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Have the 2018 NSW sentencing reforms reduced the risk of re-offending?

Neil Donnelly, Min-Taec Kim, Sara Rahman and Suzanne Poynton

APPENDIX C

Full regression coefficients for results reported in Tables 3 and 4

Table C1. Logistic regressions, all offenders

Outcome Specification	Any re-offending within 12 free months		Serious violent, property and drug re-offending within 12 free months	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.901 *** (0.021)	0.975 (0.025)	0.903 *** (0.026)	0.992 (0.032)
Male		1.087 ** (0.035)		1.080 * (0.042)
Age categories (relative to 45 and older)				
18-24		1.786 *** (0.072)		1.815 *** (0.093)
25-34		1.502 *** (0.057)		1.583 *** (0.077)
35-44		1.520 *** (0.061)		1.636 *** (0.083)
Aboriginal		1.314 *** (0.053)		1.471 *** (0.066)
SEIFA Quartile (relative to Most advantaged)				
Most disadvantaged		1.265 *** (0.054)		1.083 (0.058)
Disadvantaged		1.155 *** (0.050)		1.062 (0.058)
Advantaged		1.175 *** (0.051)		1.120 * (0.061)
Unknown		0.533 *** (0.047)		0.639 *** (0.072)

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Table C1. Logistic regressions, all offenders (Continued)

Outcome Specification	Any re-offending within 12 free months		Serious violent, property and drug re-offending within 12 free months	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)		1.251 *** (0.078)		1.352 *** (0.090)
Plea (relative to Guilty)				
No plea entered / other		2.259 *** (0.079)		2.003 *** (0.082)
Not guilty		1.073 (0.057)		1.091 (0.068)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		2.216 *** (0.081)		1.986 *** (0.101)
2+		4.381 *** (0.145)		4.094 *** (0.179)
One or more prison sentences in the 5 years prior to finalisation		2.249 *** (0.092)		2.617 *** (0.111)
The number of concurrent offences at index (relative to 0)				
1		1.173 *** (0.040)		1.216 *** (0.051)
2+		1.406 *** (0.047)		1.454 *** (0.057)
Principal offence (relative to Other)				
Violent principal offence		0.748 *** (0.029)		0.995 (0.047)
Serious property principal offence		1.384 *** (0.056)		2.074 *** (0.092)
Any DV-related offence		1.090 * (0.042)		1.346 *** (0.061)
Constant	0.451 *** (0.007)	0.077 *** (0.004)	0.205 *** (0.004)	0.026 *** (0.002)
N	35,392	35,390	35,114	35,112
Akaike information criteria	43233.9	36213.9	31236.7	25952.0

Note: Coefficients reported as odds ratios (OR).

Standard errors in parentheses

* $p < .05$, ** $p < .01$, *** $p < .001$

Table C2. Logistic regressions, DV offenders

Outcome Specification	Any re-offending within 12 free months		Serious violent, property and drug re-offending within 12 free months	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.867 ** (0.045)	0.941 (0.053)	0.898 (0.055)	0.988 (0.065)
Male		1.247 ** (0.094)		1.128 (0.098)
Age categories (relative to 45 and older)				
18-24		2.062 *** (0.187)		2.071 *** (0.221)
25-34		1.758 *** (0.146)		1.675 *** (0.166)
35-44		1.439 *** (0.125)		1.403 ** (0.146)
Aboriginal		1.305 *** (0.097)		1.310 ** (0.108)
Accessibility and Remoteness Index of Australia (relative to Major cities)				
Inner regional		1.162 * (0.079)		1.011 (0.079)
Outer regional/Remote(s)		1.225 * (0.114)		1.009 (0.107)
Unknown		0.567 ** (0.118)		0.661 (0.159)
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)		1.178 (0.121)		1.267 * (0.139)
Plea (relative to Guilty)				
No plea entered / other		1.661 *** (0.193)		1.694 *** (0.215)
Not guilty		1.002 (0.090)		1.003 (0.104)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		1.926 *** (0.154)		1.659 *** (0.164)
2+		3.659 *** (0.270)		3.077 *** (0.270)
One or more prison sentences in the 5 years prior to finalisation		1.902 *** (0.167)		2.315 *** (0.211)
The number of concurrent offences at index (relative to 0)				
1		1.198 * (0.087)		1.229 * (0.105)
2+		1.372 *** (0.094)		1.532 *** (0.120)
Principal offence - Assault		0.674 *** (0.040)		0.737 *** (0.051)
Constant	0.427 *** (0.015)	0.092 *** (0.010)	0.233 *** (0.010)	0.053 *** (0.007)
N	7,377	7,377	7,321	7,321
Akaike information criteria	8812.7	7624.3	6933.9	6094.8

Note: Coefficients reported as odds ratios (OR).
Standard errors in parentheses
* $p < .05$, ** $p < .01$, *** $p < .001$

Table C3. Logistic regressions, offenders receiving short prison sentences and custodial alternatives

Outcome Specification	Any re-offending within 12 free months		Serious violent, property and drug re-offending within 12 free months	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.937 (0.058)	1.003 (0.069)	0.971 (0.066)	1.068 (0.081)
Male		1.066 (0.100)		0.988 (0.102)
Age categories (relative to 45 and older)				
18-24		1.710 *** (0.194)		1.984 *** (0.255)
25-34		1.658 *** (0.162)		1.921 *** (0.217)
35-44		1.548 *** (0.154)		1.650 *** (0.190)
Aboriginal		1.485 *** (0.130)		1.474 *** (0.136)
Accessibility and Remoteness Index of Australia (relative to Major cities)				
Inner regional		0.835 * (0.069)		0.748 ** (0.069)
Outer regional/Remote(s)		0.877 (0.108)		0.901 (0.121)
Unknown		0.871 (0.161)		0.925 (0.192)
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)		1.396 *** (0.123)		1.489 *** (0.137)
Plea (relative to Guilty)				
No plea entered / other		1.147 (0.158)		1.288 (0.188)
Not guilty		0.881 (0.098)		0.875 (0.106)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		1.858 *** (0.247)		1.998 *** (0.339)
2+		4.086 *** (0.466)		3.923 *** (0.574)
One or more prison sentences in the 5 years prior to finalisation		2.416 *** (0.190)		2.683 *** (0.224)
The number of concurrent offences at index (relative to 0)				
1		1.263 * (0.135)		1.267 (0.155)
2+		1.721 *** (0.153)		1.738 *** (0.177)
Principal offence (relative to Other)				
Violent principal offence		0.981 (0.084)		1.223 * (0.115)
Serious property principal offence		1.458 *** (0.134)		1.964 *** (0.192)
Any DV-related offence		1.178 (0.101)		1.321 ** (0.123)
Constant	0.754 *** (0.030)	0.069 *** (0.011)	0.410 *** (0.018)	0.026 *** (0.005)
N	4,446	4,446	4,327	4,327
Akaike information criteria	6061.3	5154.3	5200.7	4384.0

Note: Coefficients reported as odds ratios (OR).
Standard errors in parentheses
* $p < .05$, ** $p < .01$, *** $p < .001$

Table C4. Cox regressions, all offenders

Outcome Specification	Free time to first re-offence (excluding breaches)		Free time to first serious violent, property and drug re-offence	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.935 *** (0.017)	0.981 (0.018)	0.943 * (0.022)	1.004 (0.024)
Male		1.054 * (0.023)		1.035 (0.030)
Age categories (relative to 45 and older)				
18-24		1.570 *** (0.045)		1.618 *** (0.063)
25-34		1.369 *** (0.037)		1.457 *** (0.054)
35-44		1.382 *** (0.039)		1.474 *** (0.056)
Aboriginal		1.199 *** (0.030)		1.325 *** (0.041)
SEIFA Quartile (relative to Most advantaged)				
Most disadvantaged		1.178 *** (0.036)		1.058 (0.043)
Disadvantaged		1.097 ** (0.034)		1.030 (0.043)
Advantaged		1.135 *** (0.036)		1.108 * (0.046)
Unknown		0.629 *** (0.042)		0.660 *** (0.059)
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)		1.191 *** (0.042)		1.224 *** (0.051)
Plea (relative to Guilty)				
No plea entered / other		1.720 *** (0.039)		1.676 *** (0.050)
Not guilty		1.050 (0.037)		1.061 (0.048)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		2.107 *** (0.060)		2.033 *** (0.085)
2+		3.517 *** (0.089)		3.763 *** (0.135)
One or more prison sentences in the 5 years prior to finalisation		1.681 *** (0.039)		2.063 *** (0.060)
The number of concurrent offences at index (relative to 0)				
1		1.117 *** (0.026)		1.165 *** (0.036)
2+		1.222 *** (0.027)		1.280 *** (0.037)
Principal offence (relative to Other)				
Violent principal offence		0.816 *** (0.022)		1.006 (0.035)
Serious property principal offence		1.229 *** (0.031)		1.751 *** (0.054)
Any DV-related offence		1.048 (0.027)		1.252 *** (0.042)
N	36,718	36,716	36,721	36,719
Akaike information criteria	264532.1	256228.8	151304.9	144890.7

Coefficients reported as hazard ratios (HR).
Standard errors in parentheses.
* $p < .05$, ** $p < .01$, *** $p < .001$

Table C5. Cox regressions, DV offenders

Outcome Specification	Free time to first re-offence (excluding breaches)		Free time to first serious violent, property and drug re-offence	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.900 ** (0.036)	0.950 (0.038)	0.926 (0.045)	0.983 (0.048)
Male		1.145 * (0.062)		1.090 (0.074)
Age categories (relative to 45 and older)				
18-24		1.769 *** (0.115)		1.795 *** (0.145)
25-34		1.576 *** (0.095)		1.571 *** (0.119)
35-44		1.350 *** (0.086)		1.294 ** (0.103)
Aboriginal		1.177 *** (0.057)		1.211 ** (0.071)
Accessibility and Remoteness Index of Australia (relative to Major cities)				
Inner regional		1.074 (0.050)		1.022 (0.059)
Outer regional/Remote(s)		1.147 * (0.070)		1.082 (0.082)
Unknown		0.741 * (0.106)		0.714 (0.130)
Bail refused at first appearance (relative to on bail/bail dispensed with/other)		1.078 (0.066)		1.153 (0.084)
Plea (relative to Guilty)				
No plea entered / other		1.538 *** (0.115)		1.591 *** (0.142)
Not guilty		0.984 (0.061)		0.968 (0.075)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		1.876 *** (0.116)		1.695 *** (0.135)
2+		3.030 *** (0.169)		2.860 *** (0.202)
One or more prison sentences in the 5 years prior to finalisation		1.609 *** (0.083)		1.848 *** (0.115)
The number of concurrent offences at index (relative to 0)				
1		1.121 * (0.058)		1.157 * (0.075)
2+		1.198 *** (0.057)		1.309 *** (0.077)
Principal offence - Assault		0.721 *** (0.030)		0.739 *** (0.039)
N	7,767	7,767	7,767	7,767
Akaike information criteria	46203.3	44735.5	30360.5	29314.8

Coefficients reported as hazard ratios (HR).

Standard errors in parentheses.

* $p < .05$, ** $p < .01$, *** $p < .001$

Table C6. Cox regressions, offenders sentenced to short prison sentences and custodial alternatives

Group	Free time to first re-offence (excluding breaches)		Free time to first serious violent, property and drug re-offence	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Post-reforms	0.971 (0.039)	0.971 (0.040)	1.013 (0.050)	1.023 (0.051)
Male		1.064 (0.062)		1.001 (0.070)
Age categories (relative to 45 and older)				
18-24		1.555 *** (0.110)		1.697 *** (0.149)
25-34		1.460 *** (0.090)		1.579 *** (0.123)
35-44		1.393 *** (0.088)		1.448 *** (0.116)
Aboriginal		1.239 *** (0.060)		1.270 *** (0.073)
Accessibility and Remoteness Index of Australia (relative to Major cities)				
Inner regional		0.881 * (0.043)		0.813 ** (0.049)
Outer regional/Remote(s)		0.893 (0.064)		0.941 (0.079)
Unknown		0.888 (0.099)		0.852 (0.117)
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)		1.267 *** (0.060)		1.276 *** (0.072)
Plea (relative to Guilty)				
No plea entered / other		1.106 (0.086)		1.160 (0.108)
Not guilty		0.956 (0.063)		0.925 (0.074)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)				
1		1.846 *** (0.184)		1.800 *** (0.238)
2+		3.240 *** (0.279)		3.208 *** (0.365)
One or more prison sentences in the 5 years prior to finalisation		1.805 *** (0.082)		2.054 *** (0.114)
The number of concurrent offences at index (relative to 0)				
1		1.165 * (0.079)		1.153 (0.097)
2+		1.368 *** (0.077)		1.393 *** (0.096)
Principal offence (relative to Other)				
Violent principal offence		0.953 (0.050)		1.128 (0.073)
Serious property principal offence		1.250 *** (0.064)		1.659 *** (0.101)
Any DV-related offence		0.997 (0.051)		1.087 (0.068)
N	5,319	5,319	5,323	5,323
Akaike information criteria	41355.1	40194.0	28430.3	27441.0

Coefficients reported as hazard ratios (HR).
Standard errors in parentheses.
* $p < .05$, ** $p < .01$, *** $p < .001$

Table C7. Logistic regressions, new custodial episode within 12 months calendar time

Group	All offenders		DV offenders		Short prison sentences and custodial alternatives	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
Specification						
Post-reforms	0.946 (0.028)	1.010 (0.034)	0.967 (0.058)	1.038 (0.068)	1.069 (0.064)	1.067 (0.068)
Male		1.466 *** (0.066)		1.566 *** (0.154)		1.087 (0.102)
Age categories (relative to 45 and older)						
18-24		1.519 *** (0.083)		1.504 *** (0.161)		1.872 *** (0.204)
25-34		1.446 *** (0.073)		1.378 *** (0.134)		1.556 *** (0.148)
35-44		1.509 *** (0.079)		1.342 ** (0.135)		1.428 *** (0.140)
Aboriginal		1.605 *** (0.074)		1.331 *** (0.108)		1.371 *** (0.107)
Accessibility and Remoteness Index of Australia (relative to Major cities)						
Inner regional		0.895 ** (0.037)		0.960 (0.075)		0.844 * (0.066)
Outer regional/Remote(s)		0.883 * (0.055)		0.831 (0.090)		0.723 ** (0.085)
Unknown		0.632 *** (0.067)		0.660 (0.147)		0.706 * (0.119)
Bail refused at first appearance (relative to On bail/Bail dispensed with/Other)						
		1.527 *** (0.089)		1.374 ** (0.133)		1.292 ** (0.098)
Plea (relative to Guilty)						
No plea entered / other		1.861 *** (0.081)		1.620 *** (0.211)		0.907 (0.118)
Not guilty		1.205 ** (0.075)		1.186 (0.117)		1.041 (0.106)
Court appearances with a proven offence in 5 years prior to finalisation (relative to 0)						
1		2.134 *** (0.125)		1.782 *** (0.186)		1.396 * (0.195)
2+		4.717 *** (0.236)		3.351 *** (0.309)		2.407 *** (0.284)
One or more prison sentences in the 5 years prior to finalisation		2.759 *** (0.113)		2.461 *** (0.209)		2.176 *** (0.158)
The number of concurrent offences at index (relative to 0)						
1		1.205 *** (0.054)		1.090 (0.097)		1.071 (0.113)
2+		1.606 *** (0.064)		1.626 *** (0.126)		1.496 *** (0.129)
Principal offence (relative to Other)						
Violent principal offence		0.827 *** (0.040)				0.793 ** (0.065)
Serious property principal offence		1.5 *** (0.069)				1.214 * (0.100)
Any DV-related offence		1.604 *** (0.074)				1.529 *** (0.122)
Principal offence - Assault				0.583 *** (0.041)		
Constant	0.166 *** (0.003)	0.016 *** (0.001)	0.215 *** (0.009)	0.040 *** (0.006)	0.404 *** (0.016)	0.062 *** (0.010)
N	36,941	36,939	7,820	7,820	5,443	5,443
Akaike information criteria	29815.6	24048.6	7248.6	6144.4	6597.7	5963.8

Coefficients reported as odds ratios (OR).
Standard errors in parentheses.
* p < .05, ** p < .01, *** p < .001