

Passenger Survey Methodology for Essex Thameside

How Essex Thameside franchise National Passenger Survey (NPS) weightings and NPS Satisfaction Measure scores are calculated at Bid and during the Franchise Term

Introduction

In Schedule 7.2 of the Essex Thameside Franchise Agreement NPS Satisfaction Measures, derived from National Passenger Survey results will be used to measure the Franchisee's performance against NPS benchmarks for passenger satisfaction on four aspects of service set out below and in Appendix 1 to Schedule 7.2 of the Franchise Agreement.

The weightings to be used in the NPS surveys for the purposes of the NPS Satisfaction measures applicable at the commencement of the franchise will be derived from the spring and autumn 2011 NPS surveys. The weightings will reflect local passenger experience.

These weightings will be revised twice during the life of the franchise, to reflect local passenger concerns. The NPS survey results for Autumn 2015 and Spring 2016 will be used to provide revised weightings for the NPS Satisfaction Measures from the first Franchise year starting after 1 September 2017, and the results of the autumn 2020 and spring 2021 surveys will be used to revise the weightings for the NPS satisfaction measures to apply from the first franchise year starting after 1 September 2022.

The four different types of NPS indicator have been identified and grouped to form four specific NPS Satisfaction Measures:

- Station services (S) -
- Train services (TS) -
- Train facilities (TF) -
- Customer services (C) -

Weightings have been produced for each indicator within each of the NPS Satisfaction Measures. -

NPS indicators included in the NPS Satisfaction Measures

The NPS questions within each NPS Satisfaction Measure grouping are as follows:

Station services (S)	S1	Station – Ticket buying facilities
	S2	Station – The upkeep/repair of the station buildings/platforms
	S3	Station – Cleanliness
	S4	Station – The facilities and services
	S5	Station – Connections with other forms of public transport
	S6	Station – Facilities for car parking
	S7	Station – Overall environment
	S8	Station – Your personal security whilst using
Train services (TS)	TS1	Train – The frequency of the trains on that route -

	TS2	Train – Punctuality/reliability
	TS3	Train – The length of time the journey was scheduled to take (speed)
	TS4	Train – Connections with other train services
Train facilities (TF)	TF1	Train –Upkeep and repair of the train
	TF2	Train – The space for luggage
	TF3	Train – Sufficient room for all passengers to sit/stand
	TF4	Train – The comfort of the seating area
	TF5	Train – The ease of being able to get on/off
	TF6	Train – Your personal security on board
	TF7	Train - The cleanliness of the inside of the train
	TF8	Train – The cleanliness of the outside of the train
Customer services (C)	C1	Station – How request to station staff was handled
	C2	Train – How well train company deals with delays
	C3	Station – The availability of staff at stations
	C4	Station – The attitudes and helpfulness of the staff at stations

24 of the 30 nationally published NPS indicators are therefore included in one of the groupings.

All journeys on c2c are included in the calculation of the weightings and scores, irrespective of whether the journey starts on the c2c network or who runs the particular station where the c2c passenger started their journey from.

Calculation of the Weighting

The initial weighting applied to each of the 24 satisfaction scores is calculated using the drivers of satisfaction and dissatisfaction for c2c which are derived from the spring and autumn 2011 NPS waves

50% of the total weighting is evenly shared across the NPS indicators used to calculate each of the four contractual measures. 25% of the weighting is then attached to the percentage drivers of satisfaction ratings and 25% attached to the percentage drivers of dissatisfaction ratings. Each indicator is increased by the proportion for which that indicator is a driver of satisfaction and/or dissatisfaction (some indicators are not drivers of one or the other).

Table 3 ‘NPS Satisfaction Measure scores for Essex Thameside’ shows the weightings and how they have been calculated using the spring and autumn 2011 NPS waves combined.

The methodology is as follows:

- a) - Using multivariate analysis techniques drivers of satisfaction and dissatisfaction are produced for each wave. The analysis for autumn 2011 is based on the spring and autumn 2011 waves combined. Drivers analysis looks at which indicators are most correlated with overall satisfaction and dissatisfaction. The percentages represent the amount of variation in overall satisfaction and dissatisfaction that is explained by each of the station and train indicators.

- b) The drivers of satisfaction and dissatisfaction for autumn 2011 are highlighted in red in Table 1.
- c) - If the drivers of satisfaction or dissatisfaction include any indicators outside the 24 to be included in the contracted NPS Benchmarks the drivers of satisfaction or dissatisfaction scores used in weighting will be adjusted. For example, looking at the drivers analysis for autumn 2011, provision of information about train times/platforms is listed as a driver of overall dissatisfaction. As this is not an indicator included in the 24, it is excluded from weighting and all remaining drivers of dissatisfaction are increased in proportion to their relative percentage drivers ratings so that drivers of dissatisfaction sum to 100%.
- d) - A weighting is then produced for each of the 24 indicators within the NPS Benchmarks by adding up the driver scores for satisfaction and dissatisfaction for each indicator and multiplying by 100 and then dividing this by a factor applied to drivers of satisfaction and dissatisfaction percentages. This factor ensures that 50% of the total weighting is shared evenly across the indicators, 25% weighting is attached to the percentage drivers of satisfaction ratings and 25% attached to the drivers of dissatisfaction ratings.
- e) - There is now a weighting score for the sum of all the indicators in each of the four NPS Benchmark groupings. However this weighting needs to be rebased to 100 so it is clear how much each indicator within the grouping contributes to the NPS Satisfaction Measure scores. The sum of the weightings in each group is divided into 100 and that figure is multiplied by the weightings for each indicator. For example in the train service indicators group, frequency of the trains on that route accounts for 37% of the variation in the overall train service indicator score.
- f) - Table 1 below shows the initial weightings for all of the 24 indicators within their respective groupings (i.e. station services, train services, train facilities and customer services):

Table 1: Rebased initial weightings for NPS indicators used in Essex Thameside

	Rebased Initial Weighting
Station services indicators (8 in total)	
Ticket Buying Facilities	10.1
The Upkeep/Repair Of The Station Buildings/Platforms	10.1
Cleanliness Of The Station	10.1
The Facilities And Services At The Station	10.1
Connections With Other Forms Of Public Transport	15.4
Facilities For Car Parking	10.1
The Overall Station Environment	10.1
Your Personal Security Whilst Using That Station	23.7
<i>Sum of weights</i>	100.0
Train services indicators (4 in total)	
The Frequency Of The Trains On That Route	37.0
Punctuality/Reliability (i.e. The Train Arriving/Departing On Time)	26.3
The Length Of Time The Journey Was Scheduled To Take (Speed)	21.5

Connections With Other Train Services	15.1
<i>Sum of weights</i>	100.0
Train facilities indicators (8 in total)	
Up Keep And Repair Of The Train	19.1
The Space For Luggage	5.9
Sufficient Room For All The Passengers To Sit/Stand	8.1
The Comfort Of The Seating Area	10.0
The Ease Of Being Able To Get On And Off The Train	25.9
Your Personal Security Whilst On Board The Train	5.9
The Cleanliness Of The Inside Of The Train	17.0
The Cleanliness Of The Outside Of The Train	8.0
<i>Sum of weights</i>	100.0
Customer Services indicators (4 in total)	
Overall Satisfaction With How Request Was Handled	19.1
How Train Company Dealt With These Delays	57.5
The Availability Of The Staff	11.7
The Helpfulness And Attitude Of Staff	11.7
<i>Sum of weights</i>	100.0

Note: Percentages may not sum to 100% due to rounding.

Applying reviewed weightings during the franchise

Given the franchise duration of 15 years, it is important that the weightings remain relevant to passenger needs throughout the term. Weightings will therefore be re-established and applied at pre-determined points during the franchise. The reweighting will follow the principles set out above and will be calculated on the basis of the drivers identified from NPS results in years three and eight of the franchise and applied at years five and ten, respectively.

Using the calculated weightings, NPS Satisfaction Measure scores are calculated as an average of one Spring wave and one Autumn wave combined for each of the four groups of indicators. This is done by applying the weights to each individual satisfaction score and then summing them to produce a score for each of the four NPS Satisfaction Measures. Each NPS Benchmark and the Satisfaction Measure scores on which performance is assessed will use data as set out in Table 2.

Table 2: Data used for the calculation of scores for comparison against NPS Benchmarks in Essex Thameside

NPS Benchmark Year	NPS wave data used for weighting	NPS wave data used for NPS score
1	Spring 2011, Autumn 2011	Autumn 2013, Spring 2014
2	Spring 2011, Autumn 2011	Autumn 2014, Spring 2015
3	Spring 2011, Autumn 2011	Autumn 2015, Spring 2016
4	Spring 2011, Autumn 2011	Autumn 2016, Spring 2017
5	Autumn 2015, Spring 2016	Autumn 2017, Spring 2018
6	Autumn 2015, Spring 2016	Autumn 2018, Spring 2019
7	Autumn 2015, Spring 2016	Autumn 2019, Spring 2020

8	Autumn 2015, Spring 2016	Autumn 2020, Spring 2021
9	Autumn 2015, Spring 2016	Autumn 2021, Spring 2022
10	Autumn 2020, Spring 2021	Autumn 2022, Spring 2023
11	Autumn 2020, Spring 2021	Autumn 2023, Spring 2024
12	Autumn 2020, Spring 2021	Autumn 2024, Spring 2025
13	Autumn 2020, Spring 2021	Autumn 2025, Spring 2026
14	Autumn 2020, Spring 2021	Autumn 2026, Spring 2027
15	Autumn 2020, Spring 2021	Autumn 2027, Spring 2028

Table 3 below shows the weightings applied to satisfaction data for spring and autumn 2011 combined. The table shows, for example for the train services indicators, how the percentage of passengers satisfied for each of the four indicators included is multiplied by the rebased weighting (e.g. 0.37 for the frequency of the trains on that route) and then these four calculated figures are summed to produce a NPS Satisfaction Measure score.

Table 3: NPS Satisfaction Measure scores for Essex Thameside

	Spring 2011 satisfaction	Autumn 2011 satisfaction	Average satisfaction over two waves	Rebased Initial Weighting as proportions	Average Satisfaction x Proportions
Station services indicators (8 in total)					
Ticket Buying Facilities	77	77	77	0.101	7.8
The Upkeep/Repair Of The Station Buildings/Platforms	71	72	71	0.101	7.2
Cleanliness Of The Station	78	77	77	0.101	7.8
The Facilities And Services At The Station	53	55	54	0.101	5.4
Connections With Other Forms Of Public Transport	72	70	71	0.154	11.0
Facilities For Car Parking	53	52	52	0.101	5.3
The Overall Station Environment	72	74	73	0.101	7.3
Your Personal Security Whilst Using That Station	65	66	66	0.237	15.5
Current NPS Satisfaction Measures scores for Essex Thameside based on spring and autumn 2011 waves					67.4
Train services indicators (4 in total)					
The Frequency Of The Trains On That Route	86	84	85	0.37	31.6
Punctuality/Reliability	92	92	92	0.263	24.3
Train speed	93	90	92	0.215	19.7
Connections With Other Train Services	78	79	79	0.151	11.9
Current NPS Satisfaction Measures scores for Essex Thameside based on spring and autumn 2011 waves					87.4
Train facilities indicators (8 in total)					
Up Keep And Repair Of The Train	90	92	91	0.191	17.4
The Space For Luggage	48	50	49	0.059	2.9
Sufficient Room For All The Passengers To Sit/Stand	61	65	63	0.081	5.1
The Comfort Of The Seating Area	79	80	79	0.1	7.9
The Ease Of Being Able To Get On And Off The Train	84	85	84	0.259	21.9
Your Personal Security Whilst On Board The Train	72	74	73	0.059	4.3
The Cleanliness Of The Inside Of The Train	89	91	90	0.17	15.3
The Cleanliness Of The Outside Of The Train	86	90	88	0.08	7.1
Current NPS Satisfaction Measures scores for Essex Thameside based on spring and autumn 2011 waves					81.9
Customer Services indicators (4 in total)					
Overall Satisfaction With How Request Was Handled	83	89	86	0.191	16.5
How Train Company Dealt With These Delays	50	40	45	0.575	25.8
The Availability Of The Staff	66	66	66	0.117	7.7

The Helpfulness And Attitude Of Staff	74	75	75	0.117	8.7
<i>Current NPS Satisfaction Measures scores for Essex Thameside based on spring and autumn 2011 waves</i>					58.7