

Table 2.20(i) Annual and seasonal average percentage frequencies of hourly wind speed by temperature: Newcastle (1982–2011)

Temperature / °C	Percentage frequency for stated range of wind speed / m·s ⁻¹																
	0–2	2–4	4–6	6–8	8–10	10–12	12–14	14–16	16–18	18–20	20–22	22–24	24–26	26–28	28–30	30–32	All speeds
Annual average																	
–12 to –10.1	0.00	0.01															0.01
–10 to –8.1	0.01	0.01															0.02
–8 to –6.1	0.04	0.03															0.07
–6 to –4.1	0.13	0.09	0.01	0.01													0.23
–4 to –2.1	0.30	0.25	0.08	0.01	0.01	0.00	0.00										0.65
–2 to –0.1	0.77	0.80	0.30	0.11	0.05	0.01	0.02	0.00	0.00	0.00	0.00						2.06
0 to 1.9	1.66	1.82	0.86	0.48	0.26	0.13	0.06	0.02	0.01	0.01	0.00						5.31
2 to 3.9	2.28	2.83	1.57	0.92	0.51	0.24	0.17	0.06	0.03	0.01	0.00	0.00					8.61
4 to 5.9	3.05	3.59	2.32	1.35	0.76	0.34	0.19	0.07	0.02	0.01	0.01	0.00					11.71
6 to 7.9	3.35	3.99	2.57	1.55	0.80	0.37	0.19	0.07	0.02	0.01	0.00						12.92
8 to 9.9	3.32	4.30	2.81	1.54	0.78	0.39	0.20	0.07	0.03	0.01	0.00						13.44
10 to 11.9	3.46	4.47	2.84	1.64	0.80	0.33	0.18	0.06	0.02	0.01	0.00						13.80
12 to 13.9	3.07	4.15	2.60	1.32	0.59	0.20	0.08	0.02	0.00	0.00	0.00						12.02
14 to 15.9	2.19	3.12	2.00	1.05	0.39	0.12	0.03	0.00	0.00								8.91
16 to 17.9	1.25	2.01	1.40	0.68	0.23	0.06	0.01	0.00									5.64
18 to 19.9	0.56	0.98	0.71	0.30	0.09	0.01	0.01										2.66
20 to 21.9	0.24	0.46	0.34	0.12	0.02	0.01	0.00										1.20
22 to 23.9	0.09	0.21	0.15	0.06	0.01	0.00											0.52
24 to 25.9	0.03	0.07	0.03	0.02													0.16
26 to 27.9	0.01	0.03	0.02	0.01													0.06
28 to 29.9	0.00	0.01	0.00														0.01
30 to 31.9	0.00	0.00	0.00														0.00
32 to 33.9																	
34 to 35.9																	
36 to 37.9																	
All temps.	25.80	33.21	20.62	11.18	5.28	2.20	1.13	0.37	0.12	0.06	0.02	0.00					100.000
Spring average																	
–12 to –10.1																	
–10 to –8.1																	
–8 to –6.1	0.01	0.01															0.01
–6 to –4.1	0.05	0.03															0.08
–4 to –2.1	0.17	0.14	0.03	0.01													0.35
–2 to –0.1	0.51	0.53	0.16	0.08	0.01	0.00	0.00										1.29
0 to 1.9	1.43	1.37	0.61	0.42	0.19	0.16	0.05	0.01	0.00	0.01	0.00						4.23
2 to 3.9	2.53	3.11	1.75	0.94	0.65	0.28	0.20	0.06	0.05	0.02	0.00	0.00					9.58
4 to 5.9	4.22	4.81	3.10	1.94	1.13	0.50	0.28	0.11	0.03	0.01		0.00					16.12
6 to 7.9	5.14	6.29	4.22	2.46	1.29	0.56	0.28	0.07	0.01	0.00							20.30
8 to 9.9	4.52	5.96	4.19	2.18	1.08	0.50	0.25	0.06	0.02	0.01							18.75
10 to 11.9	3.22	4.26	3.19	1.89	0.90	0.27	0.15	0.04	0.01	0.00							13.92
12 to 13.9	1.70	2.57	2.15	1.26	0.57	0.16	0.07	0.00	0.00								8.49
14 to 15.9	0.92	1.31	0.99	0.60	0.20	0.07	0.01										4.08
16 to 17.9	0.36	0.68	0.50	0.21	0.04	0.01											1.80
18 to 19.9	0.14	0.26	0.14	0.06	0.01												0.60
20 to 21.9	0.05	0.12	0.09	0.01													0.27
22 to 23.9	0.03	0.03	0.04	0.02													0.11
24 to 25.9	0.01	0.01															0.02
26 to 27.9	0.00																0.00
28 to 29.9																	
30 to 31.9																	
32 to 33.9																	
34 to 35.9																	
36 to 37.9																	
All temps.	24.98	31.46	21.15	12.07	6.06	2.51	1.26	0.33	0.12	0.04	0.00	0.00					100.00

Table continues

Table 2.20(i) Annual and seasonal average percentage frequencies of hourly wind speed by temperature: Newcastle (1982–2011) — *continued*

Temperature / °C	Percentage frequency for stated range of wind speed / m·s ⁻¹																
	0–2	2–4	4–6	6–8	8–10	10–12	12–14	14–16	16–18	18–20	20–22	22–24	24–26	26–28	28–30	30–32	All speeds
Summer average																	
–12 to –10.1																	
–10 to –8.1																	
–8 to –6.1																	
–6 to –4.1																	
–4 to –2.1																	
–2 to –0.1																	
0 to 1.9	0.01																0.01
2 to 3.9	0.02	0.01															0.03
4 to 5.9	0.21	0.12	0.01	0.01	0.00												0.35
6 to 7.9	0.67	0.63	0.14	0.04	0.01	0.02											1.52
8 to 9.9	2.23	2.43	1.33	0.49	0.14	0.08	0.03	0.00									6.72
10 to 11.9	4.75	5.51	3.17	1.27	0.48	0.20	0.12	0.03	0.01	0.02	0.00						15.55
12 to 13.9	6.60	8.13	4.47	1.90	0.69	0.23	0.05	0.04									22.11
14 to 15.9	5.89	7.74	4.81	2.18	0.77	0.22	0.08	0.01		0.00							21.68
16 to 17.9	3.79	5.88	4.12	1.86	0.63	0.16	0.03	0.00									16.46
18 to 19.9	1.85	3.26	2.40	0.95	0.28	0.05	0.02	0.00									8.82
20 to 21.9	0.84	1.55	1.18	0.42	0.07	0.02	0.02										4.10
22 to 23.9	0.33	0.73	0.51	0.20	0.02	0.01	0.00										1.80
24 to 25.9	0.10	0.26	0.13	0.07	0.00	0.00											0.57
26 to 27.9	0.02	0.10	0.08	0.02													0.23
28 to 29.9	0.01	0.02	0.01														0.03
30 to 31.9	0.00	0.01	0.01														0.01
32 to 33.9	0.00																0.00
34 to 35.9																	
36 to 37.9																	
All temps.	27.34	36.37	22.36	9.43	3.10	0.96	0.34	0.07	0.01	0.02	0.00						100.00
Autumn average																	
–12 to –10.1																	
–10 to –8.1																	
–8 to –6.1	0.01	0.01															0.02
–6 to –4.1	0.04	0.03															0.07
–4 to –2.1	0.12	0.11	0.02														0.25
–2 to –0.1	0.34	0.38	0.15	0.02	0.00												0.88
0 to 1.9	0.73	0.91	0.39	0.16	0.04	0.02	0.01										2.25
2 to 3.9	1.49	1.72	0.77	0.31	0.12	0.02	0.01	0.00		0.00	0.00						4.45
4 to 5.9	2.69	2.72	1.54	0.66	0.37	0.08	0.05	0.02	0.00								8.13
6 to 7.9	3.79	4.36	2.21	1.29	0.67	0.29	0.11	0.05	0.02	0.00							12.77
8 to 9.9	4.88	6.01	3.47	1.84	0.96	0.42	0.19	0.05	0.01	0.00	0.00						17.84
10 to 11.9	5.44	7.09	3.77	2.29	1.06	0.45	0.22	0.08	0.03	0.01							20.45
12 to 13.9	3.98	5.76	3.44	1.77	0.89	0.32	0.12	0.01	0.00	0.01	0.00						16.30
14 to 15.9	2.05	3.53	2.21	1.39	0.58	0.17	0.05	0.01	0.01								9.99
16 to 17.9	0.90	1.56	1.04	0.69	0.24	0.06	0.02	0.00									4.52
18 to 19.9	0.29	0.45	0.31	0.21	0.07	0.00	0.00										1.33
20 to 21.9	0.10	0.21	0.11	0.05	0.02	0.01											0.49
22 to 23.9	0.02	0.09	0.07	0.02	0.00												0.21
24 to 25.9	0.01	0.03	0.01	0.01													0.05
26 to 27.9																	
28 to 29.9																	
30 to 31.9																	
32 to 33.9																	
34 to 35.9																	
36 to 37.9																	
All temps.	26.87	34.96	19.52	10.70	5.02	1.82	0.77	0.23	0.07	0.03	0.01						100.00

Table continues

Table 2.20(i) Annual and seasonal average percentage frequencies of hourly wind speed by temperature: Newcastle (1982–2011) — *continued*

Temperature / °C	Percentage frequency for stated range of wind speed / m·s ⁻¹																
	0–2	2–4	4–6	6–8	8–10	10–12	12–14	14–16	16–18	18–20	20–22	22–24	24–26	26–28	28–30	30–32	All speeds
Winter average																	
–12 to –10.1	0.01	0.02															0.03
–10 to –8.1	0.03	0.03															0.06
–8 to –6.1	0.15	0.12	0.00														0.27
–6 to –4.1	0.42	0.28	0.04	0.02	0.00												0.77
–4 to –2.1	0.89	0.75	0.28	0.04	0.02	0.01	0.00										1.99
–2 to –0.1	2.21	2.28	0.90	0.33	0.18	0.06	0.07	0.02	0.01	0.01	0.01						6.05
0 to 1.9	4.46	4.99	2.44	1.34	0.81	0.34	0.19	0.09	0.04	0.02	0.00						14.71
2 to 3.9	5.03	6.42	3.74	2.42	1.27	0.65	0.46	0.17	0.06	0.02	0.01	0.01					20.25
4 to 5.9	5.00	6.63	4.58	2.77	1.53	0.78	0.42	0.15	0.04	0.02	0.02	0.01					21.93
6 to 7.9	3.73	4.58	3.62	2.38	1.22	0.61	0.38	0.15	0.04	0.02	0.01	0.00					16.72
8 to 9.9	1.61	2.74	2.18	1.64	0.93	0.56	0.31	0.16	0.08	0.02	0.01						10.23
10 to 11.9	0.45	1.06	1.21	1.11	0.74	0.39	0.24	0.10	0.02	0.02	0.01						5.35
12 to 13.9	0.09	0.26	0.38	0.37	0.19	0.08	0.07	0.02	0.00								1.45
14 to 15.9	0.01	0.02	0.08	0.05	0.02	0.01											0.18
16 to 17.9			0.00	0.00													0.01
18 to 19.9																	
20 to 21.9																	
22 to 23.9																	
24 to 25.9																	
26 to 27.9																	
28 to 29.9																	
30 to 31.9																	
32 to 33.9																	
34 to 35.9																	
36 to 37.9																	
All temps.	24.06	30.17	19.44	12.47	6.90	3.48	2.14	0.86	0.26	0.14	0.07	0.01					100.00