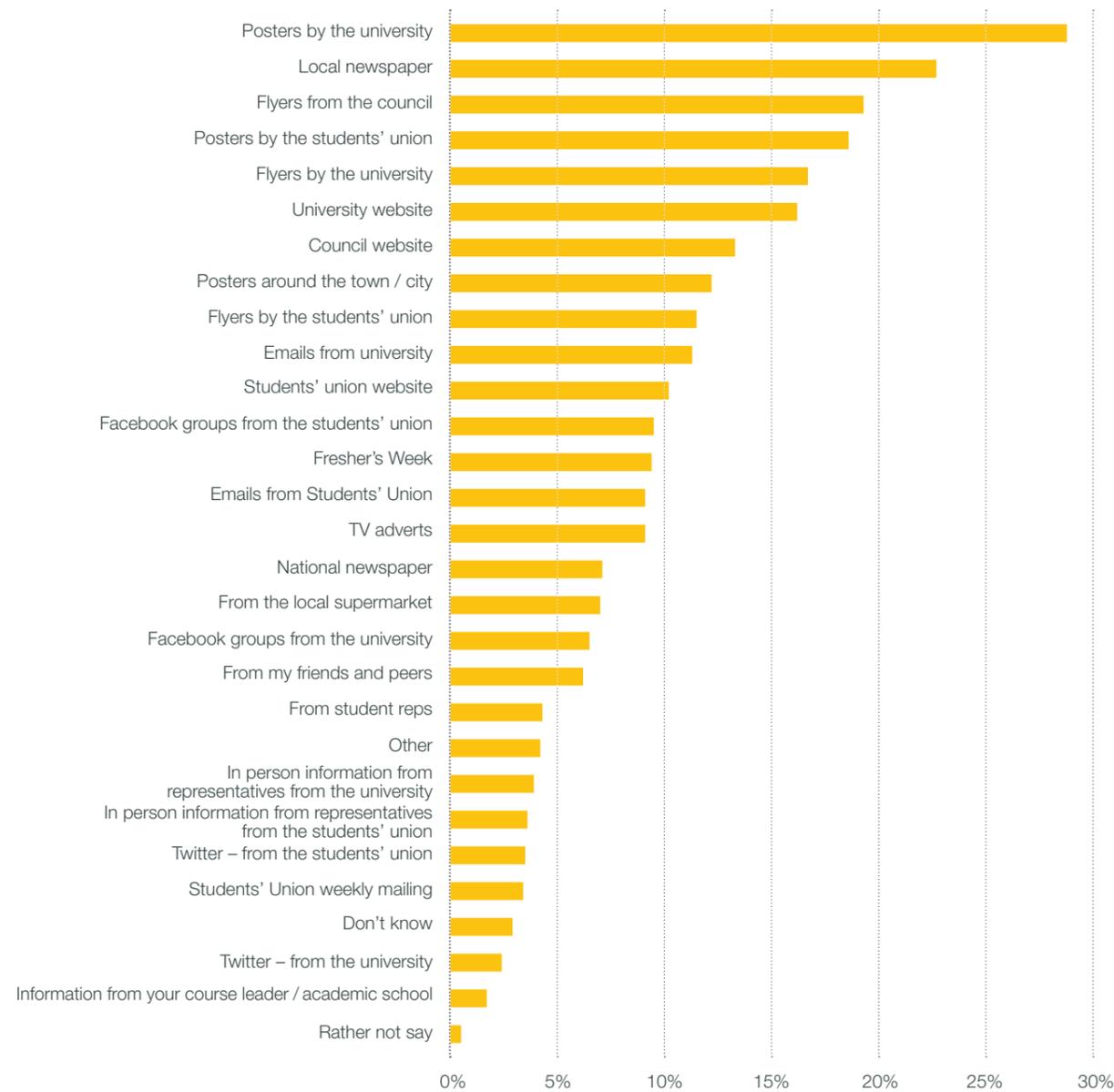
What is your preferred method of communication for receiving information about recycling?



Focusing on those who recall receiving information on either the campus recycling system or the system where they live during term time since starting university, there appears to be a difference between respondents' stated preferences for communication and what they actually recall. *Figure 27* shows the greatest recall to be of more traditional, physical communications such as posters (28.8 per cent) and information in the local newspaper (22.7 per cent).

FIGURE 27 RECALL OF COMMUNICATIONS ON RECYCLING [1,266 - TOP TEN MOST RECALLED SOURCES]

What promotional material did you see or hear?

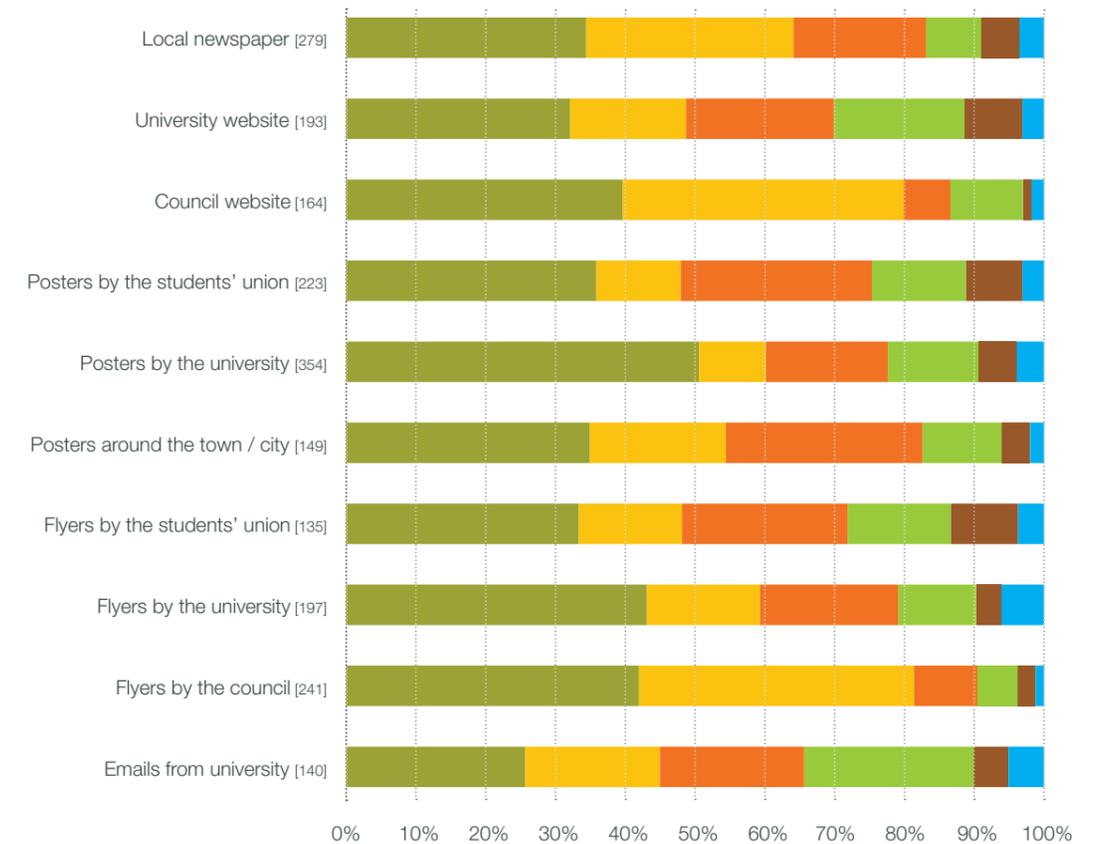


The information recalled has mainly helped respondents to understand what can and cannot be recycled – for example, 50.6 per cent state that posters produced by the university have helped them to understand this element of recycling. Respondents are less able to recall communications focused on when recycling collections will take place, with the exception of council-provided information, and understanding the benefits of recycling.

FIGURE 28 INFORMATION PROVIDED BY RECALLED COMMUNICATIONS

To what extent, if at all, do you agree or disagree that the promotional material has helped you to understand the following?

- Knowing what can and can't be recycled
- Understanding the real benefits of recycling
- Don't know
- Knowing when your recycling will be collected
- Understanding the recycling scheme overall
- Not applicable



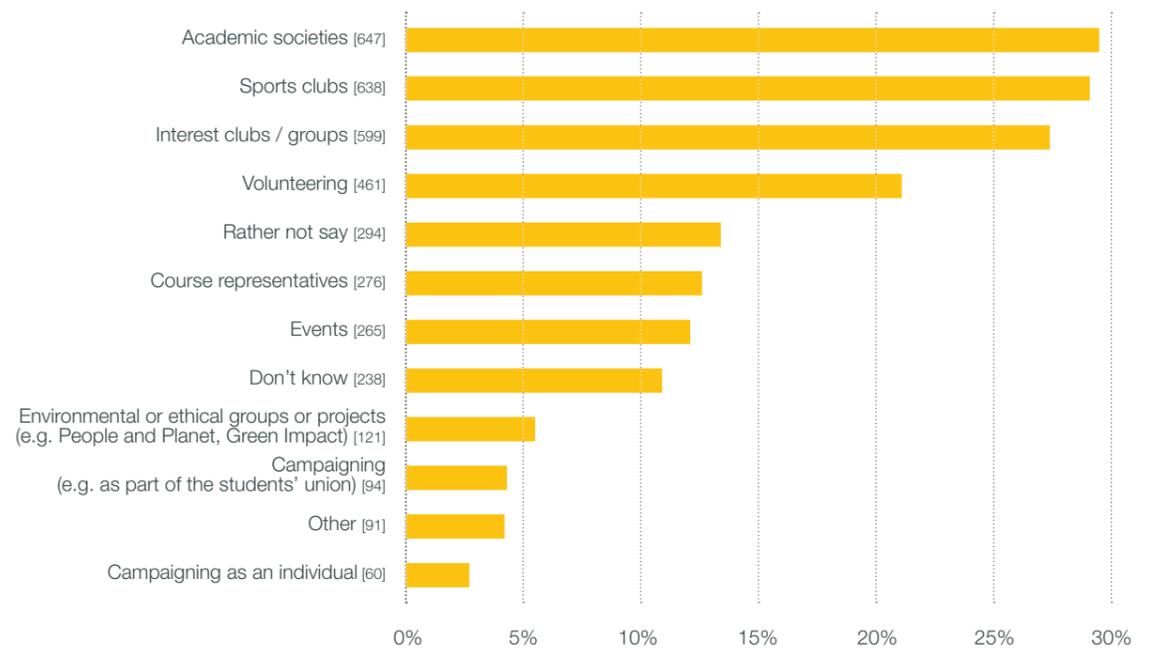
Respondents were also questioned on their familiarity with various terms associated with waste and recycling. Overall, awareness and comprehension of waste terms is relatively high – for example, 47.7 per cent and 46.3 per cent say they understand a lot about the food waste and re-use respectively. However, the terms ‘waste hierarchy’ and ‘anaerobic digestion’ are less well understood, with only 11.9 per cent and 18.8 per cent saying they understand a lot about these terms. When designing communications on waste and recycling, it is important to consider the language used and ensure it is appropriate to the target audience.

PARTICIPATION IN ENVIRONMENTAL INITIATIVES

Figure 30 shows that respondents are mainly participating in extra-curricular activities that are focused on their chosen subject, along with general interest and sports societies.

FIGURE 30 PARTICIPATION IN EXTRA-CURRICULAR ACTIVITIES

What kinds of projects, societies or initiatives are you involved in at university, if any?

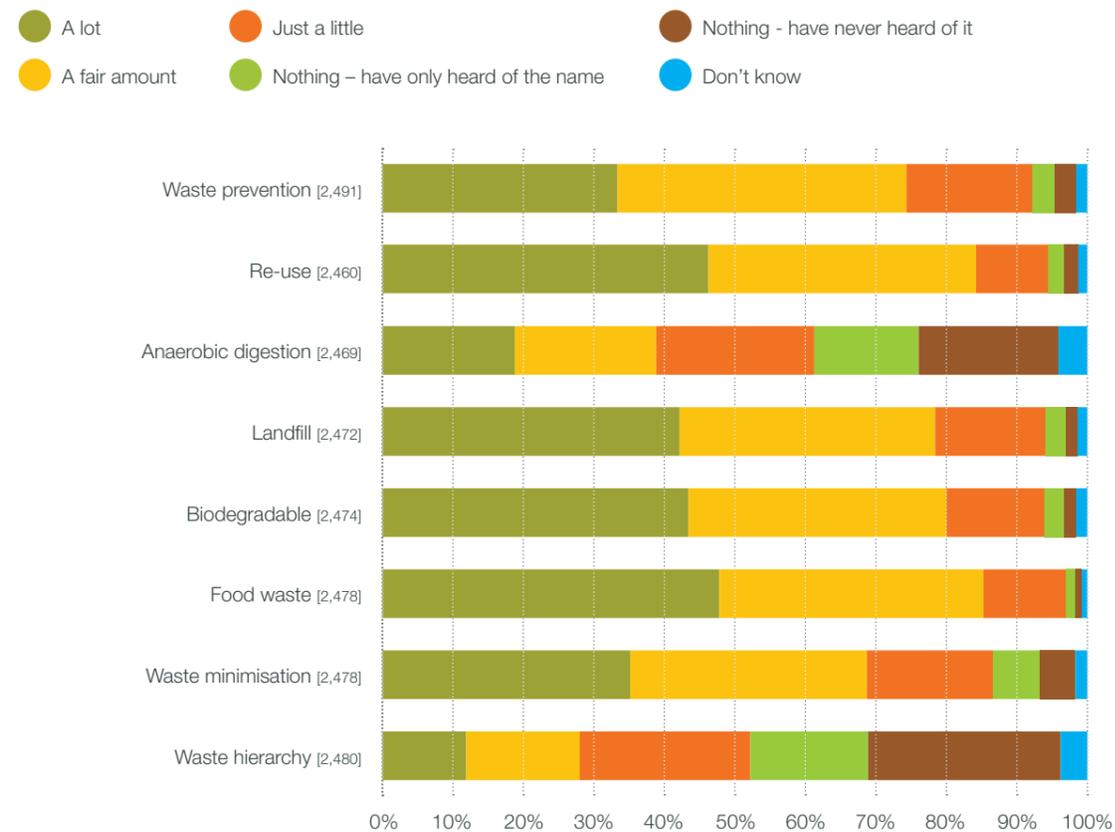


Participation in environmental or ethical projects is reported to be just 5.5 per cent. This finding concurs with other research which highlighted low awareness of and participation in sustainability initiatives amongst the student population. This is in spite of a belief that sustainability skills are highly relevant to future employers and represents a mismatch between student comprehension and academic definitions of sustainability¹³.

¹³ NUS/HEA, 2013, Unpublished

FIGURE 29 AWARENESS AND COMPREHENSION OF WASTE TERMS

What, if anything, do you understand of the following terms?

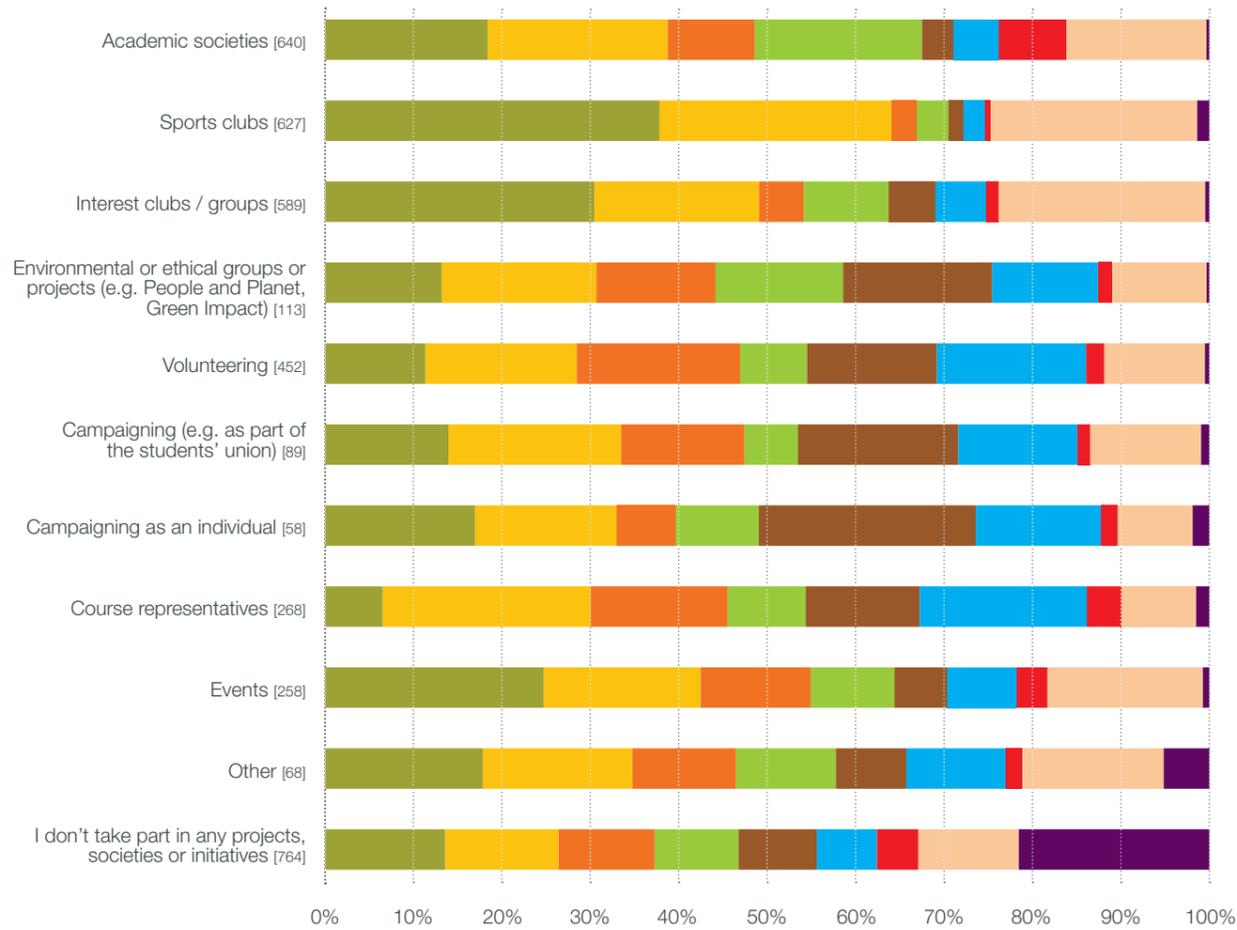


Looking at the reasons behind participation (figure 31), respondents revealed that they are attracted to activities which are 'fun', offer the opportunity to make friends and meet new people, but also that enable them to develop new skills, reflecting the focus of the current student population on education for employment.

FIGURE 31 MOTIVATIONS FOR PARTICIPATING IN EXTRA-CURRICULAR ACTIVITIES

What benefits, if any, do you think that you get from taking part in these projects, societies or initiatives?

- To have fun
- To further my subject knowledge
- To help with coursework
- To develop skills
- To improve things in the community
- To meet new people / make friends
- To gain work experience
- To help other people out
- Other

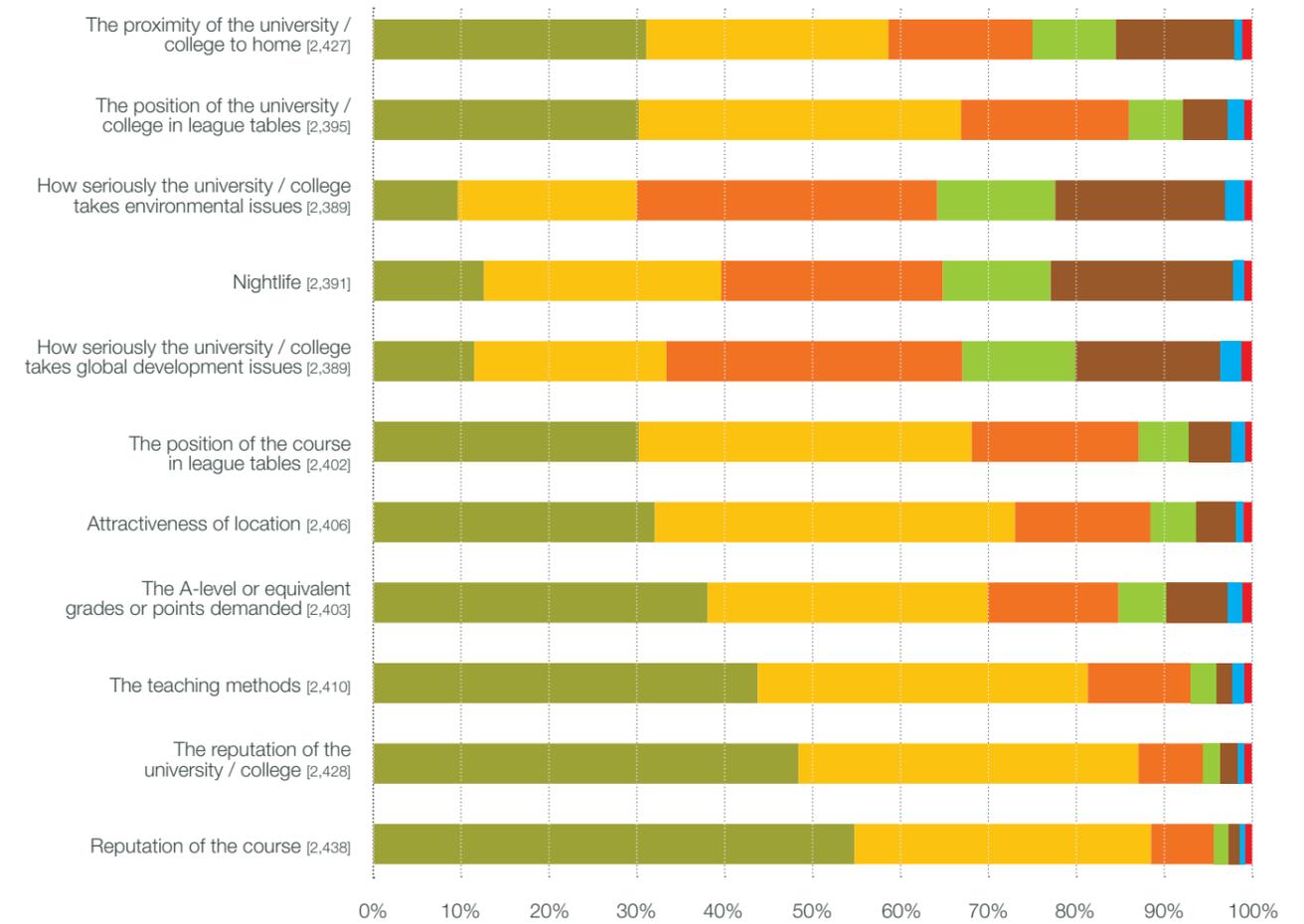


The influence of sustainable development on university choice is shown in figure 32. Whilst the more traditional criteria of reputation (of the course and the university), the teaching methods used and the A-level requirements form the strongest influences over university choice, there is little disagreement that institution performance on ethical and environmental issues is important.

FIGURE 32 INFLUENCES ON UNIVERSITY CHOICE

How important, if at all, were the following when choosing which university or college to apply to?

- Very important
- Somewhat important
- Neither important nor unimportant
- Somewhat unimportant
- Very unimportant
- Don't know
- Rather not say



OPPORTUNITIES FOR HIGHER EDUCATION

The results presented here show that important steps have been taken by higher education in supporting students to recycle, with over half of respondents reporting a high commitment to recycling (54.8 per cent are committed recyclers). The results also reveal several opportunities for improving performance given that:

- + The percentage of committed recyclers within the student population (54.8 per cent) is less than that of the UK as a whole (75 per cent), with almost 10 per cent of students not recycling at all and over a third (35.9 per cent) not recycling as much as possible.
- + Approximately half think they are doing all they can in terms of the range and volume of materials recycled, but the remainder need further support in order to achieve this. This is particularly the case for recycling on campus.
- + First year students, particularly those living in halls of residence, are the most likely to make a change to their behaviour and are looking for additional support in order to achieve improvements in recycling and waste behaviour.
- + Respondents living off campus are less likely to be aware of the campus recycling system.
- + Only one third of students feel that on-campus recycling systems are very convenient and easy.
- + Half of respondents do not recall receiving information on recycling either on campus or in their term time accommodation since joining university.

Based on these findings, three key areas of opportunity can be identified.

INFORMATION AND COMMUNICATIONS

Those living off campus are less aware / engaged with the recycling system on campus, representing an opportunity to increase recycling rates through increased engagement with this sector of the student population.

All students should receive clear communication on recycling systems on campus and within halls of residence. Where possible, work with private landlords and local councils should be carried out to ensure communication of independent schemes when students make the move from halls of residences to private rented accommodation.

A range of communications methods should be used to raise awareness of recycling systems, taking into account student preferences for online communication and higher recall rates of 'physical' communications. Different messages may also be needed to account for varying motivations and current levels of recycling.

Environmental initiatives aiming to encourage recycling and other pro-environmental behaviours should be designed to be fun, with opportunities to meet new people and to develop skills in order to encourage involvement.

SUPPORTING HALLS OF RESIDENCES

Overall, respondents living in halls of residences are recycling to a lesser extent than those living in privately rented accommodation, suggesting a need to improve the support and services offered. This change in accommodation can be associated with an increase in responsibility for residents renting in the private sector. Therefore, there may be an opportunity to influence halls residents' behaviour through changing responsibility for waste and recycling.

Respondents are motivated by a sense of moral obligation and find one of the main barriers to be a lack of action by friends and flatmates, reinforcing the need to develop social norms surrounding recycling behaviour. Participatory or peer-to-peer initiatives involving halls residents represent a key opportunity to develop social norms.

There is potential to further improve the convenience and ease of recycling systems by increasing the frequency (or visibility) of recycling bins.

WIDENING WASTE SERVICES

The potential to improve the convenience and ease of use of recycling systems, through increasing the frequency (or visibility) of recycling bins, also applies to the on-campus recycling systems.

An opportunity exists to support student re-use behaviour by providing opportunities for donating and collecting materials in partnership with third sector organisations. Communications should also ensure students are aware of the range of materials that can be donated.

ACKNOWLEDGEMENTS AND MORE INFORMATION

The research for this report was commissioned from NUS Services on behalf of SITA UK.

If you would like to discuss the findings of this research in more detail and how SITA UK can help, please contact us:

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