

GREATER MANCHESTER INTEGRATED TRANSPORT AUTHORITY**REPORT FOR INFORMATION**

COMMITTEE: Bus Network and PTE Services
DATE: 9th October 2009
SUBJECT: Criteria and Decision Support Tool for the Assessment of Subsidised Bus Services
REPORT OF: Interim Bus and Rail Director, GMPTE

PURPOSE OF REPORT

To inform Members on the criteria tool for the assessment of subsidised bus services.

RECOMMENDATIONS

Members are asked to:

- 1) Note the information in this report regarding the criteria for assessment of subsidised bus services, and
- 2) Receive periodic update reports on the use of the criteria.
- 3) Receive a presentation on the criteria at this meeting.

BACKGROUND DOCUMENTS

Report to Policy Committee, 24 January 2008, and Transport Network Committee 22 February 2008 : "Development of updated criteria and decision support tool for the assessment of Subsidised Bus Services"

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DEVELOPMENT OF UPDATED CRITERIA AND DECISION SUPPORT TOOL FOR THE ASSESSMENT OF SUBSIDISED BUS SERVICES

1. Context

1.1 GMPTE's annual budget for the subsidy of socially necessary transport services has increased over the last four years in order to keep pace with increased contract costs – which are largely outside the control of the Authority – and the need to maintain services. This level of increase has been carefully managed by making changes to subsidised services following approval from the appropriate Committees. However, such increases will continue to present challenges in the future.

1.2 In light of these growing cost pressures, a more objective, needs-based criteria with which to assess supported services can usefully help to inform the Authority, and the Bus Networks and PTE Services Committee in particular, and assist in its decision-making, along with other supporting information (the number of “unique” passengers and the cost per passenger of the subsidy).

At the meeting of Policy Committee on 24 January 2008, and subsequently at the meeting of the Authority's then Transport Network Committee on 22 February 2008, a report was presented on this subject giving details of the development of the criteria tool for subsidised bus services.

At the Policy Committee held on 24 January 2008 Members were asked to:

- 1) Note the progress made in developing revised criteria and creating a tool for their measurement.
- 2) Receive periodic update reports on the use of the criteria.

At the meeting of the Transport Network Committee held on 22 February 2008, Members were asked to :

- 1) Note the progress reported to 24 January 2008 Policy Committee.
- 2) Receive a presentation on the criteria at the meeting.

1.3 To assist with the development of criteria and a computer-based decision support tool, JMP Consulting developed a tool for GMPTE which uses the current data banks held by GMPTE. The development of the tool has enabled GMPTE/GMITA to:

- Develop sound criteria which have a defensible rationale in line with PTE objectives for assessing which bus service contracts should be subsidised;
- Apply the new criteria to all bus service contracts, calculate an overall score for each and rank all services accordingly;
- Develop a simple software solution to automate the criteria assessment process;
- Present the relevant criteria and explain the rationale behind them to GMPTE officers and GMITA Members.

2. Development of Criteria and Decision Support Tool

- 2.1 The structure of the tool is built around needs-based measures - e.g. population, deprivation and access to key destinations.
- 2.2 However, a further consideration in the assessment of individual contracts would be justification for continuation (e.g. journey purpose, passenger numbers, and availability of alternative services), but this does not form part of the software-based tool. The principal reason for this is that other considerations based on customer behaviour are then used to further inform decisions about the continuation of specific services and contracts.
- 2.3 The needs-based criteria reflects the level of connectivity of people to places and was based upon a thorough review of the following key policy areas:
- National shared transport objectives;
 - PTE bus strategy objectives;
 - PTE business planning objectives;
 - PTE accessibility strategy objectives; and,
 - Existing PTE criteria for subsidy of bus services.
- 2.4 The effect of this process is to consider 11 different elements – these are access to or from :-
- Town centres (as defined by Local Authorities);
 - GP Surgeries;
 - Hospitals;
 - Fresh Food Outlets;
 - Employment sites;
 - Primary Schools;
 - Secondary Schools;
 - Interchanges (Principally Category “A”);
 - Areas of deprivation (as defined by super output area); and
 - Added value of service (its “uniqueness”);
 - Cost per passenger.
- 2.5 The effect of this methodology for development has resulted in a series of criteria which are summarised in Table 1 below. Each destination-based score measures the population served per kilometre of route, using a 400 metre “buffer”, multiplied by the number of destinations served.

Table 1: Criteria used by the tool

No.	Criteria	Purpose	Indicator
1	Town/district centre access	Does the service improve access to key centres?	Population served per kilometre, multiplied by the number of centres served
2	Deprivation / Social Exclusion	Does the service improve transport for areas of relatively high deprivation	Number of people the route serves that fall within the bottom 10% of wards for deprivation. Scored separately for local and overall deprivation
3	Access to facilities	Does the service improve access to key services and life opportunities?	Population served per kilometre, multiplied by the number of facilities served. Scores for each area (health, food, employment, education) are averaged to give overall score.
4	Access to interchanges	Does the service improve access to the public transport network?	Population served per kilometre if the service passes within 400m of a category A interchanges.
5	Added Value	Does the service contribute to a good level or public transport?	Measure of the contribution of the service to a desirable level of frequency – score is higher for more people served.
6	Cost per passenger	Determine the cost of providing the service	Cost per passenger in pounds.
7	Overall score	overall measure of the importance of a service	Weighted average of the scores, not including cost per passenger.

2.6 The first five of these measures are calculated across 13 different time periods. This allows for different service patterns at different times of the day/ days of the week to be accounted for. The 13 time periods are:

- Monday to Friday early morning (0500-0730);
- Monday to Friday Peak (0730-0930 and 1630-1830);
- Monday to Friday Interpeak (0930-1630);
- Monday to Friday Evenings (1830-2330);
- Monday to Friday Nights (2330-0500);
- Saturday early morning (0500-0930);
- Saturday daytime (0930-1830);
- Saturday evening 1830-2330);
- Saturday night (2330-0500);
- Sunday early morning (0500-1000);
- Sunday daytime (1000-1830);
- Sunday evening 1830-2330); and,
- Sunday night (2330-0500).

- 2.7 The use of 13 time periods allows for measures for some facilities with limited opening hours, e.g. educational facilities or doctors' surgeries, to take account of those opening hours.
- 2.8 Once the measures in Table 1 have been calculated, the next steps are to:
- Adjust to remove any potential bias towards longer routes by dividing by route length;
 - Factor the results from the different time periods to take account of their respective durations;
 - Compare against all other tendered services, so that the highest scoring tendered service is given a score of 10 (and the lowest 0); and,
 - Create an overall score by combining the scores against each measure with weights that take account of their relative importance.
- 2.9 The weights used in creating an overall score are shown in Table 2. The table shows that social exclusion carries the highest weight (20%), with access to interchanges (15%), with town/district centres (15%) also being of high importance.

Table 2: Proposed Weights for each criterion

No.	Criterion	Sub-category	Weight
1	Town/ district centre access	-	15%
2	Deprivation / Social exclusion	-	20%
3	Access to facilities	a)Access to healthcare: i) GPs/clinics ii) Hospitals b)Access to education c)Access to fresh food d)Access to employment	7% 3% 10% 5% 15%
4	Access to interchanges	-	15%
5	Added value (frequency)		10%
All	All criteria	-	100%

- 2.10 The process of developing and putting into operation the criteria was thoroughly tested to ensure that:
- Robust methodologies for correctly assessing the various measures were embedded;
 - The complexity of developing a means of representing “added value” – i.e. the ability to represent the “added value” of a particular service or contract when compared with surrounding services, was properly reflected.

3. Use of the Decision Support Tool

- 3.1 The tool is used to measure the community value of all non-school subsidised bus services, covering all 480 contracts. The tool itself is not used to make resource allocation decisions but assists officers in informing those decisions which can then be presented to members for approval.
- 3.2 The output of the tool is a simple assessment scoring based on a 0 to 10 scale, with 10 being the best performing contract.
- 3.3 To maximise transparency, it is important that the tool also outputs the key parts of the inputs that make up the final contract scores. Key parts of inputs include: population, deprived population, town/ district centres, interchanges and key facilities served.
- 3.4 These key parts are calculated for each component of the contract (contracts are typically made up of a range of routes operated at different times of day/ days of week).
- 3.5 The assessment scores output is then used to inform decision-making. There is the opportunity to review the performance of the lowest-ranked contracts in conjunction with information such as the value for money offered by the contract (cost per passenger) and other information, for example, journey purpose.
- 3.6 The assessment scores also identify the opportunity to strengthen the service in terms of population and key locations served by means of design improvements, or broaden service appeal by means of, for example, targeted marketing.
- 3.7 Clearly, any decision taken regarding the future of a tendered service also has to consider :-
 - the number of “unique” passengers (ie people with no other alternative service);
 - the cost per passenger of the subsidy;
 - other considerations such as where no bid is received from any operator.

It is principally these matters which are regularly presented to Members at Bus Network Committee to assist with decisions and recommendations regarding specific subsidised services.

- 3.8 Going forward, the tool will need periodic review to ensure that it remains relevant bearing in mind changes in society demographics and changes to the bus network both commercial and subsidised.
- 3.9 It is intended to review the statistical base for the tool 3 times annually to coincide with 3 of the 6 service change dates per annum, particularly reflecting the busy September change date when, traditionally, many bus services change.

4. Further Developments

- 4.1 It is recognised that the decision support tool is not intended to reflect the preferences of customers, nor their behaviours. Therefore, two other data sets

are collected which, as more on-bus surveys of customers are undertaken will further assist in decision-making regarding subsidised bus services.

- 4.2 When on-bus boarding and alighting surveys are undertaken, customers are asked about their journey purpose and asked to indicate if their bus journey is connected with employment, education, leisure, shopping, health or other. This indicates the majority use made of specific contracted journeys and helps in service planning, both in terms of targeting specific journeys to meet defined needs, and to improve patronage.
- 4.3 A pilot question is now being asked of customers to indicate what would be their alternative if they could not have used the subsidised bus journey. Answers to this question allow a calculation to be made of the increased generalised cost to each customer who would be inconvenienced by having to use an alternative. As more surveys using this question are completed, it will allow an average additional generalised journey cost to be calculated for contract operating in different time periods, and will indicate the general cost of journeys made of services across the 13 time periods, thus giving a further set of data for decision-making. This process is still at an early stage of development.

5. Conclusion

- 5.1 The decision support tool reflects the “value” of each contracted service in terms of the destinations served by evaluating the value of each individual component on a route by using a standard method and applying weightings. It will need to be regularly reviewed to ensure that it remains relevant.
- 5.2 Further development of mechanisms to reflect customer preferences are developing in parallel with the tool.

6. Recommendations

- 6.1 Please refer to the front cover of this report.

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