

**BIRDS, BEES, AND FILTERING TECHNOLOGY:
THE IMPACT OF CIPA ON ADOLESCENT HEALTH**

Stacy Lau

January 8, 2002

WWS 401a: Communications, Decency, and Children

Professors Stanley Katz and Steven Tepper

Woodrow Wilson School of Public Policy

Princeton University

I pledge that this report is my own work in accordance with the Honor Code.

EXECUTIVE SUMMARY

This policy report analyzes the effect of Internet filtering in schools and libraries upon the health of adolescents. It frames its discussion around the Children's Internet Protection Act, which mandates that schools and libraries receiving federal discounts for Internet technologies must install filtering or blocking software upon all terminals with online access. The report concludes that filtering technologies in schools and libraries do have negative health consequences for adolescents. Schools, libraries, and public health organizations should therefore challenge laws that mandate web filtering. Schools and libraries that do choose to filter should choose methods that least restrict youth access to health websites.

Many adolescents engage in risky behavior that threatens their health. Statistics show the majority of youth engaging in sexual intercourse, for example. Racial minorities, having higher rates of sexual activity, are sometimes at greater risk than non-minorities. Moreover, homosexual and bisexual youth who must face intolerance are more likely to experience psychological harms.

Health and sexuality education for adolescents, addressing a range of topics such as safe sex, contraceptives, homosexuality, abortion, and sexually transmitted diseases, helps to counteract health risks. Youth who have had exposure to comprehensive sexuality education tend to postpone sexual intercourse, use condoms more frequently, communicate more often with parents and friends about sex, and be more accepting of others. However, with the ascension of the New Right, a large proportion of school districts have chosen not to provide this education, focusing instead on abstinence as the only option for youth.

The Internet fills this gap in education by providing a wide range of information relevant to diverse adolescents. Many teenagers have, in fact, reported searching for health information online and finding this information useful. Homosexual, bisexual and transgender youth especially benefit from finding friends and information online that help them understand their sexuality.

Internet filtering and blocking software, such as that mandated by CIPA, blocks adolescents from many informative and beneficial health and sexuality websites. This poses a public health problem since many youth without home Internet access have no other confidential forum in which to seek health information. Therefore, CIPA has a negative health impact upon youth.

CIPA's impact places a disparate burden upon low-income and minority youth, who experience greater health risks and, at the same time, have lower rates of Internet access at home.

Institutions that are now challenging CIPA in court fail to address the health implications of CIPA, detailed in this report. The American Library Association (ALA) and individual libraries are concerned with free speech and access issues, while few health organizations have issued a stance. It is recommended that the ALA, libraries, schools and public health organizations work together to oppose Internet filtering policies on the grounds of health concerns as well as free speech issues. Libraries and schools that do decide to filter are encouraged to use less restrictive policies that allow adolescents to access much-needed health information on the web.

INTRODUCTION

The Children's Internet Protection Act (CIPA), which went into effect on April 20, 2001, requires libraries and K-12 schools with federally funded Internet access to install filtering or blocking software on all terminals that connect online. This software must prevent children from exposure to child pornography and other harmful or obscene materials on the Internet. Unfortunately, filtering technology today is not capable of sorting all health-related websites from child pornography and other obscene materials; hence, Internet filters inevitably deny access to some sexuality education information. This policy report analyzes the impact that CIPA will have upon the health of adolescents aged twelve to seventeen. It finds that comprehensive sexuality education is beneficial to adolescents' health and is endorsed by national public health organizations. Health and sexuality websites complement school-based sex education and allow students to explore topics not covered during class in a confidential forum. However, Internet filtering and blocking software prevents adolescents from viewing many health-related websites. Therefore CIPA does have negative health consequences for youth. Furthermore, the consequences of blocking health-related websites in schools and libraries have a disparate impact upon adolescents from low-income and minority families, who are less likely to have online access at home than adolescents from high-income or white families. It is recommended that schools and libraries collaborate with health officials to ensure that adolescents have Internet access to comprehensive health and sexuality information.

BACKGROUND

The Children's Internet Protection Act

The Children's Internet Protection Act mandates that schools and libraries using federal funding for Internet access install Internet filtering technology by July 1, 2002. This technology must block or filter Internet access to visual depictions that are obscene, child pornography, or "harmful to minors."¹ Moreover, schools and libraries receiving the "E-rate" discount under the Universal Service Program must monitor the online activity of minors.

Senator John McCain and Senator Ernest Hollings introduced CIPA on January 20, 1999 to guide and monitor youth activities that occur outside parent supervision. "This legislation is an important step in the battle to protect children from the dark side of the Internet," Hollings stated. "Children should be protected from stumbling onto indecent material while using the web for legitimate research purposes and this bill will go a long way in obtaining that goal."² President Clinton subsequently signed CIPA into law on December 21, 2000.

CIPA applies to libraries and K-12 schools that receive federal funding for computer and Internet technologies. These include:

1. schools and libraries that receive the E-rate, a federal subsidy that helps provide telecommunications services, Internet access, and internal connections;
2. schools that do not participate in the E-rate program, but receive funds under the Elementary and Secondary Education Act (ESEA) of 1985 to purchase computers used to access the Internet or to pay direct costs of accessing the Internet (20 U.S.C. § 6801); and

¹ Title XVII -- Children's Internet Protection. Children's Internet Protection Act (Public Law 106-554). Enacted 21 December 2000.

² "McCain - Hollings Reintroduce Bill to Protect Children on Internet." *Press Release* 20 January 1999. Online. <http://www.senate.gov/~mccain/internet.htm> 3 January 2002.

3. libraries that do not participate in the E-rate program, but receive funds under Section 224 of the Museum and Library Services Act (MLSA) to buy computers used to access the Internet and for Internet access fees (20 U.S.C. § 9134(b)).

By October 28, 2001, all schools and libraries receiving funds under the E-rate were required to provide certification that they had complied with CIPA or that they were undertaking actions to evaluate technology protection measures. Schools receiving ESEA funds and libraries receiving MLSA dollars have certification deadlines that vary state by state, but take effect in mid-2002. Institutions collecting E-rate subsidies must certify CIPA compliance to its funding agency, the Federal Communications Commission (FCC). Schools receiving funds under the ESEA and libraries receiving funds under the MLSA provide certification to the Department of Education and the Institute of Museum and Library Services, respectively.

By July 2002, schools and libraries that had received E-rate funding in 2001 must prove that they had installed filtering or blocking software. Noncompliant institutions become ineligible for federal funding. If a school or library had submitted false certification or disabled its filters, enforcement of CIPA would depend mainly upon the watchfulness of the community. Upon receiving a complaint of noncompliance, the appropriate agency may conduct an investigation of the offending school or library and subsequently deny that institution funding.³

The Scope of CIPA

Institutions by far most impacted by CIPA are the schools and libraries receiving E-rate funding under the Universal Service Program. The E-rate was first implemented in 1998 as an initiative to close the digital divide between low- and high-income areas, and among rural, suburban, and urban districts. Funding is granted to schools and libraries on a sliding scale; the

³ American Library Association. "Questions and Answers on Children's Internet Protection Legislation." 2 August 2001. <http://www.ala.org/cipa/q&a.html>. 3 January 2002.

more students in the school district eligible for the school lunch program, the more E-rate funding the school or library receives.⁴ As of February 28, 2001, \$5.8 billion had been granted to E-rate applicants nationwide.⁵ An estimated 90 percent of schools took advantage of these E-rate dollars and must therefore comply with CIPA to continue receipt of funding.⁶ Moreover, 48.9 percent of all public libraries received E-rate funds as of January 2, 2001.⁷ The extent of E-Rate funding granted in the past four years illustrates the resources that schools and libraries would lose unless they obey CIPA regulations. Clearly, the majority of K-12 schools as well as many libraries have much at stake in E-Rate funding and compliance with CIPA.

However, schools and libraries are not the only institutions with a stake in the implications of the Children's Internet Protection Act. The American Library Association, for example, claims that the use of Internet content filters in libraries violates the Library Bill of Rights.⁸ On the other hand, many concerned parents believe that unfiltered Internet access in schools and libraries exposes their children to the harmful effects of media pornography and violence. Most school administrators and public health organizations remain ambivalent about CIPA. Some of these arguments and positions will be addressed in a later section of the paper.

⁴ U.S. Department of Education. "Discounted Telecommunications Services for Schools and Libraries E-Rate Fact Sheet." 20 June 2000. <http://www.ed.gov/Technology/comm-mit.html>. 7 January 2002.

⁵ Caltagni, Anne, Elizabeth Farris, and Westat. "Internet Access in U.S. Public Schools and Classrooms: 1994-2000." *Statistics in Brief*. National Center for Education Statistics. May 2001. <http://nces.ed.gov/pubs2001/2001071.pdf>. 3 January 2002.

⁶ Mary Conk, legislative analyst, American Association of School Administrators, interviewed by Stacy Lau, January 3, 2002.

⁷ John Carlo Bertot. "Public Libraries and the Internet 2000: Summary Findings and Data Tables." National Commission on Libraries and Information Science. 7 September 2000. <http://www.nclis.gov/statsurv/2000plo.pdf>. 7 January 2002.

⁸ American Library Association. "Questions and Answers on Children's Internet Protection Legislation."

One argument rarely discussed in relation to the Children's Internet Protection Act, however, is that filtering and blocking software in schools and libraries restrict access to some health-related websites, resulting in negative health consequences for adolescents.

BENEFITS OF HEALTH AND SEXUALITY EDUCATION

With the majority of teenagers today engaging in sexual activity and exploring their sexualities, it is important that policymakers take preventive measures against the health hazards and psychological harms that may result. One of those measures is health education and information dissemination. This section finds that sexuality education benefits the physical and psychological health of adolescents.

Health Statistics for Adolescents

A majority of teenagers engages in sexual activity – many without the use of contraceptives – resulting in the spread of sexually transmitted disease and teen pregnancies. Unprotected sex, multiple sex partners, and females who choose sexual partners older than themselves are more prevalent among teenagers and young adults than among other age groups.⁹ For example, in 1999, half of high school students nationwide reported ever having sexual intercourse. Moreover, 8.3 percent of all high school students had initiated sexual intercourse before the age of 13. Forty-two percent of these sexually active students did not use a condom the last time they had intercourse.¹⁰ This early sexual activity and lack of preventive action results in a high

⁹ "Tracking the Hidden Epidemics: Trends in STDs in the United States." Center for Disease Control. 2000. http://www.cdc.gov/nchstp/dstd/Stats_Trends/Trends2000.pdf. 4 January 2002.

¹⁰ "Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV Infection." *Youth Risk Behavior Surveillance, U.S. 1999*. Center for Disease Control. <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4905a1.htm>. 22 December 2001.

rate of unwanted pregnancies and sexually transmitted diseases. For example, the pregnancy rate of females between 15 and 19 years in 1997 was approximately 9.1 percent. Furthermore, one in four sexually active teenagers receives a sexually transmitted disease every year.¹¹

Trends within nationwide data regarding sexual activity, teen pregnancies, and sexually transmitted diseases show a higher rate of occurrence in certain minority groups. For instance, 45.1 percent of all white high school students and 54.1 percent of Latino students have had sexual intercourse in comparison to 71.2 percent of black students, a statistically significant difference. Moreover, black and Latino students are significantly more likely than white students to have initiated intercourse before the age of 13.¹² This racial disparity in sexual behaviors is also reflected in pregnancy and STD rates. At a rate of 13.4 percent, black high school students are significantly more likely to have been pregnant or to have impregnated someone else than white high school students (4.3 percent).¹³ Moreover, black adolescents aged 15-19 are 12 percent likely to have chlamydia, in comparison to 6 percent for Latinos and 4 percent for whites.¹⁴

Health and sexuality trends reveal homosexual, bisexual and transsexual adolescents as another at-risk group. These adolescents face a disproportionate amount of discrimination and violent behavior as a result of their sexual orientations. For instance, 34 percent of gay, lesbian and bisexual students have suffered anti-gay harassment at school. Furthermore, gay, lesbian

¹¹ "Sexually Transmitted Diseases (STDs) in the United States." *Sexually Transmitted Diseases in the U.S.: Exposing the Epidemic*. Kaiser Family Foundation, The Alan Guttmacher Institute, and the National Press Foundation. 20 November 1996. <http://www.kff.org/content/archive/1207/stdfct.pdf>. 4 January 2002.

¹² Center for Disease Control. "Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV Infection."

¹³ *Ibid.*

¹⁴ Center for Disease Control. "Tracking the Hidden Epidemics."

and bisexual adolescents have few positive adult role models because of the cultural bias that conceals the presence of non-heterosexual personalities.¹⁵

Negative attitudes directed towards homosexual, bisexual and transgender youth correlate with psychological and mental distress, leading to a greater incidence of depression and suicide, and lower self-esteem.¹⁶ In fact, homosexual adolescents are three times more likely to attempt suicide than heterosexual adolescents, and represent up to 30 percent of all completed teen suicides.¹⁷ Eighty percent of homosexual youth indicate feeling severe social isolation.¹⁸ Gay and lesbian youth of color, moreover, experience even greater damage to their self-esteem because of the compounded discrimination against minorities and homosexuals.¹⁹ Thus, homosexual and bisexual youth suffer threats to their psychological and emotional well being solely as a result of their sexuality. Since on average, homosexual and bisexual adolescents realize they are gay by the age of 13,²⁰ information about coping with depression and harassment would be especially beneficial for this subset during middle school and high school.

¹⁵ Safe Schools Coalition. "Statewide Survey." 1997. In Gay and Lesbian Alliance Against Defamation. "Appendix B: Statistics Affecting the Community," p. 48. *Access Denied: Version 2.0*. December 1999. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/2.pdf. 7 January 2002.

¹⁶ David Satcher, M.D., Ph.D. *The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior*. 9 July 2001. <http://www.surgeongeneral.gov/library/sexualhealth/call.pdf>. 4 January 2002.

¹⁷ Gibson, P. "Gay Male and Lesbian Youth Suicide." *Report of the Secretary's Task Force on Youth Suicide*. U.S. Department of Health and Human Services, 1989. In Gay and Lesbian Alliance Against Defamation, *Access Denied Version 2.0*. December 1999. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/2.pdf. 7 January 2002.

¹⁸ Hetrick, Emery, and Martin, A. Damien. "Developmental Issues and Their Resolution for Gay and Lesbian Adolescents." *Journal of Homosexuality*. 1987. In Gay and Lesbian Alliance Against Defamation, *Access Denied Version 2.0*. December 1999. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/2.pdf. 7 January 2002.

¹⁹ American Psychological Association. *Resolution on Lesbian, Gay, and Bisexual Youth in the Schools*. <http://www.apa.org/pi/statemen.html>. 26 December 2002.

²⁰ Sears, James. *Growing Up Gay in the South*. New York: Harrington Park Press. 1991. In GLAAD, *Access Denied Version 2.0*.

The Importance of Sexuality Education for the Well Being of Minors

Research indicates that comprehensive sexuality education is beneficial for adolescents. This type of education includes information about the use of contraceptives, contact information for health clinics, coping strategies for the emotional aftermath of having sex, and tolerance for homosexuality. Contrary to the claims of sexuality education critics, information about contraceptives has not been proven to increase rates of sexual activity among adolescents.²¹ Teaching this information in schools can in fact play a role in alleviating the health and well being risks threatening adolescent youth. Sexuality education for adolescents may encourage postponement of intercourse, for example.²² Researchers also claim that education about contraceptives results in a greater likelihood of condom use and consequently a reduction in unintended pregnancy rates.^{23,24} Furthermore, sexuality education facilitates adolescents' communication with parents and friends and increases acceptance of the behaviors and personal values of others.^{25,26} The American Psychological Association advocates providing information about homosexuality to all adolescents in the process of discovering their own sexuality. Educating youth about sexual orientation is likely to help counteract anti-gay

²¹ David Satcher, M.D., Ph.D. "The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior."

²² Steven P. Ridini, *Health and Sexuality Education in Schools: The Process of Social Change* (Westport, CT: Bergin & Garvey, 1998), p. 10.

²³ Neville Harris, *Children, Sex Education and the Law* (London: National Children's Bureau Enterprise Ltd, 1996), p. 2.

²⁴ Ridini, *Health and Sexuality Education in Schools*.

²⁵ Debra W. Haffner, *Sex Education 2000: A Call to Action* (New York: Sex Education and Information Council of the U.S., 1990), p. 20.

²⁶ Evonne Hedgepeth and Joan Helmich, *Teaching about Sexuality and HIV: Principles and Methods for Effective Education* (New York: New York University Press, 1996) p. 3.

prejudice.²⁷ All of this research points to the conclusion that the more information adolescents have about safe sex, sexuality and sexual relationships, the more healthy and well adjusted they will be.

Sexuality Education in K-12 Schools Today

A large proportion of adolescents, however, does not receive a much-needed comprehensive sexuality education at school because of restrictive federal policies. Schools have recently been pressured by the New Right to avoid mentioning issues such as the prevalence of STD, the sexual transmission of HIV, homosexuality and abortion. The New Right supports abstinence-only sexuality education, which promotes abstinence before marriage as the only recourse for students to take. Any education about safe sex methods or homosexuality is denounced for sending a "mixed message" to teenagers.²⁸ In 1996, Congress decided to allocate \$50 million through Temporary Aid to Needy Families (TANF) to schools that provide abstinence-only education. Added to the \$10 million allocated through the Adolescent Family Life Act and the \$40 million through an earmark in the Maternal and Child Health Block Grant, the federal government is providing a total of \$100 million in fiscal year 2002 for schools that teach abstinence-only education.²⁹ In contrast, the federal government does not provide any funds for schools engaging a comprehensive sexuality curriculum. Today, 89 percent of public school students receive sex education sometime between the seventh and twelfth grades.³⁰ However,

²⁷ American Psychological Association. "Answers to Questions about Sexual Orientation and Homosexuality." <http://www.apa.org/pubinfo/answers.html> . 26 December 2001.

²⁸ Nelson Trudell, *Doing Sex Education* (New York: Routledge, 1993) p. 2.

²⁹ Cynthia Dailard, Senior Public Policy Associate, The Alan Guttmacher Institute, interviewed by Stacy Lau, January 2, 2002.

³⁰ "Sex Education in America: A Series of National Surveys of Students, Parents, Teachers, and Principals." Kaiser Family Foundation. September 2000. <http://www.kff.org/content/2000/3048/SexED.pdf>. 4 January 2002.

34 percent of all public secondary schools teach abstinence-only education and thus avoid teaching about contraceptives or homosexuality.³¹ A total of 31 percent of 7th-12th grade principals report that the federal government's abstinence-only funds influence their schools' sex education curriculums "some" or "a great deal."³² Thus, not only do federal policies pressure schools into teaching abstinence-only curriculums, but they also restrict adolescents' education on topics that benefit their health and emotional well being.

The Internet is an alternative source for teenagers seeking health and sexuality information. With websites covering a wide range of topics including safe sex, homosexuality and abortion, and addressing different racial and ethnic groups and regions of the United States, the Internet has the potential to fill the gap left by school-based sexuality education.

THE INTERNET AS A SEXUALITY EDUCATION RESOURCE

Many teenagers seek health information online. A recent survey conducted by Jupiter Communications and Media Metrix reported that turning to the Web for health information is natural for teenagers, and that they spend an average of 15 minutes per visit to health sites.³³ Sixty-eight percent of all 15-24 year-olds had used the Internet at least once to access health information, with 24 percent stating that they have retrieved "a lot" of health information from the Internet. Many youth have also used the Internet to find information about subjects not addressed in abstinence-only sexuality curriculums. For example, 44 percent of the 15-24 year-olds who have been online have looked up information about pregnancy, birth control,

³¹ "National Survey of Public Secondary School Principals: The Politics of Sex Education." Kaiser Family Foundation. December 1999. <http://www.kff.org/content/1999/1560/Toplines.pdf>. 4 January 2002.

³² Ibid.

³³ Morris, Bonnie Rothman. "Teenagers Find Health Answers With a Click." *New York Times* 20 March 2001. Final Edition. Online. New York Times on the Web. 10 December 2001.

HIV/AIDS or other STDs. Twenty-three percent have researched depression or mental illness.³⁴ Clearly, a large proportion of adolescents accesses health information online.

Being able to find health information on the Internet has positive health consequences for adolescents. For example, 39 percent of those who look for health information online describe the information they find as "very useful". Of the 15-17 year-olds who have accessed health information online, 53 percent report having conversations with a parent or other adult about the information they found. Moreover, 39 percent of youth who seek online health information report changing their personal behavior as a result of information they saw online, including the 14 percent who report visiting a health provider after viewing online health information.³⁵

Information found online has also bolstered the psychological and emotional well being of many homosexual and bisexual youth. In a survey of more than 3,000 gay and bisexual respondents aged 25 and under, 51 percent said that they revealed their sexual identities online before coming out to family and friends.³⁶ Accepting one's sexual orientation and "coming out" to family and friends is important because it bolsters mental health and self esteem.³⁷ Anecdotal evidence reveals that many youth who come out of the closet for the first time online find the emotional support that they need on the Internet to reveal their sexual identities to their family and friends. In fact, 68 percent of online youth surveyed also said that being online helped them

³⁴ Rideout, Victoria. "Generation Rx.com: How Young People Use the Internet for Health Information." Kaiser Family Foundation. December 2001. <http://www.kff.org/content/2001/20011211a/GenerationRx.pdf>. 7 January 2002.

³⁵ *Ibid.*

³⁶ Christopher Kryzan and Jeff Walsh. "The !OutProud!/Oasis Survey of Queer and Questioning Youth." !OutProud!, The National Coalition for Gay, Lesbian, Bisexual & Transgender Youth, and Oasis Magazine. October 1997. http://www.outproud.org/survey/pdf/qys1997_report_pub.pdf. 7 January 2002.

³⁷ American Psychological Association. "Answers to Questions about Sexual Orientation and Homosexuality."

accept their sexual orientations, and 51 percent said that being online was crucial to that acceptance.³⁸

Besides the breadth of different health, safe sex and sexuality websites online, using the Internet to access information has an added benefit for adolescents: confidentiality. This confidentiality is important for most teenagers -- 82 percent claim that confidentiality is "very important" to them when seeking health information, and 76 percent state that a positive feature of the Internet is that they can access information without anybody else knowing about it.³⁹ While the vast majority of teenagers would trust information from a doctor more than information found online, the confidential access made available by the Internet benefits those teenagers who are too shy or embarrassed to ask doctors, teachers or librarians about sensitive topics like sex, homosexuality, depression, and contraceptives. Therefore, the Internet is an important resource for beneficial sexuality education not received in schools.

OVERBLOCKING BY WEB FILTERS

Web filters in schools and libraries, mandated by CIPA, block access to many informative health websites. This section describes the inadequacies of present day filtering technologies and provides examples of health websites that filters have blocked.

Popular Internet filters generally use three methods to block web content:

- 1) Keyword blocking -- Prohibits access to any website containing certain words determined by the filtering manufacturer. For example, a filter that blocks the keyword "sex" will deny access to all websites containing the word "sex", including safe sex and homosexuality websites, as well as the Middlesex County website.

³⁸ Christopher Kryzan and Jeff Walsh. "The !OutProud!/Oasis Survey of Queer and Questioning Youth."

- 2) URL-blocking -- Websites deemed inappropriate by the software manufacturer are placed on a "blacklist" and blocked. URL-blocking depends upon the values of the people reviewing the websites.
- 3) Site labeling -- Filters that use this feature can block all websites that have voluntarily rated themselves sexually explicit.

No conventional Internet filtering system is successful at blocking all indecent materials while allowing all decent materials to be viewed. For example, a test of six popular filters performed by Consumer Reports revealed that five of the six filters failed to block 20 percent of sexually explicit or violently graphic content. The sixth filter, AOL Young Teen, was successful because it allows teens to view only websites that appear on its pre-selected whitelist. As a result, AOL Young Teen also ended up blocking 63 percent of the legitimate websites used in the Consumer Reports test.⁴⁰ Moreover, web filters disproportionately block websites that deal with health, safer sex and homosexuality issues. Forty-six percent of 15-17 year-olds who have looked for health information online reported being blocked from non-pornographic websites. Fifteen percent of these adolescents had been searching for health issues such as HIV, other STDs, or birth control. Eight percent were seeking information about cancer, and 2 percent information about sexual orientation.⁴¹ See Appendix A for specific examples of health websites blocked by filters. These results are not surprising, since health and sexuality websites are more likely than others to contain words such as "sex" or "breast", commonly blocked by keyword-based web filters. Moreover, filters that depend upon the discretion and morals of human reviewers may be

³⁹ Rideout, Victoria. "Generation Rx.com: How Young People Use the Internet for Health Information."

⁴⁰ "Which Internet Filters Protect the Best? Which Get in the Way?" ConsumerReports.org. http://www.consumerreports.org/main/detail.jsp?CONTENT...18867&FOLDER%3C%3Efolder_id=18151&bmUID=1008021645052. 10 December 2001.

⁴¹ Rideout, Victoria. "Generation Rx.com: How Young People Use the Internet for Health Information."

more likely to block safe sex and sexuality websites if the reviewers believe in abstinence-only education or oppose same-sex relationships. Because web filters block youth from viewing important health and sexuality information, a public health problem results. Without web access to information about safe sex or coping with sexual orientation, adolescents have no other anonymous means to education that has been proven to alleviate health risks.

THE DISPARATE IMPACT OF CIPA

Minority and low-income youth are less likely to have home Internet access than non-minority youth from rich families. Overall, the most damaging effect of school and library filters will be to block health information from those who need it most.

The racial divide in Internet access is sharp when one considers the percentages of students with online access at home. From December 1998 to August 2000, for instance, the number of households with Internet access doubled. But during the same period of time, the gap between blacks with access and average household access grew from 15 to 18 percent. For Latinos, the gap grew from 14 to 18 percent.⁴² This reveals that the gap between whites and minorities in home Internet access is continuing to grow. In August 2000, 46.1 percent of white high school students had Internet access at home. On the other hand, 23.6 percent of Latino students and 23.5 percent of African American students had access at home. Clearly, home access and use of the Internet is more prevalent for white students than it is for black or Latino students.

Furthermore, the digital divide reaches across income levels. In August 2000, 77.7 percent of households with an income of \$75,000 or above had home access to the Internet. Households

⁴² Web-Based Education Commission. "The Power of the Internet for Learning: Moving From Promise to Practice." December 2000. <http://www.ed.gov/offices/AC/WBEC/FinalReport/WBECReport.pdf>. 7 January 2002.

earning \$25,000 to \$34,999 had a home access rate of 34 percent. In the lowest income households, with incomes of \$15,000 dollars or less, Internet connectivity was 12.7 percent.⁴³

Students who are not able to access the Internet at home rely on publicly funded access in schools and libraries. In 2000, 98 percent of all schools had Internet access, and 77 percent of all schools had Internet access within instructional rooms.⁴⁴ Research indicates that Internet access in schools helps to close the divide in online usage rates. Children from communities of diverse income ranges have similar rates of access at school, for example. Minority students, while less likely to have a computer at home, find a way to spend as much time on computers as white students.⁴⁵ This testifies to the importance of school computer and Internet access for low-income and minority groups. Minorities or children from low-income families who are not able to find health related information at home would be able to access such information at school.

However, the burden of CIPA falls more heavily upon low-income school districts. E-rate funding calculations based upon the number of students eligible for federal school lunches ensured that low-income districts would receive a larger proportion of E-rate funds. Seventy percent of Year Two E-Rate funding, for example, has gone to school libraries in the lowest income areas.⁴⁶ In the context of CIPA, this means that schools and libraries in low-income

⁴³ Mineta, Norman Y. "Falling Through the Net: Towards Digital Inclusion." United States Department of Commerce. October 2000. <http://www.esa.doc.gov/fttn00.htm#8>. 7 January 2002.

⁴⁴ Anne Catagni and Elizabeth Farris. "Internet Access in Public Schools and Classrooms: 1994-2000." The National Center for Education Statistics. 2001. <http://nces.ed.gov/pubs2001/quarterly/summer/q2-7.asp>. 7 January 2002.

⁴⁵ Victoria J. Rideout, Ulla G. Foehr, Donald F. Roberts, Ph.D., Mollyann Brodle, Ph.D. "Kids & Media @ the New Millenium." Kaiser Family Foundation. November 1999. <http://www.kff.org/content/1999/1535/KidsReport%20FINAL.pdf>. 7 January 2002.

⁴⁶ William E Kennard, Chairman, Federal Communications Commission. "E-Rate: A Success Story." 14 January 2000. <http://www.fcc.gov/Speeches/Kennard/2000/spwek002.html>. 7 January 2002.

districts will be likely to filter Internet access rather than risk losing much-needed funding for Internet technologies.

Minority youth and youth from low-income households, who do not have Internet access at home, are most in need of Internet access to health information. As noted earlier in this report, minority adolescents nationwide have higher rates of pregnancy and STD infection, and tend to initiate sexual intercourse at a lower age. Sexuality education in schools is also failing minority groups -- school curriculums address the sexual patterns of minority students less successfully than they do for white students. For instance, 92.2 percent of white high school students have received HIV education in school, compared to 84.1 percent of Latino students, a statistically significant difference.⁴⁷ Furthermore, in 1995, only slightly more than half (54%) of black males aged 15-19 had received reproductive health education before their first intercourse, in comparison to 68 percent of Latino males and 76 percent of white males.⁴⁸ This disparity is partly a result of the lower average age of first intercourse for minority students -- by the time schools teach sexuality education, many minority students have already engaged in sexual activity. Thus, school sexuality curriculums are less adequately designed to meet the needs of minorities than that of white students.

Therefore, CIPA is damaging to the health and well being of teenagers, and the negative effects disproportionately burden the low-income and minorities. Factions that either support or reject filtering policies rarely consider these health consequences.

⁴⁷ Center for Disease Control. "Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV Infection."

⁴⁸ Laura Duberstein Lindberg, Leighton Ku and Freya Sonenstein, "Adolescents' Reports of Reproductive Health Education, 1988 and 1995," *Family Planning Perspectives* 32 (September/October 2000), p. 223. Online Journal.

THE POLITICAL LANDSCAPE SURROUNDING CIPA

The American Library Association

The American Library Association (ALA) believes that the use of filtering software in libraries violates the ALA Library Bill of Rights because it blocks people's access to constitutionally protected materials. The ALA also recognizes that millions of people who cannot afford the Internet at home depend upon public libraries for online access. Information literacy for children, the ALA believes, would be better protection from pornographic or violent messages than using filtering software, which blocks Constitutionally protected speech and has a disparate impact upon low-income households.⁴⁹

The American Library Association, along with the American Civil Liberties Union, has filed a lawsuit in the Eastern District of Pennsylvania to overturn CIPA. The lawsuit claims that CIPA violates First and Fifth Amendment principles by restricting Internet funding only to institutions that block constitutionally protected viewpoints, burdening the free speech rights of libraries, patrons, and Internet content providers. Under the First Amendment, the ALA contends, the government cannot attempt to bar access to a category of protected speech on a medium of expression that it had funded.⁵⁰ This position reflects the principle that libraries should not be coerced into restricting access to any type of constitutionally protected expression. It also attempts to defeat the precedent CIPA sets of giving the government the power to restrict expression in any federally funded forum. Court proceedings begin on March 25, 2002.

⁴⁹ American Library Association. "Resolution on Opposition to Federally Mandated Internet Filtering." 17 January 2001. <http://www.ala.org/alaorg/oif/mandatedfiltering.html>. 7 January 2002.

⁵⁰ Freedom to Read Foundation. "ALA, FTRF Challenge Children's Internet Protection Act." April 2001. <http://www.ala.org/cipa/ftrfnewsarticle.html>. 7 January 2002.

As a membership organization that provides leadership and advocacy for over three thousand libraries nationwide,⁵¹ the ALA exerts some influence over individual library policies. The ALA's CIPA webpage, for example, advises libraries to continue participating in the E-Rate program and take steps to comply with CIPA.⁵² However, Emily Sheketoff, Executive Director of the ALA Washington Office, asserts that American Library Association has no direct control over the filtering policies of libraries, which explains the variety of responses to CIPA despite ALA advice.⁵³

Libraries and Schools

Libraries have taken a variety of approaches to addressing the CIPA legislation. The San Francisco Board of Supervisors, for instance, voted to prohibit the use of Internet filters in the San Francisco library, foregoing federal funding.⁵⁴ Fifteen percent of all public libraries, on the other hand, had already installed Internet filters on their terminals before passage of CIPA.⁵⁵ The number of libraries that have installed or will install filtering systems in their terminals as a result of CIPA is unclear. A substantial number of libraries (4,075) had signed CIPA compliance agreements and received Year 4 funding.⁵⁶ However, many of these libraries, as

⁵¹ The American Civil Liberties Union. "Complaint for Declaratory and Injunctive Relief." 14 January 1997. <http://www.aclu.org/court/nycdaacomplaint.html>. 7 January 2002.

⁵² American Library Association. 2000. <http://www.ala.org/cipa/>. 7 January 2002.

⁵³ Emily Sheketoff, Executive Director of the American Library Association Washington Office, interviewed by Stacy Lau, December 26, 2001.

⁵⁴ Gwendolyn Mariano, "Web Filters Prohibited in S.F. Library." *News.com*. 2 October 2001. <http://www.zdnet.com/filters/printerfriendly/0,6061,5097734-2,00.html>. 10 December 2001.

⁵⁵ John Carlo Bertot and Charles R. McClure. "Moving Toward More Effective Public Internet Access: The 1998 National Survey of Public Library Outlet Internet Connectivity." U.S. Commission on National Libraries and Information Science. March 1999. <http://www.ala.org/oitp/1998plo.pdf>. 5 December 2002.

⁵⁶ Universal Service Administrative Company. "Funding Commitments: Cumulative National Data for Year 4." 2 January 2001. <http://www.sl.universalservice.org/funding/y4/national.asp>. 7 January 2002.

well as many schools, may be following ALA advice and waiting for the outcome of the ALA lawsuit in March 2002 before investing in any filtering technologies.⁵⁷

So far, school associations have not issued a strong challenge against CIPA regarding the right to free speech and information access. The American Association of School Administrators (AASA) initially opposed the Children's Internet Protection Act on legal and policy grounds. However, AASA members did not generate enough of an uproar over CIPA, so when CIPA was enacted the AASA dropped its opposition. Ms. Conk attributes school administrators' indifference to the fact that most schools already had filtering policies in place before passage of CIPA. At present, the AASA has no official position on the filtering act – "It's there," states Mary Conk.⁵⁸

Public Health Organizations

Public health organizations constitute another sector that has not developed a strong stance on the Children's Internet Protection Act. Quite a few of these organizations support comprehensive sexuality education. The American Medical Association, for example, advocates that schools provide students with information about condoms and alternatives in birth control and utilize teachers trained in addressing the needs of gay, lesbian, and bisexual youth.⁵⁹ Despite endorsing comprehensive sexuality education, institutions such as the American Medical Association and the American Psychological Association do not recognize that CIPA blocks

⁵⁷ eSchool News staff. "Free-speech groups fight federal filtering mandate." *eSchool News Online*. 5 February 2001. <http://www.eschoolnews.com/news/showStory.cfm?ArticleID=2217>. 7 January 2002.

⁵⁸ Mary Conk, legislative analyst, American Association of School Administrators, interviewed by Stacy Lau, January 3, 2002.

⁵⁹ American Medical Association. "H-170.968 Sexuality Education, Abstinence, and Distribution of Condoms in Schools." *Guidelines for Adolescent Preventive Services*. 1998. http://www.ama-assn.org/apps/pf_online/pf_online?f_n=resultLink&doc=policyfiles/HOD/H-170.968.HTM&s_t=sexuality&catg=AMA/CnB&catg=AMA/CEJA&catg=AMA/HOD&&nth=1&&st_p=0&nth=2&. 4 January 2002.

youth access to a variety of health and sexuality information. An exception is the Alan Guttmacher Institute (AGI), a non-profit organization devoted to health and sexuality research and public education. The AGI is a plaintiff in the ALA suit against CIPA, and recognizes that health and sexuality websites are an important resource for adolescents.⁶⁰ Others who have lobbied against CIPA include Planned Parenthood and the Sexuality Information Council of the United States.

CONCLUSION

The Children's Internet Protection Act essentially mandates that pertinent health information about safe sex, sexuality, contraceptives and sexually transmitted diseases be blocked in areas of public access. Comprehensive sexuality education, covering a range of physical and psychological health topics, is beneficial for adolescents. However, because of abstinence-only education standards, important health topics such as pregnancy preventive strategies and sexual orientation are not addressed in public schools. Thus, the Internet, with its breadth of topics and information, is an important health resource for youth. However, web filters frequently block informative health and sexuality websites that teenagers attempt to access, creating a public health problem. The health consequences of CIPA place a disparate burden upon minority, low-income and homosexual and bisexual students, who face greater physical and psychological risks. Furthermore, at-risk minority and lower-income students, who are more likely to rely upon schools and libraries for Internet access, are less able to access health information when filters are in place. Although the ALA, some libraries, and the ACLU are challenging CIPA in

⁶⁰ Cynthia Dailard, Senior Public Policy Associate, The Alan Guttmacher Institute, interviewed by Stacy Lau, January 2, 2002.

court, few health organizations have joined this challenge, and little emphasis has been placed upon the damage that internet filters can do to public health.

POLICY RECOMMENDATIONS

The American Library Association, the American Civil Liberties Union, public health officials and school boards should challenge (or continue to challenge) laws such as the Children's Internet Protection Act, which block health information from adolescents in areas of public access. Free and confidential access to health and sexuality information should be made available to minors of all socioeconomic and ethnic backgrounds, and filtering laws deny this access to them. Therefore challenges to filtering laws should address the public health as well as free speech concerns.

Public health organizations such as the American Medical Association and the American Psychological Association should take a policy stance against Internet filtering laws which block adolescents from health information on the web. It is important for public health organizations to recognize the detrimental effects of filtering policies such as CIPA in order to gain political leverage for the health argument against filtering.

However, most public health organizations have not yet stated their positions on Internet access to health information. One possible reason for this lack of advocacy is that research on the benefits of health and sexuality websites for teenagers is scarce. Therefore in addition, these organizations should perform more research about adolescents' use of health and sexuality websites to better serve the health needs and sexuality education of minors.

As representative of many libraries nationwide, the American Library Association should work with public health organizations and school boards as well as homosexual and bisexual

associations to compile a list of popular and informative websites that provide important health information for adolescents. This coalition should then perform "benchmark testing," discovering which filters block these websites, and publishing the results. Thus, schools and libraries that filter Internet access can ensure that their filters do not block websites on the list advocated by the ALA, health organizations, and homosexual and bisexual associations.

Although unfiltered access to health information on the web is most beneficial for adolescents, it is unreasonable to expect that all schools and libraries will choose not to filter. However, these institutions can adopt less restrictive filters and filtering policies that least impede youth access to health websites. Schools and libraries that filter should thus use software that allows teachers and librarians to disable keyword blocking and unblock specific websites, counteracting over-blocking by web filters. Schools and libraries should also ensure that the filters installed in their computers do not intentionally block websites providing safe sex and sexual orientation information.

Health-friendly filtering policies include providing both filtered and unfiltered Internet access in libraries, which allows library patrons to choose whether to have filtered access, and providing links to health websites endorsed by public health institutions on school and library terminal homepages. Schools and libraries that use Internet filters should provide a system allowing students and patrons to anonymously request that specific health websites be unblocked.

Finally, libraries should avoid implementing monitoring policies unless required to do so by law. Monitoring Internet use infringes upon the much-valued confidentiality of adolescents, producing a chilling effect upon minors seeking information about sensitive health issues.

Furthermore, risking the privacy of homosexual or bisexual youth that are yet not ready to “come out” can lead to involuntary exposure and resulting psychological harm.⁶¹

⁶¹ “Access Denied: The Impact of Internet Filtering Software on the Lesbian and Gay Community.” The Gay and Lesbian Alliance Against Defamation. December 1997. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/12.pdf. 7 January 2002.

Bibliography

Works Cited:

“Complaint for Declaratory and Injunctive Relief.” The American Civil Liberties Union. January 14, 1997. <http://www.aclu.org/court/nycdacomplaint.html>. Last retrieved January 7, 2002.

“Questions and Answers on Children’s Internet Protection Legislation.” American Library Association. August 2, 2001. <http://www.ala.org/cipa/q&a.html>. Last retrieved January 3, 2002.

“Resolution on Opposition to Federally Mandated Internet Filtering.” American Library Association. January 2001. <http://www.ala.org/alaorg/oif/mandatedfiltering.html>. Last retrieved January 7, 2002.

“H-170.968 Sexuality Education, Abstinence, and Distribution of Condoms in Schools.” *Guidelines for Adolescent Preventive Services*. American Medical Association. 1998. http://www.ama-assn.org/apps/pf_online. Last retrieved January 4, 2002.

“Resolution on Lesbian, Gay, and Bisexual Youth in the Schools.” American Psychological Association. <http://www.apa.org/pi/statemen.html>. Last retrieved December 26, 2002.

Bertot, John Carlo. *Public Libraries and the Internet 2000: Summary Findings and Data Tables*. National Commission on Libraries and Information Science. September 7, 2000. <http://www.nclis.gov/statsurv/2000plo.pdf>. Last retrieved January 7, 2002.

Bertot, John C. and Charles R. McClure. *Moving Toward More Effective Public Internet Access: The 1998 National Survey of Public Library Outlet Internet Connectivity*. U.S. Commission on National Libraries and Information Science. March 1999. <http://www.ala.org/oitp/1998plo.pdf>. Last retrieved December 5, 2002.

Catagni, Anne, Elizabeth Farris, and Westat. “Internet Access in U.S. Public Schools and Classrooms: 1994-2000.” *Statistics in Brief*. National Center for Education Statistics. May 2001. <http://nces.ed.gov/pubs2001/2001071.pdf>. Last retrieved January 3, 2002.

“Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV Infection.” *Youth Risk Behavior Surveillance, U.S. 1999*. Center for Disease Control. 1999. <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4905a1.htm>. Last retrieved December 22, 2001.

Tracking the Hidden Epidemics: Trends in STDs in the United States. Center for Disease Control. 2000. http://www.cdc.gov/nchstp/dstd/Stats_Trends/Trends2000.pdf. Last retrieved January 4, 2002.

Conk, Mary. Interview by Stacy Lau, January 3, 2002.

“Which Internet Filters Protect the Best? Which Get in the Way?” ConsumerReports.org. March 2001. http://www.consumerreports.org/main/detail.jsp?CONTENT...18867&FOLDER%3C%3Efolder_id=18151&bmUID=1008021645052. Last retrieved December 10, 2001.

Dailard, Cynthia. Interview by Stacy Lau, January 2, 2002.

“ALA, FTRF Challenge Children’s Internet Protection Act.” Freedom to Read Foundation. April 2001. <http://www.ala.org/cipa/ftfrfnewarticle.html>. Last retrieved January 7, 2002.

Access Denied: The Impact of Internet Filtering Software on the Lesbian and Gay Community. “The Gay and Lesbian Alliance Against Defamation. December 1997. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/12.pdf. Last retrieved January 7, 2002.

Access Denied: Version 2.0. Gay and Lesbian Alliance Against Defamation. December 1999. http://www.glaad.org/binary-data/GLAAD_PDF/pdf_file/2.pdf. Last retrieved January 7, 2002.

Haffner, Debra W. *Sex Education 2000: A Call to Action.* New York: Sex Education and Information Council of the U.S., 1990.

Harris, Neville. *Children, Sex Education and the Law.* London: National Children’s Bureau Enterprise Ltd., 1996.

Hedgepeth, Evonne and Joan Helmich. *Teaching About Sexuality and HIV: Principles and Methods for Effective Education.* New York: New York University Press, 1996. *National Survey of Public Secondary School Principals: The Politics of Sex Education.* Kaiser Family Foundation. December 1999. <http://www.kff.org/content/1999/1560/Toplines.pdf>. January 4, 2002.

Heins, Marjorie and Christina Cho. “Internet Filters: A Public Policy Report.” National Coalition Against Censorship. Fall, 2001. <http://www.ncac.org/issues/internetfilters.html>. Last retrieved November 1, 2001.

Sex Education in America: A Series of National Surveys of Students, Parents, Teachers and Principals. Kaiser Family Foundation. September 2000. <http://www.kff.org/content/2000/3048/SexED/pdf>. Last retrieved January 4, 2002.

“Sexually Transmitted Diseases (STDs) in the United States.” *Sexually Transmitted Diseases in the U.S.: Exposing the Epidemic.* Kaiser Family Foundation, The Alan Guttmacher Institute, and the National Press Foundation. November 20, 1996. <http://www.kff.org/content/archive/1207/stdfct.pdf>. Last retrieved January 4, 2002.

- Kennard, William E. "E-Rate: A Success Story." January 14, 2000. <http://www.fcc.gov/Speeches/Kennard/2000/spwek002.html>. Last Retrieved January 7, 2002.
- Kryzan, Christopher and Jeff Walsh. *The !OutProud!/Oasis Survey of Queer and Questioning Youth*. !OutProud!, The National Coalition for Gay, Lesbian, Bisexual & Transgender Youth, and Oasis Magazine. October 1997. http://www.outproud.org/Survey/pdf/qys1997_report_pub.pdf. Last Retrieved January 7, 2002.
- Lindberg, Laura D., Leighton Ku, and Freya Sonenstein. "Adolescents' Reports of Reproductive Health Education, 1988 and 1995," *Family Planning Perspectives* 32 (September/October 2000), 223. Online Journal.
- Mariano, Gwendolyn. "Web Filters Prohibited in S.F. Library." *News.com*. October 2, 2001. <http://www.zdnet.com/filters/printerfriendly/0,6061,5097734-2,00.html>. December 10, 2001.
- Mineta, Norman Y. *Falling Through the Net: Towards Digital Inclusion*. United States Department of Commerce. October 2000. <http://www.esa.doc.gov/ftn00.htm#8>. Last retrieved January 7, 2002.
- Morris, Bonnie Rothman. "Teenagers Find Health Answers with a Click." *New York Times*, March 20, 2001.
- "Peacefire Censorware Pages." Peacefire. 2000. <http://www.peacefire.org/censorware>. Last retrieved October 31, 2001.
- "McCain – Hollings Reintroduce Bill to Protect Children on Internet." *Press Release* 20 January 1999. Online. <http://www.senate.gov/~mccain/internet.htm>. Last retrieved January 3, 2002.
- Rideout, Victoria. *Generation Rx.com: How Young People Use the Internet for Health Information*. Kaiser Family Foundation. December 2001. <http://www.kff.org/content/2001/20011211a/GenerationRx.pdf>. January 7, 2002.
- Rideout, Victoria, Ulla G. Foehr, Donald F. Roberts, Ph.D., Mollyann Brodle, Ph.D. *Kids & Media @ the New Millenium*. Kaiser Family Foundation. November 1999. <http://www.kff.org/content/1999/1535/KidsReport%20FINAL.pdf>. Last Retrieved January 7, 2002.
- Ridini, Steven P. *Health and Sexuality Education in Schools: The Process of Social Change*. Westport, CT: Bergin & Garvey, 1998.
- Satcher, David. *The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior*. July 9, 2001. <http://www.surgeongeneral.gov/library/Sexualhealth/call.pdf>. Last retrieved January 4, 2002.
- Sheketoff, Emily. Interviewed by Stacy Lau, December 26, 2001.

Staff, eSchoolNews. "Free-Speech Groups Fight Federal Filtering Mandate." *Eschool News Online*. February 5, 2001. <http://www.eschoolnews.com/news/showStory.cfm?ArticleID=2217>. Last retrieved January 7, 2002.

Trudell, Nelson. *Doing Sex Education*. New York: Routledge, 1993.

"Funding Commitments: Cumulative National Data for Year 4." Universal Service Administrative Company. January 2, 2001. <http://www.sl.universalservice.org/funding/y4/national.asp>. Last Retrieved January 7, 2002.

The Power of the Internet for Learning: Moving from Promise to Practice. Web-Based Education Commission. December 2000. <http://www.ed.gov/offices/AC/WBEC/FinalReport/WBECReport.pdf>. Last Retrieved January 7, 2002.

U.S. Congress. Senate. *Children's Internet Protection Act*. 106th Congress, 1st sess., S.97, August 5, 1999.

United States Department of Education. "Discounted Telecommunications Services for Schools and Libraries E-Rate Fact Sheet." June 20, 2000. <http://www.ed.gov/Technology/comm-mit.html>. Last retrieved January 7, 2002.

Works Consulted:

Cady, Brad, representative, American Academy of Pediatrics. Interviewed by Stacy Lau, January 3, 2002.

Canova, Karen, representative, National Organization on Adolescent Pregnancy, Parenting, and Prevention. Interviewed by Stacy Lau, December 27, 2001.

Greengrass, Mara, representative, American Psychological Association. Interviewed by Stacy Lau, December 28, 2001.

McGee, Michael, Education Department, Planned Parenthood. Interviewed by Stacy Lau, January 3, 2002.

Seifert, Mark, Accounting Policy Division of the Common Carrier Bureau, Federal Communications Commission. Interviewed by Stacy Lau, January 2, 2002.