

Evaluation of the Household Waste Incentives Pilot Scheme

Final Report to Defra (Waste Strategy Division)
Appendix 1: North east

July 2006

North East

Alnwick

Aim of scheme

This scheme aimed to increase recycling by communities in Alnwick. A monthly league table of recycling performance (based on the local diversion rate) was drawn up with promotion and relegation opportunities depending upon performance. Those communities that had a good or improved recycling performance were given a financial reward to spend on local environmental schemes in their neighbourhood.

Area features/demographics

The scheme covered 984 households in a rural area and 2,604 households for the urban collection round in Alnwick. The authority is ranked 138th in the Index of Multiple Deprivation. In 2004-05 its overall recycling rate was 18.5%

Alnwick operates an alternate weekly collection of residual and recyclable waste using 240 litre bins.

Scheme description

The weight of waste collected from each community on the two rounds was measured using a bin weighing system fitted to the refuse and recycling containers and the collection vehicle. This information was used to produce a local diversion rate - 'recycling rate' - for each community within the pilot area. The results were publicised every month, in two league tables, consisting of a premiership with six communities and a second league containing the other thirteen.

All of the premiership communities received £100 per month. The league leaders at the end of the month also received an additional £100. An award of £500 was also paid to the league champions at the end of the 'season'; the award went to the appropriate local parish council for environmental initiatives. The best-improved area each month was also awarded £100.

Defra funding

Defra funding for this scheme was £43,335, which covered the prize fund and all publicity material. This funding support from Defra equates to support of around £12.04 per household.

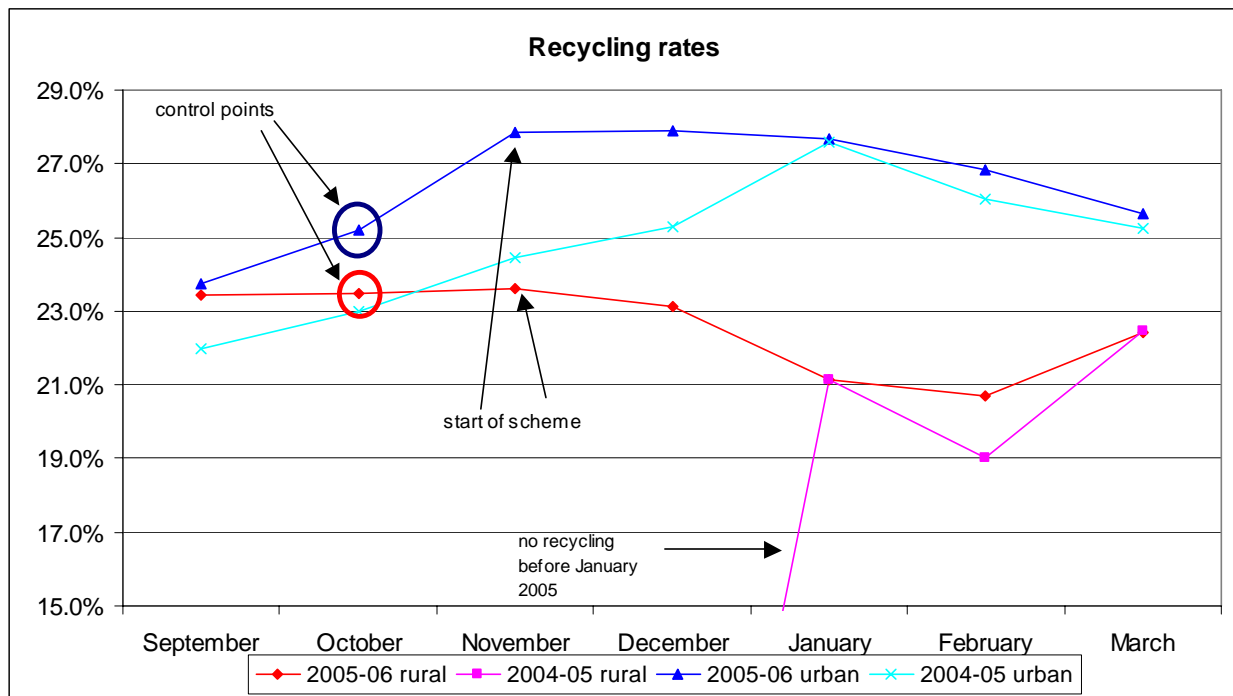
The authority provided the capital funding to purchase the weighing equipment (around £22,000) and undertook a post incentive attitudinal survey (approx. £10,000).

Monitoring mechanism used

The incentive was monitored by recording the weights of recyclables and residual waste to calculate local recycling rates before and after the implementation of the scheme.

Key results

The graph below shows the changes in recycling rate for both the rural and urban areas over the incentive period (2005-06) and also for the previous year. (It should be noted that the figures for 2004-05 include additional materials such as bulky items, which are not included in the 2005-06 figures, thus the actual recycling rate for 2004-05 are likely to be over-estimates).



The trend in the 2005-06 recycling rates for both the rural and urban areas is very similar to the same time period in 2004-5.

Over the duration of the trial the urban rate has increased from 25.2% to 25.7% but in the rural area it fell from 23.5% to 22.4%. The number of communities improving their performance over the incentive period was roughly equal to those who declined.

At the launch of the incentive 15 of the 19 communities reported increases in recycling but this fell to 9 of 19 over the Christmas period.

The results of a post-incentive attitudinal survey (of 1213 residents) showed that:

- 86% of respondents were aware of the Recycling League incentive.
- 66% of these made aware of the scheme via leaflets left with their bin. 31% were made aware via local newspapers.
- 36% of those who were aware of the incentive said that they had recycled more. 10% had encouraged friends and family to recycle more.
- When asked to grade their recycling performance before and after the incentive householders claimed to be recycling more.
- When those respondents who knew about the Recycling League Competition were asked whether the cash awards had made them more likely to recycle, only 17% stated that the award made them a lot or a little more likely to recycle. 65% stated that it was no more likely to make them recycle, and 18% that it was a lot or a little less likely to make them recycle.
- 5% of householders interviewed said that they felt there was a recycling team spirit in their area.

Conclusions

- There is a slight increase in recycling rates when compared to 2004-5 however from the data provided it is not possible to say what element of this is attributable to the incentive and what is due to increased general awareness of recycling.
- The authority report an overall increase in the local recycling rate of around 1.5 percentage points comparing the October 2005 baseline with March 2006 suggesting the incentive has had a small positive effect.

Key lessons learned

- The authority noted that the novelty value of chipping and weighing residents' bins attracted a lot of media interest (regional newspapers, national newspapers, regional television and national radio), which positively impacted on the promotion of recycling in general.
- Fixing microchips in residents' wheelie bins and recording the weights of the content of each bin on a weekly basis was considered to be very effective and produced a range of very useful information.
- Officers also felt that the results would have been more meaningful if the pilot had run for a year or more.
- The authorities advice to other authorities is to allow long lead in times for Retrofitting bin weighing chips into bins, as this process can be time consuming.

City of Sunderland

Aim of scheme

The scheme was developed to ascertain if the value of incentives and the conditions by which they were offered influenced their effectiveness. Incentives of a prize draw to win £100 shopping vouchers and £25 cash rewards for regular recycling were used in two similar areas to establish their effect on usage of the recycling services.

Area features/demographics

The scheme covered 5,000 households Sunderland. The authority is ranked 25th in the Index of Multiple Deprivation. In 2004-05 its overall recycling rate in was 10%.

Two pilot areas and one control were chosen each having similar features including social housing with low participation rates.

Sunderland provides households with a weekly wheeled bin collection service and a fortnightly 'Kerb it' recycling box service.

Scheme description

The trial areas were as follows: -

Area 1 - Households in an area of 1,500 properties were awarded £25 cash if they participated in 7 out of the 9 'Kerb-it' kerbside collections during the specified period.

Area 2 – A fortnightly random prize draw was carried out to fit with the standard collection frequency of the area encompassing 2,000 households. Property details were drawn electronically at random and the household drawn or the nearest property to the one selected who had placed a Kerb-it box out for collection was awarded a £100 shopping voucher.

Area 3 - A control area of 1,500 households was also monitored.

Defra funding

Defra funding for this scheme was £49,400, which covered the prize fund, publicity material and staff costs. This funding support from Defra equates to support of around £9.90 per household.

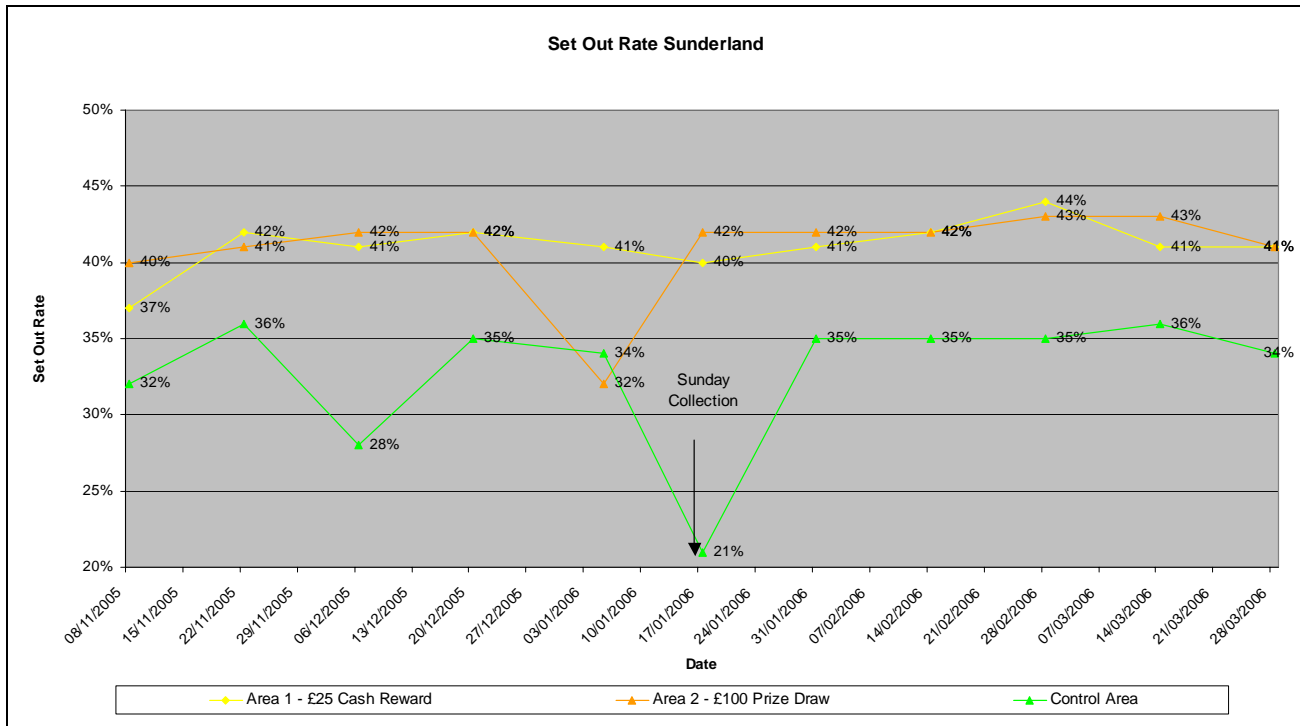
Monitoring mechanism used

Recycling rates and participation rates were monitored in all three areas. An attitudinal survey was also used to assess the impact of this scheme.

Key results

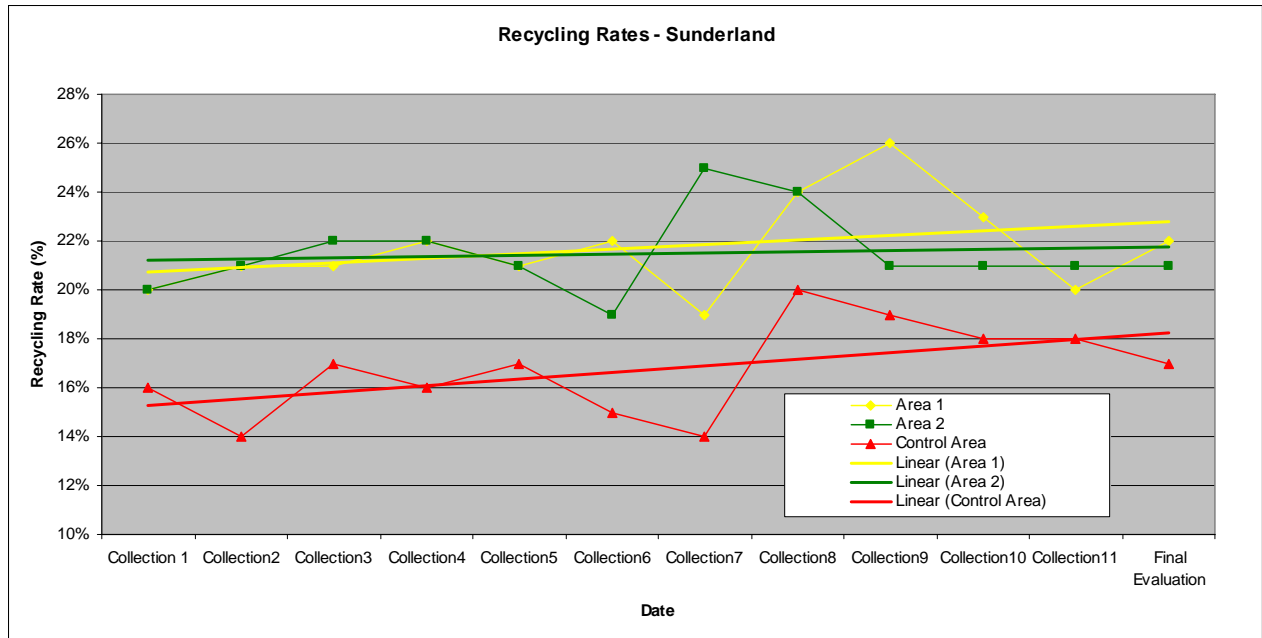
Final evaluation showed that when comparing the set out rate for the kerbside recycling scheme at the start and at the end of the incentive period, the set out rate has risen as follows: -

- Area 1 (£25 cash incentive to every house) up 4%
- Area 2 (£100 fortnightly prize draw) up 1%
- Area 3 (No area specific incentive) up 2%



In Area 1, where the £25 cash incentive was offered, 598 addresses (37.8% of households) eventually qualified, having put out their Kerb-it box for 7 out of the 9 monitored collections.

Recycling rates show a similar trend with slight increases in the recycling rates in each of the areas. The increase in each of the incentive areas is similar to that of the control area and thus it appears that the incentive has had little effect on the amount of waste that is recycled.



The results of the attitudinal survey carried out in January 2006 show: -

- 84% claimed to have and use a kerbside recycling box.
- 42% of household claimed to have read and received the leaflet explaining the incentive.
- 16% said the incentive had encouraged them to recycle more.
- 34% claimed to be aware of the incentive scheme. 63% had been made aware of the incentive via the leaflets posted through their door.
- 59% claimed to have kept the information describing the incentive and the kerbside collections.
- 28% said the incentive had changed their attitude towards recycling.

Conclusion

Although 84% of household claim to have and use a kerbside recycling box, this figure does not correlate with the actual participation rates. This is most likely due to householders' tendency to exaggerate recycling performance when asked.

28% of householders claim to have changed their attitude towards recycling as a result of the incentive. This change in attitude is not reflected in similar increases in the recycling or participation rate.

The incentivised areas have increased their participation rate by between 1% to 4% and their recycling rate by 1-2% (when comparing the start of the scheme to the end). However the control area has also increased its participation rate by 2% and its recycling rate by 3%.

The scheme may have raised awareness of recycling but this has not been translated into equivalent, attributable increases in recycling performance.

Key lessons learned

Officers' interpretation of the survey of households suggests that: -

- Throughout Area 1, where the £25 cash incentive was offered to every address, there was widespread knowledge and enthusiasm about the reward - even though many failed to achieve the regularity of putting their box out for seven of the nine monitored collections.
- In Area 2, where a fortnightly draw for £100 in shopping vouchers was the incentive, residents were pessimistic about their chances of winning, and this incentive had less impact on their motivation to recycle.

Further Information

As part of the incentive scheme a detailed attitudinal survey was undertaken, copies of this may be available from Sunderland City Council.

Durham County Council

Aim of scheme

The aim of the scheme was to encourage householders to pledge to recycle, by rewarding schools for the number of pledges gained by pupils.

Area features/demographics

The scheme covered all 220,000 properties in Durham. The recycling rate and Index of Multiple Deprivation for each of the district is provided below: -

	Recycling rate (2004-05)	Index of Multiple Deprivation
Chester-le-Street	13%	113
Derwentside	12%	45
Durham city	17%	135
Easington	14%	8
Sedgefield	14%	70
Teesdale	18%	148
Wear Valley	12%	22
Durham County	18%	-

Each of the districts provides householders with a kerbside collection of dry recyclables. Some districts also provide a green waste recycling service in parts of their areas.

Scheme description

Pledge books were distributed to all 241 primary schools within County Durham. School children were then asked to collect pledges via family members and friends in order to generate promises to recycle.

These pledges equated to points that the schools could cash in for individual school prizes (which were claimed from a dedicated catalogue). The school that achieved the most pledges (based on kg per child) also won a cash bonus prize. In order to keep the children motivated small prizes were allocated to each individual child participating within the scheme.

Defra funding

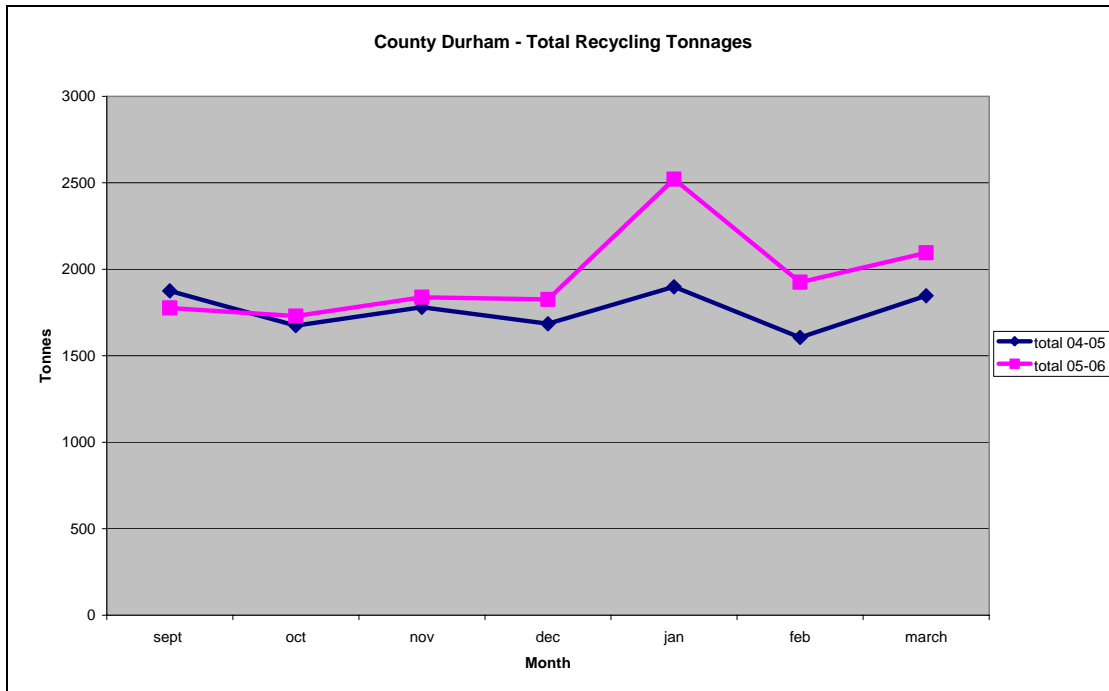
Defra funding for this scheme was £168,000, which covered the prize fund (school and pupil), publicity/campaign material, data processing and staff costs. This funding support from Defra equates to support of around £0.76 per household.

Monitoring mechanism used

The number of pledges, tonnage data (compared to 2004-05) and the findings from an attitudinal survey were used to assess the impact of the scheme.

Key results

The graph below shows that when comparing the weight of material collected in 2005-06 with that collected in 2004-05, the tonnages were similar at the start of the trial but had increased by the end of the trial.



Attitudinal surveys carried out prior to and post the incentive scheme showed: -

- Overall, claimed participation was 88.2% before the Recycling Rewards for Schools campaign and 92.4% after the campaign, an increase of 4.2%. These self-reported figures are likely to be higher than the proportions of residents actually recycling, as people tend to exaggerate their environmentally positive behaviour in surveys, especially in face-to-face interviews.
- In the post-campaign survey, nearly 20% of respondents had heard of the Recycling Rewards for Schools scheme.
- Overall, 116 respondents (6%) had made a recycling pledge. This equates to approximately one in three of survey respondents who had heard of the scheme. The majority (82%) of people who had made a recycling pledge said that it had encouraged them to recycle more (5% of total).

75% of schools signed up to the scheme (a total of 180 Schools) with a total of 11,879 pledges received, giving a ratio of 66 pledges per school.

Conclusion

These results suggest that the incentive has had a positive impact on recycling, increasing tonnage by approximately 13% (when comparing the 2005-06 figures for February and March with those for the same period in 2004-05).

Although 4% of households who prior to the incentive claimed they did not recycle now claim to recycle, it is not possible to support these claims without actual participation studies. It is therefore not possible to say whether those who made a pledge to recycle are existing recyclers or previous non-recyclers.

It is also not possible to say whether the increase in tonnage came from new recyclers or improved performance of existing recyclers.

It is unclear as to whether the low awareness of the incentive is due to the limitations of the scheme (using schools/school children) or due to the short time period the incentive ran (it can often take several months of key messages being repeated for them to be received and acted upon by the public).

Key lessons learned

Feedback from the authorities suggests that having a dedicated project manager to oversee the incentive scheme was critical to its success.

Further Information

As part of the incentive scheme a detailed attitudinal survey was undertaken, copies of this may be available from Durham County Council.

Newcastle upon Tyne

Aim of scheme

This incentive scheme was designed to encourage householders to participate in kerbside recycling schemes through the use of a prize draw scheme to win a top prize of £1,000.

Area features/demographics

The scheme covered 103,00 of the 121,000 households in Newcastle City. The authority is ranked 6th in the Index of Multiple Deprivation. In 2004-05 its overall recycling rate was 14%.

Newcastle provides households with a weekly wheeled bin collection service and a fortnightly 'Home Recycling Collection' service.

Scheme description

The intention was to select winning households in the 'Don't Bin it- Win it!' draw from a database created by scanning boxes at every emptying. However, because of problems with the scanning process, winners were drawn from 100 randomly selected households whose participation was monitored by council officers in advance of each draw. Only participating households were included in the final draw of winners.

Prizes for the scheme ranged from a top cash prize of £1,000 to high quality recycled goods or other green services or products.

Defra funding

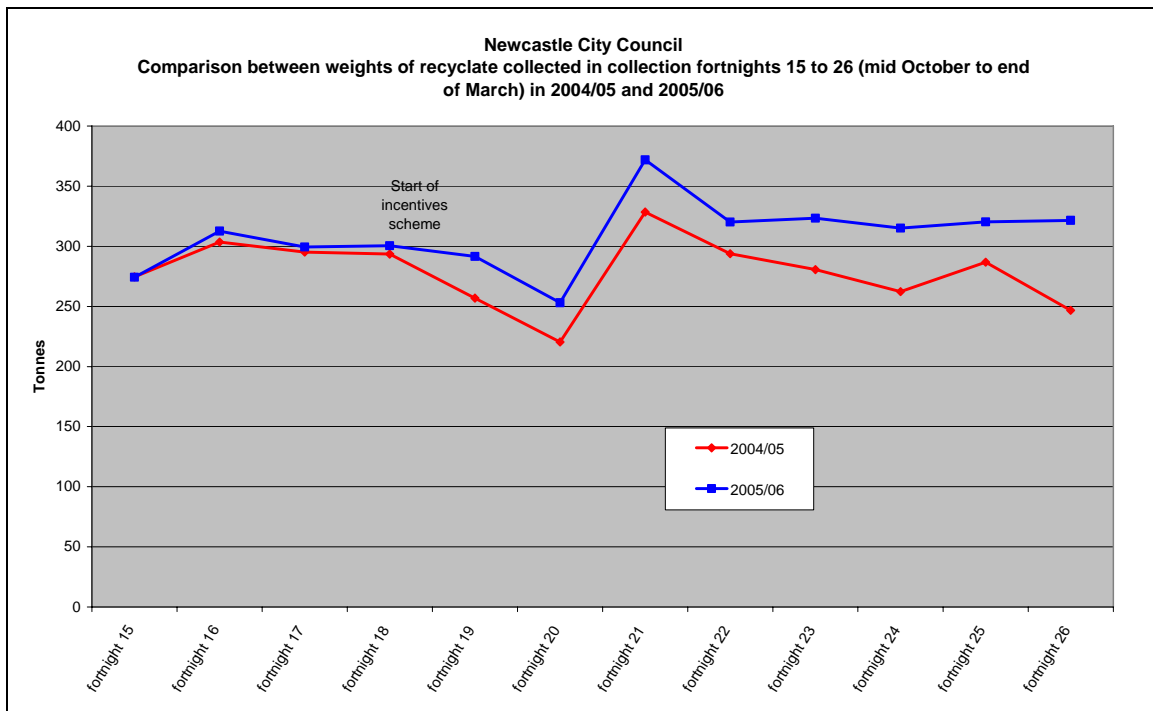
Defra funding for this scheme was £108,500, which covered the prize fund, design of publicity material, campaign material and campaign management. This funding support from Defra equates to support of around £0.90 per household.

Monitoring mechanism used

Recycling rates, and participation monitoring (using bar coding) were used to monitor this scheme.

Key lessons learned

The graph below shows the weight of recyclable material collected through kerbside collections in 2004- 05 and 2005-06. Following introduction of the scheme, there has been a 16% increase in kerbside collected recyclables tonnages when comparing December to March 2005-06, the period of scheme implementation, to the same period in 2004-05, equivalent to an additional 341 tonnes of recycle.



No participation rate data was available due to problems with the scanning of barcodes. The authority was hoping to carry out some participation surveys using more traditional methods, but this has not been possible.

Conclusion

This scheme has been judged as a significant success as it has increased the weights of material collected. Unfortunately participation data is unavailable to further demonstrate the impact of the incentive.

Key lessons learned

- The scheme was set up to derive participation rates from the scanning of recycling boxes. This was not possible due to problems with the scanners/software. Other authorities considering using such technology will need to consider the implications (time and resources) of introducing such technology and of ironing out any teething problems.
- Newcastle City Council, in partnership with BAN Waste, intends to continue using the incentive scheme throughout the remainder of 2006. This has been made possible because of the acquisition of sponsorship by BAN Waste. As a community based group BAN Waste were able to obtain sponsorship more effectively than the council.

Tees Valley

Aim of scheme

This incentive scheme was designed to encourage householders to participate in kerbside recycling schemes, by offering a prize draw to win a holiday.

Area features/demographics

The scheme covered the unitary authorities of Cleveland, Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton-on-Tees. In total 277,000 households were targeted in this incentive.

The recycling rate and Index of Multiple Deprivation for each of the authorities is provided below: -

	Recycling rate (2004-05)	Index of Multiple Deprivation
Darlington	18%	76
Hartlepool	19%	10
Middlesbrough	10%	1
Redcar & Cleveland	15%	7
Stockton-on-Tees	16%	26

The Tees Valley authorities provide households with a weekly refuse collection service and a fortnightly recycling service, with each authority collecting a range of materials including glass.

Scheme description

The “Message In A Bottle” incentive targeted all households in the Tees Valley who are currently on the glass kerbside scheme. A total of 277,000 households were eligible to participate in the scheme.

This incentive was designed to encourage householders to recycle their glass bottles by offering a weekly prize of £50 worth of holiday vouchers in each authority and one overall prize from the 60 winners. The overall prize was for the winning household to ‘collect’ their bottle, which had been washed up on a sun-drenched beach of their choice! (up to the value of £3,000).

Every household received a leaflet explaining the scheme and including six coupons. Householders had to cut out one of the six coupons (which included the collection date as a reminder) from the leaflet each time they put their kerbside box out for collection, fill in their details and pop it into one of the bottles in the box.

Once a week the authorities picked a winner from the glass bottles collected and announced this on the Monday morning breakfast radio show along with press releases each week about the local winners.

Defra funding

Defra funding for this scheme was £66,110, which covered the prize fund, printing and delivery of campaign materials and the radio campaign costs. This funding support from Defra equates to support of around £0.24 per household.

Monitoring mechanism used

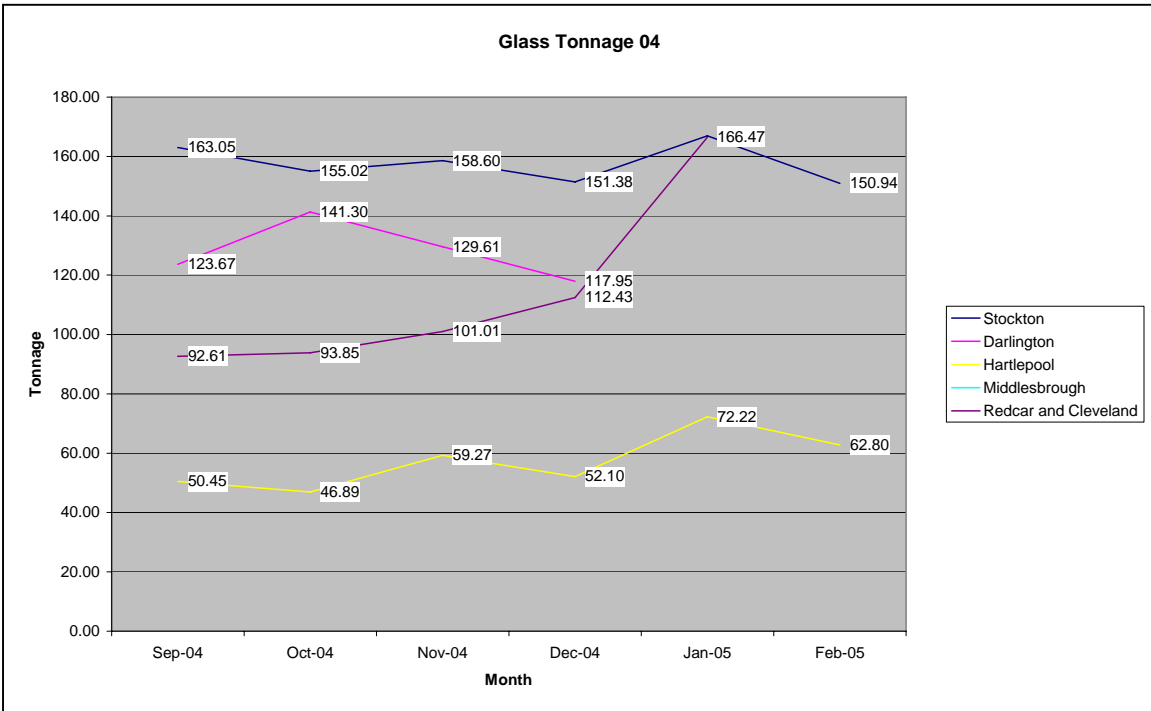
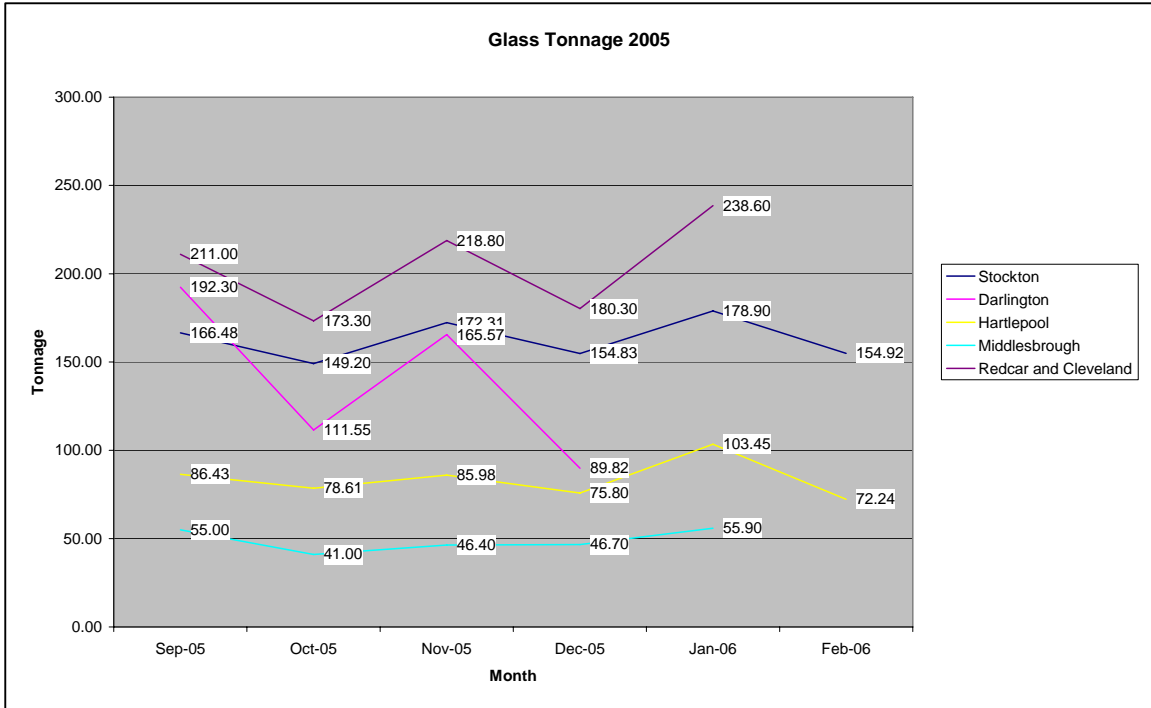
Tonnage of glass collected during the incentive period was compared to the same period in 2004-05 to assess the trends and impact of the incentive scheme.

Key results

The first graph below shows the tonnage of glass collected by each of the authorities during the incentive trial period in 2005-06.

The second graph shows the glass tonnage data for the authorities in 2004-05 (although not all were able to provide complete data).

These graphs show that 2005-06 tonnages are higher in all the authorities than 2004-05 figures, with the exception of Darlington (where the tonnages in 2005-06 are similar to 2004-05 levels). The figures for all the authorities also follow similar monthly trends over the 6-month period shown (again with the exception of Darlington).



Conclusion

- From analysis of the datasets available it appears that the incentive offered has not significantly influenced the behaviour of householders. The graphs of 6 monthly data show almost identical monthly performance fluctuations when comparing 2005-06 with 2004-05 data. Thus the higher levels of glass collection cannot be attributed directly to the incentive scheme. Further data and analysis is necessary to identify specific positive impacts of the incentive beyond that of increased awareness of recycling as a result of local media coverage of the incentive.

Key lessons learned

- One of the major issues with this project has been the co-ordination across five separate authorities. The officers feel that employing a dedicated project officer would have ensured that the project was co-ordinated and managed more effectively, rather than it being an addition to existing staffs' 'day job'.
- The lead authority experienced a high turn over of staff during this pilot, resulting in three different lead officers, which also impacted on managing the pilot.