

### Punctuality Overview

Punctuality is a KPI (Key Performance Indicator) of the performance of Bus Éireann, as part of the terms of their PSO contract with the NTA.

For the purpose of measuring punctuality, Bus Éireann routes are divided into two groups – Low Frequency Routes and High Frequency Routes. Further details for each group are provided below.

The following pages detail the Punctuality and Regularity Performance achieved by Bus Éireann for each relevant period.

**Low Frequency Routes** are defined as services which operates less than 4 times per hour on a weekday, outside the peak periods.

#### Low Frequency Punctuality:

The Punctuality of Low Frequency Routes is calculated as follows:

$$\text{Punctuality (\%)} = \frac{\text{Number of Actual Departures on Time}}{\text{Number of Actual Departures}} \times 100$$

Bus Éireann must achieve the Punctuality Standards set out in the table below for Low Frequency Routes:

Period	2017 Punctuality Standard	2018 Punctuality Standard	2019 Punctuality Standard
P1, P2, P3, P4, P5 (Late Winter / Spring)	49%	49%	57%
P6, P7, P8, P9 (Summer)	50%	50%	58%
P10, P11, P12, P13 (Autumn / Early Winter)	49%	53%	57%

If the relevant punctuality target for each period is not achieved, financial penalties apply. For each full 2% of departures failing to operate “on time”, 1% of the maximum period payment is deducted, up to a maximum of 5% of the maximum period payment.

#### Notes:

- The *Number of Actual Departures* is the total number of bus departures from individual bus stops, along all routes combined for all services during the relevant period.
- The *Number of Actual Departures on Time* is the total number of “on time” bus departures from individual bus stops, along all routes combined for all services during the relevant period - where “on time” is defined as a bus which departs from a bus stop not more than one minute early or not more than five minutes and fifty nine seconds late when compared to the scheduled departure time.
- Punctuality Targets differ throughout the year as they are significantly impacted by traffic conditions. Traffic conditions vary due to a number of factors including school terms and weather conditions, with levels of congestion generally lower during the summer months.
- There are also a number of commercial bus services operated by Bus Éireann. These routes are not part of the PSO contract with the NTA and are therefore not included in any KPI calculations.
- The data has not been adjusted for first and last stop time recording issues.** These can arise, for example, when a bus is recorded leaving the first stop early because other vehicles parked at first stop mean the bus needs to pull up after the first stop to allow passengers on board, or where bus is not recorded arriving on time at final stop because stop is occupied by another bus waiting to enter service. It is estimated that 5% of all recorded stopping times for journeys on the Bus Éireann PSO network are recorded at first or last stops, and therefore prone to this error, resulting in lower recorded punctuality than may actually be the case.

**High Frequency Routes** are defined as services which operate at a frequency of 15 minutes or greater on a weekday, outside the peak periods. These routes are as follows:

- 202
- 205
- 206
- 208
- 304
- 309

#### High Frequency Regularity:

High Frequency Routes differ from Low Frequency Routes, as passengers on High Frequency Routes are less likely to base their journey on the bus schedule and are instead more likely to just turn up at the bus stop and wait for the next bus to arrive. These passengers are generally more concerned with the average amount of time they must wait at the stop for the next bus to arrive, as opposed to whether the bus is running to schedule.

On this basis, the NTA has introduced a means of measuring regularity of High Frequency Routes called Excess Wait Time (EWT). This metric provides a measure of the average time a passenger must wait for the next high frequency bus, in excess of the wait time which would be expected as per the schedule for that route – i.e. if you are a passenger who arrives at a stop for a high frequency bus route without checking the schedule, the EWT will calculate how much longer you have to wait for the next bus, in comparison to a baseline situation where all buses are calculated to the timetabled gap (headway) between services. Up until P9 2018, the punctuality methodology for low frequency routes was also applied to high frequency routes.

**Bus Éireann EWT KPI deductions became live in Q3 2019. If the relevant punctuality target for each period is not achieved, financial penalties apply. For each 0.1 minute higher than the EWT Standard, 0.2% of the maximum period payment is deducted**

#### High Frequency Regularity:

The Regularity of High Frequency Routes is calculated as follows:

$$\text{EWT (min)} = \text{Average Actual Waiting Time (min)} - \text{Average Planned Waiting Time}$$

Bus Éireann must achieve the Regularity Standards set out in the table below for High Frequency Routes.

Period	Bus Éireann EWT KPI
Q1 2019	2.1 minutes
Q2 2019	2.0 minutes
Q3 2019	2.3 minutes
Q4 2019	2.2 minutes





**Bus Éireann**  
**Punctuality Data - High Frequency**



**HIGH FREQUENCY PUNCTUALITY BY ROUTE- BUS ÉIREANN (see note on interpretation of this data at bottom of table)**

Route	2019													
	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	
202	1.88	3.92	1.86	1.33	1.08	0.87	1.39	1.44	1.38	1.16	1.28	1.10	1.01	
205	2.14	2.97	3.22	2.65	0.60	0.56	0.56	0.58	1.40	0.82	1.11	1.41	0.60	
206	1.33	2.16	1.44	1.29	0.85	0.54	0.75	0.93	1.57	1.00	1.23	0.88	0.82	
208	3.78	4.86	4.61	3.63	1.75	1.56	2.22	2.27	3.28	2.07	2.50	1.79	1.32	
304	2.95	3.62	3.34	3.88	2.25	1.32	2.05	2.25	3.91	3.59	3.97	4.08	3.55	
409	1.72	1.74	1.15	1.35	1.47	1.43	0.88	1.09	1.01	0.92	1.07	1.18	0.79	

High Frequency Punctuality routes are measured by the Average Excess Passenger Wait Time (AEPWT). All units in the table above are in minutes.

This metric provides a measure of the average time in minutes a passenger must wait for the next high frequency bus, in excess of the wait time which would be expected as per the schedule for that route – i.e. if you are a passenger who arrives at a stop for a high frequency bus route without checking the schedule, the AEPWT will calculate how much longer you have to wait for the next bus, in comparison to a baseline situation where all buses are running "on time".