National Institute of Justice

FY 2021 Report to the Committees on the Judiciary on the *Study of Investigative Factors Related to Online Child Exploitation Report*

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Study of Investigative Factors Related to Online Child Exploitation Report

The Department of Justice (DOJ) provides this report on investigative factors related to online child exploitation consonant with a December 2019 inquiry to the Office of Justice Programs (OJP) regarding the Congressional direction included in the PROTECT Our Children Act of 2008 (P.L. 110–401) ("PROTECT Act"). Specifically, Section 401 of the PROTECT Act requires OJP, National Institute of Justice (NIJ), to:

> "prepare a report to identify investigative factors that reliably indicate whether a subject of an online child exploitation investigation poses a high risk of harm to children. Such a report shall be prepared in consultation and coordination with Federal law enforcement agencies, the National Center for Missing and Exploited Children, Operation Fairplay at the Wyoming Attorney General's Office, the Internet Crimes Against Children (ICAC) Task Force, and other State and local law enforcement."

Although the law allowed for appropriated funds to be directed to this work, it was determined that such funds were not appropriated and that NIJ never conducted such a study. As such, OJP responded to the 2019 inquiry with the following language:

> "The Department's National Institute of Justice is committed to funding a literature and environmental scan that will assess the current state of the research, to be summarized in an initial report. This report will allow for a comprehensive assessment of available research, identify any existing gaps, and potentially pave the way for conducting additional research in the future. As the state of research has changed since the passage of the 2008 legislation, it is important to first understand the landscape to know how to best fill gaps. We anticipate that the report could be delivered to Congress within 18 months."

This report responds to the 2019 inquiry, as well as Congressional direction to NIJ in the 2008 PROTECT Act legislation.

Report Development

NIJ contracted with Brian Levine, University of Massachusetts Amherst, to conduct the study and produce a report. Levine is director of the Cybersecurity Institute and a professor in the university's College of Information and Computer Sciences.

In completing this report, Levine consulted with and received contributions from David Finkelhor of the University of New Hampshire Crimes Against Children Research Center, ICAC commanders John Pizzuro (New Jersey) and Debbie Garner (Georgia), Thomas Kerle of Fox Valley Technical College, John Shehan and Michelle DeLaune of the National Center for Missing and Exploited Children (NCMEC), Hany Farid of the University of California Berkeley, Brian Lynn of the University of Massachusetts Amherst, approximately two dozen state and federal law enforcement investigators and agents, and federal prosecutors. Operation Fairplay of the Wyoming Attorney General's Office was not consulted, as it was not operational as of 2020.

Dr. Levine's report has been archived and is publicly available here
https://www.ojp.gov/pdffiles1/nij/grants/301590.pdf .

Key Study Findings and Recommendations

The study examined the state of knowledge regarding online sexual exploitation of children, with the goal of improving investigations to identify individuals at highest risk of harming children. The key finding of the study is that there is no single factor or set of factors observable at the start of an investigation, before significant resources have been allocated, that have been shown to reliably predict and discover the most dangerous individuals who engage in online child sexual exploitation.[1] Research has helped identify factors indicative of these individuals' dangerousness, including criminal history, sexual interest in children, and antisocial behavior, but investigators often do not have access to information on these factors at the outset of an investigation.[2]

Beyond lack of access to factors that may best predict dangerousness, a number of issues make it difficult to improve investigations. Law enforcement faces significant challenges in observing or learning about these online crimes against children, and once law enforcement investigators become aware of these crimes, they may not be in a position to act on them or determine who among the individuals committing them are the most dangerous. This is due to challenges that include the ever-growing set of online services used for the upload, distribution, and trade of child sexual abuse materials; the technological savviness of offenders; regulations governing exploitation reporting; and the toll on the well-being of individuals conducting investigations.

Opportunities for exploiting children have increased greatly with the proliferation of free internet services and apps and, most recently, with the ubiquity of powerful handheld devices — equipped with cameras and connected to the internet — in the hands of children. The availability of techniques that mask attribution, such as end-to-end encryption, has made it easier than ever before to evade justice on those platforms. Internet technology has helped individuals to coordinate themselves into organized enterprises for exploiting children.

Reporting on exploitation is problematic. Current regulations governing software companies and social media provide limited protections for children. For example, under the Children's Online Privacy Protection Act of 1998 and Section 230 of the Communications Decency Act, companies are not required to report exploitation unless they look for it, and they are not required to look. A further challenge with reporting relates to the various formats in which evidence is provided to investigators. A universal format for providing evidentiary data to investigators would facilitate investigations.

The cost to investigators' emotional well-being can also hamper work. A 2017 study by Seigfried-Spellar surveyed ICAC taskforce personnel about their well-being. Twenty percent of the respondents knew a colleague who had sought counseling as a result of their work with child

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[1] Elie Bursztein et al., "Rethinking the Detection of Child Sexual Abuse Imagery on the Internet," *WWW '19: The World Wide Web Conference* (May 2019): 2601-2607, https://doi.org/10.1145/3308558.3313482.
[2] Kelly M. Babchishin, R. Karl Hanson, and Heather VanZuylen, "Online Child Pornography Offenders Are Different: A Meta-Analysis of the Characteristics of Online and Offline Sex Offenders Against Children," *Archives of Sexual Behavior* 44 (2015): 45-66, https://doi.org/10.1007/s10508-014-0270-x.

sexual abuse materials.[3] This study also raised concerns about feelings of worthlessness and negative effects on the ability to concentrate among those who do this work, particularly those who are both digital forensic examiners and investigators. Support for mental health and wellness, as well as duty rotations away from child sexual abuse tasks, can counter these challenges.

Advancing Knowledge To Investigate Exploitation

Additional research is needed to identify investigative factors that reliably indicate whether a subject of an online child exploitation investigation poses a high risk of harm to children. Advances in many research areas would increase the efficacy of child exploitation investigations to prevent exploitation. In the field of computer science, research should explore identifying novel methods of network attribution and mitigating the protections afforded by anonymizing proxies, identifying the geographic location of victims, detection of predatory activity and grooming in text and video formats, victim identification, and image analysis. From a criminology and criminal justice perspective, it would be helpful to have additional studies on the characteristics of individuals who offend both offline and online, the dangerousness of individuals who offend offline versus online, how to address mental health and wellness for child exploitation investigators, compliance of industry with regulations, and the society-wide economic burden of online crimes against children.

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[3] Kathryn C. Seigfried-Spellar, "Assessing the Psychological Well-Being and Coping Mechanisms of Law Enforcement Investigators vs. Digital Forensic Examiners of Child Pornography Investigations," *Journal of Police and Criminal Psychology* 33 (2018): 215-226, https://doi.org/10.1007/s11896-017-9248-7.