2022-2023 Bus Éireann Direct Award Contract - PSO Services Reliability Report



Reliability Overview

Reliability is a KPI (Key Performance Indicator) of the performance of Bus Éireann, as part of the terms of their PSO contract with the NTA. Further details of the measurement of Reliability (which is sometimes referred to as "Lost Kilometre Rate)" are provided below.

Measurement of Reliability:

Reliability of Bus Éireann services is determined using a metric called "Lost Kilometre Rate (%)". This metric is calculated as follows:

<u>Step 1:</u>

Number of Lost Kilometres (Km) = Total Scheduled Services (Km) - Total Services Operated (Km)

Step 2:

Lost Kilometre Rate (%) = $\left(\frac{\text{Number of Lost KM (Km)}}{\text{Total Scheduled Services (Km)}}\right) \times 100$

For 2017 & 2018, Bus Éireann must have achieved a Lost Kilometre rate of 5% or less each period i.e. at least 95% of scheduled services must have operated. If this target is not achieved, financial penalties will have applied.

For 2019, Bus Éireann must have achieved a Lost Kilometre rate of less than the following for each period; P1 - P5 (5%), P6 - P7 (4%), P8 - P9 (3%) and P10 - P13 (2%). If the period target is not achieved, financial penalties will have applied.

From Period 1 of 2020, Lost Kilometre Minimum Performance Standards have applied on a route by route basis, rather than an overall newrok basis. Bus Éireann are required to achieve a Lost Kilometre Rate of 2% or less for each route in each period (i.e. at least 98% of the scheduled kilometres must have

Notes:

- The Total Scheduled Services is based on the route and timetable(s) for every Bus Éireann service, as agreed with the NTA under the current PSO contract.
- The Total Services Operated is determined by the AVL (Automatic Vehicle Location) system which is installed on each bus to record the route and distances travelled.
- The Number of Lost Kilometres does not include bus services (whole or partial routes) which could not be operated for reasons outside of the
 control of Bus Éireann (for example, road closures due to a major event, extreme weather resulting in unsafe road conditions etc.). These
 exceptions are identified by Bus Éireann and approved by the NTA.
- COVID-19 Note From 16/03/20 to the end of P1 2022, the Number of Lost Kilometres does not include bus services which could not be operated due to COVID-19 related staff illness or HSE certified self-isolation. These exceptions are identified by Bus Éireann and approved by the NTA.
- As with many industries, public transport operators are experiencing significant challenges in recruiting qualified staff following the economic and social constraints connected to the COVID-19 pandemic. The public transport industry has been particularly hard-hit as operators attempt to return to pre-pandemic levels of activity as well as delivering intended service improvements such as the BusConnects Network Redesign and Connecting Ireland programmes. These issues are further exacerbated when existing staff must also be absent at short notice while following HSE guidelines after contracting COVID-19 or developing other illnesses. These challenges have an impact on Lost Kilometre Rates on all routes and also on Excess Waiting Times on high frequncy routes. The Authority and the operators have been working to try to ensure that such cancelations are minimised, that where possible consecutive services are not withdrawn and that first and last daily services on a route operate.
- As with many industries, public transport operators are experiencing significant challenges in recruiting qualified staff following the economic and social constraints connected to the COVID-19 pandemic. The public transport industry has been particularly hard-hit as operators attempt to return to pre-pandemic levels of activity as well as delivering intended service improvements such as the BusConnects Network Redesign and

Q3 & Q4 2023 Bus Éireann Direct Award Contract - PSO Services Reliability Report



P7 Lost Kms - June 19th 2023 - July 16th 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.0	2% per Route

P10 Punctuality - September 11th 2023 \rightarrow October 8th 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.3	2% per Route

P11 Punctuality - October 9th 2023 → November 5th 2023

Minimum Performance

Standard (%)

2% per Route

dard (%)	Total	KMs Lost (%)
Jer Roule	Iotai	3.2

P8 Reliability - July 17th 2023 \rightarrow August 13th 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.2	2% per Route

P12 Punctuality - November 6th 2023 → December 3rd 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.2	2% per Route

P9 Reliability - August 14th 2023 \rightarrow September 10th 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.3	2% per Route

P13 Punctuality - December 4th 2023 → December 31st 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	4.3	2% per Route

Q1 & Q2 2023 Bus Éireann Direct Award Contract - PSO Services Reliability Report



P1 Reliability - January 1st 2023 → January 29th 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.7	2% per Route

P2 Reliability - January 30th 2023 \rightarrow February 26th 2023

P4 Reliability - March 27th 2023 → April 23rd 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.4	2% per Route

P5 Reliability - April 24th 2023 → May 21st 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.6	2% per Route

P3 Reliability - February 27th 2023 \rightarrow March26thth 2023

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.5	2% per Route

P6 Reliability - May 22ndth 2023 → June 18th 2023

KMs Lost (%)

1.5

Minimum Performance

Standard (%)

2% per Route

Total	1.5	2% per Route
	KMs Lost (%)	Minimum Performance Standard (%)

Q3 & Q4 2022 Bus Éireann Direct Award Contract - PSO Services Reliability Report



Total

P7 Reliability - June 20th 2022 \rightarrow July 17th 2022

	KMs Lost (%)	Standard (%)
Total	2.4	2% per Route

P8 Reliability - July 18th 2022 \rightarrow August 14th 2022

P10 Punctuality - September 12th 2022 → October 9th 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.6	2% per Route

P11 Punctuality - October 10th 2022 → November 6th 2022

KMs Lost (%)

2.1

Minimum Performance

Standard (%)

2% per Route

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.2	2% per Route

P12 Punctuality - November 7th 2022 → December 4th 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	2.0	2% per Route

P9 Reliability - August 15th 2022 \rightarrow September 11th 2021

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.4	2% per Route

P13 Punctuality - December 5th 2022 → December 31st 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	3.0	2% per Route

Q1 & Q2 2022 Bus Éireann Direct Award Contract - PSO Services Reliability Report



P1 Reliability - January 1st 2022 → January 31st 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	0.4	2% per Route

P4 Punctuality - March 28th 2022 → May 22nd 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.5	2% per Route

Tabl	KMs Lost (%)	Standard (%)
Total	1.3	2% per Route

P5 Punctuality - April 25th 2022 → May 22nd 2022

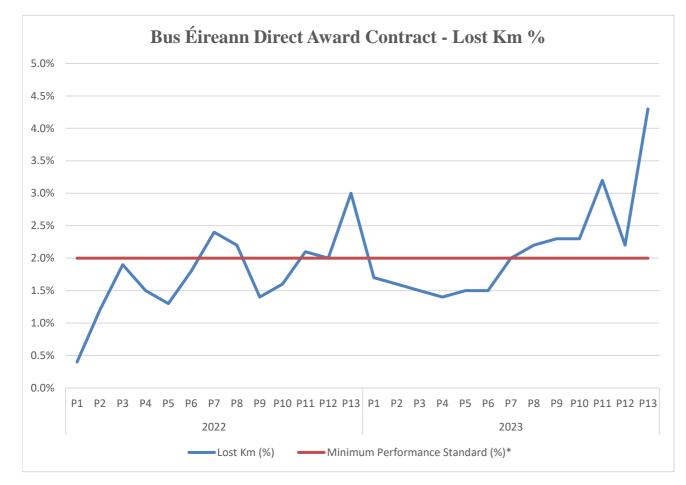
Total	1.2	2% per Route
	KMs Lost (%)	Minimum Performance Standard (%)

P6 Punctuality - May 23rd 2022 - June 19th 2022

	KMs Lost (%)	Minimum Performance Standard (%)
Total	1.8	2% per Route

P3 Reliability - March 1st 2022 → March 28th 2022

	KMs Lost (%)	Minimum Performance Standard (%)			
Total	1.9	2% per Route			



Lower Lost KM percentages are better as they reflect the percentage of scheduled kilometers that were not operated (excluding kilometres not operated due to factors outside the control of the *From Period 1 2020, reliability Minimum Performance Standards have applied on a route by route basis (2% per route per period). More details are available in the reliability report.

LOST KM BY ROUTE - BUS ÉIREANN													
Route 100 101	P13 2.9% Not in contract	P12 3.1% Not in contract	P11 3.1% Not in contract	P10 1.1% Not in contract	P9 0.8%	P8 0.5%	P7 0.2%	P6 0.7% Not in contract	P5 1.4% 1.1%	P4 0.8% 1.3%	P3 0.9% 2.9%	P2 1.9% 5.3%	P1 0.8% 4.2%
101 101X 103	Not in contract 3.2%	Not in contract 2.8%	Not in contract Not in contract 7.6%	Not in contract Not in contract 5.0%	Not in contract Not in contract 5.3%	Not in contract Not in contract 4.5%	Not in contract Not in contract 3.3%	Not in contract Not in contract 2.4%	0.1%	0.3%	0.8%	1.2% 1.1%	4.2% 5.9% 2.6%
103X	1.8%	0.0%	1.5%	2.8%	3.4%	1.6%	2.6%	2.7%	0.0%	3.1%	1.3%	1.6%	8.2%
105 105X 107	1.2% 1.2% 0.3%	1.7% 2.0% 0.5%	2.4% 10.5% 1.2%	1.2% 6.7% 1.0%	2.3% 4.8% 0.7%	2.1% 1.7% 1.0%	1.2% 4.7% 0.5%	1.1% 1.9% 0.1%	1.6% 1.0% 0.8%	2.0% 3.4% 0.1%	1.7% 3.3% 0.9%	2.7% 2.2% 0.8%	1.8% 2.6% 2.8%
108	1.4%	0.7%	0.3%	1.3%	2.2%	0.7%	1.4%	2.4%	0.8%	0.0%	0.0%	0.0%	0.0%
109 109A	4.0% 4.3%	3.5% 2.8%	7.1% 3.1%	4.6% 1.4%	5.7% 2.9%	4.2% 1.1%	3.4% 0.8%	3.0% 0.4%	3.6% 1.1%	3.5% 1.3%	2.8% 0.4%	1.8% 0.3%	2.8% 0.0%
109B 109X	2.9% 1.6%	0.9% 0.8%	3.7% 2.4%	1.2% 3.7%	1.6% 1.9%	1.2% 0.4%	1.0% 2.1%	2.0% 0.7%	1.8% 2.3%	1.2%	1.0%	1.5% 0.8%	6.4% 1.1%
111 111A	4.0% 10.8%	0.7% 12.5%	2.6% 6.2%	1.7% 3.2%	1.4% 2.9%	2.1% 1.4%	1.7%	1.1% 2.5%	1.9% 2.3%	0.7%	1.0%	2.2% 2.3%	1.3%
111X 115	8.3% 3.6%	4.2%	5.7% 4.4%	2.5%	6.4% 2.0%	4.7% 2.8%	3.2%	0.1%	0.0%	2.4%	1.8%	1.8% 0.5%	3.7% 1.6%
115C 132	1.1%	0.4%	0.7%	1.3% 0.3%	0.6%	1.0%	2.5%	0.7%	2.6% 0.0%	0.2%	1.1%	0.4%	0.4%
133 133B	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	0.9%	0.4%	0.1%	0.5%	0.5%
133L 133X	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	Not in contract Not in contract	0.3% 3.7%	0.3%	0.3%	0.5%	0.2%
134 135	0.0%	0.0%	0.0%	0.0%	25.0% 25.0%	25.0% 25.0%	25.0% 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
136 160	0.0%	0.0%	0.0%	0.0% 0.7%	25.0% 1.4%	25.0% 0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
161 162	5.4%	4.3%	3.6%	0.5%	1.1%	0.7%	1.7%	0.3%	0.8%	0.3%	0.2%	2.3%	0.0%
163 166	No Data No Data	No Data No Data	No Data No Data	No Data No Data	No Data 5.6%	No Data 1.3%	No Data 0.5%	0.0%	0.0%	6.3%	11.3% 0.1%	4.7%	1.7%
167	2.9%	0.3%	1.1%	0.8%	5.0% 1.1% 2.4%	0.8%	0.5%	0.3%	0.2%	0.4%	0.2%	1.9%	1.5% 2.4%
170	0.8%	0.6%	0.8%	0.9%	0.0%	1.9% No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
173 174	10.0% 7.9%	2.8% 2.3%	9.6% 3.9%	4.4% 1.3%	14.0% 2.0%	3.4% 1.4%	10.8% 3.0%	0.3%	4.0% 0.9%	1.2%	2.9% 1.5%	3.6% 3.5%	3.4%
174A 174B	6.0% 6.4%	4.4% 4.3%	2.8% 2.1%	0.5% 1.0%	1.4% 1.5%	0.9% 0.6%	0.5% 0.5%	0.5% 0.4%	0.2% 0.4%	0.4% 0.8%	0.1% 0.2%	1.6% 1.5%	0.8% 0.9%
175 175A	2.8% 0.8%	1.7% 0.0%	1.0% 0.0%	0.3% 0.0%	2.6% 0.0%	0.4% 0.8%	0.4% 0.0%	0.9% 0.0%	0.8% 0.0%	3.1% 0.0%	0.8% 0.0%	2.1% 0.0%	0.2% 0.0%
182 182A	2.3% 2.8%	4.3% 0.7%	0.0% 0.0%	0.1% 0.4%	0.3% 0.3%	0.3%	1.0% 1.5%	0.6% 0.4%	0.9% 0.0%	0.6% 0.3%	1.4% 1.0%	3.3% 0.8%	0.3% 1.8%
187 190	3.8% 3.3%	5.8% 1.2%	3.5% 1.7%	3.1% 2.5%	0.8% 0.7%	4.9% 1.4%	1.7% 0.7%	0.6% 3.6%	2.8% 2.2%	2.3% 6.6%	0.2% 5.0%	3.5% 3.4%	1.3% 3.1%
201 202	6.7% 12.1%	2.5% 10.5%	2.9% 13.5%	2.0% 5.9%	0.0% 9.0%	0.5% 10.4%	0.0% 7.5%	0.5% 6.4%	0.4% 4.0%	0.4% 4.6%	1.9% 3.2%	3.0% 2.8%	0.4% 2.6%
202A 203	13.5% 9.8%	10.1% 4.6%	12.4% 7.5%	4.8% 3.1%	7.3% 6.4%	11.7% 5.7%	7.4% 3.7%	5.5% 1.6%	3.1% 1.7%	5.4% 2.0%	4.1% 1.3%	2.2% 2.2%	4.3% 1.5%
205	8.9%	5.6%	6.4% 5.5%	1.4%	2.9%	3.8%	4.1%	1.4%	0.7%	1.0%	0.7%	1.3%	0.9%
207 207A	8.5% 6.5%	6.4% 3.4%	6.9% 3.8%	2.3% 0.5%	2.6%	2.9% 1.3%	2.5% 0.3%	1.6% 0.5%	0.5%	1.0%	0.7%	0.4%	0.5%
208 209	14.3%	7.1%	8.8%	3.8%	6.5%	7.9%	6.8%	3.5%	2.0%	2.9%	2.0%	2.0%	2.5%
209A 212	8.4%	4.6%	5.2%	0.0%	0.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.9%
213 214	6.2%	1.8%	4.7%	2.5%	1.5%	1.8%	1.4%	0.2%	0.4%	0.3%	0.3%	2.6%	0.0%
214 215 215A	6.4% 9.5%	3.9%	4.0%	1.6%	3.7%	2.6%	2.5%	1.5%	0.9%	0.6%	0.7%	0.9%	0.8%
216	11.2%	5.0%	6.6%	2.1%	3.9%	2.4%	3.2%	2.0%	1.9%	1.0%	0.3%	1.7%	0.6%
219 220	0.2%	0.2%	0.3%	0.0%	0.3%	0.4%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
220X 223	5.0%	2.3%	3.1% 3.7%	0.5%	1.7%	1.5%	0.4%	2.0% 0.6%	1.0%	1.2%	0.7%	2.0%	1.2%
223X 225	2.1% 7.3%	0.0% 4.1%	1.8% 2.1%	0.0%	0.0% 0.6%	1.8% 2.2%	0.0% 3.5%	2.0% 0.5%	0.0% 0.5%	0.0%	0.0% 0.8%	0.0%	0.0%
225L 226	10.4% 4.9%	0.8% 1.7%	1.3% 1.0%	0.0% 0.3%	2.0% 0.1%	2.0% 0.2%	0.0% 0.6%	0.3% 0.2%	1.5% 0.0%	0.0% 0.0%	0.9% 0.1%	0.6% 0.3%	0.2%
226X 233	17.6% 1.4%	0.0%	0.0%	0.0%	0.0%	No Data 0.5%	0.0%	8.4% 0.3%	1.1% 0.0%	0.6%	10.5% 0.2%	0.0%	5.3% 0.2%
235 236	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
237 239	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	1.2%	0.1%	0.2%	0.2%	0.1%	0.8%	0.2%
240 241	0.6% 3.9%	1.5% 1.8%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0.%	0.0%	1.8% 1.8%	0.0%
243 245	0.4%	0.0%	0.4%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	1.3%	0.0%
245X 248	2.3% 7.9%	0.0%	0.0%	0.0%	0.5%	0.0%	0.2%	0.3%	0.0%	0.0%	0.2%	1.4% 0.9%	0.8%
252 257	No Data (seasonal) 0.4%	No Data (seasonal) 0.0%	No Data (seasonal) 0.7%	No Data (seasonal) 0.7%	0.0%	No Data (seasonal) 0.0%	No Data (seasonal) 0.0%	No Data (seasonal) N 0.0%	No Data (seasonal) 0.6%	No Data (seasonal) 0.7%	No Data (seasonal) 0.2%	No Data (seasonal) 0.8%	No Data (seasonal 1.2%
258 259	0.0%	0.0%	0.0%	0.0%	12.5% 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
260 261	1.8%	0.4%	0.3%	0.1%	0.0%	0.3%	0.3%	0.7%	0.0%	0.0%	0.3%	0.9%	0.3%
270 271	0.0%	0.0%	0.7%	0.5%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%
272 273	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
274 275	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
276 278	No Data 0.0%	No Data 0.0%	No Data 0.0%	No Data 0.0%	0.0%	0.0%	0.0%					No Data (seasonal) 0.0%	
278 279 279A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%
279A 280 282								No Data (seasonal) N 0.0%					
282 284 301	0.0% 1.8%	0.0% 0.1%	0.0%	0.0%	0.0% 0.6%	0.0% 0.4%	0.0%	0.0% 0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
301 302 303	1.8% 0.7% 2.6%	0.1% 0.4% 1.3%	1.0% 0.5% 1.6%	7.9% 5.5% 8.5%	0.6% 0.1% 0.8%	0.4% 0.5% 2.0%	0.8% 0.3% 1.8%	0.2% 0.5% 0.4%	0.0% 0.4%	0.0%	2.5% 7.7% 6.6%	3.9% 6.5% 5.8%	4.5% 6.2% 5.5%
303 304 304A	1.4%	0.1%	0.6%	5.8%	0.4%	0.6%	1.8% 0.3% 0.2%	0.2%	0.4% 0.0% 0.0%	0.0%	2.1%	5.8% 2.1% 1.8%	2.4%
304X	1.3%	0.9%	1.3%	6.3% 30.0%	0.5%	0.3%	0.0%	0.4% 29.4%	0.0%	0.0%	2.2%	47.4%	3.0% 21.1%
305 305A	0.4%	0.4%	2.0%	3.4% 6.9%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	14.2% 53.6%	19.8% 39.5%	2.4%
306 313	0.2%	0.6%	1.1%	5.4% 6.4%	0.3%	4.3% 0.0%	0.8%	0.1%	0.0%	0.0%	9.6% 0.0%	11.0% 4.0%	8.8% 0.4%
314 320	0.6%	0.0%	0.4%	2.3% 4.0%	0.0%	0.0%	0.0% 0.5%	0.0% 0.0%	0.0% 0.0%	0.0% 0.0%	0.0%	0.1%	0.6% 0.0%
321 322	44.4% 0.0%	39.5% 0.0%	18.4% 0.0%	15.0% 0.0%	0.0% 0.0%	31.6% 0.0%	16.7% 0.0%	11.8% 0.0%	26.3% 0.0%	5.3% 0.0%	21.1% 0.0%	18.4% 0.0%	36.8% 0.0%
323 323X	4.8% 0.0%	2.8% 0.0%	2.3% 2.6%	6.4% 0.0%	1.7% 0.0%	0.3%	0.6%	2.3% 0.0%	2.4% 0.0%	2.1% 0.0%	2.1% 0.0%	3.9% 0.0%	5.3% 0.0%
324 328	0.0%	0.0%	25.0% 1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0% 0.0%	0.0%	0.0%	0.0%
329 332	0.8%	0.5%	0.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
	0.0%	0.5%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
333 336					0.0%	0.0%	0.0%	0.0%	0.0%	0.0.%	0.0%	0.0%	0.0%
336 341	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.3%	0.9%
336	0.0%												

NTA Údarás Náisiúnta Iompair National Transport Authority

347	3.5%	7.0%	4.2%	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%
348	0.0%	0.0%	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
349	0.0%	0.0%	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
350	0.7%	0.0%	0.2%	0.7%	0.7%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	0.2%
354	6.0%	3.8%	4.0%	6.3%	2.0%	4.6%	3.8%	1.7%	8.1%	0.5%	2.1%	6.1%	8.9%
355	6.6%	3.0%	3.2%	4.6%	1.3%	2.5%	3.5%	3.6%	2.3%	1.9%	3.6%	3.8%	2.7%
360	3.7%	2.1%	2.6%	1.7%	3.3%	1.7%	1.6%	0.2%	0.7%	0.3%	0.9%	1.2%	0.2%
360A	4.1%	0.6%	1.2%	0.6%	1.2%	0.0%	0.4%	0.0%	1.1%	0.4%	0.0%	0.0%	0.0%
362	3.7%	6.8%	7.4%	2.3%	10.1%	4.3%	5.8%	3.9%	3.6%	2.1%	0.2%	0.0%	4.0%
365 366	0.0%	1.8%	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	12.5% 0.0%	0.0%	0.0%	0.6%	0.0%
370	4.7%	3.1%	4.7%	1.2%	2.6%	2.3%	1.8%	1.6%	1.3%	0.6%	1.1%	3.1%	2.3%
371	8.9%	6.7%	17.6%	6.7%	6.7%	0.0%	5.9%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%
372	2.9%	2.0%	13.2%	8.1%	4.5%	0.2%	5.0%	2.1%	4.5%	0.3%	4.9%	0.0%	5.3%
373	0.0%	0.0%	0.0%	2.4%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
374	27.1%	21.1%	16.3%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%
375	25.0%	0.0%	25.0%	3.9%	16.7%	1.9%	0.0%	0.0%	0.0%	0.0%	2.7%	5.5%	0.0%
377	0.0%	5.1%	0.0%	41.7%	0.0%	0.0%	2.9%	0.0%	6.0%	0.0%	0.0%	4.2%	0.0%
378	1.8%	1.8%	3.9%	6.0%	16.7%	0.0%	3.4%	0.7%	0.5%	3.9%	0.0%	1.3%	2.1%
379	13.3% 0.0%	13.8% 0.0%	3.1% 0.0%	3.0% 22.8%	1.9% 9.1%	7.0%	0.8%	1.4%	3.5%	0.0%	5.2% 0.0%	18.9% 13.7%	0.5%
381	0.0%	6.1%	0.6%	3.9%	0.9%	0.0%	0.0%	6.7%	0.0%	0.0%	2.1%	0.0%	0.0%
382	1.9%	6.7%	1.9%	21.9%	0.0%	0.9%	1.2%	0.0%	0.0%	0.0%	0.0%	5.8%	0.9%
383	11.8%	0.0%	0.0%	10.2%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	3.3%	3.3%	3.5%
385	1.4%	0.0%	6.4%	4.8%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.7%	1.1%	0.0%
401	11.0%	2.7%	4.4%	2.8%	7.0%	6.2%	5.0%	8.0%	5.6%	1.2%	2.8%	1.2%	2.1%
402	2.2%	0.2%	0.3%	0.7%	0.5%	0.1%	0.5%	2.1%	1.1%	0.4%	0.4%	0.2%	0.1%
404	5.7%	0.5%	0.6%	0.8%	1.6%	2.2%	1.6%	3.5%	1.7%	1.0%	1.2%	0.1%	0.3%
405	4.2%	0.4%	0.6%	0.8%	1.7%	1.7%	1.5%	2.5%	0.4%	0.1%	1.0%	0.1%	0.1%
407 409	1.3%	0.0%	0.6%	0.0%	0.1%	0.2% 7.1%	0.4%	0.4% 9.3%	0.3%	0.0%	0.0% 3.9%	0.2%	0.0%
409	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
419	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
420	0.6%	1.2%	0.6%	0.6%	1.2%	0.6%	0.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
421	3.1%	4.0%	0.2%	11.0%	6.7%	9.2%	4.9%	4.9%	3.0%	0.0%	0.0%	0.2%	2.9%
422	1.3%	2.9%	0.0%	1.2%	2.5%	1.4%	1.3%	1.3%	0.5%	0.0%	0.0%	0.0%	0.0%
423	2.9%	2.5%	0.6%	1.8%	3.7%	1.2%	3.5%	6.4%	0.0%	1.8%	0.0%	0.6%	0.0%
424	3.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.3%	0.0%
425	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
425A 429	6.4% 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
434	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
440	1.2%	0.0%	0.0%	0.0%	0.8%	0.5%	0.0%	0.1%	0.8%	0.5%	0.3%	0.5%	0.0%
442	0.0%	25.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
443	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
444	7.3%	4.4%	9.0%	5.3%	1.4%	0.0%	0.0%	22.5%	0.0%	16.9%	0.0%	0.0%	0.0%
445	5.7%	7.3%	3.6%	11.8%	0.4%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
446	2.9%	10.5%	13.5%	1.5%	1.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
447	25.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
448 450	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
451	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.3%
454	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
455	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
456	1.9%	1.1%	0.0%	0.7%	0.0%	0.4%	1.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.3%
457	0.0%	0.0%	25.0%	37.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
458	7.1%	1.9%	2.8%	1.8%	0.6%	0.0%	1.5%	0.8%	1.4%	0.0%	1.7%	1.2%	0.3%
460	0.0%	2.3%	50.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%
461	0.0%	0.0%	0.0%	0.0%	5.3% 4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%
462	0.0%	7.5%	7.4% 0.0%	0.9%	4.1%	13.8%	0.0%	0.0%	0.0%	0.0%	0.0%	14.5% 0.0%	0.0%
464	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%
465	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
466	2.7%	0.0%	0.6%	0.0%	0.0%	0.0%	0.3%	0.8%	0.8%	0.6%	1.2%	1.8%	0.6%
467	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
468	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%
469	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%
470	39.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	16.0%	0.0%	2.5%	0.0%
471	0.6% 14.3%	0.0%	2.5%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0% 10.9%	0.0%	0.0%	0.0%
474	5.6%	3.5%	1.3%	1.5%	2.2%	1.4%	0.0%	1.6%	0.8%	0.0%	0.0%	1.6%	0.0%
476	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
479	50.0%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
480	4.0%	0.6%	1.8%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.2%
483	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
487	0.9%	0.0%	0.3%	0.4%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	1.0%	0.0%
489 490	0.0%	0.0%	2.5% 1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
490	1.5%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.4%	0.0%
491	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
494	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%
495	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
65	4.6%	1.9%	0.0%	0.9%	0.3%	0.0%	2.2%	0.0%	0.0%	1.5%	0.0%	1.1%	1.7%
70	1.3%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.9%	0.9%	0.0%	0.0%
72	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
73 A1	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	1.9%	1.8%	0.0%	0.2%	1.7%
A1 A2	2.8%	1.4%	1.1%	1.0%	2.5%	0.5%	1.9%	4.3%	3.2%	4.0%	3.1%	2.5%	1.3%
81	2.0%	1.3%	2.1%	1.2%	1.0%	4.0%	1.2%	4.2%	1.6%	0.2%	1.5%	1.5%	2.7%
D1	4.8%	2.5%	5.4%	1.6%	4.2%	3.0%	4.5%	2.1%	1.8%	2.0%	3.7%	5.2%	5.6%
D2	3.7%	2.3%	5.0%	1.5%	4.3%	3.3%	5.2%	2.3%	1.4%	1.6%	4.0%	5.3%	5.9%
D4	5.3%	1.2%	5.7%	0.7%	6.3%	3.5%	4.8%	1.0%	1.3%	1.7%	3.7%	7.0%	6.6%
D5	5.4%	1.6%	5.2%	0.9%	5.8%	3.2%	4.4%	1.4%	1.1%	1.6%	4.7%	5.7%	6.7%
NX	3.7%	3.0%	5.7%	3.8%	5.1%	5.0%	3.1%	2.0%	4.1%	3.5%	2.9%	1.1%	3.7%
S1 S2	8.9%	0.8%	0.8%	0.7%	0.2%	3.3%	2.2%	1.9%	4.1%	1.1%	1.4%	4.5%	0.5%
52 N1	9.8% 13.4%	0.1% 5.7%	0.0% 5.0%	0.3% 4.2%	0.0% 9.0%	1.0% 5.3%	0.7% 3.3%	0.0%	2.5% 1.7%	0.6% 5.0%	1.8% 3.9%	0.7% 2.9%	0.4%
N2	12.1%	5.4%	4.9%	3.9%	8.6%	4.9%	3.3%	3.3%	1.7%	4.8%	3.7%	3.2%	0.4%
,				0.070	0.070		0.070	2.370	/0				