

## Task 2.4 Specification of Generalised Cost

### *Inputs*

Present model.

Standard economic values.

### *Processing*

Specify generalised costs by mode to be used in the model including coefficients. Eg:

- car driver/passenger: time, direct operating cost, parking and tolls
- bus/train: in vehicle time, access/egress time, waiting time, fare, interchange
- walk/cycle: time

Attributes to be used in the model:

- car and commercial vehicle (CV) driver:
  - time
  - direct operating cost
  - parking charges
  - tolls
- car and CV passenger:
  - time
  - other?
- public transport passenger:
  - in-vehicle time
  - other time (access/egress time)
  - interchange
  - waiting time at boarding and interchange
  - fare

Issues:

- values of time: query whether we can have difference between car and public transport values
- direct vehicle operating costs: definition?
- interchange and waiting time: interchange penalty can vary with type/quality of interchange if they can be identified?
- public transport access/egress time: usual weighting is 2, but slight concern in using a high weight where this time is measured inaccurately (such as on centroid connectors)
- parking charges: these are halved (the charge being shared between the out and return trips)
- car passenger/driver:
  - which money costs are assumed to be shared between driver and passenger?
  - an issue is the policy responsiveness of the model: if driver bears all of the costs then his decisions will be reasonably sensitive to cost changes (if half the costs, less so); if passenger bears none of the costs, then policies which increase cost of travel will not affect car passenger mode; impacts on forecasts depends on how car passengers are modelled, but it could be potentially counter-intuitive with a large transfer to car passenger mode at the same time as there are fewer car drivers, implying a large increase in occupancies.
- time for slow modes: weighted by 1 or 2?

### *Outputs*

Generalised cost specification.

Note.