Child abuse: Does public enforcement crowd out private vigilance?

Michael Malcolm *, Getachew Dugda
American University of Sharjah, United Arab Emirates

ABSTRACT
We investigate whether increased public reporting of child abuse crowds out private reporting. We find, despite theoretical models suggesting significant crowding out, that public and private reports have risen nearly equiproportionately and that crowding out is small and not significant.

1. Introduction

The cultural paradigm shift over the last few decades regarding state interventions into what were traditionally viewed as private family matters has been drastic. Where domestic violence, specifically child abuse, was once considered to be a family matter, modern societies rigorously pursue child protection via the legal system. This is not to say that child abuse was ever socially acceptable, but rather that violations were pursued outside of the legal system, generally within families or within social communities. A natural question that arises, then, is whether public enforcement has "crowded out" traditional private enforcement. This is an important policy question in determining the direction of child welfare policy, and the US government collects good data on child abuse reporting and outcomes.

While there are no data on child abuse that is attenuated extra-legally, a reasonable proxy for private vigilance is report issuance. At this point, about 2/3 of reports are initiated by public employees or other professionals and about 1/3 are initiated privately — by friends, relatives or anonymously. In this paper, we investigate whether the former crowds out the latter.

We find, as a statistical matter, that public and private reports have moved very nearly equiproportionately, suggesting that whatever factors are driving an increase in reporting drive both public and private reporting jointly. Using suitable instruments, we then show that there is no evidence that public reporting crowds out private reporting in any substantial way. Sections 2 and 3 review related literature and relevant theory. Section 4 outlines the data and Section 5 presents the model and results.

2. Related literature

Public crowding out of private activity is well known in economics, at least as a theoretical possibility. The literature on charitable crowding out is well-developed, and the issue is similar in many respects — government resources reduce private incentives to contribute. Some theoretical models suggest the possibility even of complete crowding out. The magnitude of crowding out is an open question in the literature and empirical estimates vary substantially, ranging from complete to zero or even crowding in. While there is no general consensus, a plurality

footnote


2 Many are mandated reporters. Doctors were legally obligated to report child abuse by 1963, with other professionals following (Bejcherov, 1985). Prior to this, even fatalities often went unreported by professionals.

3 Gruber and Hungerman (2007) estimates near-complete crowding out with respect to religious charities. Other estimates are 28% (Abrams and Schmitz, 1984), 5% (Clotfelter, 1985) all the way to zero or “crowding-in” (Okten and Weisbrod, 2000).
of papers appear to find some crowding out, but much less than one-for-one.

In context, the problem considered here is an example of the well-known bystander effect (Darley and Lagane, 1968) whereby a "diffusion of responsibility" implies the probability that a bystander will intervene falls as the number of bystanders rises; this effect has been verified experimentally in various settings. With respect to the legal system, Bonhet et al. (2001) show that public contract enforcement can crowd out private trust.

There is some literature demonstrating an ameliorative effect of public policy on child maltreatment, generally. Paxson and Waldfogel (2003, 2002) find that strict welfare participation requirements and low payments are associated with more child abuse, and that stable employment and marriage outcomes are associated with lower maltreatment rates.

3. Theory

Consider a group of \( n \) individuals who encounter an abused child and might potentially report the encounter. Each individual attaches a value \( V \) to a report being made (regardless of who files the report), but the individual who makes the report bears a cost \( C \). We assume that \( V > C \). In the symmetric mixed-strategy Nash Equilibrium, the probability that an individual who encounters the child will file a report is \( p^* = 1 - (\frac{C}{V})^{1/\gamma} \), which implies that the probability that a report will be filed at all is \( 1 - (1 - p^*)^n = 1 - \frac{C}{V} \). Not only does \( p^* \) fall as \( n \) rises, but there is complete crowding out in the sense that the probability that a report will be filed is independent of \( n \) — an increase in the number of reporters lowers \( p^* \) so much that the probability that a report is filed does not rise. This model is particularly appropriate because child abuse is almost unique among criminal reporting in the sense that it relies almost completely on external reporting since almost no reports are initiated by the victims.

Though theory suggests the possibility of significant crowding out, there could be offsetting effects. First, the model above assumes neutrality by reporter in the sense that the value that individuals place on the issuance of a report is independent of who files the report. However, there could be a warm-glow utility when an individual files the report himself. Furthermore, one could even imagine that public reporting "crowds in" additional private reporting by increasing awareness. Given the ambiguity of theory and the wide multiplicity of results in the literature regarding crowding out in other contexts, this is ultimately an empirical question.

4. Data

State-level data on child abuse reporting and victimization are taken from annual reports published by the Department of Health and Human Services (DHHS). The panel is comprised of all available data from 1998–2008. While the definition of child abuse is determined by state law, DHHS reconstructs this data set from case-level data provided by states for the express purpose of ensuring internal consistency. Other economists using these data describe them as “reasonably consistent” (Paxson and Waldfogel, 2003).

Reports of child abuse are sorted by reporter. Table 1 shows the categories of reporters and the percentage of total cases filed by reporters in each category: DHHS classifies the first 7 as professional reporters, and most are mandated by law to report suspected child abuse. The other 6 categories are nonprofessional reporters.

Among reports that are made, about 40% of those initiated by professional reporters and about 30% of those initiated by nonprofessional reporters are ultimately substantiated. Data on the number of substantiated child abuse victims are also from DHHS. Data on voter participation, unemployment and poverty rates and on state budget deficits are taken from the Census Bureau.

5. Model and results

In a crowding out model, private reporting of child abuse is determined not only by the actual level of abuse, measured here as substantiated victims per 1000 children, but also by the magnitude of public reporting. We also control for the general level of civic engagement via voter participation rates. The parametric specification of the model is as follows:

\[
\ln(\text{private reports}) = \beta_0 + \beta_1(\text{abuse rate}) + \beta_2(\text{voter turnout}) + \beta_3(\text{private reports}) + \alpha_1 + \delta_1 + \epsilon_i.
\]

Here, \( \alpha_1 \) and \( \delta_1 \) respectively indicate a panel of state and time fixed-effect dummies. Results are reported in Table 2. In the simple OLS regression, the crowding out coefficient \( \beta_3 \) is significant and equal approximately to 1, with 95% confidence interval [0.94, 1.22]. One might be tempted to read this as evidence of "crowding in", but the coefficient has no causal interpretation because of the obvious endogeneity in the equation of interest. However, as a statistical matter, the result is most informative — public and private reports of child abuse move almost exactly equiproportionately. Whatever factors have caused a general increase over time in reporting appear to have affected both public and private reporting in a similar way.

While the OLS result is at least suggestive of a lack of crowding out, estimating the true coefficient requires the use of instruments.

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4 This particular parameterization of the bystander effect is from Watson (2007).
5 Both have analogues in the case of charitable crowding out. The warm-glow effect of contributions to public goods is well-acknowledged (e.g. Andreoni, 1990), and other authors have suggested the possibility of crowding in.

6 38 states provided complete records over the panel, while two states provided virtually no data. The other missing entries are sporadic.
7 There is a small residual (about 13% of the total) of reports from unknown or unclassified sources.
8 Voter participation rates are demeaned over Presidential election and non-Presidental election years separately to reflect that turnout is significantly higher in Presidential election years than in other years.
9 Public and private reports are logged because the data are state level, and since total population varies so much between states, it is more intuitive to think about comparative statics in rates rather than in unit changes. Another option to deal with this issue is to use the rate of reporting per thousand children; the qualitative nature of the results does not change under these alternative specifications.
10 Both are essential. States are endowed with unobserved characteristics affecting child abuse reporting (cultural perceptions, etc...) that are correlated with other independent variables, particularly abuse rates. Furthermore, there has been a general heightening of awareness regarding child abuse issues over time.
Table 2
Empirical results.

<table>
<thead>
<tr>
<th>Dependent variable: ln (private reports)</th>
<th>Ordinary least squares</th>
<th>Two-stage least squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuse victims per 1000 children</td>
<td>−0.004 (0.004)</td>
<td>−0.018 (0.057)</td>
</tr>
<tr>
<td>Voter turnout rate</td>
<td>0.008* (0.006)</td>
<td>0.015 (0.012)</td>
</tr>
<tr>
<td>ln (public reports)</td>
<td>1.084 (0.711)</td>
<td>−0.276 (1.632)</td>
</tr>
<tr>
<td></td>
<td>$R^2_{ols} = 0.395$</td>
<td>$R^2_{2SLS} = 0.876$</td>
</tr>
</tbody>
</table>

Standard errors in parentheses.
* Indicates significance at 10%.
** Indicates significance at 5%.

Public and private reports are obviously endogenous to each other as both are correlated with awareness and attention to child abuse. More generally, public and private reports are jointly determined and endogenous with the actual level of abuse. A good instrument for public reporting is the state’s deficit — state-level budgetary issues are correlated with public resources available for child welfare but not directly related to the factors causing error in our estimation of private reporting rates. Essentially, deficits are an exogenous reason for public reporting to change. Actual abuse is instrumented via poverty and unemployment rates; the association between economic circumstances and abuse is well-documented in the literature — again, this is a source of variation in documented abuse that is not endogenous to reporting changes. The F-statistic from the first-stage regression for the log of public reports filed is $F = 168$. The first-stage regression for the child abuse victimization rate features high multicollinearity between the unemployment and poverty series, but nevertheless the F-statistic for the overall regression is $F = 21.9$, which is well within the range for valid instrumental variables estimation.

Using these instruments for IV estimation, the crowding out coefficient is $\hat{\beta}_0 = -0.28$ and is not significant at conventional levels. Precisely, a 10% increase in public reporting is associated with a 2.8% decline in private reporting. Overall, crowding out is small and not significant; more data might give a more precise estimate, but these reports were not standardized at the federal level until 1998 and are not disaggregated beyond state level, so the paper in fact uses all available data. Together with the OLS result, this suggests that private and public reporting of child abuse largely inhabit separate spheres — moving together but with no substantial crowding out. As a secondary issue, higher voter turnout is associated with increases in child abuse reporting, suggesting that both are fostered by civic engagement generally.

The nature of these results is very similar in spirit to what other researchers have found with respect to charitable crowding out. Where some researchers have found evidence of crowding in, Andreoni (2006) claims that these results are suspect precisely because of large endogeneity bias. The magnitude of the result obtained upon use of suitable instruments is almost the same as that obtained in well-known results by Abrams and Schmitz with respect to charitable crowding out (1984).

6. Conclusion

That public activity is subject to crowding out in its aggregate effects is straightforward in principle to economists. Yet, the literature is still largely in disagreement about the magnitude and even the existence of these crowding out effects in a variety of contexts. With respect to the well-developed literature on public donation to charity, evidence of complete crowding out appears to be the exception — most authors find the effects to be modest. We come to the same conclusion as much of this literature. To assert that the government should scale back its child protection efforts out of fear of replacing private enforcement is premature, at best.

References


11 Cursory examination of child welfare spending around the 2000 recession and the most recent recession verifies that these expenditures are far from immune from budgetary pressures.
12 See Lindsey (1994) for a review. Whether the relationship is causal is an open question, but there is a strong statistical association in any case.
13 The full first-stage results are available upon request from the author.