

Agenda Item No: 13

Report To: Cabinet

Date: 11/02/2016

Report Title: Recycling Performance 2015/16 Update and 2015 Waste Composition Analysis

Report Author: Julie Rogers: Head of Environmental and Customer Services

Portfolio Holder: Councillor Clair Bell



Summary:

This report provides an update on Ashford's recycling performance for 2015/16 and the findings from a residual and recyclable waste composition analysis undertaken during November 2015. The challenges arising for Ashford are explored with a proposal to develop a forward strategy for Ashford to maintain recycling performance above 50%.

Key Decision: NO

Affected Wards: All wards in Ashford

Recommendations: **The Cabinet is recommended to:-**

1. Note the findings of this report and
2. Approve the development of a costed forward education and promotion strategy including forward recycling options and targets to be brought back to Cabinet in June.

Policy Overview: Ashford made a significant policy commitment to improve its recycling performance in 2012, to respond to the national recycling target of 50%, after being titled the worst in England with a performance of 12% in 2011/12. Key to delivery was the implementation of the Mid Kent Partnership (Maidstone, Swale, Ashford and Kent Council's) and the Biffa contract, which commenced in April 2013.

Financial Implications: None at this stage

Risk Assessment N/A

Equalities Impact Assessment N/A

Background Papers Mid Kent and Canterbury Waste Composition Analysis: A report by Waste Intelligence: December 2015

Portfolio Holders Comments Ashford Recycling Performance: monthly data analysis
Portfolio Holder will provide verbal comments at the meeting.

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Report Title: Recycling Performance 2015/16 Update and 2015 Waste Composition Analysis

Purpose of the Report

1. This report provides an update on Ashford's recycling performance for 2015/16 including a modelled full year comparison with 2014/15.
2. The report will also inform Members of the findings from a residual and recyclable waste composition analysis undertaken during November 2015.
3. The issues and challenges arising from both analyses conclude that Ashford will need to develop a more targeted forward education and promotion strategy if it is to maintain recycling performance above the national 50% target.

Issue to be Decided

4. The Cabinet is recommended to:
 - a. Note the outcomes of this report and
 - b. Approve the development of a costed forward education and promotion strategy including forward recycling options and targets to be brought back to Cabinet in June.

Summary

5. Ashford's recycling performance remains high, projected to be 52% for 2015/16, and comfortably above the national target of 50%.
6. The recycling services offered by Ashford are generally very well used with participation in the dry recycling service (paper/card, cans, plastics, glass) at an exceptional 92%.
7. The rates of capture for targeted dry recyclables in Ashford are generally high or very high ranging between 70 and 90%. Similarly for waste electronic and equipment (so called WEEE), a new service for Ashford where the capture rate is 88%.
8. Green waste continues to be a success with a further rise in subscribers for 2015/16 and a commensurate rise in tonnage collected.
9. Between 2008 and 2015, the households in Ashford put 55% less waste in the residual waste bin. The same period saw the amounts of waste left in the residual bin that could have been recycled also fall by between 45-60% for targeted materials such as food, paper/card and glass. (Please refer to paragraph 37a for further information).
10. There was a rise in green waste put out for disposal with significant amounts left in the residual bin which suggests, despite the success of the green waste

service, there is more to do.

11. Contamination of the recycling put out for collection appears to be a growing challenge for Ashford and a contributing factor to a drop off in predicted recycling performance for 2015/16.
12. The total amount of waste generated by Ashford households is predicted to rise for 2015/16. There is also expected to be a significant fall in the amounts of dry recyclables and food waste collected. Taken together, these factors also contribute to the expected fall off in recycling performance.
13. Detailed analysis reveals that there are significant differences in dry recycling and food waste performance between flats and other households in Ashford. There are also differences between socio, demographic and economic (ACORN) groups.
14. The work undertaken suggests that some further detailed in-house analysis is required to fully understand the trends being seen and to be able to develop options for responding. These options will need to be targeted and costed to look at the potential impact on recycling performance (cost versus return) and form the basis of a forward strategy and any future recycling target.

Background

15. Ashford achieved a nationally recognised most improved recycling performance of 43% in 2013/14, even allowing for this performance reflecting only 9 months of the new contract partial services roll out. This improved further to 55% for 2014/15 reflecting a full year of the new contract but which still only saw food waste collections rolled out to flats during the third quarter. Given this rapid and impressive rise in performance from 2012/13 (12%), maintaining or improving on it was always going to present a major challenge.
16. Recycling performance is monitored monthly along with identifying areas of concern that may be addressed by in-year actions.
17. In support of routine performance monitoring Ashford, in partnership with Mid Kent and Canterbury City Council, commissioned a waste composition analysis to look at both residual and recycling waste (food, green and dry mixed recyclables) that residents were putting out for collection.
18. The aim of the waste analysis, undertaken by a specialist company (Waste Intelligence) was:
 - a. to provide up to date data some two and a half years into Ashford's new contract;
 - b. to enable a comparison to be made between 2015 and 2008 when the last Kent wide waste composition analysis was undertaken;
 - c. to examine any differences within household categories using the representative ACORN (A Classification of Residential Neighbourhoods) sampling methodology;
 - d. to identify how much of the recyclable material (mixed dry recycling, food and green) that is in the waste stream is being put out for collection through the systems offered by Ashford; and

- e. identify any areas where Borough wide or targeted improvement may support maintaining a recycling rate above 50%.

Recycling Performance and Waste Composition Analysis

Recycling Performance, Full Year Modelling and Analysis

19. Recycling performance for the year to date (Apr-Dec) is averaging 52% which is down on the same period last year at 55%. Initial high level analysis suggested that this was mainly attributable to a significant drop in recycling performance in July 2015 to 44%.
20. The performance in July 2015 can be attributed to a significant rise in the tonnage of recyclable material rejected as contaminated at either the KCC transfer station or materials reprocessing facility (MRF). This rejected material ends up sent to energy from waste or landfill. Against a generally rising problem with contamination in recycling collections in Mid Kent and beyond, a particular focus on the sample and full loads delivered into the KCC processing infrastructure was seen.
21. Ashford responded to this challenge by publicising the issue and also advising residents that a much tougher approach would be taken with bins more carefully examined at the time of collection. Any bins or bags raising concerns were highlighted to the responsible household or management company with a warning that repetition would see the bin or bags left uncollected with advice for the householder / management company in order to rectify.
22. The tougher approach appeared to have an immediate impact with the August 2015 recycling performance at 59%. However, further analysis and modelling has shown that July 2015 alone cannot be held responsible for the drop off in recycling performance.
23. Detailed recycling and residual tonnage analysis to enable forward modelling of a 2015/16 full year recycling performance suggests that Ashford's performance will remain at around 52%. 2015/16 is the 2nd full year of the new contract and the 1st where the full roll out of all services, including food, to flats has been in operation.
24. In order to at least maintain recycling performance at the 2014/15 level (55%), Ashford would need to see Jan- March 2016 exceed 60% in each month. Both historic data together with the further analysis and modelling suggest this is highly unlikely.

Findings

25. The analysis and modelling reveals both good and bad news suggesting that there are a number of concerns and challenges:
 - a. the tonnage of dry recycling (the mixed bin) materials put out for collection is predicted to be down by over 10%
 - b. the tonnage of food waste put out for collection is predicted to be down by nearly 6%

- c. the tonnage of green waste put out for collection is predicted to be up by over 7%; and
 - d. the tonnage of residual waste put out for collection is predicted to be up by nearly 10%
26. The reductions in food waste and dry recyclables on their own would not necessarily be an issue. It could be that households are producing and discarding less food waste, a good thing. Similarly, the reductions in dry recyclables could be due to the same reasons.
 27. However, when taken with the significant predicted rise in residual waste this suggests a shift whereby similar amounts of food and recyclables are being generated but are not being diverted into the associated separated collection offered.
 28. Members will be aware that while ever recycling performance is a weight based target then the shifts in tonnages outlined above are going to see that performance fall.
 29. The rise in tonnage predicted for green waste are a good measure of the continued success of the subscriber service offered. However, this rise alone is not sufficient to counter the effects of the reduced food and dry recycling waste.
 30. In order to further understand and respond to the challenges the recycling performance analysis suggests, a detailed evaluation of the waste composition analysis commissioned was undertaken

Waste Composition Analysis and Findings

Analysis: Overview

31. The waste composition analysis involved separately collecting both residual and recycling waste put out by a representative sample of households derived from using ACORN (A Classification of Residential Neighbourhoods) data. For Ashford, this saw 250 households and 250 flats (communal collections) chosen with the waste fully analysed via a hand sorting and weighing methodology.
32. Based upon the overall make up of Ashford, the ACORN (A Classification of Residential Neighbourhoods) sample for Ashford fell into 5 classification categories:
 - a. ACORN 1: Affluent Achievers
 - b. ACORN 2: Rising Prosperity
 - c. ACORN 3: Comfortable Communities
 - d. ACORN 4: Financially Stretched
 - e. ACORN 5: Urban Adversity
33. The selected households were not advised in advance in order that true and normal behaviour was analysed. This is standard and good practice when undertaking a waste composition analysis and the collection itself was undertaken in such a way that the householder does not see any change. No

individual household was identified via the analysis of what was collective tonnage from the sampled area.

34. More details of the sampling and overall waste composition analysis methodology is available via the background papers.

Findings

35. A series of key extracts from the full waste composition analysis (background paper) are included at Appendix 1 to the report. They comprise:
- a. comparative charts showing the composition of the residual waste in 2008 and 2015 (Appendix Figure 1);
 - b. comparative charts showing the composition of the recycling waste modelled for 2008 and 2015 actual (Appendix Figure 2);
 - c. changes in the weights of recyclable materials found in the residual waste bin 2008-2015 (Appendix Table 1)
 - d. the capture rates for targeted recycling materials: mixed dry recyclables, food waste and green waste including how Ashford households compares with the other mid Kent authorities and Canterbury City Council (Appendix Table 2)
 - e. some analysis of the waste generated by flats (Appendix Figure 3)
 - f. the capture rates for targeted recycling materials: mixed dry recyclables, food waste and green waste for flats (Appendix Table 3)
 - g. some comparative data for the different ACORN categories within Ashford (Appendix Figure 4).
36. Drawing on all of the waste composition data and analysis a number of the key findings are set in the following sections of the report.

General Trends and Performance

- a. There was a 26% reduction in the average weight of residual waste produced by all households between 2008 and 2015. Ashford is 55% lower which compares to 30% lower for a Maidstone household and 23% for a Swale household;
- b. There has been a welcome and significant reduction in the amount of food waste, a national challenge, that makes up overall residual waste;
- c. There has not been any substantial increase in hard or impossible to recycle materials such as some plastics, for example, plastic film or a significant increase in plastic packaging overall; and
- d. Ashford 'stand alone' households are putting out greatest weight in their mixed dry recycling bin but also the highest proportion and weight of unwanted materials i.e. contamination. When this contamination is accounted for the Ashford households put out the same average weight as the other Councils in the study.
- e. There was a lower performance overall when looking at the flats (communal collections) sampled.

37. Materials Analysis

- a. Ashford has the lowest weights of recyclable materials left in residual waste. Importantly, there have been some substantial reductions in key types of some of this waste which suggests that services are being well used (Appendix Table 1):
 - i. food: down 50%
 - ii. paper and card: down 46% (average)
 - iii. glass: down 60%
- b. Garden waste has increased both in the overall waste (up 4%) and remaining in the residual waste bin that could be recycled (up 24%: Appendix Figure 1 and Table 1);
- c. Decreases in other materials remaining in the residual waste bin that could have been recycled are also a positive contribution to increased recycling;
- d. In the important recycling services, Ashford has a set out rate (placed out for collection) for food collections averaging 63% over the sampling period and 92% for mixed dry recycling collections. Both of these were substantially higher than the other three authorities studied:
 - i. Set out rates for a mixed dry recycling service of over 85% are excellent and so Ashford can be very pleased at its achievement in getting households using this service.

38. Capture Rates

39. Recyclable material capture rates are a critical measure of both the success of any service offered and where potential challenges remain. Capture rates look at the amount of potential recyclable material that is in the waste stream, whether in the residual waste bin or recycling bin, and that which is actually put out for collection in the recycling bin. When looking at this part of the analysis (Appendix Table 2):
 - a. Ashford has the highest overall capture rates for materials targeted;
 - b. Ashford has high or very high rates for paper and card (average 77%), glass (90%), steel cans (Fe: 70%) and electronic and electrical equipment (WEEE: 88%) and good captures rates for plastics (59%);
 - c. the higher capture rate materials: glass, paper and card and WEEE are also the heaviest and so contribute more pro rata to recycling performance; and
 - d. whilst capture rates for aluminium cans and textiles are not as good, they do compare well with the other authorities.
 - e. For food waste, Ashford 'stand alone' households have the best capture rate (63%) when compared to the other authorities;
 - f. For flats, in addition to putting out less recyclable material for collection, particular other issues highlighted include:
 - i. Ashford flats do perform well overall when compared to the other authorities in the study. However:
 - ii. around 50% of the waste remaining in the residual bin could be diverted to recycling;
 - iii. capture rates for paper and card were still good and, interestingly, the capture rates for textiles were much higher than for 'stand alone' households; and
 - iv. over a third (39%) of the recyclable waste put out for collection was contaminated.

40. ACORN (A Classification of Residential Neighbourhoods) Analysis

41. Within both 'stand alone' households and flats there are some significant differences across the whole range of measures. Of particular interest are (Appendix Table 4):
 - a. Significantly lower weights of materials put out for recycling by ACORN 1 (Affluent Achiever) households even after allowing for higher contamination in other ACORN groups.
 - b. Higher amounts of food waste that could be recycled were placed out for collection by ACORN 5 (Urban Adversity) households and flats

Conclusions

42. The full year modelled recycling tonnages and projected performance of 52% suggest that there are a number of challenges:
 - a. rising tonnage of overall waste produced has had a real impact; and
 - b. lower amounts of key dry recyclable materials and food waste are being presented which may, in isolation, suggest a degree of apathy towards the services Ashford are offering.
43. Some excellent performance when looking at service participation rates and materials capture rates are not sufficient to counter the issues highlighted from the recycling performance analysis.
44. The most efficient food waste recyclers were the Ashford ACORN 5 (Urban Adversity) households. This is often seen across the UK as it is thought that ACORN 5 households are less bothered by the "yuck factor".
45. The flats in the Ashford sample areas could recycle more food and mixed recycling, but for some of the flats the weights were very low. However, this is not unusual and is a feature of these types of property nationally. This suggests that more careful selection of the flats that will participate in a food waste or mixed recycling scheme may be more beneficial than the full roll out of these schemes to all. However, more work is needed, a comprehensive study is currently being undertaken by London authorities with the Waste and Resources Action Programme (WRAP). The results of this alongside local studies and pilots currently underway will help inform the way forward.
46. Ashford appears to have a growing problem with contamination of recyclables put out for collection and this is having a direct impact on recycling performance.
47. There appears to be an opportunity to capture more green waste and textiles via the services offered by Ashford.
48. Whilst the waste composition analysis was a snapshot in time and a sample of properties, a more comprehensive extrapolation model to equate to the whole of Ashford gives similar results for key measures such as capture rates. This provides confidence in using the data as part of forward planning.
49. Taken together, the studies and modelling suggest that more work internally is needed to understand particular area or ACORN groups and the sources of contamination.

50. The studies and modelling, combined with further analysis, can form the sound, evidenced basis for the development of a targeted and costed education and promotion strategy. This will enable:
- a. a proper consideration of the practicalities and potential effectiveness of various approaches
 - b. an examination of any costs versus return in respect of maintaining or improving performance for 2016/17
 - c. members to determine what, if any, target they wish to adopt for recycling performance in Ashford going forward.

Portfolio Holder's Views

51. The Portfolio Holder will provide verbal comments at the meeting.

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FIGURE 1: Average Household Residual Waste Bin

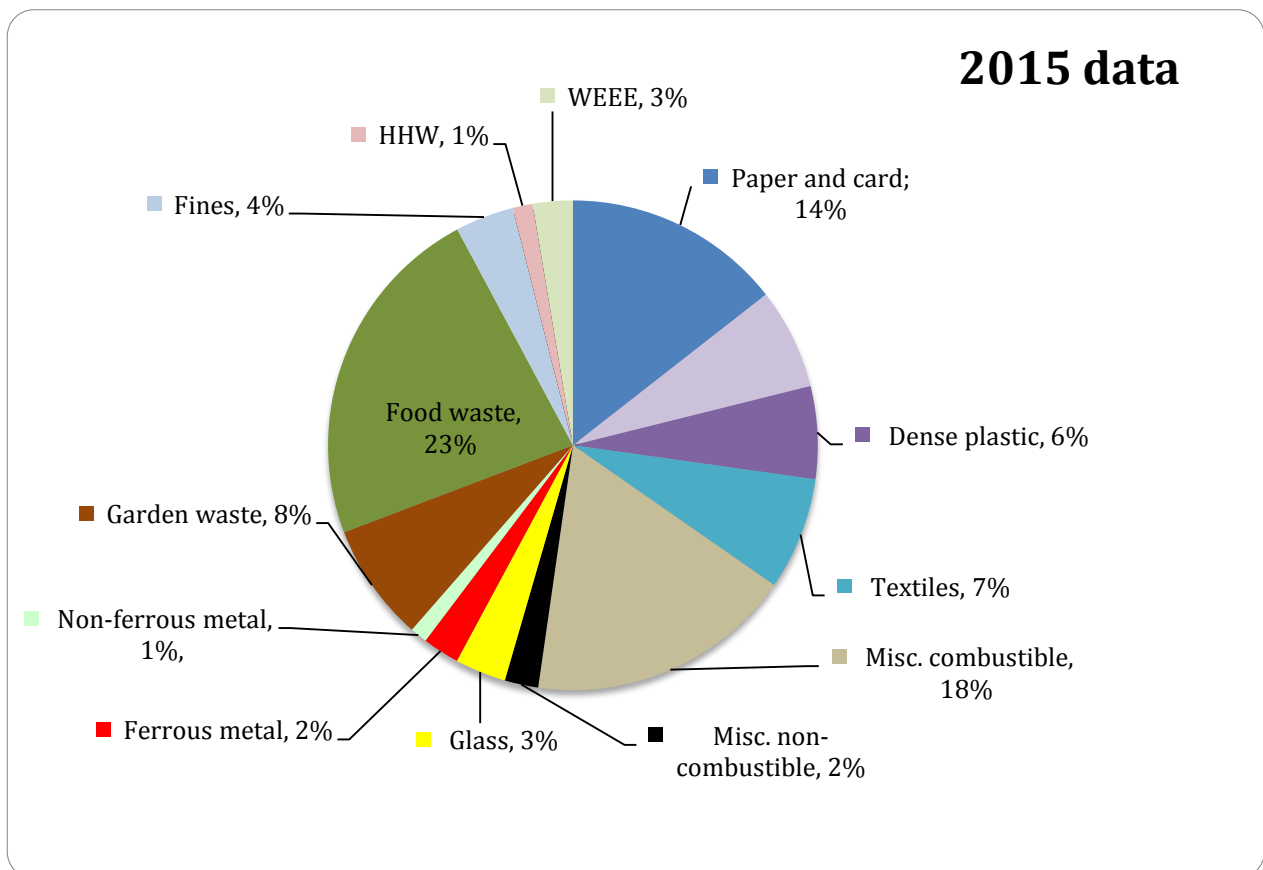
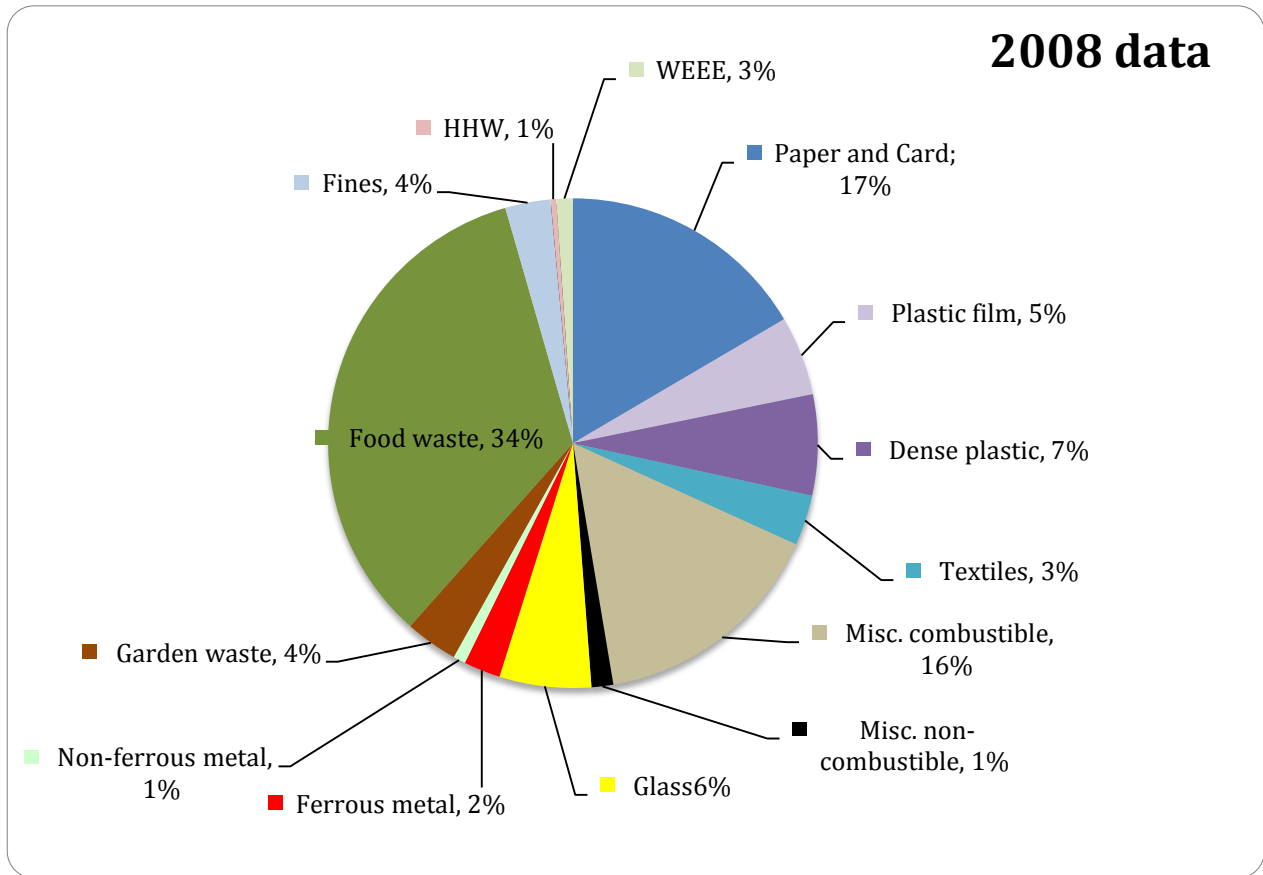


FIGURE 2: Recyclable Material in the Residual Waste Bin

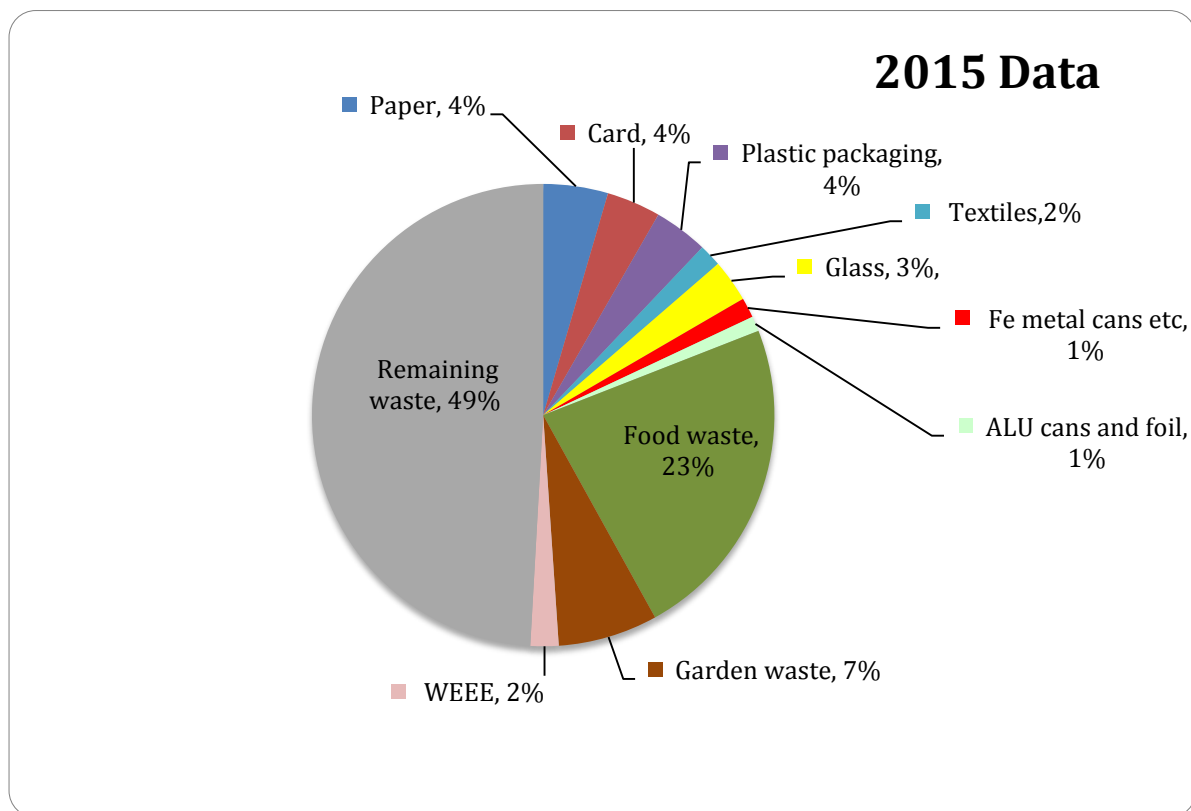
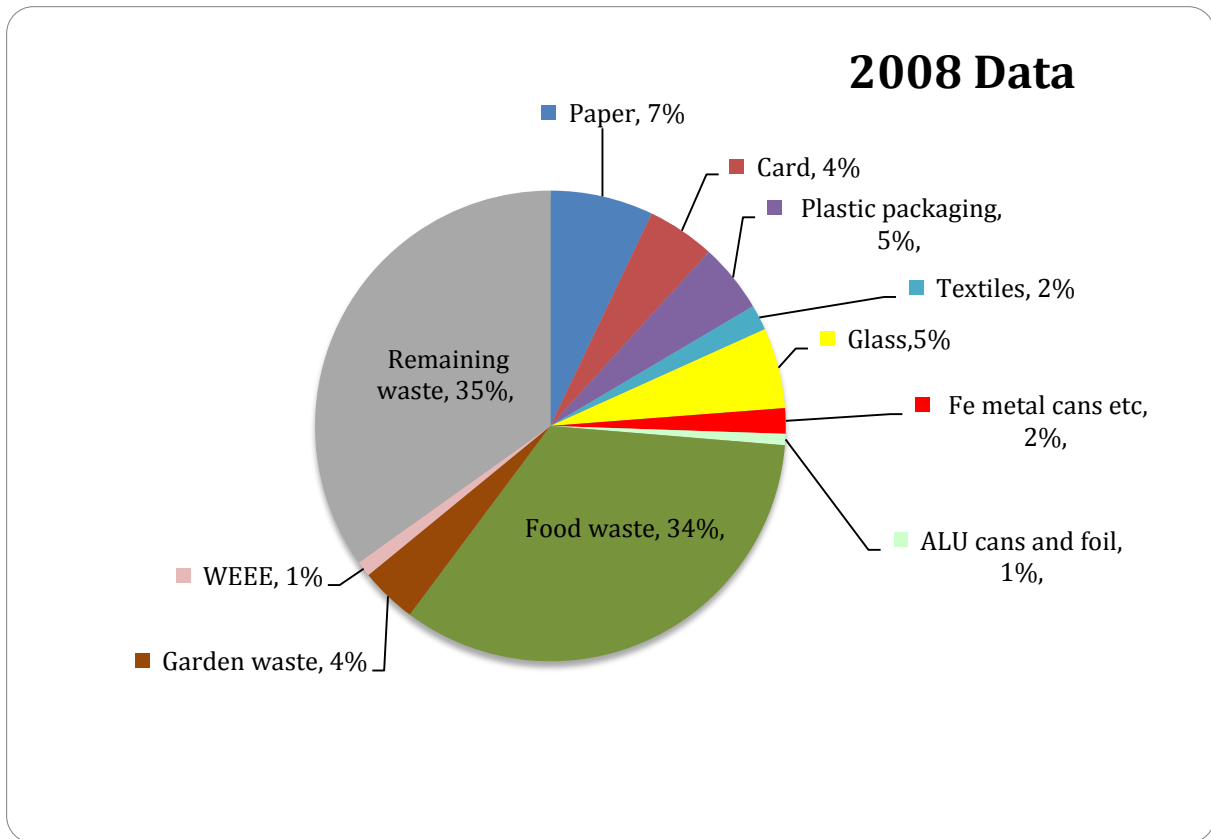


TABLE 1 : Ashford: Weights of recyclable material found in the household residual waste bin 2008 and 2015 compared

	2008	2015	% Change
Paper	0.73	0.34	53% -
Card	0.48	0.29	40% -
Plastic packaging	0.49	0.29	41% -
Textiles	0.18	0.12	34% -
Glass	0.57	0.23	60% -
Fe metal cans etc	0.18	0.11	41% -
ALU cans and foil	0.08	0.08	0%
Food waste	3.49	1.74	50% -
Garden waste	0.40	0.53	24% +
WEEE	0.11	0.15	26% +
Remaining waste	3.59	3.73	4% +
Total	10.3	7.60	26% -

TABLE 2: Capture Rates of Recyclable Materials: 'Stand Alone' Households

	Ashford	Canterbury	Maidstone	Swale
Paper	80%	80%	79%	64%
Card	75%	63%	62%	70%
Plastics	59%	44%	44%	59%
Textiles	20%	53%	6%	15%
Glass	90%	77%	60%	88%
FE Cans	70%	43%	34%	50%
Alu Cans	35%	24%	34%	48%
WEEE	88%	-	35%	-

FIGURE 3: Composition of Waste from Sampled Ashford Flats

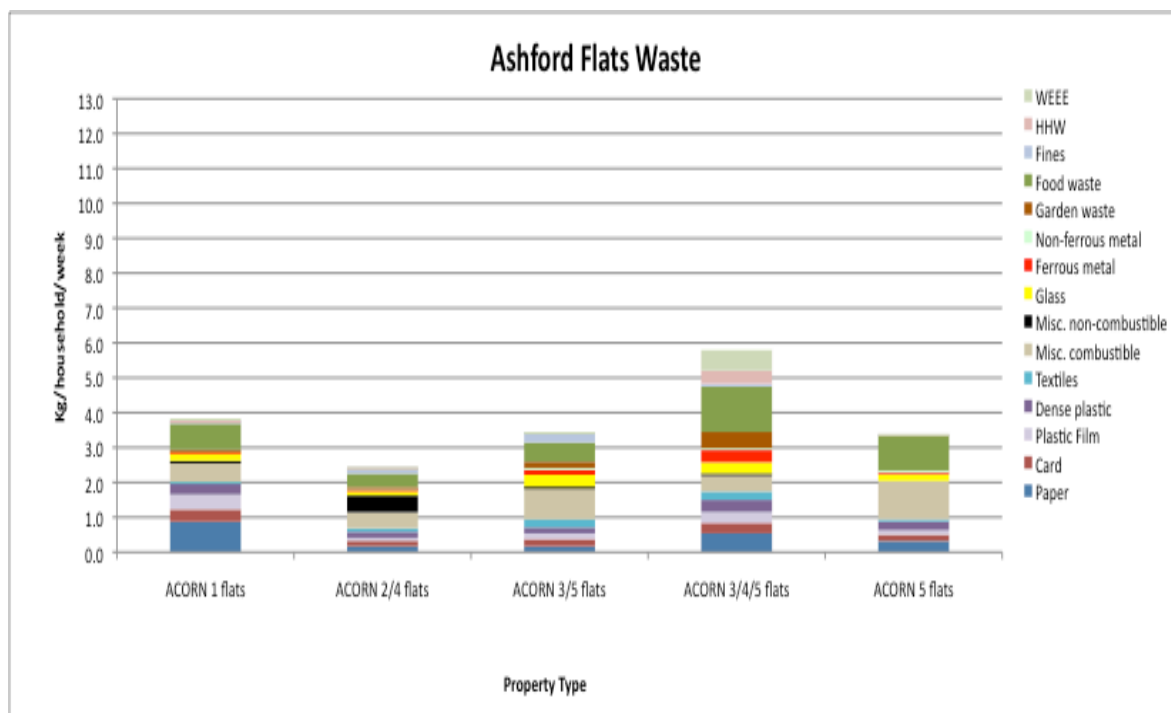


TABLE 3: Capture Rates of Recyclable Materials: Flats

	Ashford	Canterbury	Maidstone
Paper	60%	37%	65%
Card	57%	33%	38%
Plastics	32%	31%	19%
Textiles	56%	-	11%
Glass	43%	31%	49%
FE Cans	29%	24%	14%
Alu Cans	22%	14%	11%
Food	34%	-	35%
WEEE	15%	-	10%

FIGURE 4: Comparison of weights put out for recycling across ACORN categories

