A follow-up analysis on the 2015 Domestic Violence Evidence-in-Chief (DVEC) reforms

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Outline

Introduction to DVEC

- DVEC is applicable to all DV charges commencing on or after 1 June 2015.
- Under DVEC victims can now provide testimony through a pre-recorded video and/or audio statement with police for criminal proceedings.
- Conditional on consent, police take the statement as soon as practical to the time of the offence.
- Once the police have the recording they no longer require the complainant's permission to play the recording at court.
- The accused must see/hear the recording at least once prior to court.
- The complainant must be available for cross-examination.
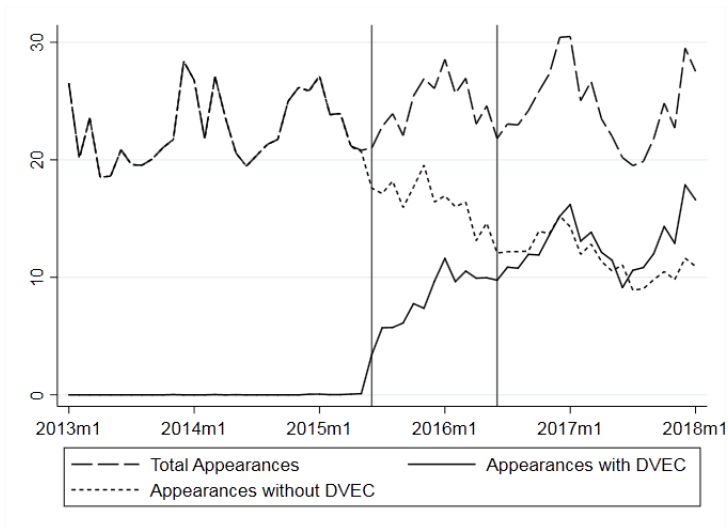
Objectives of DVEC

- Reduce trauma for complainants associated with recounting events in front of the offender.
- Reduce the difficulty in recalling events (for cross-examination).
- Illustrate the demeanour and experience of the victim proximate to the time of the offence.
- Reduce the capacity of the defendant to intimidate the victim into changing/recanting their evidence.
- Increase both the conviction rate and the number of guilty pleas.

Rollout of DVEC

- Only NSW police officers with special training are allowed to take DVEC statements.
- Officers received training at different times.
- Information on when and which LACs received training is unavailable.
- Substantial variation in the uptake of DVEC across various LACs.

Uptake of DVEC

Refresher from last time

- Proven offence - limited evidence of a 2%pt increase.
- Guilty pleas - nothing.
- Plea delay - nothing.

The impact of DVEC on court outcomes should continue to be monitored... It may take time for complainants to begin to trust the new process, be willing to consent to video statements and pursue criminal charges. Police expertise in collecting evidence of sufficient quality will also continually improve... [O]ver the longer term we may see the DVEC reforms achieve their ultimate aim; to enhance victim safety and reduce domestic and family violence in our community.

1. More data (last report had only 15 months post-policy, now we have 36).
2. Better methods.

- Merge extracts from COPS and ROD.
- Unit of analysis: Finalized local court appearance.
- Appearance had to involve at least one DV assault charge.
- DV assault had to be reported to police between 1 June 2015 & 30 June 2018.
- The usual controls (demographics, priors, court/PAC id, offence/finalization dates etc).
- New variable: Unique identifier for victim(s) associated with each incident in COPS.

1. **Conviction:** Probability that the defendant is found guilty of at least one offence.
2. **Guilty plea:** Probability that the defendant pleads guilty to at least one offence.
3. **Conviction at trial:**
   - Restrict sample to cases that proceed to a defended hearing.
   - Estimate the probability that the defendant is found guilty of at least one offence.
4. **Withdrawal:** Probability that the prosecutation withdrawals all charges.

- We cannot just compare conviction rates in cases with vs. without DVEC statements.
- Omitted Variable Bias (OVB):
    1. Impact probability of a conviction.
    2. Correlated with DVEC.
    3. Can't see it in the data.
- OVB could cause us to over or underestimate the effect of DVEC.

1. **Victim bias:**
   - More cooperative $\Rightarrow$ more likely to provide DVEC.
   - More cooperative $\Rightarrow$ provide better evidence.

2. **Police bias:**
   - More strongly encourage victim to provide a DVEC statement in 'marginal' cases.
   - Marginal cases have weaker evidence.

3. **Visiting bias:**
   - More visits $\Rightarrow$ more likely to provide DVEC.
   - More visits $\Rightarrow$ more likely to get convicted.

Identification strategy - in math

$$DVEC^*_{idpt} = DVEC_{idpt} - lawpart_i - day_d - \theta_p - \lambda_t \tag{1}$$

$$Z_{ipt} = \left(\frac{1}{\eta_{pt} - \eta_{ipt}}\right)\left(\sum_{k=0}^{\eta_{pt}} DVEC^*_{kdpt} - \sum_{i=0}^{\eta_{ipt}} DVEC^*_{idpt}\right) \tag{2}$$

$$Pr(DVEC_{idpt} = 1) = \pi Z_{ipt} + \phi \mathbf{X_i} + ANZSOC_i + lawpart_i + day_d + \theta_p + \lambda_t + v_{idpt} \tag{3}$$

$$Pr(Conviction_{idpt} = 1) = \beta DVEC_{ipt} + \gamma \mathbf{X_i} + ANZSOC_i + lawpart_i + day_d + \theta_p + \lambda_t + \epsilon_{idpt} \tag{4}$$

Identification strategy - in words

1. Purge DVEC indicator of problematic components.
   - Offence severity, dow, passage of time, seasonality, differences between PACs.
2. Calculate each PAC's proportion of cases with DVEC statements.
   - Call it the DVEC uptake rate.
   - For each case; we re-calculate the DVEC uptake rate leaving out all police encounters with the index victim.
   - This accounts for police visiting the same victim more than once.
3. Predict whether a victim provides a DVEC statement using DVEC uptake rate.
   - DVEC uptake rate is not related to victim, police or visitation bias.
4. Use this prediction to get the causal effect.

First stage
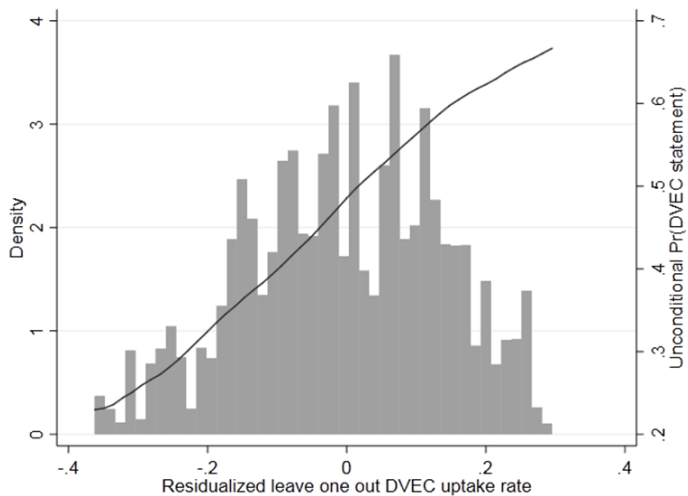
Results

	(1) Conviction	(2) Guilty plea	(3) Conviction at trial	(4) Prosecution withdraws
OLS Estimates	0.032***	0.024***	0.043***	-0.025***
	(0.007)	(0.007)	(0.012)	(0.005)
2SLS Estimates	0.064**	0.052	0.153**	-0.033
	(0.032)	(0.033)	(0.074)	(0.030)
Observations	36,113	35,935	8,511	36,113
Controls	Y	Y	Y	Y
Offence FE	Y	Y	Y	Y
PAC FE	Y	Y	Y	Y
Time FE	Y	Y	Y	Y
Court FE	Y	Y	Y	Y

1. Police & community needed more time to adjust to the technology/practice.
2. Old methods were incorrect.
3. Both.

To answer this question we can use the new methods on the old data.

Answer: Police & community needed more time to adjust

	Conviction		Guilty plea	
	OLS	2SLS	OLS	2SLS
Old method - old data	0.020***	-0.027	0.000	-0.046
	(0.007)	(0.039)	(0.007)	(0.044)
New method - old data	0.027***	0.013	0.013	-0.054
	(0.009)	(0.081)	(0.010)	(0.098)

Summary

- It has taken time for police and the community to fully adopt/adjust to the reforms.
- DVEC is raising the overall probability of a conviction.
  - Driven by large increase in convictions for cases proceeding to a defended hearing.
  - Limited evidence that DVEC increases the probability of a guilty plea.
  - Limited evidence that DVEC lowers the probability of the prosecution withdrawing.
- Evidence supports police bias argument.
  - $2SLS > OLS$
  - Marginal cases are more likely to proceed to defended hearing where effect is particularly strong.