



AN EMPIRICAL ASSESSMENT OF THE ALIGNMENT BETWEEN
SOCIETAL VALUES AND FINGERPRINT-EXAMINER DECISIONS



Willa Mannering, Thomas Busey and Fred Mannering
INDIANA UNIVERSITY AND THE UNIVERSITY OF SOUTH FLORIDA



84 cases where the examiner contributes incorrect information that could help set a criminal free.

272 cases where the examiner believes they have insufficient evidence to make either an identification or exclusion decision.

and 5613 cases where the examiner contributes correct information that could help put a criminal in jail.

2039 cases where the examiner contributes correct information that could help an innocent person and the detective will continue working the case.

1386 cases where the examiner believes they have insufficient evidence to make either an identification or exclusion decision.

and 658 cases where the examiner contributes incorrect information that could help put an innocent person in jail and could help the true criminal remain free.

Save Values



Figure 11: Average Examiner Placement of Exclusion and Identification Criteria (Previous Study)



Figure 12: Average Examiner Placement of Exclusion and Identification Criterion according to this study

TABLE X

Zero-Inflated Negative Binomial of the Number of Innocents Wrongfully Identified.

Variable Description	Estimated Parameter	<i>t</i> statistic^a
<i>Zero-State Splitting Function</i>		
Constant	-0.787	-7.35***
Fingerprint examiner indicator (1 if respondent is a fingerprint examiner, 0 otherwise)	0.723	6.67***
Young-age indicator (1 if respondent is less than 25 years old, 0 otherwise)	-0.828	-6.62***
Number of children in respondent's household if not a fingerprint examiner	-0.139	-2.02**
<i>Count State (Number of Innocents Wrongfully Identified)</i>		
Constant	5.315	18.52***
Lower income indicator (1 respondent's household income is less than \$50,000 per year, 0 otherwise)	0.430	1.84*
Older male indicator (1 respondent is a male 65 years old or older, 0 otherwise)	1.003	1.68*
White indicator (1 if respondent identified themselves as being white, 0 otherwise)	-0.665	-2.48**
Number of children in respondent's household if not a fingerprint examiner	0.323	3.46***
<i>Negative binomial dispersion parameter</i>	2.373	27.64***
Number of observations	369	
Log-likelihood at convergence (negative binomial)	-1944.97	
Log-likelihood at convergence (zero-inflated negative binomial)	-1922.82	
Vuong statistic for testing zero-inflated negative binomial versus the standard negative binomial model	3.30	

^a Confidence level (two-tailed test): * greater than 90%; ** greater than 95%; ***greater than 99%

TABLE X

Average Marginal Effects of the Number of Innocents Wrongfully Identified

Variable Description	Marginal Effect
Fingerprint examiner indicator (1 if respondent is a fingerprint examiner, 0 otherwise)	-33.10
Young-age indicator (1 if respondent is less than 25 years old, 0 otherwise)	37.90
Number of children in respondent's household if not a fingerprint examiner	68.02
Lower income indicator (1 respondent's household income is less than \$50,000 per year, 0 otherwise)	82.14
Older male indicator (1 respondent is a male 65 years old or older, 0 otherwise)	191.55
White indicator (1 if respondent identified themselves as being white, 0 otherwise)	-126.93