

Appendix D Monthly Weights Applied to Quarter Sessions Tasks

Deposition month	Quarter sessions exams sampled	%	Deviation from 12-month average (8.3%)	One-to-one multiplier	Weighted multiplier ^a	South-west ^a	East ^a	North ^a
Jan	698	7.5	−0.8	1.11	1.22	1.54	1.18	0.99
Feb	536	5.8	−2.6	1.44	1.36	1.81	1.14	1.17
Mar	645	6.9	−1.4	1.20	1.12	1.16	1.08	1.10
Apr	812	8.7	0.4	0.95	0.91	0.85	1.00	0.94
May	944	10.2	1.8	0.82	0.83	0.74	1.04	0.84
Jun	919	9.9	1.6	0.84	0.92	0.88	1.08	0.90
Jul	716	7.7	−0.6	1.08	1.13	1.11	1.17	1.14
Aug	636	6.8	−1.5	1.22	1.12	1.03	1.13	1.29
Sep	829	8.9	0.6	0.93	0.98	1.00	0.84	1.09
Oct	723	7.8	−0.6	1.07	1.04	1.08	0.98	1.08
Nov	795	8.6	0.2	0.97	0.90	0.87	1.04	0.88
Dec	1,040	11.2	2.9	0.74	0.87	0.92	0.81	0.88
Total	9,293	100	N/A	N/A	N/A	N/A	N/A	N/A

^a. = 2/3rd one-to-one multiplier + 1/3rd one-to-one multiplier of the following month. The three regional weights do not average out exactly to the overall weighted multiplier because the regional samples are different sizes.

Notes: Appendix D outlines the monthly weighting applied to seasonality analyses in this book, as discussed in Section 4.1. These weights were applied only to tasks from quarter sessions cases for seasonality analysis, to approximate an even sample of depositions across all 12 months of the year. As the table shows, the number of sampled quarter sessions depositions was not evenly distributed according to the months in which depositions were taken/recorded. This presents an issue because a clear relationship existed between when a quarter sessions deposition was taken, and the time observation reported. A sampling of quarter sessions cases from the work-task dataset shows that around 50 per cent of time observations (usually linked to time of the crime) dated to the same month as when the deposition was taken, with a further 25 per cent of the time observations dated to the month prior to month of deposition. The remaining 25 per cent of time observations were spread throughout the rest of the months of the year prior to deposition. Assuming this latter dispersed portion had a negligible effect (in any systematic way) on the distribution of monthly tasks, the number of quarter sessions tasks in any given month would be influenced most strongly by the number of depositions taken in that same month, and half as much by the number of depositions taken in the following month. The ‘Weighted Multiplier’, used in all seasonality analysis, reflects this relationship, so that adjusted figures more confidently reflect work patterns, rather than legal or sampling patterns. In calculating a month’s multiplier, 2/3rd weight was given to that month’s one-to-one multiplier (the multiplier that would be used to reweight if the relationship between month of deposition and month of time observation was one-to-one) and 1/3rd weight to the following month’s one-to-one multiplier. For example, January’s weighted multiplier is the average of 2×1.11 (January’s one-to-one multiplier) + 1.44 (February’s one-to-one multiplier) = 1.22. These same principles and processes were followed in calculating monthly weights for the three regional samples, used in the seasonality analysis for Figure 3.1.