Protecting Children from the Public Health Harms of Pornography

A Policy Analysis of the Children's Internet Protection Act

Raleigh Sims

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Protecting Children from the Public Health Harms of Pornography: A Policy Analysis of the Children's Internet Protection Act

Prepared for:

NATIONAL CENTER ON SEXUAL EXPLOITATION

Patrick A. Trueman
CEO and President, National Center on Sexual Exploitation
Dawn Hawkins
Senior Vice President and Executive Director, National Center on Sexual Exploitation
Lisa L. Thompson
Vice President of Policy and Research, National Center on Sexual Exploitation

By:
Raleigh Sims
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Dedication

This analytical product is dedicated to my late grandmother, Miss Bettye Sims; an amazing Christian, grandmother, mother, wife, sister, English teacher, tennis player, bridge player, and Auburn University fan. She was so so fun!

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Acronyms

ACLU: America Civil Liberties Union
ALA: American Library Association
CCRC: Crimes Against Children Research Center
CIPA: Children's Internet Protection Act
DoE: Department of Education
FCC: Federal Communications Commission
ISE: Internet Safety Education
LSTA: Library Service and Technology Act
NCES: National Center for Education Statistics
NCMEC: National Center for Missing and Exploited Children
NCOSE: National Center on Sexual Exploitation
NSLP: National School Lunch Program
OET: Office of Educational Technology
USAC: Universal Service Administrative Company
USF: Universal Service Fund

Executive Summary

The Children's Internet Protection Act (CIPA) was adopted into law in 2001. This law requires Internet filters in schools and libraries that receive Federal discounts on telecommunications technology. The Federal Communications Commission (FCC) and the Universal Service Administrative Company (USAC) oversee the E-Rate discount program. The E-Rate program was established to aid schools and libraries in rural and urban settings to attain broadband access. USAC is the main entity that ensures CIPA filter requirements are met before these schools and libraries receive the Federal discount.

There are numerous studies that show an association between children viewing pornography and negative effects in cognitive development (Hilton, 2013; Kaspera et al, 2014; Bischmann et al., 2017). Some go as far as to name pornography as a public health crisis. Yet only 12% of parents are aware of when their children watch porn (Covenant Eyes, 2015). If parents and the private sector are unable to protect these children, then the government has a responsibility to protect its citizens, specifically its children.

Technological advances and poor program administration render the current CIPA language ineffective. First, schools and libraries are increasingly providing their students with Chromebooks and tablets. However, in E-Rate schools, these devices are often purchased with the Federal discount. Current filter technology is capable of filtering these devices but it is unclear if these schools and libraries use these effective filters or if filter administrators update the filters routinely. Second, USAC audits cite "inadequate knowledge or familiarity of program rules" as the main cause for schools receiving E-Rate discounts without having required Internet filters in place. **The current language for the CIPA is outdated and is too vague to effectively protect children from obscene Internet material in schools and libraries.**

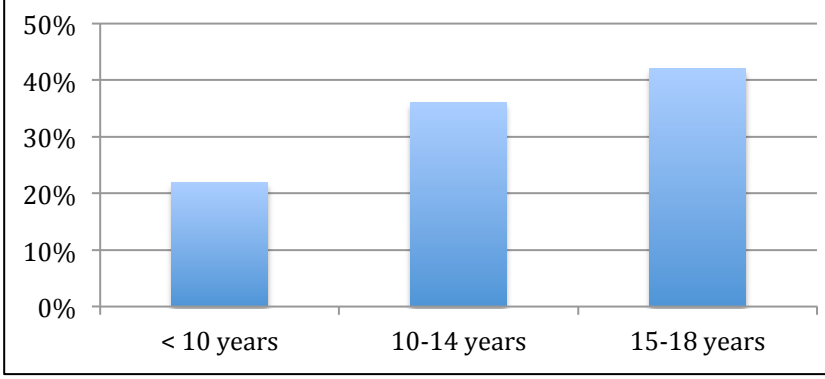
To address this policy problem, the National Center on Sexual Exploitation (NCOSE) should advocate for new language that specifies administrative responsibility to an IT official at the superintendent level. This option provides a local and consistent program administrator that can maintain Internet filter systems and it centralizes E-Rate and CIPA administration, thus addressing the largest reason for non-compliant schools and libraries. The five potential policy options were assessed across four policy criteria: effectiveness, political acceptability, policy sustainability, and equity. These criteria were established using the concerns of NCOSE, the concerns of opponents to CIPA Internet filters, and from further analysis of the available literature on this topic.

Introduction and Problem Statement

Today, kids under the age of 10 account for 22 percent of the online porn consumption by minors while 10-14 year-olds account for 36 percent (See **Figure 1**) (Muresan, 2016). Yet, only 12 percent of parents know that their kids have accessed pornography (Covenant Eyes, 2015). Parents need help in protecting their children. The government's role is to assist in areas where parents and private organizations are unable to protect US citizens from public health harms like pornography. The Children's Internet Protection Act (CIPA) of 2001 was designed to protect children in schools and libraries from the dangers of obscene material online.

CIPA was passed in Congress as part of the Consolidated Appropriations Act of 2001. At the time, the Internet was expanding dramatically and children's access to both harmful and beneficial information was increasing. In 1993, 32 percent of children had access to a computer at home and 61 percent used a computer at school. In 2003, about three-quarters (76 percent) of all children three to 17 years old lived in a household with a computer, and 83 percent of the 57 million enrolled children used a computer at school (Day, 2005). CIPA was one of the first congressional attempts to regulate the Internet for children.

Figure 1: 2016 Distribution of Minors Online Video Porn Consumption



Source: Bitdefender. "One in Ten Visitors of Porn Sites is Under Ten Years Old"

Schools are a main point of entry to the Internet for many minors. "[F] or a growing portion of the online teen population, schools have become an important venue for Internet use… More than three in five online teens who use the Internet from multiple locations list school as the location where they go online most often" (Lazarinis, 2010, p. 158). As a significant online access point, "schools have an important role to play in protecting students from accidentally stumbling upon inappropriate content, and filters are one key tool that can assist with this task" (Overaa, 2014).

The nature of the Internet and the amount of Internet usage has changed dramatically since CIPA. As the Internet has expanded, the porn industry has uploaded more content than any other industry in the world. Today, a little over 30 percent of data on the Internet is porn (Enough is Enough, 2019). This large amount of Internet pornography directly involves school age children. While most children see pornography for the first time on accident, the porn industry is also targeting children (Darr, 2019). The average age a child sees pornography for the first time at age 11, but this number is expected to decrease as the amount of pornography increases (Steele, 2018).

Research highlights the negative effects that viewing pornography has on the cognitive development of children. These negative effects include increased levels of narcissism, higher tendencies of violence toward women, and addiction (Hilton, 2013; Kaspera et al, 2014; Bischmann et al., 2017). Researchers across sectors (public health, technology, psychology, etc) widely accept that obscene material (as defined by *Miller v. California (*1973*))*[1] has negative impacts on the development of minors (Kuhn et al, 2014). Additionally, the Federal Research Division of the Library of Congress' 2009 report to the Department of Justice further solidified the government's stance on a need for intervention (Lewis et al, 2009). Pornography is a public health crisis.

It is time for Congress to protect its constituents. **The original CIPA language is outdated and is too vague to effectively protect children from obscene Internet material in schools and libraries.**

[1]Obscene material is broadly defined as: (a) whether the average person, applying contemporary community standards would find that the work, taken as a whole, appeals to the prurient interest, *Roth, supra,* at 354 U. S. 489, (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law, and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value

CIPA's Legislative History

Television Censoring

The debate about first amendment rights and filtering technology began before CIPA's introduction. In the early 90's, legislators attempted to regulate obscene material from television using V-chips. The Telecommunications Act of 1996 required V-chips in every television set by 2000. The V-chips provided parents the opportunity to regulate the types of shows that could be played through their television. President Clinton and leaders from both parties heavily endorsed this technology (CSPAN, 1996), but V-chips became obsolete once the FCC announced their television ratings system in 1998. The development of this "censoring" technology for television set a precedent for the Internet censoring debates.

CIPA's Path to Implementation

CIPA was Congress's third attempt to shield children from obscene or harmful Internet content. Congress's first such laws—the Communications Decency Act (part of the Telecommunications Act of 1996) and the Child Online Protection Act (1998)—had been struck down by the Supreme Court as too broad and in violation of the First Amendment (*Reno v. ACLU (*1997*)* & *ACLU v. Mukasey (*2008*))*.

As Internet usage in libraries and schools surged across the country in the late 90's, legislators found it necessary to protect children from potential harms online. Senator John McCain (R-AZ) and Representative Charles Pickering (R-MS) proposed CIPA in their respective committees (S. 97 and H.R. 4600) in 1999. However, instead of being passed as stand alone bills, CIPA was added to the Consolidated Appropriations Act of 2001 as an amendment to the Elementary and Secondary Education Act (ESEA 1965), the Museum and Library Services Act, and the Communications Act of 1934. This amendment required Internet protection filters in schools and libraries that received federal discounts on telecommunications technology through the FCC's E-Rate program (47 U.S.C. § 254 (2001)).

E-Rate Program and Funding Structure

E-Rate Program Structure

The E-Rate program and CIPA are Congress' solution to providing universal Internet access to rural and urban children while also protecting them from harmful material online. The Schools and Libraries Universal Service Support Program, commonly known as the E-rate program, helps schools and libraries to obtain affordable broadband. The E-rate program is administered by the Universal Service Administrative Company (USAC) under the direction of the FCC (Federal Communications Commission, 2017). USAC ensures that applicants and service providers comply with the E-rate rules and procedures established by the FCC. There is limited data on how effectively USAC ensures eligibility requirements are met (Office of Inspector General, 2017.)

The USAC maintains data on current E-rate application status, along with the amount of money allocated per year. However, the data does not indicate whether or not the entity receiving the funding has Internet filters in place (USAC, 2019). Furthermore, the FCC has auditing reports from local school districts and libraries available on their website, but there are less than ten available since the implementation of CIPA (Universal Service Administrative Company, 2018). According to these audits, there are schools/libraries that have effective filtering systems in place and others that do not (Clifton Larson Allen, 2014 & Moss Adams LLP, 2016). In 2010, the GAO conducted a study on the E-Rate program and found that the FCC and USAC failed to "consider the results of beneficiary audits" (GAO, 2010). The GAO recommended that the FCC "implement a systemic approach to assess internal controls" (GAO, 2010). This recommendation was implemented in 2017. As such, there is no information on how effective these measures have been to date.

The Universal Service Fund

Funds for the E-rate program come from the Universal Service Fund (USF). USF's money is funded and then spent amongst the fund's four programs: The Connect America Fund, Low-Income Support, E-Rate Program, and Rural Health Care Support. According to 47 C.F.R. § 54.709(a), telecommunications companies are required by law to make contributions to the USF. Telecommunications companies must pay a percentage of their interstate end-user revenues to the USF. This percentage is called the contribution factor. The FCC calculates the quarterly contribution factor based on the ratio of "total projected quarterly costs of the universal service support mechanisms" to "contributors' total projected collected end-user interstate and international telecommunications revenues" (47 C.F.R. § 54.709(a)). The contribution factor changes four times a year (quarterly) and is increased or decreased depending on the needs of the Universal Service programs. It is worth noting that 45 states have their own additional USF, but this is not within the scope of this paper.

All intrastate, interstate, and international providers of telecommunications within the United States, with very limited exceptions, must contribute to the USF (USAC, 2019). In total, about 3,000 telecommunications providers contribute to the USF, but the top five contributors account

for over two-thirds of the yearly USF funding (**See Table 1**) (FCC: Universal Service Monitoring Report, 2017). Since 2013, AT&T Inc., CenturyLink, Deutsche Telekom AG (majority owner of T-Mobile), Softbank Corporation (which acquired Sprint Nextel Corporation in June 2013), and Verizon Communications have been the five largest contributors (FCC: Universal Service Monitoring Report, 2017).

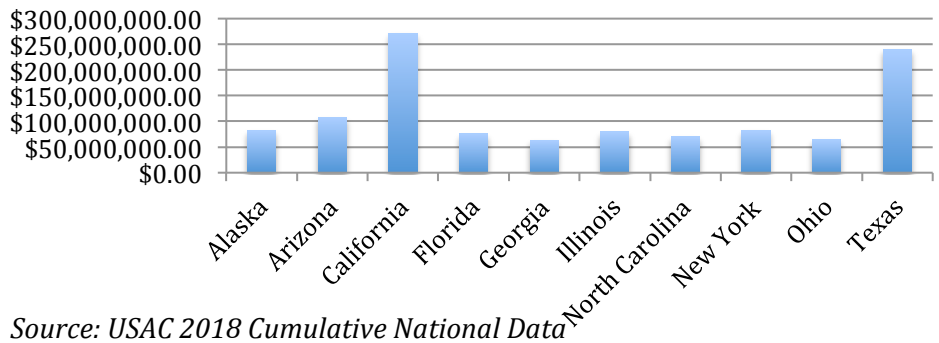
Table 1: Billed Interstate and International Retail Telecommunications Revenues by Top 5 Affiliated Entities vs. Other Companies: 2009-First Half of 2017 (in Millions of Dollars)

Year	Top 5 Affiliated Entities	Other Companies	Total	Top 5 Share (%)
2009	$54,503.00	$21,485.00	$75,988.00	72
2010	$51,655.00	$20,637.00	$72,292.00	71
2011	$50,412.00	$19,911.00	$70,323.00	72
2012	$49,795.00	$20,242.00	$70,037.00	71
2013	$48,530.00	$19,870.00	$68,399.00	71
2014	$46,870.00	$20,072.00	$66,942.00	70
2015	$43,682.00	$20,247.00	$63,930.00	68
2016	$40,013.00	$20,169.00	$60,182.00	66
First Half 2017	$18,721.00	$9,633.00	$28,354.00	66

Source: FCC Universal Service Monitoring Report, 2017

E-rate program funding is based on demand up to an annual Commission-established cap, which is $4.16 billion for 2018 and is adjusted annually for inflation (FCC: Universal Service Mon itoring Report, 2017). Discounts for E-Rate funding in schools and libraries depend on two categories: (1) the percentage of students eligible for the National School Lunch Program (NSLP) in the school district and (2) whether the school or library is located in an urban or rural area. The discounts range from 20 percent to 90 percent of the costs of eligible services (Universal Service Monitoring Report, 2017). Every state (and most territories) receive some amount of funding (**Figure 2**) (Universal Service Administrative Company, 2018).

Figure 2: 2018 Top 10 States with Largest E-Rate Discount Committments



Source: USAC 2018 Cumulative National Data

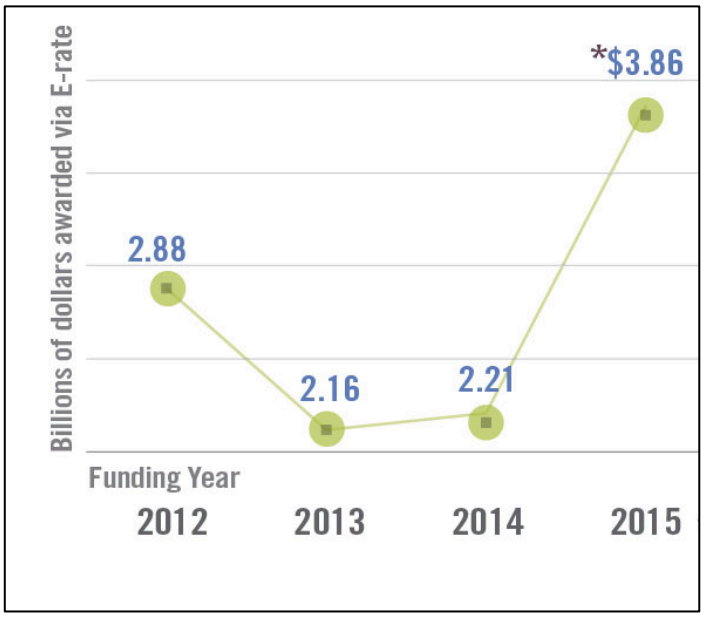
Applying for E-Rate Funding

According to the USAC website, eligible schools, school districts and libraries may apply individually, or as part of a consortium, for E-Rate funding. Applications are split into two categories of service: (1) services to a school or library (telecommunications, telecommunications services and Internet access), or (2) services that deliver Internet access within schools and libraries (internal connections, basic maintenance of internal connections, and managed internal broadband services) (Victory, 2003). According to one E-rate consultant that oversees clients in over 26 states, " the application process is pretty straightforward once you've done it a couple of times" (Hughes, 2019).

Recent Changes in USF

In 2014, the FCC voted to raise the E-rate's annual spending cap from $2.4 billion to $3.9 billion (See **Figure 3**) and approved a series of potentially significant rule changes in a contentious 3-2 vote. Those moves followed the FCC's decision to overhaul the mechanics of the E-rate to prioritize broadband and Wi-Fi connectivity while phasing out support for older technologies.

Figure 3: 2015 E-Rate Spending Cap Increase



Source: Education Week. "The E-Rate Overhaul in 4 Easy Charts"

Additionally, in May 2018, the FCC moved $8 billion from a private bank to the US Treasury. The transfer of funds came after the Government Accountability Office (GAO) report in 2017 that noted the program had quite a few flaws – the most glaring of which was that there were insufficient controls over who actually received funding, and limited auditing to ensure that companies were paying the correct amount into the fund (Government Accountability Office, 2017). The GAO expects this change to result in lower fees, better management practices and regulatory safeguards, and the opportunity for the federal government to use the funds as an offset for its debts (Government Accountability Office, 2017). This change fulfills one of the GAO's major recommendations and is a positive sign in ensuring the FCC and USAC are appropriately auditing schools and libraries.

Legal Debates: The Constitutionality of Internet Filters

The American Library Association (ALA) and the American Civil Liberties Union (ACLU) were (and continue to be) large adversaries of CIPA. Both of these organizations argued that current filtering systems were not technologically advanced enough to prevent over filtering of constitutionally protected information. This conversation developed through congressional hearings and eventually led to a Supreme Court case in 2003 (*United States v. American Library Association*).

Congressional Hearings

The Internet filtering component of E-rate funding has been the center of debate since the implementation of CIPA. The House Subcommittee on Telecommunications and Internet held a hearing in April 2001, four months after CIPA was passed, in order to create a legislative record (E-Rate and Filtering, 2001). Testifying in support of the law were Bruce Taylor, president of the National Law Center for Children and Families; two representatives from filter manufacturers, Susan Getgood of SurfControl and Chris Ophus of SF4 Technologies; and librarian Laura Morgan (E-Rate and Filtering, 2001). Opposing CIPA were Carolyn A. Caywood of the Virginia Beach Public Library and Marvin Johnson, legislative counsel to the ACLU.

The opposition to CIPA argued that filter technology was not yet effective in achieving its goals. Ms. Caywood and the ACLU both agreed that pornography was harmful to minors, but acknowledged that filter technology was not capable of blocking the correct images without also blocking information that is protected by the First Amendment (E-Rate and Filtering, 2001). Therefore, they argued, the government had no authority to filter harmful information at the expense of accidentally blocked, constitutionally protected information (E-Rate and Filtering, 2001). The opposition's argument was two fold: (1) most libraries already have filter systems and the ACLU feared the Federal mandate would negatively impact local controls and community decision making, (2) educating parents and changing values should be the approach to protect children, not information filtering. Those sentiments were echoed by the ALA.

The Senate Committee on Commerce, Science, and Transportation held two similar hearings in 1999 (CIPA, March 1999 and CIPA, May 1999). Of note, Janie Harris, the Executive Director of Solace House, a home for grieving families in Kansas City, walked the committee through a powerful personal story of how Internet pornography had effected her life:

> We wanted kids to find resources on the Internet, a safe place. Instead, when we opened our Web site we learned we had a potential land mine on our hands.
>
> When a child typed in Solace.com rather than Solacehouse.com, he or she went to a hard-core, explicit pornographic site. I want you to hear me today. Children could not escape. The sites had very, very explicit video sexual clips and explicit language much related to underage teens viewing sexual acts and using sexual toys. There was no black screen, no warning, no way to exit, nothing. (CIPA, March 1999)

Supreme Court Case and Opinions

In May 2002, a district court in Pennsylvania ruled that CIPA was unconstitutional because it violated First Amendment rights (*Multnomah County Public Library, et al. vs. United States of America* (2002)). This case rose all the way to the Supreme Court (*United States v. American Library Association* (2003)), where six Justices joined in an opinion stating that CIPA is constitutional. In a plurality decision, Justice Rehnquist wrote the opinion, reviewing the nature of internet access and filtering software,

> there is also an enormous amount of pornography on the Internet, much of which is easily obtained. … The accessibility of this material has created serious problems for libraries, which have found that patrons of all ages, including minors, regularly search for online pornography. … Some patrons also expose others to pornographic images by leaving them displayed on Internet terminals or printed at library printers. … Upon discovering these problems, Congress became concerned that the E-rate and LSTA (Library Service and Technology Act) programs were facilitating access to illegal and harmful pornography.

Justice Stevens, known for being a "defender of high tech freedom" (Lee, 2010) wrote in his dissent that "it is neither inappropriate nor unconstitutional for a local library to experiment with filtering software as a means of curtailing children's access to Internet websites displaying sexually explicit images. … Whether it is constitutional for the Congress of the United States to impose that requirement … raises a vastly different question" (*US vs. ALA,* 2003). A review of the legal literature in the three years after this case is relatively sparse, but it does highlight the development of a shift in debate toward social equity for LGBTQ+ and low-income students and Internet filtering (Kinney, 2010).

The 2008 Amendment to CIPA

In 2008, President Bush signed into law the Protecting Children in the 21st Century Act. This amended the Communications Act of 1934, to require "schools to educate minors about appropriate online behavior" and to impose a forfeiture penalty on certain Internt service providers who violate requirements to report online child pornography (Senate Rept. 110-225 (2007)). This amendment was in direct response to new technological trends that posed a threat to children's safety.

At the time, 93 percent of Americans between 12 and 17 years old used the Internet (Pew Study). This was a rise from the 73 percent that used it before CIPA was enacted in 2000. The Congressional Report on the Protecting Children in the 21st Century Act discusses the rationale behind this legislative update:

> Beyond concerns about the vitcimization of children in pornography parents are also concerned with shielding their children from adult pornography that may be easily accessible over the Internet. Easy access to pornography through the Internet threatens to dramatically reshape a child's perception about sex and body image…According to a 2001 study by the Kaiser Family Foundation, 70 percent of the nation's 15 to 17 year olds have looked at Internet pornography, much of it graphically hardcore, with just under half (45 percent) saying that they were upset by the experience. (S. Rept. 110-245)

There is no publicly available information that displays how effectively this amendment improved protection of children. A FOIA request to the FCC may yield more accurate information regarding the number discount cancellations for school and library non-compliance. This 2008 amendment was the last legislative update to CIPA and the E-Rate program.

Figure 4: Present Day Public Debate Over Internet Filters

Present Day Public Debate Over Internet Filters

Digital Access Divide

As filtering technology has improved in its ability to effectively filter obscene material from schools and libraries, more specific social equity tradeoffs have arisen. In 2016, *The Atlantic* published "How Internet Filtering Hurts Kids," discussing how children from lower income families are the ones that attend schools with E-rate funding (and therefore have the mandated internet filter systems), and as such are more likely to be over filtered than more affluent, white children. The American Community Survey Report in 2014 corroborates *The Atlantic's* claims (File, 2014). Alternatively, another study argues that the digital divide has lessened in recent years. "One 2013 study found that 9 in 10 teens have access to a computer at home and about 3 in 4 teens say they access the Internet on cell phones, tablets, or other mobile devices at least occasionally (Cortesi, Duggan, Gasser, Lenhart, and Madden, 2013)" (Overaa, 2014). There has also been some recent controversy over the shortcomings of FCC statistics that claim large amounts of Internet coverage while Microsoft claims substantially different coverage percentages (Lohr, 2018).

Social Equity Concerns

The ACLU has continued to be vocal in how these required filtering systems are "unconstitutionally blocking" LGBTQ websites (ACLU, 2011). In 2018, the ACLU launched their "Don't Filter Me" campaign to speak out against over censored filtering technology (Chen, 2018). Some schools have reportedly turned off their filters as a result of this campaign (Chen, 2018). There have been no court cases on these new developments.

In most cases, sites can be unblocked – however, it isn't easy in some schools and libraries. One study in 2012 noted that "92% of respondents indicated they could request that a site be unblocked, but '68% of the decisions to unblock a site are made at the District level and only 17% of the decisions are made at the building level' (AASL, 2012, Executive Summary, p. 3)" (Overaa, 2014). The "distance" between the student and the filter administrator can be intimidating. A student may be unwilling to take the extra step to request that a site be unblocked, especially "if they are researching information about his or her sexual orientation" (Overaa, 2014).

Tension Between Learning Outcomes and Safety

In the National Education Technology Plan 2010, the Department of Education (DoE) addresses the tension between Internet safety and education outcomes. It notes that "filters required by CIPA not only block access to legitimate learning content and tools, but also that CIPA requirements create a significant technical challenge to accessing school networks through students' personal devices such as cell phones and laptops (U.S. Department of Education, 2010).

Some Internet filters block access to social media and Youtube. Critics argue that this impededes students ability to "maintain a competitive edge in the world market" because "students must develop 21st century skills by becoming experts in collaboration, critical thinking, complex problem solving, and multimedia communication (Jansen, 2010; U.S. Department of Education, 2010)" (Overaa, 2014). However, there have been no studies that show an association between filtering technology and negative educational outcomes.

Limited Data on Filter Effectiveness

It is difficult to measure the effectiveness of the internet filtering systems in E-rate schools and libraries because of current internet privacy laws (Children's Online Privacy Protection Act, 1998). As such, there is little data to determine unwanted pornography exposure in schools and libraries. Previous surveys like the "2010 Youth Internet Safety Survey" may be helpful in quantifying how frequently students in E-rate funded schools and libraries are unwantedly exposed to pornography, but these phone survey methods may not yield accurate results due to the self-report nature of the surveys (Jones, 2012).

Evaluative Criteria

Each policy alternative was assessed using the following criteria. These criteria were established using the guiding principles and goals of NCOSE, acknowledging the concerns of the ALA and ACLU, and from further analysis of the available literature on this topic. Each criterion was weighted in accordance with NCOSE goals and policy objectives.

1. Effectiveness
2. Political Acceptability
3. Policy Sustainability
4. Equity

1. Effectiveness: Improves Enforcement of Required Internet Filters in Schools and Libraries

This criterion attempts to estimate the effectiveness of each alternative at addressing the policy problem. The best indicator of effectiveness would be a quantitative measure of the number of schools and libraries that do not have the required Internet filters, yet still receive E-Rate discounts. However, this is not a feasible measure. The auditing data on E-Rate schools and libraries that failed to implement Internet filtering systems is not publicly available. Future analysis of the E-Rate program and CIPA may consider submitting a Freedom of Information Act request to the FCC.

A proxy for measuring the improved enforcement of required Internet filters in schools and libraries is to determine how well the policy option addresses the findings from USAC auditing. The USAC cites an infamiliarity of rules and lack of knowledge of the program as key reasons for non-compliance. How well does the policy option address these findings?

2. Political Acceptability

This criterion has three impact categories. First, do the projected outcomes of the proposed policy alternative receive support from decision-making stakeholders? Stakeholders include the House Committee on Energy and Commerce, the House Subcommittee on Communications and Technology, the Senate Committee on Commerce, Science, and Trasnportation, the Senate Subcommittee on Communications, Technology, Innovation and Internet, the Committee on Appropriations, the FCC, and USAC. This impact category will be evaluated on whether or not the proposed policy outcomes will obtain *limited, moderate, or extensive support*.

Second, to what extenxt will the ACLU and ALA oppose the projected outcomes of the proposed policy alternative? These two organizations have historically been the most vocal opposition to

CIPA. This impact category will be evaluated using the values: *limited, moderate, or extensive opposition*.

Last, is the policy alternative able to be implemented before the end of President Trump's first term? The President has shown favorability toward's children's issues and the topic of family values, and the media environment is ripe to address a CIPA update (The White House, 2019). This criterion will be evaluated on whether the proposed policy will be implemented before the 2020 election using the values: *uncertain, likely, or unlikely.*

3. Policy Sustainability

Will the proposed policy option be sustainable for the next 20 years? An update to the current CIPA language would be the third amendment to the orignial legislation over the span of 20 years. A sustainable policy will account for potentail technological advances and bureaucratic inefficiences that may render CIPA obsolete in the next 20 years.

The best indicator of policy sustainability is comments from previous amendment votes and hearings. Additionally, comments from the ACLU and the ALA on previous changes provide insight into how polarizing changes to CIPA may be. This criterion will be evaluated on whether the proposed alternative's sustainability over the next 20 years is *uncertain, likely, or unlikely*.

4. Equity

This criterion refers to whether or not the projected outcomes of the proposed policy alternative will generate equity concerns. There are two impact categories for this criterion: level of equity concerns for the LGBTQ+ community and level of equity concerns for NSLP students. These are assessed using the available literature to determine historic concerns for these groups, and if those concerns would be present if the policy alternative is implemented. The quality of Internet filter maintenance is also a strong indicator for equity. Strong policy options will include routine filter system maintenance to ensure non-harmful material is accessible for all students. This criterion is evaluated using the values: *limited, moderate, and extensive*.

Current Issues with CIPA and Policy Alternatives

The following section analyzes five policy alternatives for updating CIPA language and for improving enforcement of Internet filters in schools and libraries. For each alternative, there is an evaluation of projected outcomes measured across the four criteria. The analysis is followed by the recommendation section, where the proposed policy option is weighed against the other four alternatives. The five policy options are:

1. Let Present Trends Continue
2. Inform the FCC on Best Practices for Internet Safety Education (ISE)
3. Advocate for the GAO to Conduct another Study on E-rate Program and CIPA and NCOSE Should Create a CIPA Filter Database
4. Advocate for Language That Specifies Administrative Responsibility to an IT Professional at the Superintendent Level
5. Advocate for CIPA to be Transitioned to the Department of Education Office of Educational Technology (OET)

Policy Option One

Issue 1: Current Trends Fail to Enforce CIPA Internet Requirements

The current CIPA legislation is too vague and fails to address recent technological trends in schools and libraries. Due to poor program enforcement, schools and libraries are receiving Federal discounts without meeting the congressionally established Internet filter requirements. Further explanation of this issue is demonstrated throughout the background sections of this document.

Policy Option 1: Let Present Trends Continue

NCOSE could let present trends continue. There is limited information on the effectiveness of filtering systems in schools and libraries. Without this data, it is difficult to determine if present trends would be a positive or negative solution to improving the enforcement of CIPA filtering requirements. NCOSE could continue to work with the Safe Schools, Safe Libraries Coalition to ensure parents and teachers are kept up to date with legislation surrounding CIPA and any rule or regulation changes within the FCC and USAC.

Recent changes to the E-Rate program make it difficult to predict future outcomes. In 2010, the GAO conducted a study on the E-Rate program (GAO, 2010). They recommended that the FCC make several changes to its internal structure and to improve its auditing system. The FCC implemented these changes in 2017 and there has been no evaluation of the program since (GAO, 2010). Additionally, the USF was recently moved from a private bank to the Treasury Department because of concerns over USAC's management of large amounts of Federal dollars (USAC, 2019). NCOSE could monitor FCC and USAC rule changes and reports to learn of any complaints regarding the E-Rate program or continued malfeasance of taxpayer dollars.

The ACLU is currently campaigning against the required Internet filter systems. This is not a new trend, but their "Don't Filter Me" campaign has been an effective tool at highlighting some examples of over filtering in schools and libraries (ACLU, 2011). The ALA has had little issue with the Internet filter systems since the 2008 amendment. Each time there is a legislative change to CIPA (2001 and 2008) both the ALA and ACLU launch strong advocacy campaigns against the legislation. Unless Congress decides to update CIPA, the ALA will likely remain quiet and the ACLU will likely continue their current campaign.

Evaluation of Policy Option One

Policy Option One was assessed based on the previous established criteria.

Effectiveness: Limited**.** Overall, letting present trends continue is ineffective. Firstly, current CIPA language does not require Internet filters for widely used Chromebooks and tablet technology in schools and libraries. Secondly, not enough time has passed since the implementation of recommendations from a recent GAO study on the USF. There is potential for this option to moderately impact the effectiveness of reducing non-compliance with stronger oversight provided by the Treasury Department. However, these changes in the higher-level administration of the USF have little connection to E-rate administrators in school districts and likely would result in no changes in Internet filter enforcement.

Political Acceptability: Moderate. Overall, letting present trends continue is moderately politically acceptable. Firstly, if present trends continued, the FCC and USAC would be extensively in support. The congressional committees are moderately in support, as they await measurements of program effectiveness from the GAO study on the E-Rate program. There is no clear congressional "issue champion" for CIPA, but previous amendments to CIPA passed easily with bipartisan support. This could indicate that a change to CIPA may be congressionally acceptable.

Secondly, the ALA and ACLU are moderately opposed to present trends. The ACLU launched a "Don't Filter Me" campaign to combat over filtering of LGBTQ+ websites and has convinced several schools from dropping their filter systems over these issues.

Thirdly, if present trends continue then there will be no change in the CIPA language. This results in a "likely" implementation before the 2020 Presidential election.

Policy Sustainability: Unlikely. Overall, it is likely that CIPA will need to be updated again within 20 years. Firstly, current legislation does not provide flexibility for future technological innovations in computers and/or filters. Secondly, USAC is currently working to update other aspects of the USF, so there are potential changes to the E-rate discount program in the coming years.

Equity: Moderate. Overall, there are moderate equity concerns with letting present trends continue. Firstly, ACLU concerns about over filtering of non-explicit LGBTQ+ websites are extensive and valid. Secondly, equity concerns for NSLP students are limited. There is limited data on non-NSLP school filters. However, because Internet filter systems are not mandated in non-E-Rate schools and libraries, it is difficult to determine if NSLP students are more filtered than non-NSLP students. Aside from certain LGBTQ+ sites, it does not appear that NSLP students are having more information filtered than non-NSLP students.

Policy Option Two

Issue 2: Poor Education Component Since the 2008 Amendment

The 2008 amendment to CIPA added a requirement for educating minors about appropriate Internet use policies. However, current FCC ISE standards are too minimal. USAC auditors and academic researchers are finding that schools are not using best practices in educating students (Moss Adams LLP, 2014 & Jones et al., 2016). In 2014 the Crimes Against Children Research Center (CCRC) published a meta-analysis on how schools currently deliver internet safety education (ISE) to students and areas where these schools could improve (Jones et al, 2014 and Jones et al, 2016). The authors state:

> All of the programs provided "structured lessons" with adequate information on how to use their materials in a classroom or small-group setting. Most of the reviewed lessons also included active discussion sessions in which time was set-aside for youth to respond to open-ended questions. For example, the Netsmartz activity card for the video "You Can't Take it Back" includes discussion questions asking: "What should the boy have done when his friends asked him to rate the website?" and "Think of legitimate responses he could have made that might have made his friends also reconsider their actions." These kinds of interactive discussions give youth an opportunity to engage critical thinking skills.
>
> However, the reviewed programs generally failed to list skill-based learning objectives. Most objectives, when they were provided, reflected the goal of imparting knowledge to youth. Only two programs provided skill-based learning objectives and none of the reviewed programs provided research evidence linking the skills they taught with the safety goals. Only one of the reviewed programs, "Attitude Overdrive" by Netsmartz, included a role-play to help youth practice new skills with peers. (Jones et al., 2016)

The "National Strategy for Child Exploitation Prevention and Interdiction," also outlines effective strategies used by the FBI in educating minors about Internet use (Department of Justice, 2016). The FCC and USAC could look to these better practices as it addresses how to improve its educating methods and the education component of CIPA requirements.

Policy Option 2: NCOSE Should Educate the FCC on Best Practices for Internet Safety Education

NCOSE should educate the FCC on best practices in ISE and encourage a rule change that has stricter ISE requirements. While many ISE programs are focused on protecting children from online predators, effective ISE programs are adaptable and can grow to integrate lessons regarding "obscene material." NCOSE should seek out researchers from the CCRC and the FBI's Safe Online Surfing (SOS) Program Administrator to speak about effective ISE practices in schools and libraries. The 2020 CESE Summit on the U.S. Capitol could be an appropriate setting.

In 2016, the Department of Justice (DoJ) outlined "The National Strategy for Child Exploitation Prevention and Interdiction" in a report to Congress. In this report, they highlight the FBI-SOS program as a best practice for educating both students on safe Internet use practices and teachers on how to respond to difficult situations with the Internet:

> The FBI's Safe Online Surfing (SOS) Program Internet Challenge is a free and informative web-based program that teaches students in grades 3-8 how to recognize and respond appropriately to online dangers. The program promotes responsible cyber citizenship among students by engaging them in a fun, age-appropriate, and competitive online program where they learn the importance of safe and responsible use of the Internet. Additionally, many schools nationwide use the program to meet guidelines established in their state for Internet safety. Revamped in October 2012 with a new website and a new series of activities, FBI-SOS provides a ready-made curriculum for teachers that meet state and federal Internet safety mandates. It includes testing for students and competition among schools to encourage participation and learning. Since October 2012, the FBI-SOS website has been visited more than 2.5 million times. (Department of Justice, 2016)

The CCRC has several tools that could be used to highlight best ISE practices across the country. They highlight Netsmartz, i-SAFE, iKeepSafe, and Web Wise Kids as the top four ISE programs across the nation (Jones et al., 2016). Please see the **Appendix A**, **Appendix B**, and **Appendix C** for tables that outline the content that these programs cover, how they measure across the CCRC's "Effective Prevention Checklist" and the "Key Educational Messages" that these programs espouse.

Evaluation of Policy Option Two

Policy Option Two was assessed based on the previous established criteria.

Effectiveness: Limited. Overall, improving Internet safety education strategies has a limited effect. Firstly, educating students on safe Internet use does not address the need to update legislation and improve filtering systems. Students may learn to recognize healthy habits in Internet use, however, and it could lead to better-informed users.

Second, this option leaves judgment of well-being to the youth. While minors do have a right to make some decisions, the government has a responsibility to protect its citizens (children) from the public health harms of "obscene material."

Thirdly, improved education standards for safe Internet use would neither reduce nor increase non-compliance. The education would apply to the students, while the crux of the problem actually lies with program administrators and legislative gaps.

Political Acceptability: Extensive. Firstly, while it will take effort from NCOSE staff to educate the FCC, this will be politically acceptable. The FCC was highly amenable to previous legislation that required an ISE component to E-Rate requirements (Senate Rept. 110-225 (2007)). There are no indications that the FCC would be opposed to a rule update.

Second, the ACLU and ALA are not opposed to Internet safety education.

Thirdly, NCOSE's 2020 CESE Summit will likely occur before the 2020 Presidential election. If NCOSE invites an FCC official to this event, it is probable that the FCC could create a rule to improve ISE standards for CIPA requirements.

Policy Sustainability: Unlikely. CIPA will still need to be updated within the next 20 years. Best practices for ISE and filter technology will certainly change. The types of changes are uncertain.

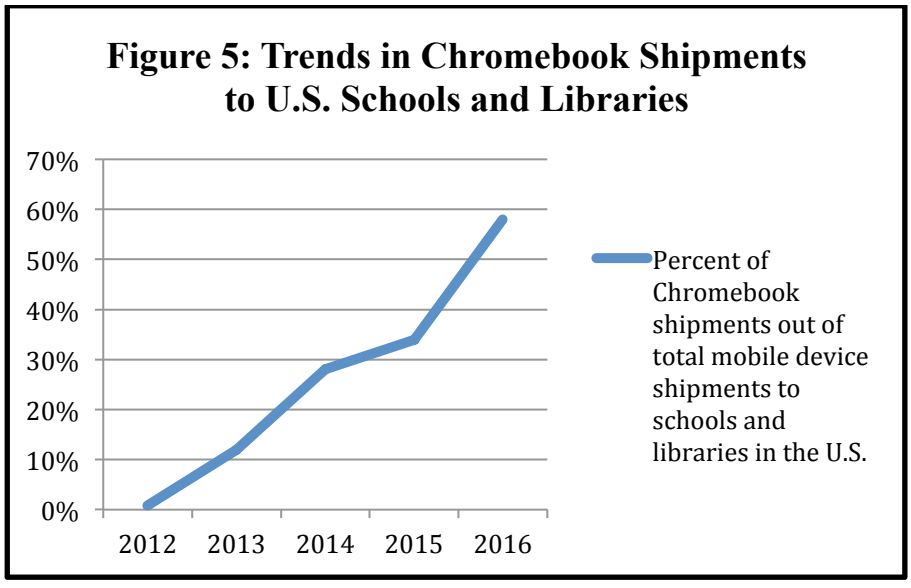
Equity: Limited. There should be limited equity concerns for LGBTQ+ and NSLP students. Educating the FCC on best practices for ISE is a net benefit for both groups of students. There could be some concern if the administrators of the education programs have a bias against these two groups of students. However, best practices have a universalized system that ameliorates administrator input.

Policy Option Three

Issue 3: New Technology Renders Current CIPA Language Obsolete

The language in CIPA does not account for recent technological advancements in education. The current language creates "a policy of Internet safety for minors that includes the operation of a technology protection measure with respect to any of its computers with Internet access that protects against access through such computers" (47 U.S.C. § 231). It then goes on to define "computer" as "any hardware, software, or other technology attached or connected to, installed in, or otherwise used in connection with a computer" (47 U.S.C. § 231). While this language does include Chromebooks and tablets in this definition of computer, the moment these wireless devices (that were discounted through the E-Rate program) leave the school or library campus the filters no longer function. There is not language that addresses this grey area that is present in the current CIPA language.

In 2010 the National Center on Education Statistics (NCES) highlighted an increase in the use of laptops in schools and in the availability for kids to take laptops home (Gray, 2010). Current CIPA language does mandate filters on Chromebooks and tablets at school, but it does not consider the fact that many of these devices are taken home by the students after school. There is no information about how many of these devices go home with students, but there is information on how many of these devices are present in schools (**Figure 5**). In 2017, the *New York Times* article "How Google Took Over the Classroom," highlighted that Chromebooks account "for 58 percent of mobile devices shipped to primary and secondary schools in the U.S., and that Chicago Public Schools has spent about $33.5 million on 134,000 Chromebooks" (Singer, 2017). An update to CIPA language could be ineffective at present, until there is a quantitative understanding of how many of these devices go home and how well these schools and libraries are able to filter these devices off of campus.



Source: New York Times. "How Google Took Over the Classroom."

Policy Option 3: NCOSE Should Advocate for the Government Accountability Office (GAO) to Conduct a Study on E-rate Program and CIPA and NCOSE Should Create a CIPA Filter Database

This policy option has two parts. First, NCOSE should advocate for a GAO study on the E-rate program and the CIPA Internet filter requirements. Specifically, NCOSE should speak with the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation regarding a need for increased oversight in CIPA Internet filters. There have been two previous (2005 and 2010) GAO studies on the E-Rate program. Both studies addressed organizational issues within USAC and the FCC as well as improved "internal controls" over the E-Rate program (GAO, 2005 & GAO, 2010). All of the GAO recommendations in both studies have been implemented (GAO, 2005 & GAO, 2010). Neither study mentioned CIPA Internet requirements.

There is no clear indication of whether Chromebooks and tablets, that are purchased with E-Rate discounts, require Internet filters off of school and library campuses. There is a chance that USAC is spending Federal money inappropriately. Advocating for a study that focuses on congressionally mandated Internet filter systems could improve enforcement of CIPA requirements. There is very little information on how well the Internet filtering requirement is being enforced.

Second, NCOSE should create and maintain a CIPA filter database. The database would include data on which schools and libraries receive E-rate discounts and whether or not those schools have the required Internet filtering systems. NCOSE would need to call each administrator listed in the USAC "E-Rate Request for Discount on Services" dataset to learn 1) if the school/library has filters in place 2) how frequently they update their filters and 3) if the filters include wireless school devices like Chromebooks and tablets. While developing and maintaining this dataset would take time, NCOSE could publish this database similarly to their "Dirty Dozen" list (NCOSE, 2019). The database could be an effective advocacy tool to show that filters are not in place (if that is the case) and to be an effective "shaming tool" for the schools and libraries that illegally receive E-Rate discounts. Additionally, it could serve as an accountability tool for the USAC.

Evaluation of Policy Option Three

Policy Option Three was assessed based on the previous established criteria.

Effectiveness: Moderate. This option is moderately effective. First, a GAO study on E-Rate and CIPA Internet filter system requirements may yield more concrete data that shows non-compliance. It is difficult to project outcomes of a GAO study with any level of certainty because there is limited data until after the study's conclusion. However, a GAO study in the next two years may also result in the same suggestions from the recent study on the Lifeline program (GAO, 2017).

Second, a NCOSE database may allow for NCOSE to lead in keeping USAC accountable and it could be a strong tool for the tracking of filters in schools. Greater tracking of filters may lead to more effective Wi-Fi filters. A database that tracks the quality and presence of mandated Internet filter systems would clearly display which schools have filters and if those filters work on wireless devices that were paid for using E-Rate discounts.

Political Acceptability: Moderate. Firstly, the GAO may not be willing to conduct a study on the E-Rate program and CIPA filters because it conducted a study of another USF program (the Lifeline program in 2017). The FCC and USAC may be opposed to another study on a USF program within such a quick time frame. Congress would likely be supportive of a NCOSE database that could provide more data on program effectiveness. Further, the NCOSE led "Safe Schools, Safe Libraries Coalition" would be in favor of the database. This option may or may not receive support from NCOSE, as it could be a highly effective tool but it also takes away staff and resources from other NCOSE programs.

Secondly, there will likely be limited opposition from the ALA and ACLU. A GAO study could reveal info that actually strengthens the ACLU perspective, because it may find filters are too strict. Additionally, there will likely be little opposition to a NCOSE database that tracks the effectiveness and presence of mandated Internet filters.

Thirdly, GAO studies take time and is unlikely to be implemented by 2020. On average GAO studies take three to six months to conduct and can take over two years to implement (GAO, 2010). Creating and maintaining a CIPA filter database takes extensive time to contact each E-Rate and CIPA administrator.

Policy Sustainability: Uncertain. GAO studies are conducted if there are widespread complaints from the public and/or if they are congressionally suggested. The E-Rate program and CIPA filters will need a future GAO study, but it is difficult to predict when that study will occur. The NCOSE database could certainly be a sustainable tool, but it would need to be updated yearly to adjust for schools and libraries that enter and leave the E-Rate program.

Equity: Limited/Moderate. There should be few LGBTQ+ concerns with this option as it does not apply to changes in filter systems. However, there may be moderate level concerns for NSLP students with the NCOSE database, as this would in essence be a system that just tracks filter systems for low-income students. NCOSE should consider this and focus on spinning this database as an "advocacy tool for unheard voices" as opposed to the view that this could be some form of oppression.

Policy Option Four

Policy Issue 4: Confusion Over Administrator Role

Current CIPA language is unclear about who should administer the E-Rate program and the CIPA Internet filter systems: "the school, school board, local educational agency, or other authority with responsibility for administration" (Children's Internet Protection Act, 2001). This has resulted in schools and libraries inappropriately receiving discount rates ("non-compliance"). Per the USAC auditing website, "Schools and Libraries (E-rate) Program non-compliance is most often caused by an inadequate knowledge or familiarity of program rules. In addition, program documentation is often not retained properly. Often there is staff turnover at a school/library, and E-Rate program knowledge is not shared or passed on" (USAC, 2018). Presently USAC addresses this issue by stating,

> During the competitive bidding process and throughout the funding year, retain copies of necessary documentation (i.e., copies of bid evaluation matrix, winning and losing bids, service provider bills, cancelled checks, contracts, equipment delivery documentation, maintenance documentation, etc.) and keep in a central location. The documentation should be maintained for 10 years after the last date services are provided for a particular funding year. Make sure your document retention system is sustainable. (USAC, 2018)

Unclear language regarding program administration leads to over and under filtering. Most filter systems in schools require routine updates to account for new websites. Currently, E-Rate program administrators and CIPA filter administrators often operate separately and this leads to miscommunication and lost paperwork (USAC, 2018). According to USAC data on contact information for administrators, there are also E-rate consultants that can oversee school districts in as many as 26 states (Hughes, 2019). These consultants are contracted by school districts to oversee the E-Rate application processes. One consultant has over 200 different clients (USAC, 2019).[2] It is unclear how these E-Rate consultants are able to prove that the schools they oversee have effective Internet filter systems. The main USAC dataset does not keep contact information for the IT personnel that oversee the CIPA Internet filter systems.

[2] This calculation comes from the USAC Search Commitments Dataset based on the 2018 data. This dataset can be found here: https://data.usac.org/publicreports/SearchCommitments/Search/SearchByYear

Policy Option 4: NCOSE Should Advocate for Language that Specifies Administrative Responsibility to an IT Professional at the Superintendent Level

NCOSE should advocate for new language that specifies administrative responsibility to an IT official at the superintendent level. Clear language that specifies a program administrator should alleviate USAC's concern that non-compliance often is a result of "inadequate knowledge or unfamiliarity of the rules" (USAC, 2018). Several states have made similar amendments in their state code and given specific jurisdiction at the superintendent level (Vir. § 22.1-70.2). The House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation have jurisdiction over this type of legislative change.

In this policy option, the new program administrator at the superintendent level would need technical expertise in order to effectively update the school's filtering system as needed. Administrators also need to be trained in the E-rate program application process. If this option is adopted, the new language should address these two concerns.

The locality of the administrator will be a large determinant in implementation feasibility. Previous debates over CIPA questioned the role of the Federal government mandating a program on such a local scale (House Committee Hearing on CIPA, 2001). The new language should be more explicit that the power to update the filtering technology will be handled by a familiar face to the parents and students.

Evaluation of Policy Option Four

Policy Option Four was assessed based on the previous established criteria.

Effectiveness: Extensive. Overall, clear language that determines the program administrators is highly effective. Firstly, a clear program administrator addresses USAC's main reason for non-compliance: unfamiliarity with rules and the program (USAC, 2018).

Second, more consistent and local CIPA administration should result in more effective monitoring of proxy server filters and Chromebooks/tablets. Placing program administration with an IT professional at the superintendent level addresses ACLU concerns of over filtering and under filtering. While this takes filter maintenance responsibility away from some schools and libraries that managed those "in house," this option eliminates the distance that is created by third parties (E-Rate consultants).

Political Acceptability: Moderate. Firstly, this option is likely attractive to most Republicans and somewhat acceptable to Democrats (E-Rate and Filtering, 2001). The FCC and USAC may push back as the implementation of this option will likely require an overhaul of their internal functions.

Secondly, this option may receive moderate pushback from the ACLU and ALA. Amending legislation opens up the opportunity for further debate/legal argument around CIPA constitutionality. Further, the ACLU may not support the administrator shift to the superintendent level because it is not local enough. NCOSE should spin this option as more local than current trends.

Thirdly, it may be difficult to get an actual amendment to the CIPA language by 2020 because of congressional speed (slow), but NCOSE could find an issue champion and generate discussion about this topic by 2020.

Policy Sustainability: Uncertain. A change in technology would likely make this option unsustainable. Future technology may allow for more localized filter maintenance. Artificial intelligence may replace the need for a human to monitor filter technology. There could also be no technological changes to how schools and libraries could monitor their Internet filter systems, but this is unlikely.

Equity: Moderate. Overall, there are moderate equity concerns if there is an amendment that specifies administrative responsibility for CIPA. The values of the program administrators play a large role in measuring equity concerns for LGBTQ+ and NSLP students. Clear language only determines the role of the administrator but it cannot dictate what administrators choose to allow and not allow through the system. The superintendent office may show preferential treatment to non-NSLP (more affluent) school and libraries than NSLP (less affluent) schools and libraries.

Policy Option Five

Policy Issue 5: The FCC and USAC Mission Do Not Benefit CIPA

The current language in CIPA does not explain what will happen to the program once US schools and libraries achieve 100 percent broadband access. There is a chance that the program will continue as it does today; service providers pay into the USF and then schools that meet the NSLP threshold receive discounts on technology purchases. However, as a non-profit company, the USAC may close once their goal of universal broadband is reached.

The USAC mission states:

> The Universal Service Administrative Company is dedicated to achieving universal service. This important principle suggests that everyone in the U.S. deserves accessible, affordable, and pervasive high-speed connectivity. (USAC, 2019)

Unfortunately, USAC's mission does not align with the congressionally defined purpose of CIPA. In fact, it says nothing about protecting children. Congress outlined the purpose of CIPA in a Senate Report:

> The purpose of S.1965 is to assist parents in protecting their children from harmful content on the Internet and in educating children about potential dangers associated with inappropriate online communications. (Senate Report on CIPA)

CIPA could be dismantled in the long-term if it stays under USAC. As technology progresses and more urban and rural areas gain access to broadband, the FCC will have no need to support USAC.

Policy Option 5: NCOSE Should Advocate for CIPA to be Transitioned to the DoE

NCOSE should advocate to Congress for CIPA to be moved to the Office of Educational Technology (OET) in the DoE. Several states have already implemented similar changes. For example, Virginia state code § 22.1-70.2 requires Internet filter systems in all schools, and the state's DoE oversees the maintenance of this rule (Va Rule § 22.1-70.2).

This option would involve transitioning oversight of the E-Rate program and USF disbursement responsibilities to the OET from USAC. This would be a major overhaul of a multi-billion dollar program. The missions of the FCC and USAC do not align with the intent behind CIPA. The OET is better suited to responsibly administer CIPA filter requirements and E-Rate discounts. However, the Office of Education Technology does have a mission that includes the betterment of children and parents:

> The U.S. Department of Education OET develops national educational technology policy and establishes the vision for how technology can be used to transform teaching and learning and how to make everywhere, all-the-time learning possible for early learners through K-12, higher education, and adult education. (OET, 2019)

Additionally, the OET is accountable to the public as a government agency, whereas, USAC has been in a unique position where it oversaw public funds as a private non-profit (USAC, 2019).

The OET goals are similarly aligned to USAC to the point that gaining oversight of the E-Rate program would be feasible. However, with the goals of "equity of access," "connectivity at school and at home," and "protecting children's learning spaces," the OET best demonstrates an effective, long-term CIPA overseer (OET, 2019). The OET is already messaging effective filtering techniques and policies through it's "Future Ready Schools: Building Technology Infrastructure for Learning" (OET, 2017). NCOSE could advocate that the DoE has the children's educational needs at the heart of their mission and that poor enforcement of CIPA filtering requirements by USAC allows obscene material to enter educational spaces.

This alternative could receive some pushback when budgetary debates occur over the specific location of CIPA and the E-Rate program in the DoE.

Evaluation for Policy Option Five

Policy Option Five was assessed based on the previous established criteria.

Effectiveness: Moderate. Overall, advocating for CIPA to be transitioned to the DoE Office of Educational Technology is moderately effective. Firstly, the DoE OET mission better aligns with CIPA than USAC. OET may have better incentive to enforce the required Internet filters because effective filters could improve educational outcomes. Additionally, the OET has demonstrated its awareness of filter technology trends, as seen in the OET 2010 National Education Tech Plan where they mention filter tech as a way to transform education (OET, 2010).

Secondly, this transition may not reduce the current rate of non-compliance schools. While the OET has the incentive to reduce non-compliance, it is unclear if they have the staffing and resources to address the administrative issues that currently hinder USAC's program administration.

Political Acceptability: Limited. Overall, this option is relatively politically unacceptable. Firstly, the FCC and USAC would oppose this option because the transition would eliminate one of USAC's largest organizational programs, meaning a loss in jobs and organizational purpose. It is unclear how the congressional committees that oversee CIPA would respond. This option would also require a change in the structure of the USF, which could result in changes to E-Rate application processes and changes in mandated contribution methods from telecommunications companies. A change in application processes would likely lead to implementation barriers.

Secondly, this option would lead to extensive opposition from the ACLU and ALA. Such a large shift would open up the conversation about freedom of speech and information filtering. This option receives the most extensive opposition from the ACLU and the ALA because they would argue that over filtering would be an impediment to educational standards and that this would further perpetuate the education gap if only lower-income schools are being filtered by the largest education agency in the U.S.

Thirdly, this transition would take several years and would not be implemented by 2020. Previous changes to E-Rate and CIPA took a little over two years to implement and they were not as radical as this option (GAO, 2010). There is no clear best time for this transition.

Policy Sustainability: Likely. If CIPA is moved under the DoE OET, there will be no need to update this legislation in the next 20 years. Certainly, DoE OET will need rule updates and regulations to correct initial program issues, but CIPA language would not need to be changed.

Equity: Moderate/Extensive. Overall, moving CIPA to the DoE OET would generate equity concerns. First, while the DoE clearly states that they value education for all, equally, filter systems in schools are sometimes found to over filter (ACLU, 2011). There would be sexuality education concerns due to some non-harmful LGBTQ+ sites being filtered. Secondly, this move could be viewed as a sign that the DoE promotes mandated Internet filtering for lower-income students but not other students. This could contrast with the DoE value of equal education for all.

Outcomes Matrix

Evaluation Criteria	Impact Categories	Policy Alternatives				
		Let Present Trends Continue	Inform FCC on Best Practices for Internet Safety Education	Advocate for GAO to Conduct Another Study on E-Rate Program and CIPA and NCOSE Should Create a CIPA Filter Database	Advocate for Language that Specifies Administrative Responsibility to an IT Professional at the Superintendent Level	Advocate for CIPA to be Transitioned to the Department of Education Office of Educational Technology (OET)
Effectiveness at Enforcing Required Internet Filters	Improves Filtering of Chromebooks, Tablets, and laptops	Limited	Limited	Moderate	Extensive	Moderate
	Reduces the Number of Non-complying Schools	Limited	Limited	Moderate	Extensive	Limited
Political Acceptability	Likelihood of Support from Decision-Making Stakeholders	Moderate	Extensive	Moderate	Limited	Limited
	Level of Active Opposition from ACLU and ALA	Moderate	Limited	Limited	Moderate	Extensive
	Implementation Before 2020 Presidential Election	Likely	Likely	Unlikely	Likely	Unlikely
Policy Sustainability	Additional Update to CIPA Will Be Needed Within Next 20 Years	Likely	Likely	Uncertain	Uncertain	Unlikely
Equity Concerns	Level of LGBTQ+ Equity Concerns	Extensive	Limited	Limited	Moderate	Moderate
	Level of NSLP Student Equity Concerns	Limited	Limited	Moderate	Moderate	Extensive

Final Recommendation

NCOSE should advocate for new language in CIPA that specifies administrative responsibility to an IT professional at the superintendent level (policy option 4). To reach this conclusion, each alternative was evaluated using the criteria: overall effectiveness, political acceptability, policy sustainability, and equity concerns. Each option brings a unique approach to updating legislation and protecting children from harmful material in schools and libraries. However, after careful consideration of the goals of NCOSE and prioritizing the effectiveness of each option, Alternative 4 has the greatest potential to improve filtering of Chromebooks and tablets as well as reduce the number of schools and libraries that receive Federal discounts without having the required Internet filters.

Alternative 1, Let Present Trends Continue, was not recommended because it was not as effective overall as the other options. Current CIPA language does not address recent technological advances in schools and libraries. Additionally, there are valid equity concerns regarding over filtering of the LGBTQ+ community.

Alternative 2, Inform the FCC of Best Practices for Internet Safety Education, was not recommended for several reasons. Primarily, this option does not improve upon any of the effectiveness in present trends. It does not directly address the need to update CIPA, but **it is an option that should be implemented despite not being the recommended policy option**. Creating a rule that improves practices of educating students on safe Internet use could aid in the long-term development of healthy Internet use habits for students.

Alternative 3, Advocate for the GAO to Conduct Another Study on the E-Rate Program and CIPA and NCOSE Should Create a CIPA Filter Database, was not recommended because it was not as effective as Alternative 4. Across the eight impact categories, this alternative outscored Alternative 4 in four; however, it would only moderately improve filtering of Chromebooks and tablets and moderately reduce the number of non-compliance schools. This option could receive more decision-maker support than Alternative 4 because the GAO is an objective third party and the filter database could be a popular tool for NCOSE's Safe Schools, Safe Libraries coalition. Additionally, this option would receive less opposition from the ALA and ACLU than Alternative 4, as it does not call for a change in legislation, but rather seeks to create a tool that effectively tracks filtering trends.

Finally, despite the large potential gains in effectiveness, Alternative 5, Advocating for CIPA to be Transitioned to the Department of Education Office of Educational Technology, was not recommended. This option would receive less support from Congress than Alternative 4. The expected benefits in program effectiveness do not outweigh the amount of political capital that it would take for this change to occur. While the DoE mission better aligns with the intent behind the original CIPA, there would be much opposition from the ALA and ACLU as this change would re-open the conversation surrounding filter technology and freedom of speech in schools. Additionally, there could be potential equity implications if the largest education agency in the

country manages the filtering of certain information in a program that only applies to low-income schools and libraries. This option would be more sustainable than Alternative 4.

Based on analysis of all the proposed alternatives, it is clear that NCOSE should Advocate for Language that Clearly Specifies Administrative Responsibility to an IT Professional at the Superintendent Level. This option most effectively addresses filtering concerns with Chromebooks and tablets by centralizing and localizing filter update responsibilities and it eliminates the growing number of E-Rate consultants. Additionally, this option most effectively addresses what USAC audits deem the largest reason for non-compliance because it eliminates the confusion over program responsibility and poor paperwork maintenance (USAC, 2018). Even though this option could have moderate equity concerns, it is uncertain if these will be present. Administrators have authority to determine what is and is not harmful content. This option should appease the ACLU as it localizes the filter maintenance and as such could reduce over filtering.

NCOSE should consider implementing policy options 2, Inform the FCC on Best Practices for Internet Safety Education, and 3, Advocate for the GAO to Conduct Another Study on the E-Rate Program and CIPA and NCOSE Should Create a CIPA Filter Database, after policy option 4. While these two options are less effective than option 4, their extensive levels of decision-maker support and limited ACLU/ALA opposition make them worthwhile policy options. Neither option necessarily results in legislative changes to CIPA, but option 2 could improve student Internet habits and option 3 could be a strong public accountability tool for CIPA in the long-term. Option 3 also allows NCOSE to become not only an advocator in this space but also a leader in government accountability.

Adoption Considerations

The current environment is ripe for NCOSE to advocate for a legislative amendment that specifies administrative responsibility to an IT professional at the superintendent level. Topics of sexuality, family values, and technology are often included in the media and public discourse (Fiegerman, 2019 & Li, 2018). The current Administration likely will be favorable to improvements in protecting children from Internet harms (The White House, 2019). Additionally, the #MeToo movement established a precedent for effective advocacy campaigning that resulted in legislative action (Beitsch, 2018). NCOSE could leverage its Safe Schools, Safe Libraries Coalition and the ripe environment to advocate for the above policy recommendation.

There will be pushback from the ALA and ACLU when NCOSE begins its advocacy strategy. At present the ACLU's "Don't Filter Me" campaign is growing in traction as it has convinced some schools to eliminate their Internet filter systems (ACLU, 2011). Re-opening the legislative conversation around CIPA would also allow space for these organizations to make new arguments about over filtering of information in schools and libraries. The ACLU and ALA concerns are valid, as there are examples of over filtering. For adoption to be successful, NCOSE will need to find an issue champion in Congress.

NCOSE should approach the House and Senate committees that oversee CIPA and E-Rate: the House Committee on Energy and Commerce and the Subcommittee on Communications and Technology; the Senate Committee on Commerce, Science, and Transportation and the Subcommittee on Communications, Technology, Innovation and Internet (Warburg, 2019). Frank Pallone, Jr. (D-NJ District 6), Greg Walden (R-OR District 2), and Michael F. Doyle (D-PA District 18) are the only legislators on these key committees that remain from the original CIPA hearings in 2001. While both the original CIPA legislation and the 2008 amendment passed with bi-partisan support, Republicans were the leaders behind the original House and Senate bills. NCOSE should seek a Republican sponsor to champion an amendment.

Implementation Considerations

NSOCE should proceed with an advocacy strategy to specify the administrative role of CIPA and the E-rate program at the superintendent level. The end goal should be to amend Section 254(h) of the Communications Act of 1934. This would be an update to the Protecting Children in the 21st Century Act. Several aspects of policy implementation should be considered. Effective implementation strategies should consider the managers of the implementation, the potential blockers of implementation, and the incentives for workers to adjust to new implementations.

The FCC and USAC will oversee and manage the implementation process. However, the FCC maintains overall legal authority over CIPA and the E-Rate program. USAC administers the USF and engages directly with E-Rate school and library administrators, but the FCC is the body that institutes regulation and legislative updates. Should CIPA be updated, it is unclear whether the FCC or USAC would be given credit or blame for successful or unsuccessful implementation. This could prove problematic as bureaucratic inefficiency and administrative tasks could stall the process. Effective implementation management should consider stakeholders in both the FCC and USAC, as these two entities represent the managers and the street-level bureaucrats in the process.[3]

Presently, USAC staff work with E-Rate consultants and other program administrators. However, the updated legislation eliminates the need for E-Rate consultants and increases the number of contacts with which USAC communicates. This will inevitably require a staff increase for the E-Rate program in USAC. It is unclear whether this would receive pushback from USAC management and current staff or whether it would be welcomed. Implementation could stall if current employees feel their position is easily expandable, but implementation could also increase rapidly if the current staff felt overworked before these changes.

CIPA and E-Rate rule changes are uploaded to the FCC website, but program administrators will need clear and timely updates on program changes. Previous program implementation stagnated due to poor information dissemination through the chain of FCC to USAC to E-Rate administrators (GAO, 2010). The current USF funding structure provides adequate resources for effective program administration, but these resources will not be efficiently used if information is not clear (GAO, 2010).

USAC and the FCC value the E-Rate program more than CIPA. This is evident through the lack of filter system evaluations in previous audits and a lack of centralized data collection on filter systems in place (Office of Inspector General, 2017 & USAC, 2018). As such, there could be potential implementation setbacks if program administrators already have effective E-Rate application processes and do not care to make program changes that would only improve the CIPA requirements. Again, the mission of USAC is to improve broadband access for all (USAC, 2019). Implementation design should consider these missional differences and the values of the FCC and USAC.

[3] The FCC will likely roll out an implementation process similar to their process from the last E-Rate amendment. See this link for an outline of their previous implementation strategy: https://www.fcc.gov/document/protecting-children-21st-century-act-amendment

Last, the ACLU and ALA will likely voice concerns over changes in the E-Rate program and filter management. Oppositional concerns center around administrators subjective filtering that may result in over filtering non-harmful material. These two organizations have strong advocacy histories and are effective at messaging against CIPA. The FCC should seek senior level members of the ACLU and ALA to participate in administrator training. Neither organization wants children to see obscene material. By involving these parties in the training of Internet filter maintenance, there may be more delay in the short-term implementation of the program changes, but long-term concerns from these organizations may diminish.

Appendix

Appendix A

Table: ISE Materials Reviewed by Content Evaluation

Program	Presentations/Lessons	Target Age[1]	Topic: Internet Predators	Topic: Online Harass.	Topic: Sexting	Topic: Other[2]	Coding Form[3]
Netsmartz	**Presentations**						
	Tweens PowerPoint Presentation	MS	■	■	■	■	L
	Teens PowerPoint Presentation	HS	■	■	■	■	L
	Assemblies Grade 3-6	E				■	S
	Router's Birthday Surprise	E				■	S
	Videos w/ Activity Cards						
	Terrible Text	MS, HS		■		■	L
	Survivor Diaries	MS, HS	■				L
	Amy's Choice	MS, HS	■				L
	Attitude Overdrive	Older E, MS		■		■	L
	Cyberbullying Broken friendship	MS, HS		■		■	L
	Cyberbullying You can't take it back	MS, HS		■			L
	Julie's Journey	MS, HS	■				L
	Tracking Teresa	MS, HS				■	S
	Miketosis	Older E, MS				■	S
	Posts 2 Be Private	Older E, MS				■	S
	Profile Penalty	Older E, MS				■	S
	Don't Open that File	E				■	S
	Boy who loved IM	E				■	S
	Password Rap	E				■	S
i-SAFE	Cyberbullying	MS		■			L
	Examining the Risks: Willing Participation	MS	■				L
	Thinking Things Through--Online Friending	MS, HS				■	S
iKeepSafe	Google Digital Literacy Tour Workshops: Playing and Staying Safe Online	Not specified		■		■	L
	Google Digital Literacy Tour Workshops:Detecting Lies and Staying True	Not specified				■	S
	Google Digital Literacy Tour Workshops: Steering Clear of Cyber Tricks	Not specified				■	S

Program	Presentations/Lessons	Target Age[1]	Topic: Internet Predators	Topic: Online Harass.	Topic: Sexting	Topic: Other[2]	Coding Form[3]
	Project PRO (Privacy and Reputation Online)	Older E, MS, HS					S
	DARE/iKeepSafe Cyberbullying Curriculum	E					S
	Faux Paw Meets the First Lady: How to Handle Cyberbullying	E					S
	Faux Paw Adventures on the Internet	E					S
Web Wise Kids	It's Your Call	MS					L
	Missing	MS					L
	Mirror Image	HS					L
	Be Seen	MS, HS					L
	Air Dogs	HS					S

Note: Shaded areas represent topics covered by each reviewed program.
[1]E=Elementary, Grades K-6; Older E=Older Elementary, Grades 5-6; MS=Middle School, Grades 7-8; HS=High School, Grades 9-12
[2]Other digital literacy and citizenship topics: privacy, online reputation, avoiding cyber-scams, illegal downloads etc.
[3]L=Long Form; S=Short Form

Source: Jones, 2016. "Trends in Youth Internet Victimization: Findings from Three Youth Internet Safety Surveys 2000-2010."

Appendix B

Table: Checklist for Effective Prevention Education Elements for Internet Safety Materials Directed at Middle and High School Youth

			Skill-Based Objectives		Active Learning			
Program	Curriculum	**Structured Lessons**	A) Skill-based lessons	B) Research links skills and problem reduction	A) Role-playing activities	B) Discussion periods	**Adequate Dose**	**Added Learning Oppor-tunities**
Netsmartz	Tweens Presentation	✓	--	--	--	--	--	--
	Teens Presentation	✓	--	--	--	--	--	--
	Terrible Text	✓	--	--	--	✓	--	--
	Survivor Diaries	✓	--	--	--	✓	--	--
	Amy's Choice	✓	--	--	--	✓	--	--
	Attitude Overdrive	✓	--	--	✓	✓	--	--
	Cyberbullying Broken friendship	✓	--	--	--	✓	--	--
	Cyberbullying You can't take it back	✓	--	--	--	✓	--	--
	Julie's Journey	✓	--	--	--	✓	--	--
iKeepSafe	Google Digital Literacy Tour: Playing and Staying Safe Online	✓	✓	--	--	✓	--	--
Web Wise Kids	It's Your Call	✓	--	--	--	✓	--	--
	Missing	✓	--	--	--	✓	--	--
	Mirror Image	✓	--	--	--	✓	--	--
	Be Seen	✓	--	--	--	✓	--	--
i-SAFE	Cyberbullying	✓	✓	--	--	✓	--	--
	Examining the Risks: Willing Participation	✓	--	--	--	✓	--	--

Source: Jones, 2016. "Trends in Youth Internet Victimization: Findings from Three Youth Internet Safety Surveys 2000-2010."

Appendix C

Table: Key Educational Messages of Reviewed ISE Materials

Key ISE Messages	Examples	ISE Lessons Aimed at MS/HS Youth (n=16) #(%)	ISE Lessons Aimed at Elementary School Youth (n=8) #(%)	ISE Lessons Focused on Digital Literacy (n=9) #(%)	Total (n=33) #(%)
Tell a trusted adult or report if anything makes you uncomfortable online or you get into trouble	"Tell someone if you are cyberbullied." "Tell a trusted adult as soon as you become uncomfortable with an online discussion."	14 (88%)	5 (63%)	3 (33%)	22 (67%)
Don't share or post personal information online	"Don't share private information." "Never give out personal information." "Don't share your name and address."	12 (75%)	6 (75%)	3 (33%)	21 (64%)
Be respectful online/Don't bully	"Don't be mean." "Don't say anything online you wouldn't say to someone's face."	11 (69%)	2 (25%)	2 (22%)	15 (45%)
Think before you post or click	"Think before you click."	8 (50%)	1 (13%)	6 (66%)	15 (45%)
Check privacy settings and watch who you "friend" on social network sites	"Understand and personalize your SNS privacy settings." "You may not know friends of friends."	7 (44%)	3 (38%)	5 (55%)	15 (45%)
Be wary of people you meet online	"Never meet in person with anyone you meet online."	8 (50%)	5 (63%)	0 (0%)	13 (39%)
Consider what the information you put online says about you	"Negative information on SNS profiles will affect athletic and job opportunities."	6 (38%)	1 (13%)	5 (55%)	12 (36%)
What you put online can spread quickly and in ways you cannot control	"Once you post or text something, it is out of your hands."	4 (25%)	2 (25%)	0 (0%)	6 (18%)
Watch out for e-scams	"Scan attachments before opening them."	0 (0%)	1 (13%)	3 (33%)	4 (12%)

Source: Jones, 2016. "Trends in Youth Internet Victimization: Findings from Three Youth Internet Safety Surveys 2000-2010."

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