CHILD PORNOGRAPHY CRIMES AS REPORTED TO LAW ENFORCEMENT AGENCIES

by
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**Abstract:**

Past studies have shown that child pornography is associated with multiple, violent offenses. This article presents a current picture of child pornography incidents as reported to law enforcement agencies. The analysis presents a multinomial logit regression on data from the 1991 to 2016 National Incident-Based Reporting Software (NIBRS) confirming findings that child pornography is associated with violent offenses. However, it also identifies clear differences between child and adult pornography crimes, such as ages for offenders and victims that are younger than expected, an association with gang activity and violent offenses, and suspected computer use by offenders. Many child pornography offenders are minors, rather than older adults; most victims are pre-teens (10 to 14), not young adults; and child pornography offenses are more likely to include victims than adult pornography. The updated information provided in this analysis can assist in the prevention of child exploitation nationwide.
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I. Introduction

Children have become one of the most profitable illegal commodities in the world, preceded only by drugs and weapons. While this statement seems shocking, it is backed by research stating that nearly 250,000 American juveniles (under 18) are at risk of commercial sexual exploitation each year. Commercial sexual exploitation of children is an umbrella term for any form of “involves a commercial relationship in which monetary or non-monetary goods or services are traded for child sexual abuse, with or without assault,” and can include child trafficking, child prostitution, child pornography, and sex tourism.

Child pornography is one of the easiest forms of child exploitation to measure, since there is generally more evidence in the form of pornographic materials. In 2004, the Office of Juvenile Justice and Delinquency Prevention conducted a study of child pornography crimes, finding that pornography-related crimes generally make up less than 1% of those known to the police. While these crimes may seem insignificant, an increased reporting of pornography crimes that involve coercion, abuse (physical or sexual), or commercial exploitation of both children and adults has led to greater scrutiny of these incidents.

The 2004 study of child pornography crimes utilized the National Incident-Based Reporting System datasets (NIBRS), which at the time represented data collected from approximately 14% of law enforcement agencies in the United States. Currently, the NIBRS crime source database captures the specific details on crime incidents and their connected incidents from 43% of the 17,429 police agencies.

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4 The Office of Juvenile Justice and Delinquency Prevention, also known as the OJJDP, forms the Juvenile arm of the Office of Juvenile Protection under the U.S. Department of Justice. For More Information, See: "Office of Juvenile Justice and Delinquency Prevention." U.S. Department of Justice (2019), online.
6 Ibid., 3.
7 Please note that increased reporting does not equate an actual increase in crime. It could simply indicate an increased awareness of the connections of various crimes.
8 Frequently pronounced “Nigh-bers”
in the United States. This system is one of the first national databases that specifically tracks a number of crimes against society, including instances of pornography that are against the law, which include obscenity and child pornography. While researchers have examined pornography crime trends or trends, there are few studies examining pornography crime using the data from the NIBRS system, which is the largest national database of crimes reported to the police. An updated statistical picture of pornographic crimes as painted by the NIBRS database could allow law enforcement to make connections with patterns that would otherwise go unseen. Since pornography-related offenses are often tied to other offenses, such as commercial sexual exploitation of children, understanding pornography crimes may help law enforcement better allocate resources and psychologists to identify trends of criminals at risk of recidivism.

From a law enforcement perspective, pornography or obscenity offenses are considered “crimes against society.” There are three different types of pornography identified by law enforcement. The first pornography offense is adult pornography, which involves obscenity but does not involve juveniles in any way, nor any crimes against children. The other two both have to do with child pornography. Juvenile victim pornography involves a series of crimes, but can be defined as any offense that involves both pornography and an identifiable victim. In these instances, either the pornography production involved or portrayed a child, or somehow the pornography was used as part of the seduction or molestation of a child. In either case, a specific child with a known age and relationship to the offender can be identified. Under the law, any pornography with juvenile involvement regards the children as victims and anyone involved in the production, possession, or distribution of the pornographic item as a criminal subject to imprisonment. Child exploitation pornography, however, does not involve an identifiable juvenile victim of pornography, but is an incident of pornography that involves the possession or distribution of

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10 “National Incident-Based Reporting System (NIBRS),” in U.S. Department of Justice (2019), database online.
11 “National Incident-Based Reporting System (NIBRS),” database online.
pornography depicting juveniles under 18. Child pornography, which includes both child exploitation and juvenile victim pornography offenses, is the focus of this article.

This article presents the results of an analysis of pornography-related crimes in the NIBRS database with the intent of identifying key elements of pornography incidents that involve children. It examines information from 1991 to 2016 to identify the role of other offenses in child pornography crimes, key characteristics of offenders and victims, and the associations between violent crimes and child pornography. A multinomial logit regression analysis of the data shows that pornography crimes involving children are more likely to be associated with gang activity, additional violent offenses, multiple victims, and a higher likelihood of computer, drug, and alcohol use in the course of the offense. It shows that victims of pornography are generally under the age of 15, and offenders are not middle-aged, but more often between the ages of 18 to 30, sometimes younger, and that child pornography incidents are more likely than adult pornography incidents to have victims at all.

All of this data can help policy makers, educators, and investigators grasp the nature of crime, and perhaps identify areas where the crime is being underreported. The evidence presented here may lead to further questions for researchers to explore, help law enforcement understand what has been reported to police, and perhaps help prevent further cases of child exploitation and harm through pornography.

II. Literature Review

Pornography, or sexual material intended to induce pleasure or arouse sexual expectations, has long been a controversial issue. Most pornography is not illegal and is protected by the Freedom of Speech Clause under the First Amendment. It is illegal only if the possession, production, distribution or sale becomes ‘obscene’ or if it involves children in any way. However, the beliefs of many that pornography is morally wrong has led to frequent studies about the effects of pornography use and

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17 Child exploitation pornography includes most incidents involving the possession, distribution, and sale of child pornography. It is often difficult to positively identify children depicted in pornographic images or videos, as the child may not be easily found or may be a digitally-created image of a child. These crimes are difficult to address and identify due to increasing graphic technology capabilities. For more information, see: Finkelhor and Ormord, “Child Pornography,” 4.

18 Usually involves partial or complete nudity. For more information, see: Michael Milburn et.al., “The Effects of Viewing R-Rated Movie Scenes,” Sex Roles (2000), 647.

information on those who use it. There has been very little research on law enforcement data of pornography to most of the research discovering trends about pornography has been in the fields of sociology or psychology.

These studies have found that while men are more frequent users of pornography with more than 46% of men intentionally viewing pornography in a week, 16% of women are still frequent pornography users, a fact mostly confirmed by the following analysis. They have identified that pornography often contains violent material, and may lead to addiction, an increased acceptance of violence and sexual abuse of others, or criminal activity such as obscenity, child exploitation, or physical abuse or sexual aggression. While an analysis of pornography incidents reported to the police does not include historic or post-event information, it can connect the dots on the involvement of violent offenses or the inclusion of certain criminal activities.

Despite this research, the morality of pornography is often debated in the public square. Some individuals continue to say that pornography possession is harmless, even if it involves the depiction of children. However, Congress and the Courts have legally recognized that child pornography is not protected under the First Amendment whether or not it is considered ‘obscene.’ They have also identified a difference between private possession of child pornography and private possession of other obscene materials, in that the process of creating child pornography harms a child, who under the law cannot legally consent to participate.

21 These trends can be compared to those identified in statistical analysis of crime data for verification. See the Results section for more information.
23 See the Results section for more information. Out of the incidents where offender sex was provided, 62% had at least one male offender, and 14% had at least one female offender.
29 “Obscenity” is a well-established exception to the First Amendment. There are, however, frequent discrepancies between various states’ and localities’ definitions of ‘obscenity.’ For more information, see: Wendy Walsh et.al., “Challenges in Investigations,” in Refining Child Pornography Law, ed. Carissa Byrne Hessick (University of Michigan Press, 2016), 226.
Social or psychological research on child pornography are both comparable to studies of adult pornography, and generally find information from surveys of victims or offenders, or from the National Center for Missing and Exploited Children. While the “globalization [of child pornography] and the anonymity of the Internet make it difficult to identify offender characteristics,” 31 studies of child pornography possessors have created a preliminary picture of these offenders. More is known about possessors or consumers of child pornography, many of whom have “viewed hard-core child pornography involving young children… [with] few legitimate claims that the possessor did not know he/she was viewing a child.” 32 Unfortunately, these consumers could be anyone, but surveys have shown that convicted consumers tend to be white males in their 30s who are heavy Internet users. 33 Surveys of child pornography possessors have shown that child pornography convictions are frequent among sex offenders34, 35 and these convictions in any individual are a valid indicator of pedophilia and child sexual abuse recidivism.36, 37

Information known about producers of child pornography shows that many of them interact with children via trafficking, prostitution, or ritual abuse within the child’s home. Some of these individuals are part of organized crime networks such as sex trafficking rings or gangs, while others are family members of the child victim, neighbors, community leaders, religious figures, or other ‘trusted adults’ within a child’s life. 38, 39

While most publicly available police reports do not identify specifically how a child was victimized by an incident, pornography crimes with children may not just involve depictions of the child. Research has shown that pornography is used in sex trafficking to desensitize victims to abuse, train

31 Bang et.al., Commercial Sexual Exploitation, 25.
32 This data comes from a 2011 study of child pornography possessors conducted by the National Center for Missing and Exploited Children. The study found that many of the images viewed by arrested possessors involved violent portrayals of children being sexually molested. For more information, see: Hessick, “Introduction,” 4.
33 Bang et.al., Commercial Sexual Exploitation, 6.
35 Wright et.al., “Meta-Analysis,” 189.
36 Pedophilia is defined as a “persistent sexual interest in young children.” For more information, see: Ray Blanchard et.al., “Child Pornography Offenses are a Valid Diagnostic Indicator,” Journal of Abnormal Psychology (2006), 610.
37 Fisher et.al., “Pornography,” 362.
38 Bang et.al., Commercial Sexual Exploitation, 26.
victims in prostitution, advertise victims’ services to potential clients, and normalize violence during sex to both victims and clients.\textsuperscript{40, 41, 42}

Research into the $20 billion child pornography industry has shown that child victims do not always come into direct contact with consumers, but are often made to perform lewd acts for the pornography producers.\textsuperscript{43} These children often suffer physical or psychological injury, and the inevitable continued circulation of the images produced prolongs the suffering of the child.\textsuperscript{44} Through the stories of many child victims of pornography, it is known that if an individual is coerced or forced into pornography, they often live not only with the trauma of their experience, but also with the knowledge that “a large, indeterminate number of individuals have viewed and will in the future view images of sexual abuse they endured.”\textsuperscript{45}

Assessments of victims have shown that female children ages 7 to 14 are at greater risk of exploitation,\textsuperscript{46} and many victims of pornography exploitation have been previously exposed to child abuse or come from turbulent or poverty-stricken households. Social scientists believe that male victims underreport, and international victims trafficked to the United States are extremely difficult to identify due to a lack of community and family. Unfortunately, law enforcement reports will not show information on who has underreported, but knowing information about true totals can help identify gaps in reporting.

Pornography is typically spread online or through interfamilial networks.\textsuperscript{47} Criminal data research has shown that law enforcement agencies typically uncover illegal pornography from “adult stores, mail order, outlets, internet sites, reports made to police by photo developers, computer personnel, abused individuals, and private citizens... illegal pornography may also be identified when searches are conducted as part of investigations of other crimes.”\textsuperscript{48} Many agencies focus on identifying pornography

\textsuperscript{40} Truth about Porn, dir. Dr. Karen Countryman-Roswurm (Wichita, 2016), video.
\textsuperscript{43} Bang et.al., Commercial Sexual Exploitation, 16-17.
\textsuperscript{44} Hessick, “Introduction,” 4.
\textsuperscript{45} Cassell et.al., “Not Just ‘Kiddie Porn,’” 190.
\textsuperscript{46} Estes, “Commercial and Non-Commercial Sexual Exploitation,” 379-381.
\textsuperscript{47} Bang et.al., Commercial Sexual Exploitation, 13-14.
\textsuperscript{48} Finkelhor and Ormord, “Child Pornography,” 3.
crimes by focusing on dual offenders, or those that have committed both pornography crimes and some other offense.\textsuperscript{49} Individuals who are charged with pornography production are subject to a federally mandated 15-year minimum in prison, while distributors and receivers are subject to a 5-year minimum, and possessors have no mandatory minimums.\textsuperscript{50, 51}

While local law enforcement agencies and the National Center for Missing and Exploited Children (NCMEC) are both collectors of data related to child pornography,\textsuperscript{52} NIBRS is the primary source of detailed data on crimes involving pornography and child exploitation.\textsuperscript{53, 54} The Office of Juvenile Justice and Delinquency Prevention (OJJDP) conducted a 2004 study on the NIBRS dataset, revealing several interesting trends. Offenses involving juvenile victim pornography were accompanied with additional offenses 100\% of the time, with the majority of the accompanying offenses being violent or sexual in nature. Child exploitation pornography incidents were only accompanied by other offenses 4\% of the time. The OJJDP’s analysis of the NIBRS data found that approximately 2,900 crime incidents of child pornography were known to the police in 2000, mostly “committed by a lone male offender in a residence not involving a computer.” They found that these incidents increased by more than 10\% from 1997 to 2000, and of the victims identified, 62\% were female.\textsuperscript{55} They found that 71\% of incidents with a juvenile victim only involved one child. The ages of the children identified as victims varied: 59\% were ages 13-18, 28\% were in elementary school, and 13\% of the child victims identified were younger than six years old. Their research was able to identify that the majority of juvenile pornography offenses usually occurred in homes, while other pornography incidents were usually residence based, but could

\textsuperscript{49} Walsh et.al., “Challenges in Investigations,” 220-221.
\textsuperscript{50} Finkelhor and Ormord, “Child Pornography,” 5.
\textsuperscript{51} Walsh et.al., “Challenges in Investigations,” 221-223.
\textsuperscript{53} Finkelhor and Ormord, “Child Pornography,” 2.
\textsuperscript{54} NIBRS datasets aggregate an assortment of information on victims, offenders, and circumstances for a number of offenses from each of the participating law enforcement agencies across the country, enabling law enforcement to identify unique traits of each factor from locations to the identity of the victims. The majority of crimes reported to police are included in the system, excepting unfounded reports that are removed from the dataset. For more information, see: “National Incident-Based Reporting System,” database online.
\textsuperscript{55} This increase was not related to larger percentages of agencies reporting data to NIBRS. The OJJDP weighted the dataset to account for an increase in the amount of agencies reporting and for adjustments in the methods of reporting used. For more information, see: “National Incident-Based Reporting System,” database online.
also take place in offices, coffee shops, churches, or schools. The OJJDP’s research concluded that children are at an “increased risk for crime victimization,” and “NIBRS crime statistics can help law enforcement deal with concerns about pornography and child exploitation in pornography.”

In 2004, NIBRS data only covered roughly 14% of law enforcement agencies in the nation. Currently, it covers detailed crime data for all pornography-related offenses in 43% of the nation’s law enforcement agencies with detailed data through 2018. This analysis is a current look at the NIBRS data, and examines topics that have been difficult to identify in social psychological research surveys and aggregated national data. Statistics produced will help social scientists and law enforcement further identify the relationship between child pornography offenders and child sexual abuse, and provide a better understanding of both the “users” and producers of child pornography and the children who are victimized.

III. Data and Methods

The dataset used was formed from 26 combined annual datasets from the NIBRS program run by the Federal Bureau of Investigation (FBI). Collected from 1991 to 2016 and taken from the National Archive of Criminal Justice Data, this dataset is created from information received from nearly 18,000 law enforcement agencies that voluntarily submit their crime reporting data to the FBI for validation. This number makes up roughly 43% of the nation’s law enforcement agencies, and includes information for each offense reported to the given agency, including: arrests, convictions, characteristics of offenders and victims (such as gender, ethnicity, age, and background), locations of crimes, time the offense was committed, other offenses involved, and the nature of the offense itself. NIBRS is one of the only

57 The 2018 NIBRS data was released on September 30, 2019. For more information, see: “National Incident-Based Reporting System,” database online.
59 Prentky et.al., “Multi-Prong Approach,” 35.
61 Bang et.al., Commercial Sexual Exploitation, 51-53.
62 “CJIS Data Standards,” in U.S. Department of Justice, Criminal Justice Information Services Division (2019), database online.
63 “UCR-NIBRS Web Services,” in U.S. Department of Justice (2019), database online.
64 “National Incident-Based Reporting System,” database online.
datasets providing complete offense information for law enforcement agencies across the nation.\textsuperscript{65} Findings in NIBRS allow analysts to identify clear connections “between data on people, places, and things that may seem unrelated,”\textsuperscript{66} giving investigators and law enforcement better information and context in criminal offenses.

The incident level and victim level data from each year were merged into a cohesive dataset, then appended with the datasets from the other 25 years to create a whole picture of all pornography crimes in the created NIBRS dataset. The appended dataset was sorted based on unique identifiers for the reporting agency, the incident, and the year. It views each incident as a single event and a single record, and includes information detailing whether there were additional violent offenses (such as sexual offenses, assault, or the use of weapons/force), the year the offense was reported, and aggregated data on offender and victim characteristics. Only incidents categorized in NIBRS as those containing “pornography/obscene material offenses”\textsuperscript{67} were included.\textsuperscript{68}

Any cases that were ‘exceptionally cleared’\textsuperscript{69} were dropped, as well as cases from law enforcement agencies that did not participate for the whole period of the given year in the dataset. As shown in Figure 1, the data is mostly from recent years. Only 10% of the data is before 2004, 50% of it after 2012. However, unsubstantial differences between years\textsuperscript{70} allows all the data to be kept in the analysis.

The data is limited to cities and counties, and the distribution of populations covered is shown in Figure 2. Roughly three quarters of incidents are in small town or rural cities or counties with less than 100,000 citizens. These cities and counties are fairly spread across the country, with fewer observations

\textsuperscript{65} Kristen M. Budd et al., “Parks, Playgrounds, and Incidents of Sexual Assault,” Sexual Abuse (2018), 600-601.
\textsuperscript{66} “CJIS Data Standards,” database online.
\textsuperscript{67} “National Incident-Based Reporting System,” database online.
\textsuperscript{68} This followed standards from a previous study that counted a robbery offense as one robbery each time the NIBRS offense code listed “robbery” or “theft.” For more information, see Roland Chilton and Wendy C. Regoeczi, “Impact of Employment, Family Structure, and Income,” Justice Research and Policy (2007), 15-21.
\textsuperscript{69} “Exceptionally Cleared” cases occur when a victim refuses to participate, the offender is not prosecuted, or the offender dies. For more information, see “NIBRS User Manual,” in U.S. Department of Justice (2018), database online.
\textsuperscript{70} There was an increase in pornography over time, but this is likely related to an increase in reporting to NIBRS over time. This study did not examine pornography over time.
The dependent variable in the study is the type of pornography, with three options therein. The incident is identified as a ‘pornography offense’ of juvenile victim pornography if there is at least one victim under the age of 18. It is child exploitation pornography if there was criminal activity in the form “child exploitation”, but no identifiable victim that is a minor. The offense is adult pornography if there were neither child victims nor the involvement of child exploitation.

After the data cleaning, there are 67,724 total observations of pornography crime incidents reported to the police from 1991-2016, with 32 variables across pornography types, as shown in Figure 3. The 4,623 incidents of juvenile victim pornography were compared both to incidents of adult pornography.
pornography that had victims and to incidents of child exploitation pornography. There were 21,054 incidents of child exploitation pornography for a total of 25,677 incidents of child pornography across both types. There were 42,047 incidents of adult pornography included in the NIBRS dataset. A multinomial logit regression analysis\textsuperscript{71} of these different types of pornography provides a clear picture of the makeup of child pornography crimes in rural and suburban portions of the United States.

IV. Results

The multinomial logit regression analysis, comparisons of means, and proportions tests of the NIBRS data reveal a number of similarities and differences between the different types of pornography, some of which were expected and others that are surprising. Information about pornography offenders, some of whom are younger than expected, additional violent crimes included in offenses, and the age of victims are distinct (mostly younger, as in 10 to 14 years old) for juvenile victim pornography. Child exploitation and adult pornography are different in the types of criminal activities they attract, the offenders who commit the crimes, what those offenders are suspected of using, and when the incident is reported. This section lays out the similarities of pornography types in offense location, common criminal activities, and multiple offenses. It then proceeds to paint a picture of each type by differentiating them from the others, and pointing out factors that could be predictors of each type of pornography.

There are some factors of pornography crimes that are consistent across all types of pornographic crime. Most incidents were reported to law enforcement on the incident date, rather than on a later date. More than 60% of all pornography crimes occurred at homes or residences, regardless of which type of pornography was involved. Figure 4 provides a picture of the criminal activities involved in pornography incidents. Eleven criminal activities possible include: buying/receiving, cultivating, distributing, exploiting children, gang activity, juvenile gang activity, unknown gang involvement, operating, possessing, transporting, or using/consuming [pornography, or illegal/confiscated material]. It is possible

\textsuperscript{71} Multinomial logit regression is used because the dependent variable is categorical with more than one category, so the independent variables can be any type. The analysis examines the impact of all variables regardless of whether they are numeric or categorical.
for an incident to include any combination of criminal activities. The top criminal activities involved were possessing and concealing, distributing and selling, and exploiting children.

**Figure 4. Distribution of Criminal Activity Involved in All Types of Pornography Offenses**

Figure 4 gives the distribution of criminal activity involved in pornography offenses. There are 11 different types of criminal activity that could be involved in an incident, which could contain combination of criminal activities or none at all. The 5% of incidents with the criminal activity missing are marked under the first “0” bar. Roughly 28% of incidents involved possessing/concealing, 25% exploiting children, and 15% distributing/selling.

In addition to multiple criminal activities, it is possible that incidents included multiple offenses. Overall, only 6 incidents involved homicide, 170 incidents had kidnapping, less than 200 had prostitution offenses, and the majority did not have other offenses. Human trafficking offenses were not tracked, since these were not reported to the database until after 2012. Therefore, the analysis focused only on whether or not an additional violent crime of sex offenses, assault, or the use of weapons/force was involved in the incident.

Pornography offenders in the NIBRS database average 18 to 30 years old and were mostly white males. These distributions are shown in Figures 5 through 7. Figure 5 demonstrates the surprising statistic that offender age is actually skewed left, meaning 13,653 offenders (27%) were under the age of 18. More than 50% of offenders are under the age of 30, 39% were under 21, and 27% were 17 or younger. This is
a slight contradiction to previous research indicating most pornography offenders are in their thirties.\textsuperscript{72}

While the mean is still 30, this analysis presents concerning evidence that youth and young adults are struggling with pornography to a degree that further harms their peers. While there is a wide distribution across pornography ages, the NIBRS dataset indicates the incidents reported to police include mostly younger offenders. Not shocking, however, are the details of offender race and sex. Figure 6 on the right shows that 63.28% of pornography offenders are white, 8.59% Black or African American, and less than 2% of pornography offenders are of other minorities. More than 60% of all pornography crime offenders are male, while less than 20% are female. The other 20% of offenders have unknown race, which may indicate that an offender was not identified in the incident..

About 14,000 incidents included offenders suspected of using computers, drugs, alcohol, or

\textsuperscript{72} Bang et.al., Commercial Sexual Exploitation, 25-26.
some combination thereof. Out of 5,822 cases containing information on victims, 82.31% of pornography victims are female, 18.55% male. Figure 7 shows the distribution of race for victims across incidents, with the majority of victims being white, and very few minorities.

While the given statistics show a number of similarities in offender and victim sex, race, population size, and location across the different types of pornography, differences in a few key variables can clearly help identify, or even predict, various types of pornography. The involvement of violent offenses, the types of criminal activities included in the offense, the age of victim, and the age of offenders are all direct indicators of juvenile victim, child exploitation, or adult forms of pornography crimes, and vary quite a bit across the three types of pornography.

First is the involvement of violent offenses. Violent offenses in this dataset are either sex offenses, assault offenses, weapon/use of force offenses, or some combination of those. A sex offense could include: rape, sodomy, sexual assault with an object, forcible fondling, or incest; assault offenses could include: aggravated assault, simple assault, intimidation, arson, extortion/blackmail, burglary/breaking and entering; and weapon/use of force offenses could involve any object considered to be a weapon, blunt force, or physical force.73 As stated previously, existing research has shown that child pornography seems to be linked to an increase in violent offenses.74 However, this is not the case with all types of pornography, but only with juvenile victim pornography. Figure 8 shows the dramatic difference between juvenile victim pornography and other forms of pornography.

![Figure 8. Distribution of Violent Offenses Across All Pornography Types](image)

Figure 8 identifies the percent of offenses within each type of pornography crime that involve additional violent offenses. 97% (4,490/4,623) of all Juvenile Victim Pornography crimes in the dataset include violent offenses. Only 1% (198) of Child Exploitation Pornography cases and 2% (941) of Adult Pornography crimes involve an additional violent offense.

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73 “National Incident-Based Reporting System,” database online.
74 Finkelhor and Ormord, “Child Pornography,” 3-5.
of pornography crime. 97% of juvenile victim pornography crimes involve an additional violent offense. Even when the adult and child exploitation pornography cases are narrowed down to those with victims, they have substantially fewer incidents with violent offenses. Only 77% of both adult and child exploitation cases with victims involve additional offenses. Before variables were concatenated in the dataset, less than 5% of cases of child exploitation pornography from 1991 to 2016 involved any other offense, let alone any violent offenses.

Secondly, the types of criminal activities involved in an offense are a factor in distinguishing between the different types of pornography. While the activities of possessing/concealing, distributing/concealing, and child exploitation are the most common in pornography in general, each type has a criminal activity that occurs more than others. Table 1 depicts the percentages of each type of pornography crime that has each criminal activity. This table looks at means of criminal activities across incidents. Juvenile victim pornography is not associated with criminal activity, unknown, or possibly associated with unknown gang activity 27% of the time. Child exploitation pornography is, made up of

<table>
<thead>
<tr>
<th>Type of Criminal Activity/Gang Information</th>
<th>Juvenile Victim Pornography</th>
<th>Child Exploitation Pornography</th>
<th>Adult Pornography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>53.94%</td>
<td>00.59%</td>
<td>01.70%</td>
</tr>
<tr>
<td>Buying/Receiving</td>
<td>00.13%</td>
<td>00.00%</td>
<td>01.89%</td>
</tr>
<tr>
<td>Cultivating/Manufacturing</td>
<td>00.61%</td>
<td>00.49%</td>
<td>07.20%</td>
</tr>
<tr>
<td>Distributing/Selling</td>
<td>01.38%</td>
<td>04.23%</td>
<td>20.50%</td>
</tr>
<tr>
<td>Exploiting Children</td>
<td>04.15%</td>
<td>82.22%</td>
<td>00.51%</td>
</tr>
<tr>
<td>Other Gang Activity</td>
<td>02.55%</td>
<td>03.36%</td>
<td>00.71%</td>
</tr>
<tr>
<td>Juvenile Gang</td>
<td>01.34%</td>
<td>06.17%</td>
<td>02.42%</td>
</tr>
<tr>
<td>None/Unknown Gang Involvement</td>
<td>27.60%</td>
<td>02.16%</td>
<td>01.05%</td>
</tr>
<tr>
<td>Operating/Promoting/Assisting</td>
<td>03.18%</td>
<td>00.35%</td>
<td>05.58%</td>
</tr>
<tr>
<td>Possessing/Concealing</td>
<td>04.13%</td>
<td>00.40%</td>
<td>45.90%</td>
</tr>
<tr>
<td>Transporting/Transmitting</td>
<td>00.45%</td>
<td>00.02%</td>
<td>07.68%</td>
</tr>
<tr>
<td>Using/Consuming</td>
<td>00.54%</td>
<td>00.04%</td>
<td>04.86%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1 shows the percentage of each type of pornography incident that has one of the various types of criminal activity. The items in bold are those that are the majority for each form of pornography crime. Criminal activity tends to be unknown with Juvenile Victim Pornography, but there may be some links to gang activity. Child exploitation pornography is mostly made up of crimes that involve exploiting children, while Adult Pornography is mostly related to crimes of possessing/concealing or distributing/selling pornography.

75 Several of the variables were combined to form averages across an incident. For example, rather than assessing the victim age for up to 999 victims for each incident, the age of victims in the incident were averaged to create the average victim age for that incident. The same action was performed for offender age and several other variables.
mostly activities that involve exploiting children. It may also include gang activities or crimes of
distribution or selling. This fits with existing research that shows child exploitation pornography as the
sale or use of child pornography without an identifiable child victim.76 Adult pornography may include
possessing, concealing, distributing, or selling activities. This confirms existing beliefs that most adult
pornography crimes are related to the illegal possession or sale of some form of
obscene material.77

Child pornography crimes in general is more than 10% likely to have a victim than adult
pornography crimes78. Out of the 42,047 cases of adult pornography in the dataset, only 2.43% had a
victim, while 18.70% of all child pornography cases had victims. While this may seem small in both
cases, the difference is significant when the impact is considered. A surprising 36% of pornography
crimes with a victim have a child under the age of 14, 19% are 10 and under. This is significantly higher
than previous statistics that placed the majority of child pornography occurring to children older than 14
or 15, even though children ages 7 to 14 are considered to be more vulnerable.79

The age and inclusion of victims are the primary and unsurprising distinguishing factors between
juvenile victim pornography and the other two types. Figure 9 paints the distribution of the ages of
offenders and victims across all types of pornography. The mean age of offenders is around 30 for each
type of pornography and is not a strong indicator for pornography type. The age of victims, however, is
the primary marker of each pornography type. Any decrease in victim age makes it more likely that the
pornography will be juvenile victim pornography. The NIBRS dataset shows a specific increase in the
probability of juvenile victim pornography for victims under the age of 14.

The inclusion of violent offenses, younger victims, and more victims are the biggest possible

77 Ibid, 2.
78 Remember, the majority of adult pornography is legal. However, adult pornography that includes obscenity is a crime. For the
purposes of the NIBRS dataset, an adult pornography crime incident with a victim would likely entail abuse of someone depicted
in the pornography incident. The reportable offense in adult pornography incidents, then, could include either obscene materials
or an additional offense such as sexual assault, use of force, or intimidation tactics such as blackmail or coercion. For more
information, see “National Incident-Based Reporting System,” database online.
predictors of juvenile victim pornography. Any increase in the number of victims leads to a statistically significant increase of 3.75 in the probability of juvenile victim pornography incidents over child exploitation or adult pornography. Overall, the research on juvenile victim pornography confirms the violence connected to the crime while shocking us with its depth and effect on young Americans.

Figure 9. Distribution of Offender and Victim Ages Across Pornography Types

Figure 9 depicts the distribution of offender and victim ages across the different types of pornography. Offender age is consistent around 30 years old for each type of pornography, while victim age has a much lower minimum and mean than the minimum and mean for other two types of pornography. By nature, the minimum age for child exploitation and adult pornography are 18, since neither can have a child victim.

Child exploitation pornography also contradicts the research, showing dissimilarities to adult pornography that were not previously noticed.\(^8^0\) Many of the characteristics of offenders and offense location are similar across both types: location is usually a residence or home for both, the offenders are mostly male, and the average age of offenders is around 30. Table 2 on the following page shows the

\(^{80}\) Previous research showed adult pornography and child pornography to be almost identical in all but content. For more information, see Finkelhor and Ormord, “Child Pornography,” 1-6.
differences between child exploitation and Adult forms of pornography crime in criminal activities, offender sex, offender race, suspicion of using computers, drugs, or alcohol, and the report date of the incident. Under each type of pornography is the total number of incidents that have the particular characteristic identified on the left. On the left is the number and in parentheses () the percent of total actual cases that fall in each category of that statistic. The probability change statistic for each type of pornography is the change in the relative log odds of the pornography being child exploitation pornography over adult pornography or the changes in the relative log odds of the pornography being adult pornography (last column). This is taken from the coefficient of the variable in the multinomial logit regression if the change is statistically significant at the 0.05 level of the p-value. For example, looking at a female offender sex, you can see that leads to a decrease in 0.69 in the relative log odds of the pornography being child exploitation pornography instead of adult pornography. In essence, this indicates that child exploitation pornography is less likely to have a female offender than adult pornography.

There are several key observations in Table 2 that highlight the differences between adult and child exploitation pornography. Child exploitation pornography is limited mostly to criminal activities involving exploitation of children, distribution/selling, or possibly some gang activity. Adult pornography could be involved with any number of criminal activities, but is less frequently involved in incidents of exploiting children or gang activity of any kind. In fact, an increase in gang activity leads to a decrease in the likelihood of pornography being adult pornography instead of child exploitation pornography. The same goes for child pornography – an increase in activities such as buying, selling, operating, possessing, transporting, or consuming leads to a decrease in the probability of the pornography being child exploitation instead of adult in content. This seems to indicate that adult pornography is passed between individuals with more frequency than child pornography. On the other hand, since there is a higher chance of gang activity with child exploitation pornography, it may be assumed that gangs are also a tool for spreading child exploitation pornography materials.

Both child exploitation and adult forms of pornography have primarily male offenders. However, males seem slightly more likely to be child pornography offenders than females. If a female offender is
involved, the probability of the pornography being child exploitation and not adult pornography decreases by 0.69.

It is hard to make definitive claims about offender race in child exploitation and adult pornography. The distribution of offenders across various types of races is similar for both forms of pornography offenses, but there is a slightly higher chance of the pornography being child exploitation instead of adult, if the offender is white.

The variables that indicate if offenders are suspected of using certain materials and when the

<table>
<thead>
<tr>
<th>Criminal Activity</th>
<th>Child Exploitation Pornography</th>
<th>Adult Pornography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (% of Total)</td>
<td>Probability Change</td>
<td>Number (% of Total)</td>
</tr>
<tr>
<td>Buying/Receiving</td>
<td>2 (0.00%)</td>
<td>716 (1.70%)</td>
</tr>
<tr>
<td>Cultivating/Manufacturing</td>
<td>104 (0.49%)</td>
<td>3,026 (7.20%)</td>
</tr>
<tr>
<td>Distributing/Selling</td>
<td>890 (4.23%)</td>
<td>8,620 (20.50%)</td>
</tr>
<tr>
<td>Operating/Promoting</td>
<td>73 (0.35%)</td>
<td>2,345 (5.58%)</td>
</tr>
<tr>
<td>Possessing/Concealing</td>
<td>85 (0.40%)</td>
<td>19,300 (45.90)</td>
</tr>
<tr>
<td>Transporting/Transmitting</td>
<td>5 (0.00%)</td>
<td>3,230 (7.68%)</td>
</tr>
<tr>
<td>Using/Consuming</td>
<td>8 (0.00%)</td>
<td>2,043 (4.86%)</td>
</tr>
<tr>
<td>Exploiting Children</td>
<td>17,311 (82.2%)</td>
<td>213 (0.51%)</td>
</tr>
<tr>
<td>Other Gang Activity</td>
<td>707 (3.36%)</td>
<td>300 (0.71%)</td>
</tr>
<tr>
<td>Juvenile Gang Activity</td>
<td>1,298 (6.17%)</td>
<td>1,016 (2.42%)</td>
</tr>
<tr>
<td>None/Unknown Gang Activity</td>
<td>454 (2.16%)</td>
<td>1,298 (2.42%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offender Sex</th>
<th>Child Exploitation Pornography</th>
<th>Adult Pornography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (% of Total)</td>
<td>Probability Change</td>
<td>Number (% of Total)</td>
</tr>
<tr>
<td>Unknown</td>
<td>5,471 (25.98%)</td>
<td>9,900 (23.55%)</td>
</tr>
<tr>
<td>Female</td>
<td>2,311 (10.98%)</td>
<td>6,616 (15.73%)</td>
</tr>
<tr>
<td>Male</td>
<td>13,272 (63.04%)</td>
<td>25,531 (60.72%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offender Race</th>
<th>Child Exploitation Pornography</th>
<th>Adult Pornography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (% of Total)</td>
<td>Probability Change</td>
<td>Number (% of Total)</td>
</tr>
<tr>
<td>Unknown/Missing</td>
<td>6,344 (30.13%)</td>
<td>11,664 (27.74%)</td>
</tr>
<tr>
<td>White</td>
<td>13,067 (62.06%)</td>
<td>26,102 (62.08%)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>1,455 (6.91%)</td>
<td>3,844 (9.14%)</td>
</tr>
<tr>
<td>Asian</td>
<td>127 (0.60%)</td>
<td>274 (0.65%)</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>61 (0.29%)</td>
<td>162 (0.39%)</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>0 (0.00%)</td>
<td>1 (0.00%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suspected of Using</th>
<th>Child Exploitation Pornography</th>
<th>Adult Pornography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (% of Total)</td>
<td>Probability Change</td>
<td>Number (% of Total)</td>
</tr>
<tr>
<td>Unknown/Missing</td>
<td>14,517 (68.95%)</td>
<td>34,691 (82.51%)</td>
</tr>
<tr>
<td>Computer</td>
<td>6,288 (29.87%)</td>
<td>6,890 (16.39%)</td>
</tr>
<tr>
<td>Drugs</td>
<td>185 (0.88%)</td>
<td>395 (0.94%)</td>
</tr>
<tr>
<td>Computer and Drugs</td>
<td>50 (0.24%)</td>
<td>57 (0.13%)</td>
</tr>
<tr>
<td>Computer, Drugs, and Alcohol</td>
<td>14 (0.06%)</td>
<td>14 (0.03%)</td>
</tr>
</tbody>
</table>

Table 2 shows the differences between child exploitation pornography and adult pornography in two ways. First, the number and percent of total () actual cases that fall in each category of containing incidents suspected of using various items, having a report date later, having male versus female offenders, and so on. Secondly, for each type of pornography are given the changes in the relative log odds of the pornography being child exploitation pornography over adult pornography or the changes in the relative log odds of the pornography being adult pornography (last column). These numbers are only given if they were statistically significant at a p-value of 0.05.
report date occurred are more definitive. In most cases excluding juvenile victim pornography, offenders are not suspected of using any additional materials – computers, drugs, or alcohol. With so few cases, it is hard to make clear judgement calls on incidents involving drugs or alcohol. However, if computers are used, the log likelihood that the pornography involves child exploitation instead of just adult obscenity increases by 0.96 to 1. Further highlighting this is the fact that more than 29% of child exploitation cases involved computer use, while only 16% of adult pornography cases had suspected computer use. Similarly evident is information showing that the child pornography incidents are more likely to be reported on the incident date rather than on the report date.

V. Conclusion

At a final glance, 31% of the 67,724 NIBRS cases from 1991 to 2016 that involve pornography are incidents with child pornography. While only 8.6% of those cases have identified victims, 80% of those cases have at least one child victim. That is 4,623 incidents of child pornography with a child victim, some of which had multiple victims. Whether or not this number is better than other countries or years is perhaps a subject of study for another article. The truth that this article presents is that child pornography cases, especially those involving a juvenile victim, encourage the spread of indecent representations of children and cause incredible harm to those children. A large amount of offenders themselves are either children or young adults. The evidence is overwhelming. Whether as victims, or as possibly addicted individuals with a chance of becoming offenders and harming their peers, children and young adults are increasingly impacted by pornography. While pornography in all forms has shown to be destructive,81 both types of child pornography can be damaging to society. They directly involve the most vulnerable individuals in the population (children) in activities that will directly or indirectly influence them for the rest of their lives. This analysis confirms previous research showing that the majority of child pornography victims have been forced to endure sexual offenses, assault, use of force, or intimidation as part of their experience. It also presents details clarifying the differences between adult and child pornography.

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pornography crimes.

While the findings here are valuable, there are some limitations to the insight they provide. As stated earlier in this article, the NIBRS dataset in this analysis is strictly limited to small cities and rural or suburban communities with a population of less than 500,000 citizens, with a primary focus on those smaller than 100,000 individuals. Because nearly a dozen states have yet to participate in the NIBRS dataset, NIBRS is “not necessarily representative of all crime across U.S. jurisdictions,” leaving out certain states and large urban centers.

However, the absence of data by certain states or jurisdictions does not nullify the information presented here. Research by the Journal of Contemporary Criminal Justice showed that nonresponse bias may impact rates of change over time in crimes, so analysis of the crime itself (the focus of this article) carries more weight than an analysis over time would do. Additionally, imputation strategies by the FBI’s oversight programs have been shown to reduce the underrepresentation of larger populations. More concerning than some data are some indications that law enforcement reporting on pornography “may be skewed towards family abuse and noncommercial production of pornography,” especially because crimes involving pornography are “relatively infrequent” in NIBRS data. It may be helpful for further researchers to examine the possibility of omitted variable bias or of sampling bias incurred by an underrepresentation of law enforcement agencies, populations, or types of pornography crime.

Other limits on the study are related to the information provided in the data. For example, the dataset provides information on offenders and victims for each incident, but it does not specify if each offender was involved in a direct sexual or pornographic offense against a certain victim. In other words, there is not a direct correlation between Offender A and Victim A other than their participation in the incident. It also does not specify how a child or victim was a victim of pornography – were they depicted

83 Budd et al., “Parks, Playgrounds, and Incidents,” 599-600.  
in the images or material that resulted, or merely exposed to it in a violating manner? Was it used to further their abuse or was the material the subject of their abuse? It would be helpful to identify even more specific details to each crime to continue combating pornography crimes.

Researchers can also examine the connections between various items within an incident, not just each item as it relates to, or predicts, the types of pornography, and they can look at the incidents over time to identify if the problem is worsening. Comparisons of years, locations, or focus on specific variables, rather than an overview of the different types of pornography, might provide more detailed insight into the elements of child pornography. For example: theft, assault, sex, and weapon use offenses all seemed to be positively correlated with an increase in child pornography. However, with the dataset provided, there is not enough information on each offense to examine those connections carefully, hence why this study only observes whether or not an additional violent offense is involved in the incident.

Overall, this analysis is far from providing all the answers on child pornography or criminal pornography of any type, and could benefit from further study. However, it adds to the body of knowledge by providing current information on child pornography crimes. This information can be used for further research on the dangers of pornography, and to help identify and stop crimes of child pornography, victimization, and exploitation.

Here is what is known: juvenile victim pornography crimes are more likely to have young victims, violent offenses, more victims, and a large possible range in victim ages. Adult pornography and child exploitation pornography (which does not have a victim) are more different than previously thought, emphasizing the dangers of child pornography, and the possibility of harm in all types of pornography. While child exploitation pornography does not involve an identified minor victim of pornography, it often includes worrisome gang activity, and the exploitation of children is ever present. Child pornography is associated with gangs and uses children for material gain or personal pleasure. Even if it is not largely associated with crimes of transportation, distribution, and so on, the mere fact that more child pornography crimes are associated with computer use is an ominous sign that it could spread farther and faster than adult pornography ever has.
Historically, police have had difficulty detecting crimes such as pornography, or connecting offenders to victims when they do find a case. Society has viewed pornography as mostly harmless. While there is still work to do in the field of pornography research and prevention, this analysis presents multiple indicators for pornography, including multiple victims in an incident, violent or pornographic offenses, the use of computers, drugs, or alcohol with pornography, and the inclusion of gang activity with pornography. Perhaps not all pornography is harmful — that is still up for debate. However, understanding those circumstances that do harm others will help protect the innocent. With the factors identified in this article, law enforcement can protect the innocent, particularly children, by staying alert for signs of exploitation or victimization through pornography.
VI. References


"Commercial Sexual Exploitation of Children and Sex Trafficking: A Literature Review, a Product of the


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VII. Appendices
A. Terms of Use for the National Incident-Based Reporting Software Data

Data Acknowledgement
Under the Terms of Use for the National Incident-Based Reporting Software Data managed by the U.S. Department of Justice, the Federal Bureau of Investigation, and the National Archive of Criminal Justice Data, the author acknowledges that they will make no use of any identity of any research subject found in their data, will not distribute data, and will make all efforts to appropriately cite the Inter-university Consortium for Political and Social Research as an official distributor of the data.

Disclaimer
The author acknowledges that the original collector of the data, ICPSR, and the relevant funding agency bear no responsibility for the author’s use of the data or for interpretations or inferences based upon such uses of the data.

Declaration of Conflicting Interests
The author received no financial support for the research, authorship, and/or publication of this article, and to the best of the author’s knowledge has no conflicting interests with respect to the research, authorship, and/or publication of this article.

B. Definitions and Important Information from the NIBRS Codebook

Definitions
Acting in Concert: requires that the offenders actually commit or assist in the commission of the crime(s). The offenders must be aware of, and consent to, the commission of the crime(s); or even if nonconsenting, their actions assist in the commission of the offense(s). All of the offenders in an incident are considered to have committed all of the offenses in the incident. If one or more offenders did not act in concert, there is more than one incident involved.

Exceptionally Cleared: a type of incident that occurs when a victim refuses to participate, the offender is not prosecuted, or the offender dies.

Incident: one or more offenses committed by the same offender, or group of offenders acting in concert, at the same time and place.

Pornography/Obscene Material: The violation of laws or ordinances prohibiting the manufacture, publishing, sale, purchase, or possession of sexually explicit material, such as: literature, photographs, and so on.

Same Time and Place: time interval between offenses and distance between locations where they occurred were insignificant. Normally, the offenses must have occurred during an unbroken period of time and at the same or adjoining location(s). However, incidents can also consist of offenses which by their nature involve continuing criminal activity by the same offender(s) at different times and places, as long as the activity is deemed to constitute a single criminal transaction.

Notes

- Pornography is marked under NIBRS Offense Code: 370
- all offenses within a crime are reported as a separate, distinct crime
  For example, every Robbery includes some type of assault, but because the assault is an element integral to the crime of Robbery, the Law Enforcement Agency should report only Robbery. However, if during a Robbery, the offender forces the victim to engage in sexual relations, then the Law Enforcement Agency should report both Robbery and Rape, since forced sexual intercourse is not an element of the crime of Robbery.

Lesser included offenses = offenses where one offense is an element of another offense and cannot be reported as having happened to the victim along with another offense

  Ex: A person cannot have been murdered and faced aggravated assault, since aggravated assault is essentially a part of murder

VIII. Curriculum Vita

Megan Idle received her Bachelor of Arts in International Community Development in 2016 from Oral Roberts University. She spent several years following graduation working with local nonprofits in New Mexico and Colorado. While some of that time was spent in advocacy work for family values, the majority of that time was spent on grant writing, fundraising, and donor development work for nonprofits devoted to education, childcare development, and community development. During that time she fostered a deep love of information and analysis.

Megan started her Master’s at John’s Hopkins University in the fall of 2017 and submitted this article in fulfillment of her final project as a Master’s Student in Government Analytics. Following graduation she will start a position as a Data Engineer with CACI International, where she will put her training to use building a predictive algorithm to track air and marine traffic as part of a contract with U.S. Customs and Border Protection’s AMOC program.