The impact of the *NSW Young Offenders Act (1997)* on the likelihood of receiving a custodial order

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Introduction

The *Young Offenders Act 1997* (YOA) created a hierarchy of sanctions designed to divert young offenders from the court system including warnings, police cautions and youth justice conferences (YJCs) (Bargen, Clancey & Chan, 2005).

One specific aim of the YOA was to address the over-representation of Aboriginal and Torres Strait Islander children in the criminal justice system through the use of warnings, cautions and YJCs.

In this report we take a different approach to assessing the effectiveness of diversion. If the YOA is effective in diverting young people from custody (including Indigenous young people), then the likelihood of ever ending up in custody (given apprehension by police) should be lower after the YOA than before. In this study we test this claim for Indigenous and non-Indigenous juveniles.

Aim

The study specifically aimed to determine whether the introduction of the YOA had any impact on:

(1) The probability that a young offender appearing before the justice system received a custodial order; and

(2) The time taken for young offenders to receive their first custodial order, and the cumulative proportion ever expected to receive a custodial order (or adult imprisonment).

Of particular interest was whether the introduction of the YOA had a differential impact on these outcomes for Indigenous and non-Indigenous juveniles.

Data

To address the two research questions, we used data from the NSW Re-Offending Database (ROD) which contains information on all matters dealt with by way of a police caution or a Youth Justice Conference (YJC) since 1998 and any court appearance since 1994.

We selected a pre-YOA and a YOA cohort of juveniles, based on whether first proven contact with the criminal justice system was before or after the introduction of the YOA.

Method

Aim 1 was assessed with the use of a frailty model to observe any significant changes in the probability that a young person received a custodial order after the introduction of the YOA. The advantage of frailty models in this context is that they allowed us to control for unmeasured individual differences in the likelihood of failure (reoffending). The frailty model used in the current study included both time-independent risk factors (e.g. Indigenous status, sex), time-varying risk factors (e.g. age, number of prior court appearances) and the complete juvenile court history of all young people in the sample.

The frailty model has the form of

$$hi(t|ai) = ai\ h0(t)\ exp(xb)$$

In the model, *ai* is the frailty effect and is assumed to be gamma distributed, *h0(t) = exp(γt)* is the baseline hazard, *γ is the ancillary* parameter of the Gompertz distribution, *t is the survival time to* next proven Children's Court appearance and *b₁,..., b₂₆ are the* regression coefficients and *x₁,..., x₁₄ represent the covariates* included in the model.

Aim 2 investigated the impact of the YOA on time to first custodial order. This is based on the cumulative proportion of young people receiving a first custodial order at any given number of months after first conviction. We seek to estimate the asymptotic proportion of young people receiving a first custodial sentence in either the juvenile or adult system. A maximum likelihood estimation procedure using three parameters in a Gompertz functional form was fitted to the data on the time taken (in months) from a young offender's first proven court appearance to first custodial order.

The Gompertz function has the form of

$$Y(t) = P\ exp(b\ exp(c\ t))$$

where P is the asymptotic rate of receiving custodial order (or *failure) from first proven appearance, b* and *c are negative parameters where b sets an appropriate* start time, *c determines the rate of growth and t is our time* variable expressed as whole months survived from first conviction until first custodial order.
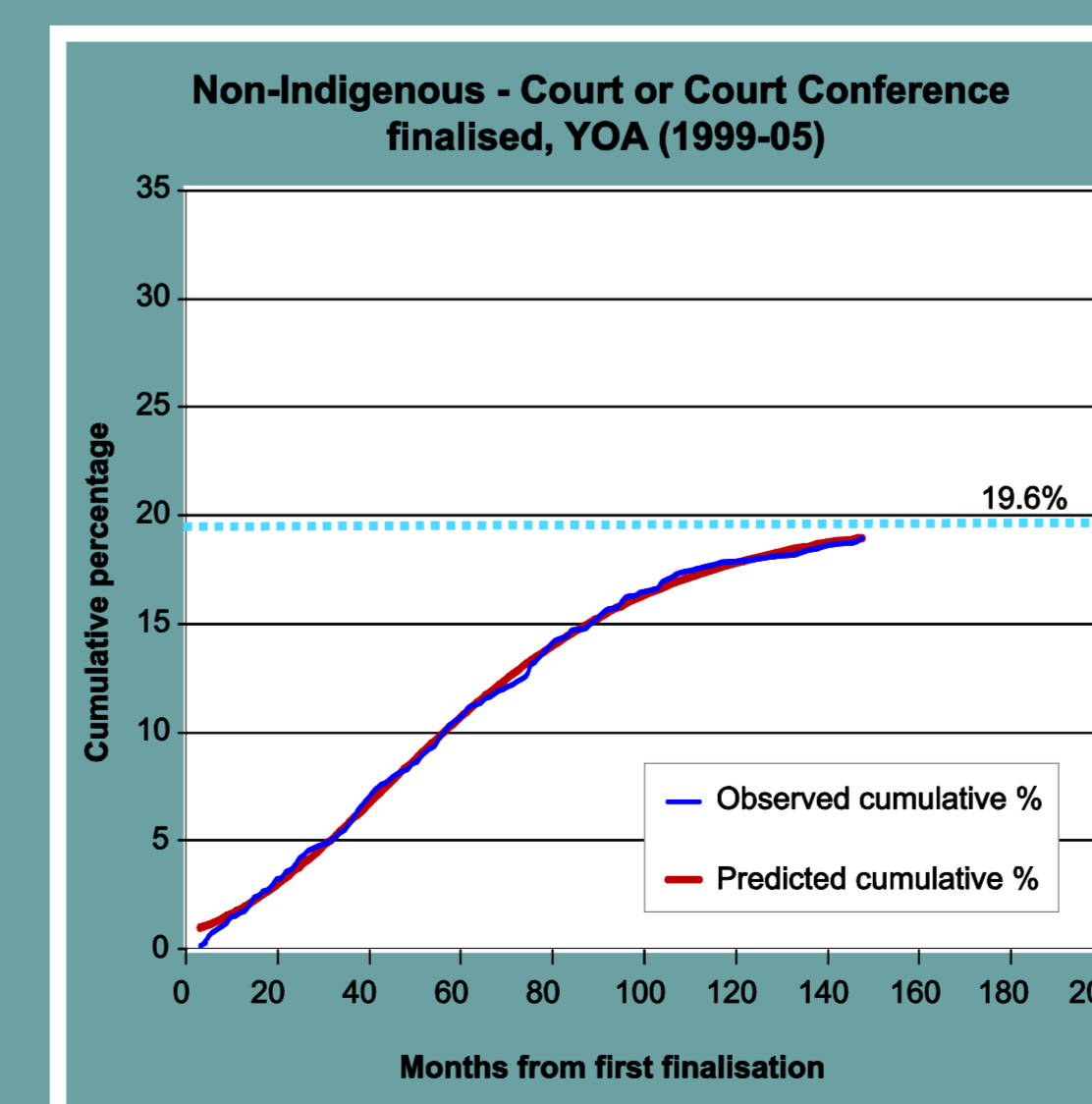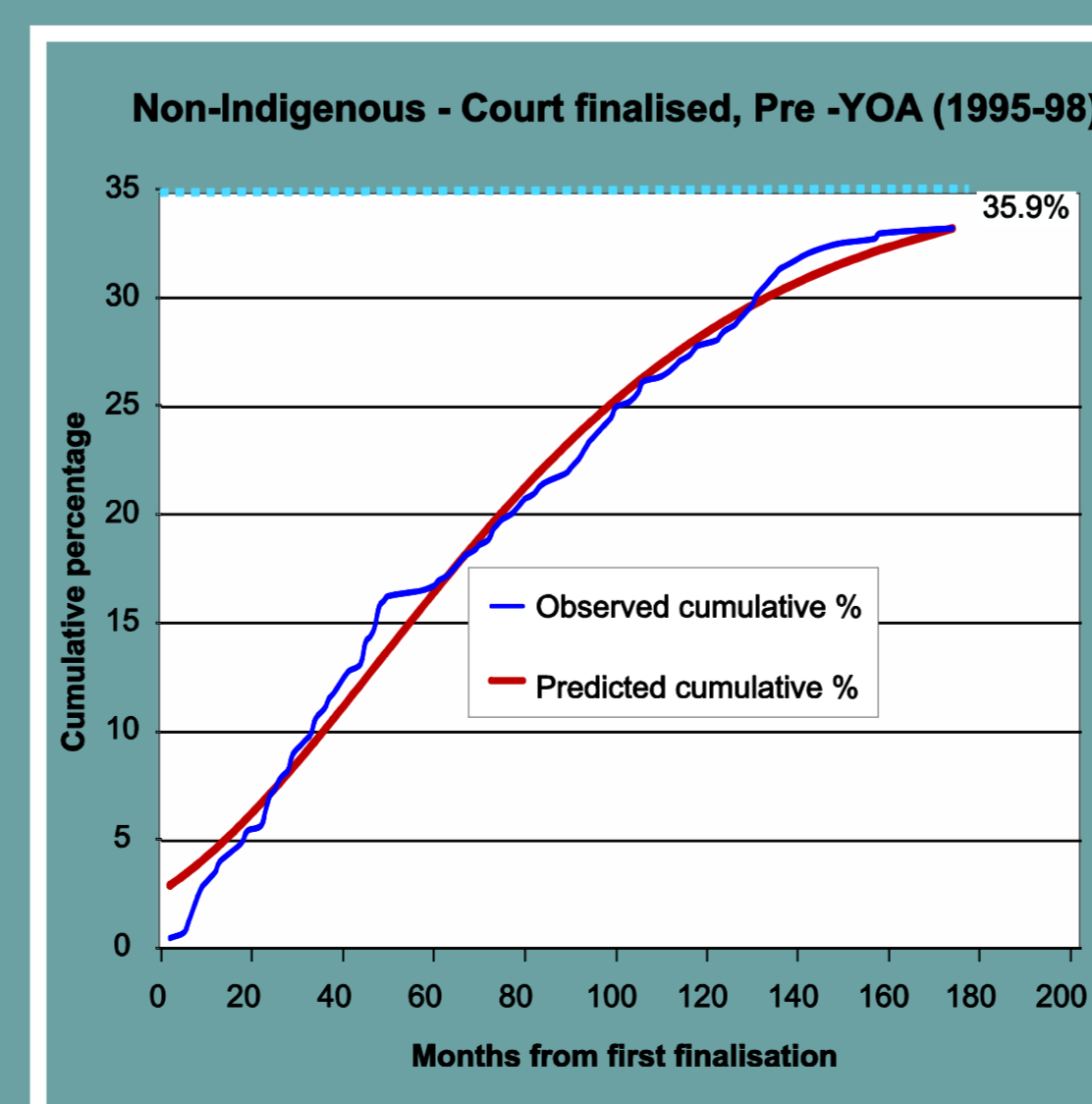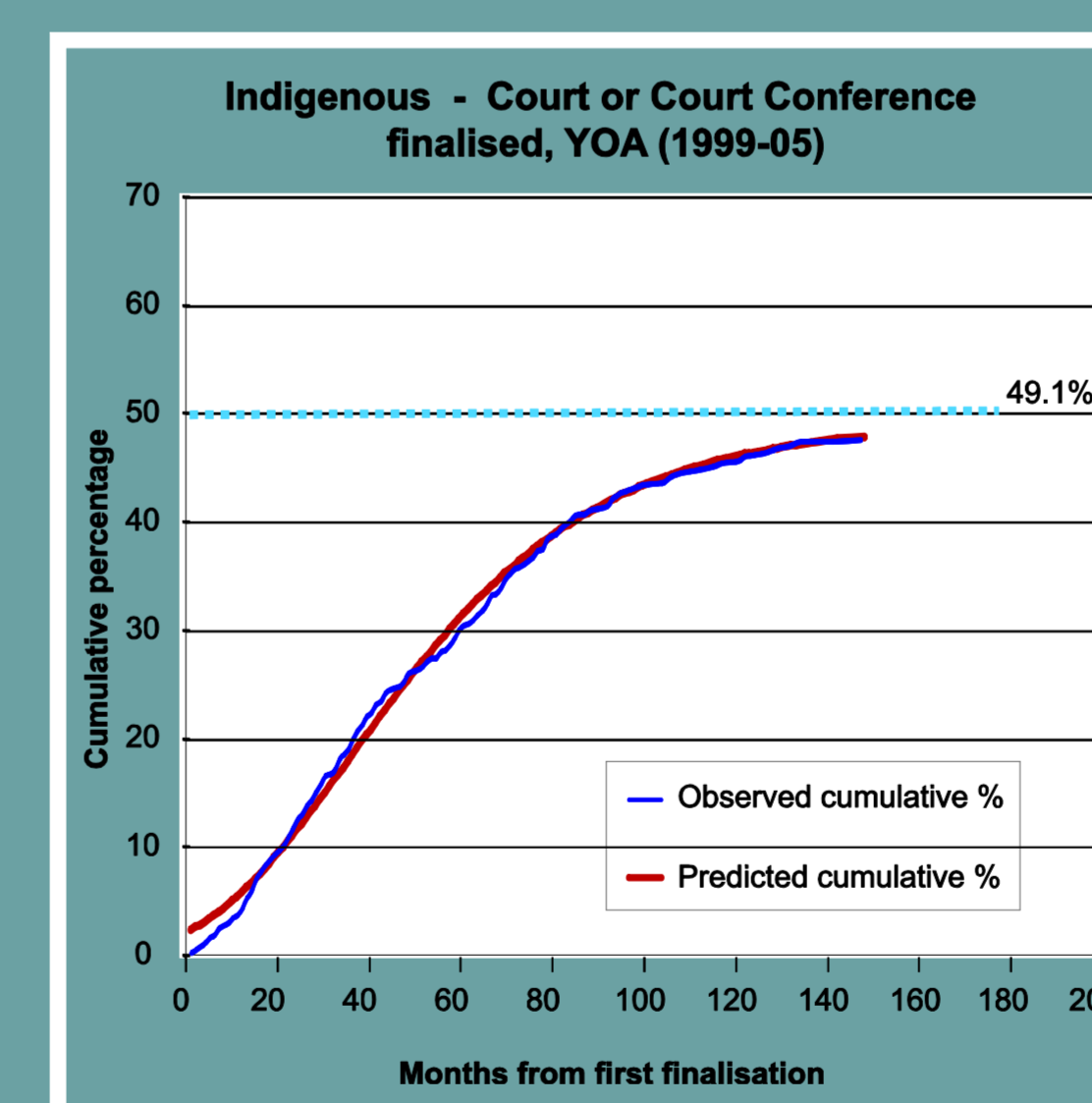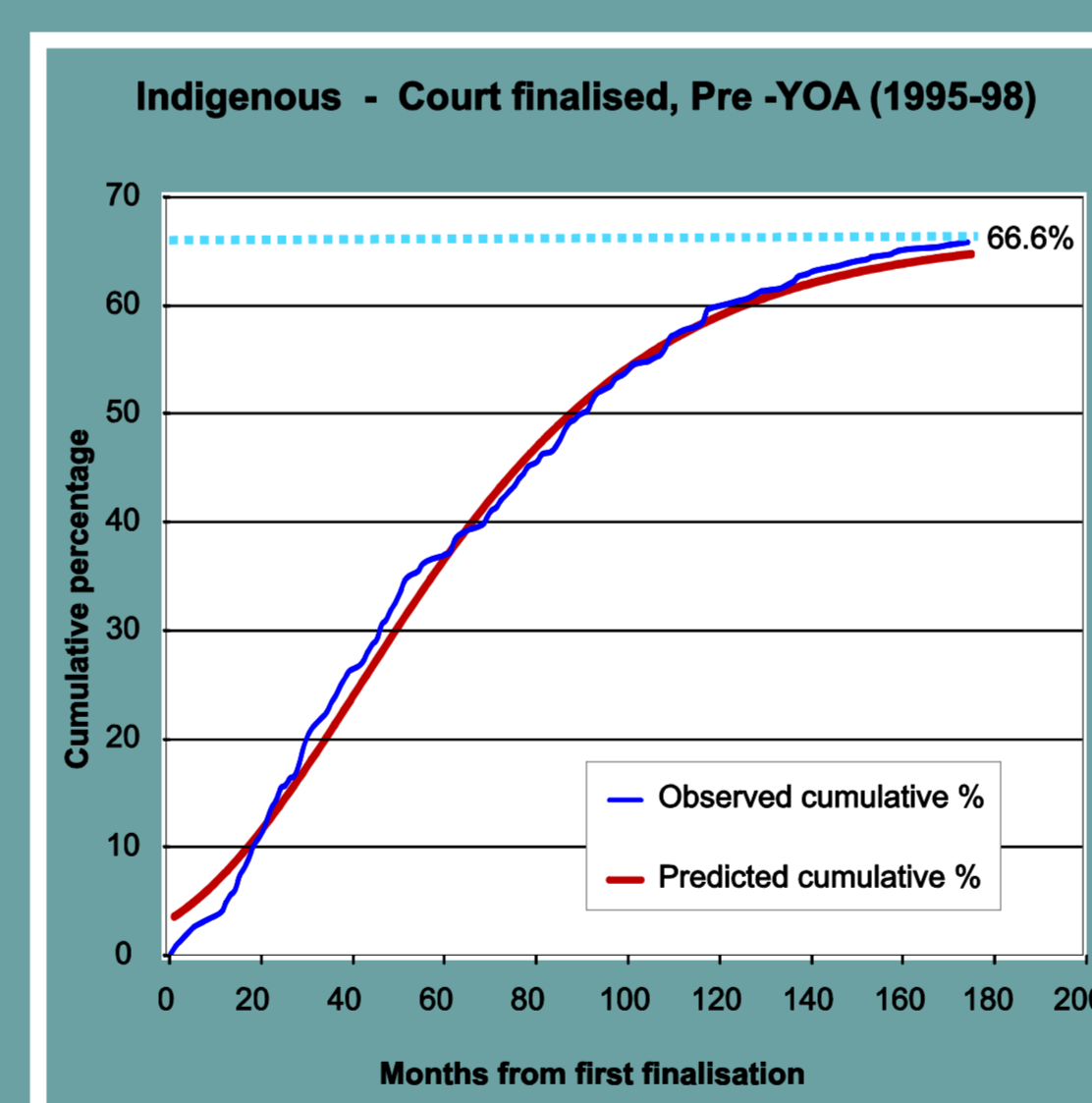
This model accounted for the differential follow up period of the pre-YOA and YOA cohorts and was fitted separately for young people within the four groups; Indigenous pre-YOA, Indigenous YOA, non-Indigenous pre-YOA and non-Indigenous YOA groups.

Results

Aim 1: Risk of receiving a custodial order: Hazard ratios and confidence intervals for the frailty model with Gompertz distribution

Variables	Hazard ratio	95% confidence	p-value
Time independent variables			
Indigenous vs non-Indigenous status	1.35	1.26, 1.45	<.001
Male vs female	2.10	1.88, 2.36	<.001
Time-varying variables			
YOA vs pre-YOA	0.63	0.49, 0.81	<.001
Guilty plea vs other	1.00	0.93, 1.07	0.98
Property offence vs other	1.87	1.72, 2.04	<.001
Violent offence vs other	2.62	2.40, 2.86	<.001
Justice offence vs other	1.92	1.68, 2.20	<.001
Drug offence vs other	0.80	0.59, 1.08	0.15
Any concurrent breach offences vs none	1.39	1.29, 1.51	<.001
Age = 14 vs under 14	0.25	0.21, 0.29	<.001
Age = 15 vs under 14	0.07	0.06, 0.08	<.001
Age = 16 vs under 14	0.02	0.014, 0.019	<.001
Age = 17 vs under 14	0.0014	0.0012, 0.0016	<.001
Number of concurrent offences = 2 vs less than 2	1.61	1.48, 1.76	<.001
Number of concurrent offences ≥ 3 vs less than 2	3.28	3.06, 3.51	<.001
Number of prior YJCs = 1 vs none	1.11	1.02, 1.20	0.011
Number of prior YJCs ≥ 2 vs none	1.13	1.01, 1.26	0.038
Number of prior finalised court appearances = 1 vs none	4.36	3.89, 4.89	<.001
Number of prior finalised court appearances = 2 vs none	6.74	6.00, 7.58	<.001
Number of prior finalised court appearances ≥ 3 vs none	10.36	9.27, 11.58	<.001
Number of prior custodial orders = 1 vs none	2.97	2.72, 3.23	<.001
Number of prior custodial orders = 2 vs none	2.91	2.60, 3.26	<.001
Number of prior custodial orders ≥ 3 vs none	3.02	2.68, 3.40	<.001

Aim 1: All hazard ratios were significant except for those associated with a guilty plea and a drug offence. After controlling for covariates, the frailty model identified a significant effect for the YOA, with the risk of receiving a custodial order at any point in time being reduced by 37 per cent after the introduction of the YOA. To test whether this effect depended on Indigenous status, an interaction term between the YOA and Indigenous status was included in the model but found to be non-significant (*p=.229*). It was therefore excluded from the model. The results also indicate that Indigenous males have the highest hazard ratio (i.e., increased risk of a custodial order) of 2.85 relative to non-Indigenous females, followed by non-Indigenous males (hazard ratio: 2.10) and Indigenous females (hazard ratio: 1.35). For the age variables, younger age at first proven appearance was found to be associated with a higher risk of receiving a custodial order (i.e., relative to the group aged less than 14 years, the hazard ratios are gradually decreasing with increasing age). Moreover, young people with more proven concurrent offences had a higher risk of receiving a custodial order compared with those with one or none. Compared with those who never receive a custodial order, young people who had a history of one or more custodial orders had an increased risk (increased by around 3.0) of receiving another custodial order.

Aim 2: Cumulative percentage ever receiving custodial order (%) by months following first proven Children's Court appearance by Indigenous status

Indigenous - Court finalised, Pre -YOA (1995-98) — 66.6%

Indigenous - Court or Court Conference finalised, YOA (1999-05) — 49.1%

Non-Indigenous - Court finalised, Pre -YOA (1995-98) — 35.9%

Non-Indigenous - Court or Court Conference finalised, YOA (1999-05) — 19.6%

Aim 2: The results shown in the figures opposite demonstrate a significant post YOA drop in the asymptotic failure rate of ever receiving a custodial order for both Indigenous and non-Indigenous young people. The pre-YOA and YOA predicted failure rates are given as broken lines in the figures. The figures indicate that, after the YOA was introduced, it took 21 months for 10 per cent of the Indigenous offender cohort to receive their first custodial order. This is four months longer than the time taken for the same proportion of the pre-YOA Indigenous cohort to receive their first custodial order. It took 57 months for 10 per cent of the YOA non-Indigenous young offenders to receive their first custodial order compared with 36 months prior to the YOA. This might seem to suggest that the effect of the YOA on the time to the first custodial penalty is larger for the non-Indigenous cohort than for the Indigenous cohort. The marginal change from each baseline, however, was not significantly different for the Indigenous and non-Indigenous cohorts of offenders from the pre-YOA to the YOA period (a drop of 17.5% for the Indigenous cohort compared to 16.3% for the non-Indigenous cohort).

Conclusion

The YOA was designed (among other things) to divert young people (including Indigenous young people) from custody through a hierarchy of sanctions, including police cautions and YJCs. It could reasonably be expected to reduce the proportion of Indigenous young offenders ending up in custody or, at the very least, increase the time to the first custodial penalty.

The results suggest that this objective of the YOA has been achieved. They show that, while Indigenous young people are more likely than non-Indigenous young people to receive a custodial order, the risk of receiving a custodial order fell for both groups after the introduction of the YOA. Further to this, the marginal change from each baseline showed that the YOA has been equally effective in diverting Indigenous and non-Indigenous young people from custody.

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