

Efficiencies in refuse collection services

The pressure is on to find further savings in refuse collection services and this paper attempts to highlight the main areas where costs reductions can be sought. It is not possible to compile a complete list and further ingenious ways of saving money will be found and technology will produce new opportunities. It is therefore proposed to update this document in the future and reissue when appropriate.

Service providers should also be encouraged to diversify and maximise income by carrying out work for other bodies. (Visit the APSE Trading and Charging web portal <http://www.apse.org.uk/charging-trading/index.html> for further details)

1.0 Accounting structures

Refuse collection includes household waste, trade waste, recycling and bulky household collections. Income is generated in the service via work for other councils, trade waste/special collections, clinical waste, charging for bulky waste or green waste collections, income from the supply of bins or sacks, removal of abandoned vehicles and other enforcement activities or recycling credits.

When seeking cost reductions, crude cuts run the risk of damaging the underlying service, increasing fly-tipping and/or waste contamination, reducing levels of recycling and the prospect of fines and charges for landfill, and ultimately damaging the environment and public perceptions. It is also acknowledged that deterioration in the visual environment can have an impact on anti-social behaviour, crime and the fear of crime.

2.0 Expenditure

Cost of delivering refuse collection will obviously differ between authorities and on the way the service is delivered but by way of example, APSE performance networks details the following typical structure for refuse collection:

Cost area	% total cost
Front line staff costs	39%
All staff costs	44%
Transport costs	26%
Premises and services	3%
Supplies	4%
Departmental administration	2%
Central establishment charges	6%
Waste disposal	14%
Subcontracting	1%

Clearly staffing and transport costs are the most significant items and therefore the element where small improvements will produce the largest savings. Staff costs equate closely to number of staff hours worked and therefore cost savings normally rely heavily on a reduction in hours with an assumption of an accompanying higher productivity. Potential savings under each heading will be detailed following:

3.0 Front line staff costs

3.1 Productivity

Productive time can be measured on an individual council basis through analysing work schedules and conducting time and motion studies. Work study can be used as a means of setting targets and comparing performance on productivity. It can provide a comparison of the number of properties that can be collected by crews under varying controlled conditions and allows working levels to be optimised by analysing productive and non-productive time. Work study can be used to highlight inefficiencies such as waiting time for operatives at the back end of the vehicle or travelling times. APSE has worked with a number of authorities on work study projects, for more information please contact djohns@apse.org.uk.

Productivity rates for refuse collection need to be measured in conjunction with transport availability. Vehicle time can be split into 'productive' and 'non-productive' time, and efficiencies can be made from better route planning (route optimisation to re-design rounds), maximising the usage of vehicles through shift systems (e.g. double shifts, extended working patterns 10 or 11 hours with 6 day working which maximises vehicle use whilst retaining optimum crew levels and safeguarding frontline jobs, having due regard for drivers hours rules whilst reducing fleet numbers), reduced downtime for repairs, extending workshop opening times to align with or fall outside standard working hours, effective vehicle replacement programmes, staff training on correct vehicle use (and less non-fair wear and tear) and fuel monitoring/management. Staffing is always the most contentious area of cost reduction and consequently the area avoided by many managers. Difficult though it might be, the correct balance has to be struck between levels of equipment/vehicles and staffing hours to ensure the financial viability of the refuse collection service.

3.2 Maximising the effectiveness and flexibility of the workforce

Training and development is key to developing a more harmonious workforce. An effective refuse collection workforce needs to be flexible to respond to fluctuations in demand for the service; for example over bank holidays or catch-up after severe weather conditions.

Some councils operate a task and finish system for refuse collection; that is, they can finish work when all the waste in their waste streams has been collected. Other councils have moved away from this to increase the flexibility of the workforce.

3.3 Zonal working

Zonal working (collecting all waste from one zone on the same day) can reduce travelling downtime and vehicle mileage/fuel consumption. Some councils are also moving other services such as street cleansing to work on a zonal basis one day behind the waste collection crews to remove any remaining litter following collections.

3.4 Personal targets

Although wider targets are often too blunt an instrument, locally agreed targets with staff provide a focus. An effective performance management system will set targets for reducing non-productive time, missed bins and better vehicle utilisation, which results in performance improvement. Praise for better performers and assistance for the weaker engenders a culture of cost saving.

3.5 Sickness absence

Average sickness in refuse collection is 6.49% (source: APSE performance networks). There are examples of refuse collection services who have managed to reduce the overall sickness figure down to below 2%. This has been achieved through a combination of strict adherence to the method for managing absence and timely management enforcement. The system for monitoring sickness needs to highlight absences immediately and action to follow very shortly afterwards. Too often action is taken many days after the absence and ceases to act as a deterrent or capture the cause.

A reduction in sickness absence reduces the need to arrange cover which has additional cost, often involving transport and management time. A 2% reduction in sickness absence can equate to a £9,000 saving per £1 million turnover.

3.6 Planned overtime

Opportunities exist to make further savings on overtime costs or to eliminate them altogether. This can be done through the design of shift systems which ensures that staff are carrying out their normal working hours on the days that they are needed. Some councils have moved towards a 4-day working week and by avoiding Monday collections they have ensured that the residents understand the schedule and the service is not affected by bank holidays with the exception of Christmas and the New Year. One council has reported that this saved them £360k per annum and 33,500 litres of fuel over 12 months.

4.0 Management costs

From the point of view of the public, the value of the area managers, administration and senior management is often hidden. The number of intermediate staff in the management structure will reflect the geography and type of operation but benchmarking with other authorities will identify whether numbers are appropriate. As a guide, the average front line staff costs as a percentage of total staff costs is 85.88%.

5.0 Transport

As the second most significant item of expenditure, transport costs and utilisation can have a significant effect on the overall cost of the service. Many councils have entered into regional purchasing arrangements to reduce the cost of vehicles by purchasing in bulk. Benchmarking and sharing of vehicle costs provides a tool to not only analyse the cost of different types of operations but vehicle utilisation and the distance travelled from the depot to site.

6.0 Central establishment charges (CECs)

CECs are probably the most contentious area of cost. They are frequently apportioned in an arbitrary fashion or on the basis of head-count or square meterage. Charges based on actual usage should be argued.

7.0 Technology

There have been significant advances in the use of hand-held technology, geographical information systems, route optimisation software and vehicle technology such as fuel monitoring and tracking systems, which have been used by refuse collection services.

8.0 Enforcement

Income can be generated by using enforcement powers, such as those contained in the Clean Neighbourhoods and Environment Act, including where waste is left out at the wrong times or on-the-spot fines for abandoned vehicles. Other charges can be generated for ancillary services such as charging for the collection of bulky waste; although this needs to be considered in relation to the effect that this policy will have on fly-tipping and the costs of removing this. APSE's query service which is free to member authorities allows for the sharing of different approaches taken by councils to services such as trade waste, green waste, clinical waste, bulky waste, etc. For more information, contact Debbie Johns at the APSE office on djohns@apse.org.uk

9.0 System thinking

Previously business re-engineering and now lean/systems thinking are all the rage as the 'new way' to identify waste and remove costs from the workplace. All start by process mapping the system of working. APSE has process benchmarking groups in place for refuse collection, which are available free of charge for APSE performance networks member authorities. Recent process benchmarking topics have been shift patterns and collection days, food waste, special and bulky uplifts, vehicle utilisation and productivity. For more information, contact Debbie Johns at the APSE office on djohns@apse.org.uk

10.0 APSE comment

APSE exists to support in-house local services and recognises there will be pressure to seek cost reduction as a consequence of the current and anticipated squeeze of local authority funding. Reductions in staff numbers may be necessary as Councils

attempt to maintain services whilst managing the cost base. Any staff reductions should be managed sensitively and the Trade Unions fully involved, using the full range of options including redeployment, voluntary redundancy and reduced hours ahead of compulsory redundancy.

APSE has compiled a list of Do's and Don'ts as a checklist of ideas on what authorities can do (and shouldn't do) in the current financial climate:

Do's

- Do rework number of hours (productivity)
- Do review vehicle utilisation and downtime
- Do carry out re-routing / route optimisation
- Do review collection methods and frequencies
- Do review fringe services e.g. clinical waste
- Do research income generation e.g. trade waste
- Do examine the green agenda e.g. electric fleet
- Do tackle staff absence
- Do eradicate overtime – plan against actual demand
- Do demand bigger discounts from suppliers
- Do set appropriate ratios for supervision
- Do strip out wasteful activity (Lean)
- Do imagine you are the competition – what would they be doing?

Don'ts

- Don't forget that environmental services are highly visible!
- Don't assume defeat
- Don't dismiss 'green' opportunities
- Don't stop marketing and selling
- Don't forget the impact that charging for some services will have on other services e.g. Bulky collections
- Don't rely on big IT solutions to save anyone
- Don't be afraid to challenge Central Establishment Charges
- Don't assume there is a pain free solution
- Don't stop benchmarking (shield)
- Don't forget you have friends to call upon

Should a member authority have a pressing difficulty, APSE has a range of assistance available to inform the search for efficiencies. This ranges from average productivity figures, benchmarking information from APSE performance networks through to full consultancy support through APSE best value consultancy.

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