VALLEJO CITY
UNIFIED SCHOOL DISTRICT

Ramona E. Bishop, Ed.D. • Superintendent

August 27, 2014

The Honorable E. Bradley Nelson
Presiding Judge
Solano County Superior Court
600 Union Avenue
Fairfield, CA 94533

Re: **2013-2014 Civil Grand Jury Report**
       Security Impact on Graduation Rates in Solano County High Schools

Dear Judge Nelson:

The Vallejo City Unified School District ("The District") has received a copy of the 2013-2014 Grand Jury Report regarding "Security Impact on Graduation Rates in Solano County High Schools" (hereafter "Report"). Pursuant to Penal Code section 933, subsection (c), this letter constitutes the District's official response to the Report.

The District respects the importance of the Civil Grand Jury's charge to investigate and report on the operations of local government agencies which serve as an important check and balance against abuses of authority and misuse of public funds. The District's full cooperation in the process, including responding to Grand Jury requests, producing documents and providing testimony of witnesses has been an effort to further facilitate this process with hopes of providing a clear understanding to the Grand Jury on the critical issue of the impact of security on student drop-out and graduation rates in Solano County—and in the District more specifically.

The Grand Jury's 2013-2014 Report addresses an important and complex issue in Solano County and in the District. We respect the Grand Jury's attempt to address this issue and to offer recommendations to improve the graduation rate of students throughout Solano County. However, the Civil Grand Jury's report, findings and recommendations suffers from an incomplete understanding of best research-based educational practices in this area.

This research was thoroughly summarized by Congress in the June 26, 2013 United States Congressional Report "School Resources Officers: Law Enforcement Officers in Schools." (CSR R43126, hereafter "Congressional Report," copy attached.) Indeed, the "Concluding Thoughts" section of the Congressional Report makes a statement worth careful consideration here:

> While a law enforcement presence at a school might facilitate actions, such as security planning or threat assessments, that might promote school safety, and the presence of an SRO might serve as a deterrent to a potential school shooter or

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provide a quick response if a shooting occurs, some might be concerned that a regular law enforcement presence might have some unintended consequences for students. *Research suggests that the presence of SROs might result in more children being involved in the criminal justice system for relatively minor offenses, and this, in turn, can result in other negative consequences, such as higher rates of suspension or a greater likelihood of dropping-out of school.*

(Congressional Report at p.26, emphasis added.)

With this in mind, the District's detailed response to the specific findings and recommendations set forth in the Report are set out below.

I.   RESPONSES:

Finding 1

The schools with resource officers on campus exhibited lower defiance and disruption problems and produce higher graduation rates.

Recommendation 1

All high schools in Solano County identify funding to implement the Resource Officer Program.

Response to Recommendation 1

A.   The District Has Already Implemented Programs which Address the Concerns of the Grand Jury

The 2013-2014 Solano County Grand Jury Report, based upon a simple review of school disciplinary data and graduation rates, finds a positive link between the presence of school resource officers on campus and graduation rates. Specifically, the Report assumes that the presence of school resource officers ("SRO") creates a safer learning environment by providing schools with direct contact with police officers serving as informal counselors, crime deterrents, investigators, and first responders.

The District agrees that SROs may be helpful in certain settings. In fact, the Chief of the Vallejo Police Department recently agreed to fund an SRO to assist with campus security measures and emergency planning. The District is currently negotiating to ensure the SRO program aligns with best practices in the field and is aligned with restorative-justice practices already underway in the District. The District specifically has an interest in having the SRO collaborate with the Jesse Bethel Law and Justice Academy as well as assist with the establishment of a VCUSD Cadet program.

However, the District does not view SROs as the only or even primary investment the District can or should make in ensuring campus safety and decreased dropout rates. Rather, three years ago the District began implementation of research-based strategies, including Positive Behavior Intervention Supports, which are specifically designed to create systems in schools to support positive student behaviors and ensure a safe and productive learning environment. (The District provided detailed information about this program to the Grand Jury in the prior year Grand Jury process.)

Additionally, over two and a half years ago, the District began implementation of a research based Vallejo Full Service Community School Program ("VFSCS") to help create safer learning environments at all schools within the District and ultimately to improve student academic achievement. The six central objectives of VFSCS are to (1) improve student achievement (closing the achievement gap); (2) improve student attendance; (3) reduce student referrals, suspensions, and expulsions; (4) increase student well-being in a range of health indices; (5) improve school campus safety; and (6) increase parent involvement in their children's education.

Among many other activities, the VFSCS includes training counselors and clinicians to meet the mental health needs of students, which is a critical and effective step towards fulfilling the Report's and the District's goals. Positive results from this effort are already being realized, including in the areas of improved campus safety and reduced student referrals, suspensions and expulsions. For example:

Discipline Referrals at VCUSD High Schools			2013-14 School Year
2010-11	2012-13	2013-14	Suspensions – decreased by 25%
74,000	18,908	13,000	Expulsions – decreased by 21.4%

The District is committed to continued improvement in campus safety and high school graduation rates through the continued implementation of the VFSCS program and other proven strategies.

B. Research on the Effect of SROs in School Districts Such as Vallejo Suggest SROs May Have a Negative Impact on School Culture and Access to Education.

As with all school districts, the decision to invest scarce resources, primarily from state funding, into any program should be based on evidence and supporting information that shows positive outcomes for students. Consequently, a decision to invest resources in an SRO program should be based on research and evidence that permits one to conclude that SROs ensure school safety *and* increase graduation rates.

As stated, the Report concludes that low graduation rates at the District's two high schools are due to a lack of presence by SROs. However, that conclusion does not appear to be directly supported by the available evidence. Indeed, the association between SROs and graduation rates is far more tenuous and a link between the two is not supported by research or experience.

Indeed, numerous organizations, such as the National Association of School Psychologists, have concluded there is no clear evidence that the use of resource officers in schools reduces the risk of violent behavior among students. In addition, while the Report seems to attribute low graduation rates to an absence of SROs, research and available data suggests those rates are more properly attributed to attendance and economic factors.

1. Truancy Rate and Dropout Rate

One of the primary factors in school graduation rates is not discipline or security, but rather student truancy. In "Finishing High School: Alternative Pathways and Dropout Recovery,"[1] John H. Tyler of Brown University and Magnus Lofstrom of the Public Policy Institute of California reported that excessive tardiness results in a student being unable to understand the material and thus losing focus. As a result, "the student will misbehave…since he/she is discouraged and overwhelmed by the material." The authors explain that high dropout rates can indeed be attributed to high truancy rates.

Understanding this direct correlation, the District's VFSCS Program includes as one of the six main program objectives decreasing truancy and, ultimately, the dropout rates. The District has also implemented a comprehensive credit recovery program which ensures that students can make up credits in a timely fashion, including credits students have failed to achieve because of poor attendance or truancy. The credit recovery program compliments the VFSCS and helps fulfill the District goal of decreasing dropout rates by providing a mechanism for students to make up credits via an efficient and supportive program. Consequently, students are less likely to feel frustrated and discouraged.

Respectfully, the Grand Jury Report creates the incorrect impression that placement of SROs on schools campuses is the primary solution for decreasing dropout rates and increasing graduation rates. Research studies and real experience do not support that conclusion. Rather, independent research and case studies demonstrate that programs mirroring the credit recovery initiative and the VFSCS Program are the more effective alternatives for decreasing dropout rates and increasing graduation rates. In fact, over the last three years, VCUSD graduation rates improved from 54% to approximately 65%.

2. Economic Factors and Dropout Rate

Additionally, the Grand Jury Report does not account for economic factors in determining that the absence of SROs correlated and resulted in increased dropout rates. However, a substantial number of studies attribute dropout rates to socioeconomic factors. A study in the Journal of Criminal Justice found that, "when controlling for poverty, the rate of arrest per one hundred students was not significantly higher for schools with SROs as opposed to schools without

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[1] The Future of Children, "Finishing High School: Alternative Pathways and Dropout Recovery", Vo;. 19, No. 1 (2009), hereafter "Future of Children".

SROs."[2] The Journal of Criminal Justice's finding does not support the Report's conclusion that Resource officers serve as "crime deterrents" and thereby ensure a safe learning environment from which students would graduate. Indeed, once economic factors were controlled, arrest rates and consequently dropout rates in schools with resource officers mirrored those without resource officers. Rather, the number of students receiving free and reduced lunch within a school correlated with that school's arrest and dropout rates. This is a significant finding since 70% of the District's students receive a free and reduced lunch, which means they meet federal poverty guidelines.

The Journal of Criminal Justice report concludes that the "percent of students in poverty at a school was positively correlated with the out of school suspension rate, while school enrollment and mean school attendance rates were negatively correlated with this rate."[3] Therefore, as the poverty, and consequently out of school suspension rate, increased, school enrollment and attendance decreased. As a result, students in poverty are absent from school at higher rates and dropout at higher rates as a result of feeling discouraged due to their frustrations with understanding the material. Of course, these facts do not excuse efforts to improve campus safety and improve drop-out rates. Nor do these facts preclude the use of SROs on school campuses where it is demonstrated their involvement positively improves school safety. Rather, these facts underscore the need for proven strategies to improve school safety and graduation rates, including the types of efforts imbedded in the Districts VFSCS Program

The use of SROs can provide benefit to schools in certain areas and at certain schools to address specific issues, which is why the District asked the Vallejo City Police Department to fund an SRO. It remains, however, that SROs are not the most effective resource investment to address the underlying issues surrounding dropout and graduation rate, including truancy and poverty.

Given this research, the District's primary effort to reverse the prolonged process of disengagement from school, dropout rates, and increased incarceration rates will remain its implementation of the VFSCS Program that focuses on the underlying factors with students that contribute to improved campus safety, improved student attendance and improved graduation rates.

Finding 2

Not all high schools were in compliance with the California Education Code 38003 regarding proper identification for Site Safety Officers.

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[2] Journal of Criminal Justice 37 (2009), "School resource officers and the criminalization of student behavior" (hereafter "Journal of Criminal Justice") p. 285.

[3] Journal of Criminal Justice, p. 283.

Recommendation 2

All high schools take necessary measures to ensure compliance with California Education Code 38003.

Response to Recommendation 2

Although California Education Code 38003 only requires that Site Safety Officers and Site Safety Supervisors possess identification, and does not mention the need for displaying such identification, the District intends to continue implementing intensive training programs while requiring Site Safety Officers to wear identification during school hours. The District has shown its commitment to such procedures via Site Safety Supervisor Training programs which provide Site Safety Supervisors with detailed training from DPREP Consulting Services. Such training implemented both SB1626 (state mandated supervisor training) and the Critical Incident Response in Schools program.

Finding 3

Vallejo High and Jesse Bethel High defiance and disruptions in classroom are comparatively excessive to the other high schools included in this report.

Recommendation 3

Superintendent of the Vallejo City Unified School District, principals of Vallejo High and Jesse Bethel High need to place priority on preventing and controlling the current large numbers of defiance and disruptions in class.

Response to Recommendation 3

The District's current intervention methods, including the VFSCS Program, have been incrementally successful in preventing and controlling defiance and disruption in the classroom while decreasing dropout rates. The District recently implemented a District-wide disciplinary approach focused on restorative justice where staff consistently clarify their expectations and enforce a culture of accountability. On February 26, 2014, the District provided information to the Grand Jury on its programs and data showing their positive impact on reducing suspensions, which improves overall attendance. While this data was not mentioned in the Report under information reviewed by the Grand Jury, these programs and the ongoing results are an example of the priority the District is already placing on preventing and reducing the defiance and disruption in classrooms and on school campuses.

The District has also created systems for adult supervision for all campus areas while also providing on-site monitoring and support to District staff. Under the District's "Cooperative Agreement," a series of responses to "misdemeanor delinquent acts" that include first a warning and then a referral to mediation or school conflict resolution are being implemented over methods which refer students to the juvenile justice system. This approach is all done in a

manner consistent with the Education Code and generates an environment that nurtures students in their behavioral and educational development; as opposed to simply punishing students via criminal proceedings.

Further, the District has implemented numerous programs and initiatives—such as "Positive Behavior Intervention Strategies," relationship building days, and ACLU/OCR trainings for all students and staff—in order to teach students the types of behaviors that are expected within the school and home. Indeed, studies have noted that such an approach is "associated with success . . . in dropout-prevention." The District has included parents in these programs since many studies have found that parental background and family environment have a significant impact on how well a student does in school and whether or not they graduate high school. Therefore, the District seeks to continue implementing a program which keeps students in school instead of arresting, suspending and/or expelling students until they become another figure in the dropout rate. The District believes strongly that simply "getting tough" in order to stop misbehavior — often in the form of "zero tolerance" policies—rarely works, especially with children.

Numerous studies underscore the effectiveness of the District's program by finding that programs and initiatives which improve classroom management skills and appropriate behavioral training for students are more effective in decreasing violence, defiance, and disruption in the classroom than more punitive SRO-based programs. Practices and school cultures that support students are linked to higher student achievement. The District believes it provides a well-balanced program for ensuring school safety and decreased dropout rates by utilizing both SRO and restorative justice type measures.

II. Conclusion

Creating programs which are tailored around the school, as opposed to implementing a blanket "safety approach" for an entire district, ensures that each school's specific needs are met. It is not possible nor is it the best use of District resources to pursue a "one-size-fits-all" approach to the complex issue of school safety and improving graduation rates A comprehensive and proven approach, like the VFSCS, which considers the unique needs of students and the unique needs of each school site, along with the District's "restorative justice approach" that has proven successful in the District and in other schools throughout the nation, will remain the primary programs supporting the District's effort to improve campus safety and security and improve student graduation rates.

On behalf of the entire Board of Trustees, I thank the Solano County Civil Grand Jury for their time and effort in addressing a very important issue in our District and in our County, and the District appreciates the opportunity to submit this formal response to the Grand Jury Report. The Vallejo City Unified School District will continue its efforts to make all of our District schools safe places for our students, staff, and community members and pursue the highest educational outcomes for all of our students.

Sincerely,

Ramona Bishop, Ed.D.
Superintendent of Vallejo City Unified School District

Cc: Board of Trustees, Vallejo City Unified School District
        Attachments (3)

ATTACHMENT 1

School Resource Officers: Law Enforcement Officers in Schools

Nathan James
Analyst in Crime Policy

Gail McCallion
Specialist in Social Policy

June 26, 2013

CRS Report for Congress

Prepared for Members and Committees of Congress

Summary

Some policymakers have expressed renewed interest in school resource officers (SROs) as a result of the December 2012 mass shooting that occurred at Sandy Hook Elementary School in Newtown, CT. SROs are sworn law enforcement officers who are assigned to work in schools.

For FY2014, the Administration requested $150 million in funding for a Comprehensive Schools Safety Program under the Community Oriented Policing Services (COPS) program. The proposed program would provide funding for hiring school safety personnel, including SROs, civilian public safety personnel, school psychologists, social workers, and counselors. Funding would also be available for purchasing school safety equipment, developing and updating public safety plans, conducting threat assessments, and training crisis intervention teams.

Data from the Bureau of Justice Statistics show that the number of full-time law enforcement officers employed by local police departments or sheriff's offices who were assigned to work as SROs increased between 1997 and 2003 before decreasing slightly in 2007 (the most recent year for which data are available). Data show that a greater proportion of high schools, schools in cities, and schools with enrollments of 1,000 or more report having SROs.

Two federal grant programs promoted SRO programs: the COPS in Schools (CIS) program, which was funded until FY2005, and State Formula Grants under the Safe and Drug Free Schools and Communities Act (SDFSCA), which was funded until FY2009. The CIS program provided grants for hiring new, additional school resource officers to conduct community policing services in and around primary and secondary schools. Local educational agencies could use funds they received under the SDFSCA State Formula Grant program for, among other things, hiring and training school security personnel.

The body of research on the effectiveness of SRO programs is limited, both in terms of the number of studies published and the methodological rigor of the studies conducted. The research that is available draws conflicting conclusions about whether SRO programs are effective at reducing school violence. Also, the research does not address whether SRO programs deter school shootings, one of the key reasons for renewed congressional interest in these programs.

There are several questions Congress might consider in the context of grant funding specifically for SRO programs.

- **Does the current level of school violence warrant congressional efforts to expand the number of SROs in schools across the country?** Data suggest that schools are, generally speaking, safe places for children. During the 2010-2011 school year there were 11 reported homicides of children at school. The number of youth homicides that occurred at school remained less than 2% of the total number of homicides of school aged children for each school year going back to the 1992-1993 school year. In 2010, fewer children reported being the victim of a serious violent crime or a simple assault while at school compared to 1994. However, data also show that some schools—namely middle schools, city schools, and schools with a higher proportion of low-income students—have higher rates of reported violent incidents, and schools with a higher proportion of low-income students had higher rates of reported serious violent incidents.

- **Is funding for a wide-scale expansion of SRO programs financially sustainable?** If Congress expanded the number of SROs through additional federal funding, it is likely that many of those officers would go to law enforcement agencies serving jurisdictions of fewer than 25,000 people (data show that nearly 88% of police departments and almost half of sheriff's offices serve jurisdictions of fewer than 25,000 people). Traditionally, COPS grants have provided "seed" money for local law enforcement agencies to hire new officers, but it is the responsibility of the recipient agency to retain the officer(s) after the grant expires. Since smaller law enforcement agencies tend to have smaller operating budgets and smaller sworn forces, retaining even one or two additional officers after a grant expired might pose a significant financial burden.

- **Would additional SROs result in more children being placed in the criminal justice system?** Research in this area is limited to a small number of studies, but these suggest that children in schools with SROs might be more likely to be arrested for low-level offenses. On the other hand, some studies indicate that SROs can deter students from committing assaults on campus as well as bringing weapons to school. Schools with SROs may also be more likely to report non-serious violent crimes (i.e., physical attack or fights without a weapon and threat of physical attack without a weapon) to the police than schools lacking SROs.

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Introduction

Schools have a mission of great importance to our nation—they are responsible for keeping our children safe while educating them and helping prepare them to be responsible and productive citizens. The December 14, 2012, shooting at Sandy Hook Elementary School in Newtown, CT, that claimed the lives of 20 children and 6 adults, has heightened congressional interest in school security. Policymakers have begun debating whether school security can be further enhanced, and if so, how best to accomplish that goal. A wide variety of proposals have been offered at the federal level, such as funding for expanded mental health services for students, funding for training on mental health awareness for school staff, funding to assist schools in improving school climate, funding for more school counselors, and funding for more school resource officers (SROs) or other armed security personnel.

Wayne LaPierre, Executive Vice President and CEO of the National Rifle Association, has proposed putting an armed police officer in every school in the country as a way to prevent mass shootings.[1] President Obama has proposed creating incentives for Community Oriented Policing Services (COPS) grants to be used to hire more SROs in the current year.[2] In addition, he has requested $150 million in funding for a new Comprehensive School Safety Program. This new grant program would provide school districts and law enforcement agencies with funding to hire new SROs and school psychologists, among other things.

This report focuses on one of these proposals—the renewed focus on providing federal funding for more SROs as a means to preventing school shootings. It examines the distribution of and current number of SROs, the potential sustainability of any increase in the number of SROs, and the effect that SROs may have on students and the academic setting. It also examines what available research studies suggest about the extent to which SROs may reduce school violence. These are issues Congress may consider while contemplating an expansion of SRO programs.

Background on School Resource Officers

Many people probably have a basic understanding of what an SRO is: a law enforcement officer who works in a school. However, some policymakers, before considering legislation to increase the number of SROs in schools across the country, are likely to have questions beyond "what are SROs?" Some of these questions might include the following:

- What role do SROs play in the school environment?
- Why have schools and law enforcement agencies started SRO programs?
- How many SROs are there around the country?

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[1] David Nakamura and Tom Hamburger, "Put Armed Police in Every School, NRA Urges," *Washington Post*, December 21, 2012, http://articles.washingtonpost.com/2012-12-21/politics/35950179_1_gun-regulation-national-school-shield-program-gun-violence/2.

[2] The COPS Office announced that applicants for hiring grants under the COPS Hiring Program (CHP) who request funding for hiring and deploying SROs will receive additional consideration for FY2013 CHP funding. U.S. Department of Justice, Community Oriented Policing Services Office, *2013 COPS Hiring Program*, Fact Sheet, p. 2, http://www.cops.usdoj.gov/pdf/2013AwardDocs/CHP/2013_CHP-Preaward-FactSheet.pdf.

Each of these questions is addressed in this section of the report. Subsequent sections discuss: the federal role in promoting SROs; research on the effectiveness of SROs; the Administration's proposals; and select issues for Congress.

The Role of School Resource Officers

Police agencies have traditionally provided services to schools, but it has only been over the past 20 years where the practice of assigning police officers to schools on a full-time basis has become more wide-spread.[3] Criminal justice and education officials sought to expand school safety efforts—which included assigning law enforcement officers to patrol schools—in the wake of a series of high-profile school shootings in the 1990s.[4] Expanding the presence of SROs in schools was also partly a response to rising juvenile crime rates during the 1980s and early 1990s.[5]

It has been argued that SROs are a new type of public servant; a hybrid educational, correctional, and law enforcement officer.[6] While the duties of SROs can vary from one community to another, which makes it difficult to develop a single list of SRO responsibilities, their activities can be placed into three general categories: (1) safety expert and law enforcer, (2) problem solver and liaison to community resources, and (3) educator.[7] SROs can act as safety experts and law enforcers by, assuming primary responsibility for handling calls for service from the school, making arrests, issuing citations on campus, taking actions against unauthorized persons on school property, and responding to off-campus criminal activities that involve students.[8] SROs also serve as first responders in the event of critical incidents at the school. SROs can help to solve problems that are not necessarily crimes (e.g., bullying or disorderly behavior) but that can contribute to criminal incidents.[9] Problem-solving activities conducted by SROs can include developing and expanding crime prevention efforts and community justice initiatives for students. SROs can also present courses on topics related to policing or responsible citizenship for students, faculty, and parents.[10]

There are two definitions of "school resource officer" in federal law and both definitions include some of the responsibilities outlined in the previous paragraph. Under the authorizing legislation for the Community Oriented Policing Services (COPS) program (42 U.S.C. §3796dd-8), a "school resource officer" is defined as

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[3] Barbara Raymond, *Assigning Police Officers to Schools*, U.S. Department of Justice, Community Oriented Policing Services Office, Problem-oriented Guides for Police Response Guides Series No. 10, Washington, DC, April 2010, p. 1, http://www.cops.usdoj.gov/Publications/e041028272-assign-officers-to-schools.pdf, hereinafter *"Assigning Police Officers to Schools."*

[4] Ben Brown, "Understanding and Assessing School Police Officers: A Conceptual and Methodological Comment," *Journal of Criminal Justice*, vol. 34, no. 6 (November-December 2006), p. 591, hereinafter "Understanding and Assessing School Police Officers."

[5] Chongmin Na and Denise C. Gottfredson, "Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors," *Justice Quarterly*, online publication, 2011, p. 3, hereinafter "Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors."

[6] Understanding and Assessing School Police Officers, p. 593.

[7] *Assigning Police Officers to Schools*, p. 2.

[8] Ibid.

[9] Ibid., p. 4.

[10] Ibid., p. 5.

> a career law enforcement officer, with sworn authority, deployed in community-oriented policing, and assigned by the employing police department or agency to work in collaboration with schools and community-based organizations—(A) to address crime and disorder problems, gangs, and drug activities affecting or occurring in or around an elementary or secondary school; (B) to develop or expand crime prevention efforts for students; (C) to educate likely school-age victims in crime prevention and safety; (D) to develop or expand community justice initiatives for students; (E) to train students in conflict resolution, restorative justice, and crime awareness; (F) to assist in the identification of physical changes in the environment that may reduce crime in or around the school; and (G) to assist in developing school policy that addresses crime and to recommend procedural changes.

Under the Safe and Drug Free Schools and Communities Act (20 U.S.C. §7161), a "school resource officer" is defined as

> a career law enforcement officer, with sworn authority, deployed in community oriented policing, and assigned by the employing police department to a local educational agency to work in collaboration with schools and community based organizations to—(A) educate students in crime and illegal drug use prevention and safety; (B) develop or expand community justice initiatives for students; and (C) train students in conflict resolution, restorative justice, and crime and illegal drug use awareness.

The two definitions of an SRO share some similarities. Both define SROs as law enforcement officers who engage in community-oriented policing activities and who are assigned to work in collaboration with schools and community-based organizations. Both definitions also focus on developing community justice initiatives for students and training students in conflict resolution, restorative justice, and crime awareness. The definition of an SRO under the Safe and Drug Free Schools and Communities Act includes a focus on educating students in crime and illegal drug use prevention and safety, which is consistent with the purposes of the act. The definition of an SRO under the authorizing legislation for the COPS program focuses more on how SROs could address a school's crime problems through a more traditional law enforcement/security approach. As such, SROs under the COPS definition concentrate on addressing crime and disorder problems, gangs, and drug activities occurring in and around the school; assist in the identification of changes to the physical structure of the school or the area around the school that could help reduce crime; and assist in developing school policy that addresses crime.

Reasons for Establishing SRO Programs

A national survey of schools, and the law enforcement agencies that provided services to the schools that responded to the survey, found that school principals and law enforcement officials have different views about why schools do or do not have SROs. The results of the survey indicate that in very few cases was the level of violence in the school the key reason for starting an SRO program (approximately 4% of both school and law enforcement agencies cited this as the reason for starting the SRO program).[11] About one-quarter of schools reported that national media attention about school violence was the primary reason for starting the SRO program, while about one-quarter of law enforcement agencies cited school disorder problems (e.g.,

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[11] Lawrence F. Travis III and Julie K. Coon, *The Role of Law Enforcement in Public School Safety: A National Survey*, July 10, 2005, p. 85, https://www.ncjrs.gov/pdffiles1/nij/grants/211676.pdf, hereinafter "*The Role of Law Enforcement in Public School Safety.*"

rowdiness or vandalism) as the primary reason an SRO was assigned to a school.[12] However, the most common response for both groups was "other." Respondents who marked "other" as their answer were asked to describe the reason why they started an SRO program. There were a variety of responses from both groups, including "received a grant to start the program," "part of community policing efforts," "part of a drug awareness program," or "improve school safety."[13]

Approximately 22% of schools reported that the primary reason they *did not* have an SRO was because they did not have adequate funds, while 43% of law enforcement agencies reported that inadequate funding was the primary reason why the schools they served did not have an SRO.[14] On the other hand, two-thirds of schools reported that the primary reason they did not have an SRO was because there was no need for one.[15] In comparison, 28% of law enforcement agencies reported that schools did not have an SRO because there was not a need for one.[16] There was also disagreement over whether the school would benefit from having an SRO. A majority of schools (55%) reported that they did not think the school would benefit from having an SRO, while 71% of law enforcement agencies reported that schools would benefit from having an SRO.[17]

The survey data show a divide between educators and law enforcement officers regarding the potential benefits of SRO programs. The results of the survey might reflect the different philosophies of educators and law enforcement officers. Schools focus on educating children, and teachers and education administrators might be opposed to an SRO program if they believe that the presence of an SRO will disrupt the learning environment, portray the school as being unsafe, or upset students. On the other hand, law enforcement personnel are philosophically oriented towards public safety. Their initial response to a crime problem in schools might focus on increasing law enforcement's presence at the school as a means of deterring criminal behavior.

How Many School Resource Officers are There Nationwide?

Police have traditionally provided services to schools, but it has only been in the past 20 years that assigning officers to work in schools full-time has become widespread.[18] Data available from the Bureau of Justice Statistics (BJS) and the National Center for Education Statistic (NCES) provide some insight into the total number of SROs and the type of schools that they serve, but the data are not collected and reported regularly. The BJS's Law Enforcement Management and Administrative Statistics (LEMAS) survey is conducted periodically every three or four years. The survey collects data on the number of SROs employed by various law enforcement agencies, but it does not collect data on the type of schools SROs serve. The most recent LEMAS data available are from the 2007 survey. The NCES's School Survey on Crime and Safety (SSCS) collects data on the locale, enrollment size, and level of schools that have SROs. The SSCS is administered every other school year, but the most recent SSCS data available on the distribution of SROs are from the 2007-2008 school year survey.

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[12] Ibid.

[13] Ibid., p. 84.

[14] Ibid, p. 86.

[15] Ibid.

[16] Ibid.

[17] Ibid.

[18] *Assigning Police Officers to Schools*, p. 1.

LEMAS survey data show that the number of full-time law enforcement officers employed by local police departments or sheriff's offices who were assigned to work as SROs increased between 1997 (the first year data were collected) and 2003 before decreasing slightly in 2007.[19] As shown in **Figure 1**, there were approximately 6,700 more police officers or sheriff's deputies assigned to work as SROs in 2007 compared to 1997, but there were approximately 800 fewer SROs in 2007 compared to the peak in 2003. The data show that the number of sheriff's deputies assigned to work as SROs increased between 1997 and 2007, while the number of police officers working as SROs decreased between 2003 and 2007 after increasing in 2000 and 2003.

Figure 1. Full-Time School Resource Officers Employed by Local Law Enforcement Agencies
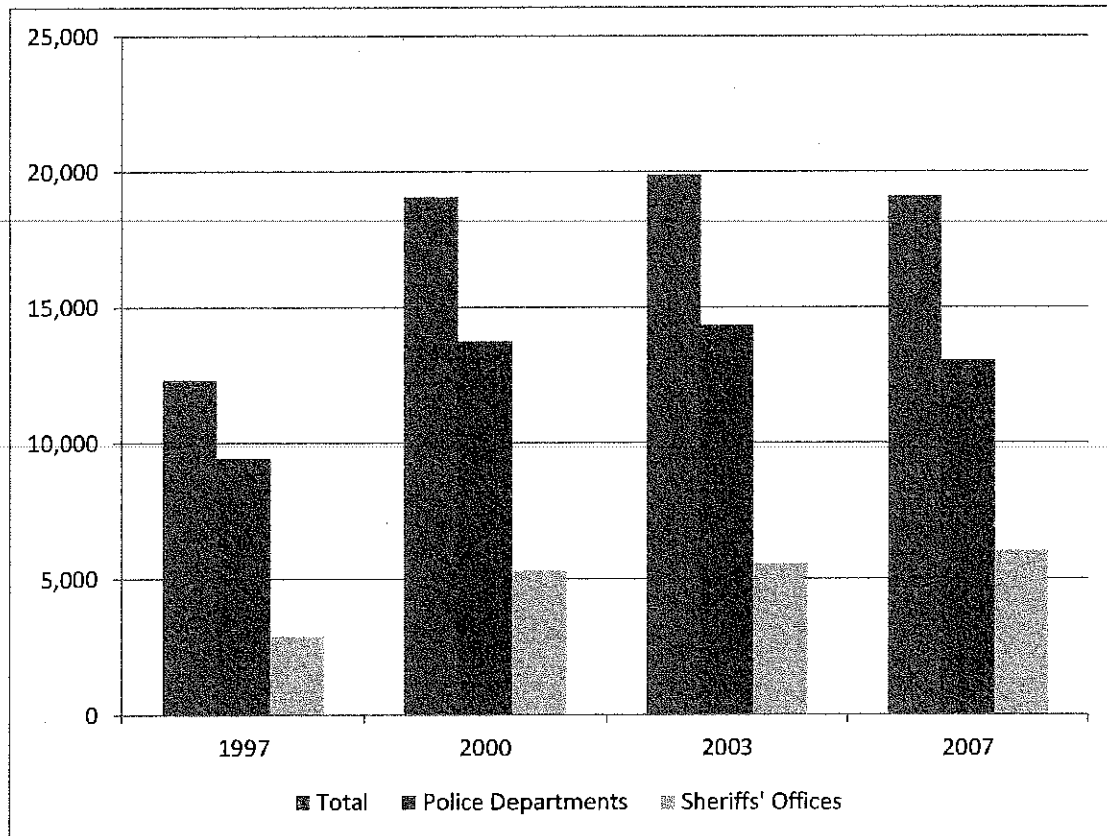
Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Local Police Departments* for 1997, 2000, 2003, and 2007 and *Sheriff's Offices* for 1997, 2000, 2003, and 2007.

Data from the LEMAS survey also show that the overall proportion of police departments and sheriff's offices that reported assigning officers or deputies to work as SROs decreased between

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[19] The LEMAS survey collects data from over 3,000 state and local law enforcement agencies, including all those that employ 100 or more sworn officers and a nationally representative sample of smaller agencies. Data are obtained on the organization and administration of police and sheriff's departments, including agency responsibilities, operating expenditures, job functions of sworn and civilian employees, officer salaries and special pay, demographic characteristics of officers, weapons and armor policies, education and training requirements, computers and information systems, vehicles, special units, and community policing activities.

2000 and 2007, but trends in police departments' and sheriff's offices' use of SROs went in different directions. In 2007, as shown in **Figure 2**, 38% of local law enforcement agencies reported using SROs, which was down from the peak of 44% in 2000. However, the proportion of sheriff's offices that reported using SROs was slightly higher in 2007 compared to 2000 (50% of sheriff's offices reported using SROs in 2007 compared to 48% in 2000).

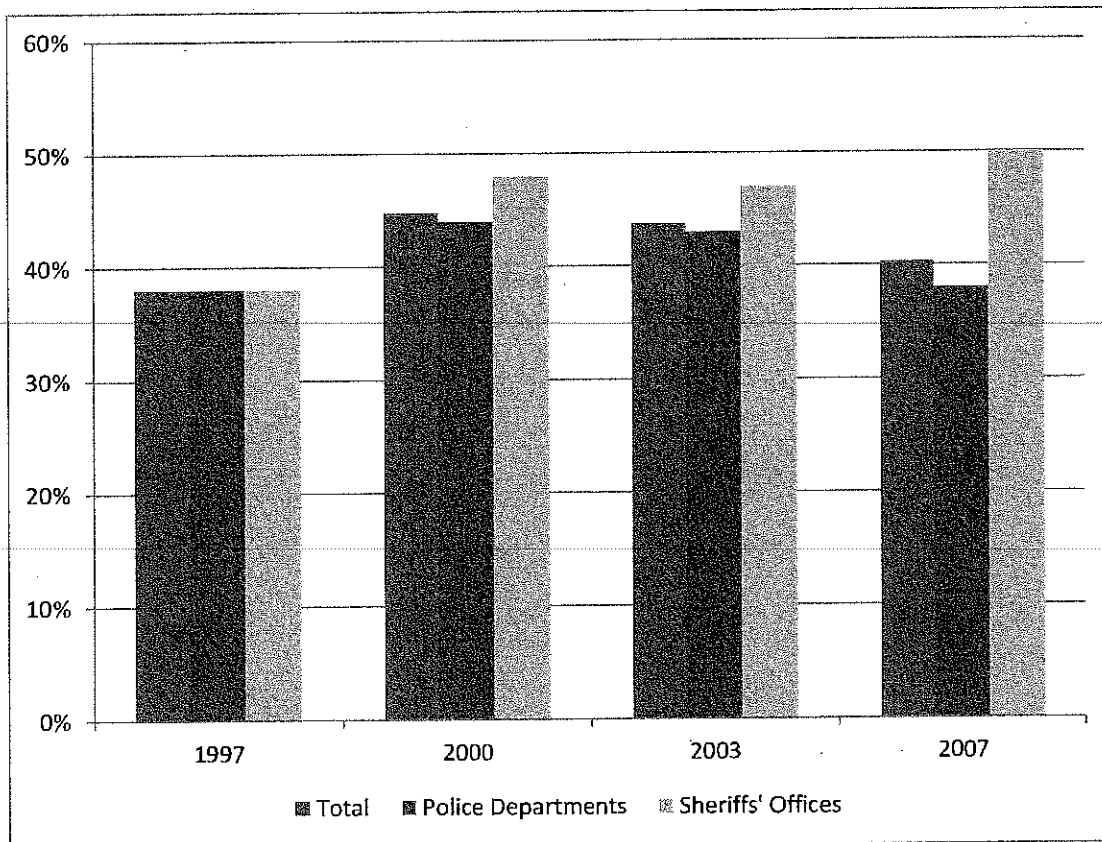**Figure 2. Percent of Local Law Enforcement Agencies Using School Resource Officers**

Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Local Police Departments* for 1997, 2000, 2003, and 2007 and *Sheriff's Offices* for 1997, 2000, 2003, and 2007.

Data from the SSCS for the 2007-2008 school year show that a greater proportion of high schools, schools in cities, and schools with enrollments of 1,000 or more report the presence of SROs. NCES reports that 37% of high schools *did not* have an SRO present at least once a week during the 2007-2008 school year, compared to 45% of middle schools and 76% of elementary schools.[20] Also, 59% of city schools *did not* have an SRO present at least once a week, compared to 65% of suburban schools, 57% of town schools, and 72% of rural schools.[21] Finally, 26% of schools with enrollments of 1,000 or more students *did not* have an SRO present at least one day

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[20] U.S. Department of Education, National Center for Education Statistics, *2007-08 School Survey on Crime and Safety (SSOCS)*, Table 34, http://nces.ed.gov/surveys/ssocs/tables/all_2008_tab_34.asp?referrer=css.

[21] Ibid.

a week while 57% of schools with enrollments of 999-500 students, 73% of schools with enrollments of 499-300 students, and 84% of schools with enrollments of less than 300 students did not have an SRO present at least once a week.[22] One limitation of the data is that they might not account for schools that had a less-frequent SRO presence. The SSCS principal questionnaire for the 2007-2008 school year asked "[d]uring the 2007–08 school year, did you have any security guards, security personnel, or sworn law enforcement officers present at your school <u>at least once a week?</u> [emphasis original]"[23] Therefore, if the SRO was at the school every-other-week, that officer's presence would not be captured by the data.

Federal Funding for School Resource Officers

SRO programs have been encouraged by the federal government through grants provided to local jurisdictions.[24] Two federal grant programs provided funding for the hiring and placement of law enforcement officers in schools across the country: the COPS in Schools (CIS) program and the State Formula Grants program through the Safe and Drug Free Schools and Communities Act. Funding for these programs ended, respectively, in FY2005 and FY2009.

The COPS in Schools (CIS) Program

The CIS program provided grants for hiring new, additional school resource officers to conduct community policing services in and around primary and secondary schools.[25] Congress first provided funding for the COPS in Schools program in 1999 after the Columbine school shooting.[26] Funding for the CIS program was set aside from appropriations for the COPS Hiring Program (CHP). Congress provided funding for this program from FY1999-FY2005.[27] Appropriations for CIS peaked between FY2000 and FY2002, when Congress appropriated approximately $180 million each fiscal year for the program. The COPS Office reports that nearly 7,200 SRO positions were funded through CIS grants.[28] Even though there has not been funding for the CIS program for several fiscal years, law enforcement agencies can use grants they receive under the CHP to hire SROs.[29]

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[22] Ibid.

[23] U.S. Department of Education, National Center for Education Statistics, *School Survey on Crime and Safety, Principal Questionnaire, 2007-08 School Year*, p. 8, http://nces.ed.gov/surveys/ssocs/pdf/ SSOCS_2008_Questionnaire.pdf.

[24] *Assigning Police Officers to Schools*, p. 1.

[25] U.S. Department of Justice, Community Oriented Policing Services Office, *COPS in Schools (CIS)*, http://www.cops.usdoj.gov/default.asp?Item=54.

[26] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors, pp. 2-3.

[27] Annual appropriations for the CIS program are as follows: $167.5 million (FY1999), $180.0 million (FY2000), $179.6 million (FY2001), $180.0 million (FY2002), $39.7 million (FY2003), $59.4 million (FY2004), $4.9 million (FY2005).

[28] Email correspondence with the U.S. Department of Justice, Community Oriented Policing Services Office, March 11, 2013.

[29] Starting in FY2011, the COPS Office asked law enforcement agencies applying for grants under the CHP to identify a public safety problem area that their grants funds would be used to address. According to the COPS Office, 11.5% of the FY2011 applicants and 22.9% of the FY2012 applicants identified "school based policing" as their problem area. In addition, 10.4% of funded applications for the FY2011 CHP and 22.3% of applications for FY2012 CHP were for school based policing. Email correspondence with the U.S. Department of Justice, Community Oriented Policing (continued...)

Safe and Drug Free Schools and Communities Act (SDFSCA)

The SDFSCA is the federal government's major initiative to prevent drug abuse and violence in and around elementary and secondary schools.[30] The SDFSCA was initially enacted in 1994 (P.L. 103-382) in response to concerns about increased school violence and drug use among school-aged youth.[31] The SDFSCA was most recently reauthorized as part of the Elementary and Secondary Education Act (ESEA) in P.L. 107-110, the No Child Left Behind Act of 2001. The SDFSCA program as authorized supports two major grant programs—one for State Formula Grants and one for National Programs.[32]

However, FY2009 was the last year that funding was provided for the State Formula Grant Program. Since FY2010, funding has only been provided for National Programs. The State Formula Grant Program distributed formula grants to states, and from states to all local educational agencies (LEAs), as required by law. LEAs could use their grants for a wide variety of authorized activities, including for the hiring and training of school resource officers.[33]

Research on the Effectiveness of School Resource Officers

SROs engage in many activities that could contribute to school safety. A national survey of schools found that schools with SROs had significantly greater levels of law enforcement involvement compared to schools without assigned officers.[34] Schools with SROs were more likely to report that

- school facilities and grounds were patrolled,
- safety and security inspections were conducted,
- student leads about crimes were investigated,
- arrests were made, and

(...continued)

Services Office, April 1, 2013.

[30] As part of its proposal to reauthorize the ESEA, which is under consideration in the 113th Congress, the Obama Administration has proposed significant changes to the SDFSCA. The reauthorization proposal would consolidate several smaller programs into a new broader program titled "Successful, Safe, and Healthy Students." For more information on the SDFSCA see CRS Report RL33980, *School and Campus Safety Programs and Requirements in the Elementary and Secondary Education Act and Higher Education Act*, by Gail McCallion and Rebecca R. Skinner.

[31] On October 20, 1994, President William J. Clinton signed into law the Improving America's School Act (P.L. 103-382), which reauthorized the ESEA, and created the SDFSCA as Title IV. The 1994 legislation extended, amended, and renamed the Drug-Free Schools and Communities Act of 1988 (DFSCA; P.L. 100-297). Violence prevention was added to DFSCA's original drug abuse-prevention purpose by incorporating the Safe Schools Act. The Safe Schools Act was originally created by Title VII of the Goals 2000: Educate America Act of 1994 (P.L. 103-227).

[32] Although funding is no longer provided for SDFSCA State Formula Grants, funding continues to be provided for several National Programs. The authorization of appropriations for the SDFSCA expired at the end of FY2008; funding has continued to be provided for National Programs through appropriations legislation.

[33] The SDFSCA includes an extensive list of activities that are allowable uses of funds by LEAs, including the activities that that are part of the President's proposed Comprehensive School Safety Plan, discussed later in this report.

[34] *The Role of Law Enforcement in Public School Safety*, p. 47.

- there were responses to crime reports from staff and students.[35]

In addition, schools with SROs were more likely to work with law enforcement to create an emergency plan agreement; develop a written plan to deal with shootings, large scale fights, hostages, and bomb threats; and conduct risk assessments of the security of school buildings or grounds.[36] Schools with SROs were also more likely to have police officers involved in mentoring students and advising school staff.[37] However, while the results of the survey show that SROs are undertaking actions that might contribute to safer schools, they do not indicate whether these actions reduce school violence.

Despite the popularity of SRO programs, there are few available studies that have reliably evaluated their effectiveness.[38] A more specific critique of the literature on SRO programs notes that to properly assess the effect of SRO programs it is necessary to collect data on reliable and objective outcome measures during a treatment period (i.e., a period in which SROs worked in schools) and a control period (i.e., a period in which no SROs were present).[39] Data on the control period could be collected from comparable schools without SROs or from the same school before the SRO was assigned to the school.[40] Data from both the treatment and control conditions should be collected over a long enough period of time that they generate a stable estimate of the outcome measures, and the outcome measure should not be influenced by the placement of the SRO in the school (e.g., using the SRO's incident reports).[41] At the time this review of the literature was published (2011), no evaluations of SRO programs met this standard.[42]

One summary of the body of literature on the effectiveness of SRO programs notes that

> [s]tudies of SRO effectiveness that have measured actual safety outcomes have mixed results, some show an improvement in safety and a reduction in crime;[43] others show no change.[44] Typically, studies that report positive results from SRO programs rely on participants' perceptions of the effectiveness of the program rather than on objective evidence. Other studies fail to isolate incidents of crime and violence, so it is impossible to know whether the positive results stem from the presence of SROs or are the results of other factors.[45]

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[35] Ibid., pp. 48-49.

[36] Ibid., p. 53.

[37] Ibid., pp. 49-50.

[38] *Assigning Police Officers to Schools*, p. 7.

[39] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors, p. 5.

[40] Ibid., p. 6.

[41] Ibid.

[42] Ibid.

[43] See for example Ida M. Johnson, "School Violence: The Effectiveness of a School Resource Officer Program in a Southern City," *Journal of Criminal Justice*, vol. 27, no. 2 (1999), pp. 173-192.

[44] See for example Arrick Jackson, "Police-school Resource Officers' and Students' Perception of the Police and Offending," *Policing: An International Journal of Police Strategies and Management*, vol. 25, no. 3 (2002), pp. 631-650.

[45] *Assigning Police Officers to Schools*, p. 8.

A study of 19 SRO programs sponsored by the National Institute of Justice did not draw any conclusions about their effectiveness because very few of the programs included in their study "conducted useful and valid assessments of their programs."[46]

More recent research has attempted to address some of the shortcomings of previous studies on the topic by using broader datasets and statistical techniques that control for possible confounding variables, but they still suffer from some limitations. For example, a study by Tillyer, Fisher, and Wilcox found that students in schools where police were present and/or involved in the school's daily decision making were no less likely than students in schools where the police were not present and/or involved in decision making to report that they were the victims of a serious violent offense, believe they were at risk for being victimized, or were afraid of being victimized.[47] However, this study used data collected mostly from children in rural schools in Kentucky, which could raise questions about whether the results are generalizable to other locales. Another study by Jennings et al. found that the number of SROs in a school had a statistically significant negative effect on the number of reported serious violent crimes, but not on the number of reported violent crimes.[48] Nonetheless, this study only used one year of data, which means that it is not possible to determine if reported crimes in high schools decreased after the school started an SRO program.

A third study by Na and Gottfredson used a dataset that allowed the researchers to evaluate whether the reported number of offenses decreased after schools started SRO programs.[49] The results of the analysis show that schools that added SROs did not have a lower number of reported serious violent,[50] non-serious violent,[51] or property crimes.[52] However, schools that added SROs had a higher number of reported weapon and drug offenses.[53] There are some limitations to this study, namely (1) the reported number of crimes might be influenced by the presence of an SRO; (2) the sample of schools included in the study is not representative of all schools in the United States (it over-represents secondary schools, large schools, and non-rural schools); and (3) the effects of adding SROs may be confounded with the installation of other security devices (e.g., metal detectors) or other security-related policies.

The body of research on the effectiveness of SRO programs is noticeably limited, both in terms of the number of studies published and the methodological rigor of the studies conducted. The

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[46] Peter Finn and Jack McDevitt, *National Assessment of School Resource Officer Programs: Final Project Report*, Washington, DC, February 28, 2005, p. 47, https://www.ncjrs.gov/pdffiles1/nij/grants/209273.pdf, hereinafter *"National Assessment of School Resource Officer Programs."*

[47] Marie Skubak Tillyer, Bonnie S. Fisher, and Pamela Wilcox, "The Effects of School Crime Prevention on Students' Violent Victimization, Risk Perception, and Fear of Crime: A Multilevel Opportunity Perspective," *Justice Quarterly*, vol. 28, no. 2 (April 2011), pp. 249-277.

[48] Wesley G. Jennings, David N. Khey, and Jon Maskaly, et al., "Evaluating the Relationship Between Law Enforcement and School Security Measures and Violent Crime in Schools," *Journal of Police Crisis Negotiations*, vol. 11, no. 2 (2011), pp. 109-124.

[49] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors.

[50] "Serious violent" crimes included rape, sexual battery other than rape, robbery with or without a weapon, physical attack or fight with a weapon, and threat of physical attach with a weapon.

[51] "Non-serious violent" crimes included physical attack or fight without a weapon and threat of physical attack without a weapon.

[52] "Property" crimes included theft and vandalism.

[53] "Weapons and drug" offenses included possession of a firearm or explosive device; possession of a knife or sharp object; and distribution, possession, or use of illegal drugs or alcohol.

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research that is available draws conflicting conclusions about whether SRO programs are effective at reducing school violence. In addition, the research does not address whether SRO programs deter school shootings, one of the key reasons for renewed congressional interest in these programs. There are logical reasons to believe that SROs might help prevent school shootings; to wit, that someone might not attack a school if he or she knows that there is an officer on-site, or SROs developing a relationship with the student body might facilitate reporting of threats made by other students. In addition, placing an officer in a school might facilitate a quicker response time by law enforcement if a school shooting occurs. However, none of the research on the effectiveness of SRO programs addresses this issue.

Promising Practices for Successful SRO Programs

A report published by the COPS Office notes that there is a lack of research on SRO programs, so it is not possible to identify a "one-size-fits-all" series of recommendations for implementing a maximally successful SRO program.[54] The report, however, identifies several promising practices for a successful SRO program. First, it emphasizes that all schools should develop a comprehensive school safety plan based on a thorough analysis of the problem(s) the school is facing and resources should be deployed accordingly. The report also notes that while SROs might be an important component of an overall safety plan, they should not be the only component. In some instances, school safety plans might not require the deployment of an SRO. If the school decides to use an SRO, there should be clear goals for the program, SROs should engage in activities that directly relate to school safety goals and address identified needs, and data should be collected to determine whether the program is achieving its goals. Finally, the report notes that effective SROs engage in problem-solving policing rather than simply responding to incidents as they occur.[55]

The report notes that there are operational obstacles that can threaten the success of an SRO program, including a lack of resources for the officer such as time constraints or lack of training, or turnover and reassignment.[56] These challenges can be addressed with a proper framework, but it can require in-depth discussion and negotiations between school administrators and the law enforcement agency.

The report also stresses that schools and law enforcement agencies should be aware of any pitfalls before agreeing to establish an SRO program.[57] There may be philosophical differences between school administrators and law enforcement agencies about the role of the SRO. Law enforcement agencies focus on public safety while schools focus on educating students. Establishing an operating protocol or memorandum of understanding (MOU), according to the report, is a critical element of an effective school-police partnership.[58] The MOU should clearly state the roles and responsibilities of the actors involved in the program.[59] Researchers who conducted an evaluation of 19 SRO programs note that "[w]hen SRO programs fail to define the SROs' roles and

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[54] *Assigning Police Officers to Schools*, p. 22.

[55] Problem-solving policing involves changing the conditions that give rise to recurring crime problems. Ibid., p. 24.

[56] Ibid., p. 22.

[57] Ibid.

[58] Ibid., p. 30.

[59] Ibid.

responsibilities in detail before—or even after—the officers take up the posts in the schools, problems are often rampant—and may last for months and even years."[60]

According to the report, selecting officers who are likely to succeed in a school environment—such as officers who can effectively work with students, parents, and school administrators, have an understanding of child development and psychology, and who have public speaking and teaching skills—and properly training those officers are identified as two important components of a successful SRO program.[61] While it is possible to recruit officers with some of the skills necessary to be an effective SRO, it is nonetheless important to provide training so officers can hone skills they already have or develop new skills that can make them more effective SROs.[62] It might also be important for SROs to receive training before or shortly after starting their assignment. The study of 19 SRO programs mentioned previously concluded that *"any delay in training can be a serious problem* [emphasis original] because SROs then have to learn their jobs by 'sinking or swimming.'"[63]

The Administration's Proposed Comprehensive School Safety Program

The Administration requested $150 million in funding for a Comprehensive Schools Safety Program as a part of its FY2014 budget request for the COPS program. The COPS Office would work with the Department of Education to administer the program. The proposed program would provide funding for hiring school safety personnel, including SROs, civilian public safety positions, school psychologists, social workers, and counselors. Funding would also be available for purchasing school safety equipment; developing and updating public safety plans; conducting threat assessments; and training crisis intervention teams. The stated purpose of the program is to "bring the law enforcement, mental health, and education disciplines together to provide a comprehensive approach to school safety."[64] The Administration reports that the program would require law enforcement and school districts, in consultation with school mental health professionals, to apply for funding together and use the grant to fills the gaps in their own school safety and security efforts. The Administration emphasizes that "[f]unding may also be used to support training for any personnel hired to ensure that their presence in the schools does not lead to unnecessarily harsh discipline and arrests for youth misbehaving, and that they will support other school personnel in implementing evidence-based positive behavior strategies."[65]

The Administration's proposed program would provide grants for hiring SROs like the CIS program, but unlike the CIS program, grants under the proposed program could also be used for hiring non-sworn personnel such as civilian public safety officers (i.e., security guards), school psychologists, social workers, and school counselors. The program has a focus on the mental

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[60] *National Assessment of School Resource Officer Programs*, p. 43.

[61] *Assigning Police Officers to Schools*, p. 23.

[62] Ibid., p. 24.

[63] *National Assessment of School Resource Officer Programs*, p. 44.

[64] U.S. Department of Justice, Community Oriented Policing Services Office, *FY2014 Performance Budget, Office of Community Oriented Policing Services*, March 2013, p. 26, http://www.justice.gov/jmd/2014justification/pdf/cops-justification.pdf, hereinafter "COPS FY2014 budget justifications."

[65] Ibid., p. 27.

health and counseling aspect of school safety, an element that was present in the State Formula Grants under the SDFSCA. Under the Administration's proposal, grants could be used to "improve school and community safety by expanding school-based mental health programs through the hiring of qualified mental health professionals."[66] Further, "qualified mental health professionals can improve safety by providing a broad spectrum of assessment, prevention, crisis response, counseling, consultation, and referral activities and services to students and the school community."[67]

Under the Administration's proposal, grants could be used for purchasing school safety equipment, developing and updating safety plans, and conducting threat assessments. This is similar to the purposes of the Matching Grant Program for School Security,[68] which was last funded by Congress in FY2011. Under that program, grants could be used for (1) the placement and use of metal detectors, locks, lighting, and other deterrent measures; (2) security assessments; (3) security training of personnel and students; (4) coordination with local law enforcement; and (5) any other measure that, in the determination of the Director of the COPS Office, may provide a significant improvement in security.[69] State formula grants under the SDFSCA could also be used for purchasing metal detectors or related devices and developing and implementing comprehensive schools security plans.

The Administration's proposal appears to be an attempt to bring multiple stakeholders together to develop a comprehensive approach to school security measures. It acknowledges that while SROs and physical security measures might be a part of a comprehensive school security plan, there are other elements that need to be addressed, such as the mental health of troubled students. It also would allow local governments to apply for funding for a school safety plan that does not include SROs. The proposed program could benefit applicants because it would allow them to submit one application for a grant that could be used for a variety of purposes instead of having to apply for funding under several different programs. It might also eliminate the possibility that funds from different grant programs are used for the same or similar purposes. The proposed program is intended to facilitate a more collaborative and comprehensive approach to school safety measures by requiring representatives of school districts, law enforcement, and mental health services to develop a school safety plan in order to apply for funding. However, since grants under the proposed program would be for comprehensive school security programs, it is possible that individual grant awards would be larger than they would be if grants were simply awarded for SROs or physical security infrastructure, meaning there could be fewer awards overall. Also, if there are barriers to stakeholders collaborating on a school safety plan, the requirements of the program might prohibit some communities from receiving funding.

Select Issues for Congress

There are several issues Congress could consider should policymakers choose to debate whether to provide funding for SRO programs. Some of these issues might include the following:

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[66] Ibid.

[67] Ibid.

[68] 42 U.S.C. §3797a et seq.

[69] 42 U.S.C. §3797a(b).

- Do current trends in school violence warrant congressional efforts to expand SRO programs?

- Is it possible to sustain a significant expansion in SRO programs?

- What effect might an expansion of SRO programs have on the educational setting?

Trends in School Violence

An overarching issue is whether the current level of school violence warrants congressional efforts to expand the number of SROs in schools across the country. The recent shooting in Newtown, CT, has heightened the nation's focus on school shootings, but it has been reported that schools are generally safe places for both students and staff.[70] Twelve out of a total of 78 public mass shootings between 1983 and 2012 that have been identified by CRS occurred in academic settings. Eight of these happened at primary or secondary education facilities.[71] Four of the 12 public mass shootings in education settings involved high school or middle school students as assailants.[72]

Data show that homicides of children while at school, in general, are rare events. For the 2010-2011 school year, the most recent school year for which data are available, there were 31 school-associated violent deaths,[73] of which 11 were homicides of children ages 5-18 while at school (see **Figure 3**).[74] The number of school-associated violent deaths and homicides of children ages 5-18 while at school for the 2010-2011 school year was below the average number of school-associated violent deaths (45) and homicides of children at school (23) since the 1992-1993 school year. To put the number of reported at-school youth homicides in context, the number of youth homicides that occurred at school remained less than 2% of the total number of homicides of school aged children for each school year going back to the 1992-1993 school year.[75] For

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[70] *Assigning Police Officers to Schools*, p. 15.

[71] Public mass shootings, as defined by CRS, are "incidents occurring in relatively public places, involving four or more deaths—not including the shooter(s)—and gunmen who select victims somewhat indiscriminately. The violence in these cases is not a means to an end such as robbery or terrorism." CRS Report R43004, *Public Mass Shootings in the United States: Selected Implications for Federal Public Health and Safety Policy*, coordinated by Jerome P. Bjelopera.

[72] Of the eight remaining shootings: a) three involved non-students targeting elementary schools, b) one involved a gunman targeting people at the high school he formerly attended, c) four occurred on college campuses and involved either active or former students. CRS did not identify a public mass shooting involving a student attending elementary school who acted as an assailant in an incident at his or her own school. Ibid.

[73] A "school-associated violent death" is defined as a homicide, suicide, or legal intervention (involving a law enforcement officer), in which the fatal injury occurred on the campus of a functioning elementary or secondary school in the United States. Victims of school-associated violent deaths include not only students and staff, but also others who are not students or staff, such as parents. School-associated violent deaths include those that occurred while the victim was attending or traveling to or from an official school-sponsored event. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, *Indicators of School Crime and Safety:2012*, Table 1.1, http://nces.ed.gov/programs/crimeindicators/crimeindicators2012/index.asp, hereinafter "*Indicators of School Crime and Safety.*"

[74] Ibid.

[75] Ibid.

example, there were a total of 1,595 homicides of children ages 5-18 during the 2008-2009 school year; of those, 17 (1.1%) occurred while the child was at school.[76]

Figure 3. Number of School-Associated Violent Deaths and Homicides of Youth Ages 5-18 at School
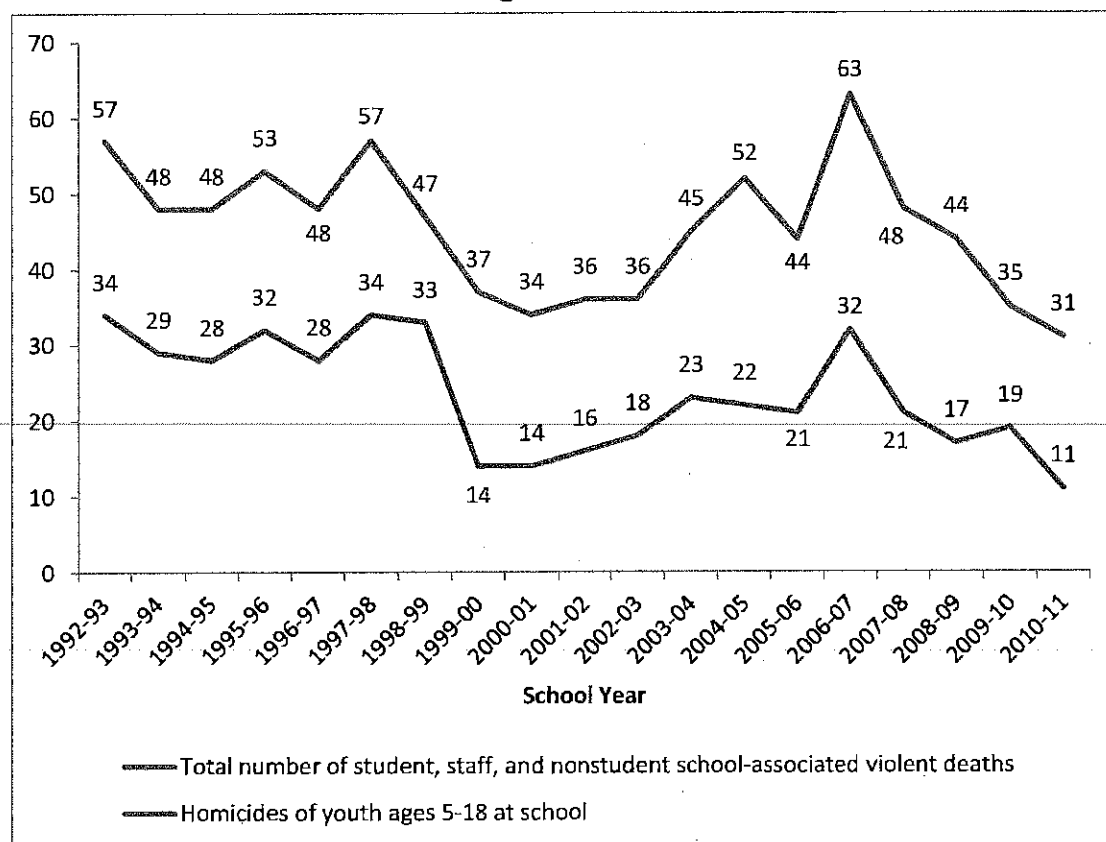
Source: Taken from Table 1.1 in *Indicators of School Crime and Safety, 2012*.

Notes: Data from the 1999-2000 school year onward are subject to change as additional information about confirmed cases is received and assessed.

School violence, however, goes beyond just school shootings. School violence can include sexual assaults, robberies, assaults, and threats of violence against children while they are at school. In a December 2012 report on violent crime against youth, the BJS reported that the rate of serious violent crime[77] against youth ages 12 to 17 on school grounds decreased 62% between 1994 (17.4 per 1,000) and 2010 (6.6 per 1,000).[78] Trends in simple assault victimizations for children ages 12-17 were similar to victimizations for serious violent crimes. Reported victimizations for simple assaults on school grounds decreased 81% between 1994 (70.3 per 1,000) and 2010 (13.2 per 1,000).

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[76] Ibid.

[77] "Serious violent crime" includes rape or sexual assault, robbery, or aggravated assault.

[78] Nicole White and Janet L. Lauritsen, *Violent Crime Against Youth, 1994-2010*, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, NCJ 240106, Washington, DC, December 2012, p. 9, http://www.bjs.gov/content/pub/pdf/vcay9410.pdf, hereinafter "*Violent Crime Against Youth.*"

Data published in the *Indicators of School Crime and Safety* report, show that schools are generally safe, but there are some schools with higher levels of violence and disorder than others. Approximately 74% of public schools reported one or more violent incidents and 16% reported one or more serious violent incidents during the 2009-2010 school year (see **Table 1**). It is estimated that there were 1.2 million violent incidents and 52,500 serious violent incidents during that school year. The rate of violent incidents was 25.0 per 1,000 students while the rate of serious violent incidents was 1.1 per 1,000 students. However, data also show that some schools—namely middle schools, city schools, and schools with a higher proportion of low-income students (defined as the proportion of students who are eligible for free or reduced-price lunch)—have higher rates of reported violent and serious violent incidents.

Table 1. Percentage of Public Schools Recording Violent and Serious Violent Incidents at School, Number of Incidents, and the Rate of Crimes Per 1,000 Students, by School Characteristics, School Year 2009-2010

School Characteristic	Total Number of Schools	Violent Incidents[a]			Serious Violent Incidents[b]		
		Percent of Schools	Number of Incidents	Rate per 1,000 Students	Percent of Schools	Number of Incidents	Rate per 1,000 Students
Total	82,800	73.8%	1,183,700	25.0	16.4%	52,500	1.1
School Level[c]							
Primary	48,900	64.4%	482,100	21.3	13.0%	21,900	1.0
Middle	15,300	90.5%	375,200	40.0	18.9%	13,600	1.5
High School	12,200	90.9%	264,400	21.4	27.6%	13,500	1.1
Combined	6,400	73.7%	62,000	20.8	15.5%	—[d]	—[d]
Enrollment size							
Less than 300	18,900	62.8%	111,300	27.2	10.4%	6,100[e]	1.5[e]
300-499	25,200	71.3%	274,400	26.5	15.7%	14,200	1.4
500-999	29,800	76.4%	487,900	25.0	15.9%	16,400	0.8
1,000 or more	8,900	95.4%	310,100	23.2	32.8%	15,700	1.2
Locale							
City	21,500	74.9%	396,300	28.8	21.7%	17,400	1.3
Suburban	23,800	73.5%	371,000	22.4	15.5%	16,200	1.0
Town	12,100	80.3%	166,300	28.2	15.6%	6,300	1.1
Rural	25,300	70.2%	250,100	22.5	13.2%	12,600	1.1
Percent of students eligible for free or reduced-price lunch							
0-25%	17,100	62.6%	141,700	11.9	10.5%	6,700	0.6
26-50%	22,700	76.0%	290,500	22.1	16.2%	12,500	1.0
51-75%	23,800	73.8%	334,400	27.3	15.8%	13,100	1.1
76-100%	19,100	81.4%	417,200	41.3	22.9%	20,100	2.0

Source: Taken from Table 6.2, *Indicators of School Crime and Safety: 2012.*

a. "Violent incidents" include rape, sexual battery other than rape, physical attack or fight with or without a weapon, threat of physical attack with or without a weapon, and robbery with or without a weapon.

b. "Serious violent incidents" include rape, sexual battery other than rape, physical attack or fight with a weapon, threat of physical attack with a weapon, and robbery with or without a weapon.

c. Primary schools are defined as schools in which the lowest grade is not higher than grade 3 and the highest grade is not higher than grade 8. Middle schools are defined as schools in which the lowest grade is not lower than grade 4 and the highest grade is not higher than grade 9. High schools are defined as schools in which the lowest grade is not lower than grade 9 and the highest grade is not higher than grade 12. Combined schools include all other combinations of grades, including K-12 schools.

d. Reporting standards not met.

e. Interpret data with caution because the margin of error for the estimated statistic is relatively large.

The above data suggest a key question: have SROs contributed to the reduction in school violence? The National Association of School Resource Officers (NASRO) draws a link between decreasing school violence and the presence of SROs:

> Over the past two decades, America's public schools have become safer and safer. All indicators of school crime continue on the downward trend first reported when data collection began around 1992. In 2011, incidences of school-associated deaths, violence, nonfatal victimizations, and theft all continued their downward trend. This trend mirrors that of juvenile arrests in general, which fell nearly 50% between 1994 and 2009—17% between 2000 and 2009 alone. This period of time coincides with the expansion of School Resource Officer programs as part of a comprehensive, community-oriented strategy to address the range of real and perceived challenges to campus safety.[79]

Data suggest that the decline in violent victimizations experienced by children at school might, in part, be the result of an overall decline in crime against juveniles and not the result of more SROs working in schools. Data from the BJS show that between 1994 and 2010 there was a 77% decrease in the number of serious violent victimizations and an 83% decrease in simple assaults against youth ages 12 to 17 (see **Figure** 4).

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[79] National Association of School Resource Officers, *To Protect and Educate: The School Resource Officer and the Prevention of Violence in Schools*, October 2012, p. 9, http://www.nasro.org/sites/default/files/pdf_files/ NASRO_Protect_and_Educate.pdf.

**Figure 4. Serious Violent Crime and Simple Assault Against Youth Ages 12 to 17
1994-2010**
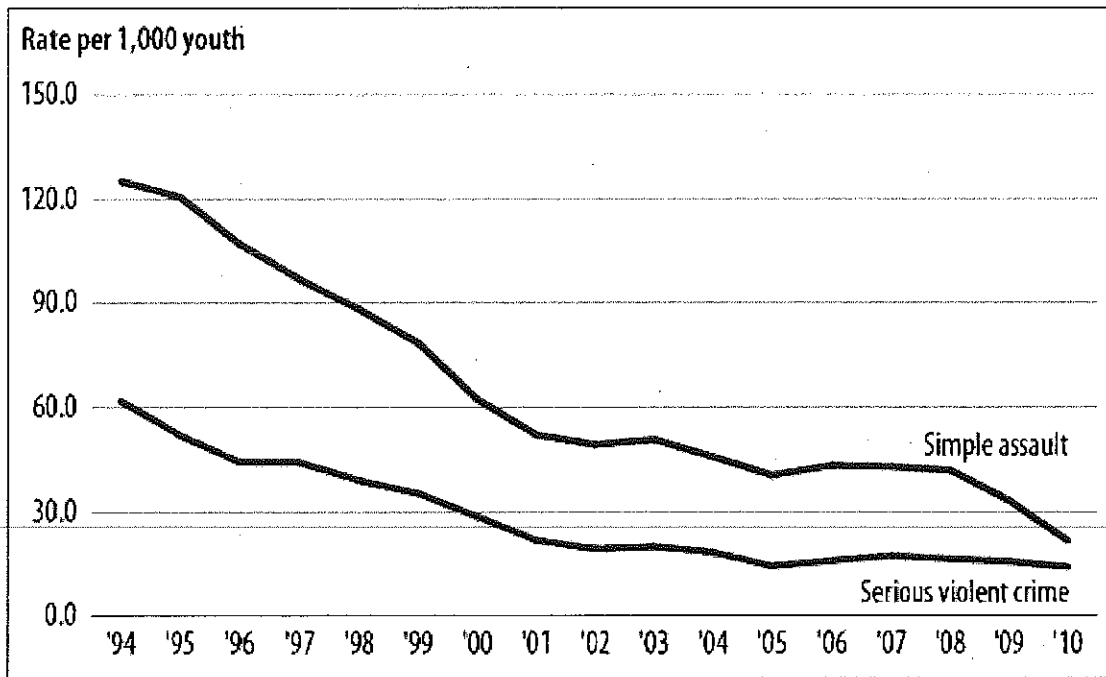
Data from the Office of Juvenile Justice and Delinquency Prevention (OJJDP) also show that the number of juvenile homicides is lower than the previous nadir in 1984.[80] There were a reported 1,448 homicides of juveniles in 2010, down from the peak of 2,841 juvenile homicides in 1993 (see **Figure 5**).

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[80] U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, *OJJDP Statistical Briefing Book, Juvenile Homicide Victims, 1980-2010*, Online, released July 31, 2012, http://www.ojjdp.gov/ojstatbb/victims/qa02304.asp?qaDate=2010.

Figure 5. Reported Number of Juvenile Homicides, 1980-2010

Sustainability of a School Resource Officer Expansion

As previously noted, there have been proposals to increase the number of SROs as a way of preventing school shootings. Some policymakers might view a program that provides grants for hiring SROs, like the CIS program, as a way to expand the number of police officers assigned to schools across the country. Federal funding provided through the CIS program has been cited as contributing to the expansion of SRO programs.[81] As previously discussed, in 2003 there were approximately 19,900 reported SROs, up from approximately 12,300 SROs in 1997. Between FY1999 and FY2002, the COPS Office, through the CIS program, had funded nearly 6,300 SRO positions. The LEMAS data do not indicate how each SRO position is funded, but a survey conducted by the National Association of School Resource Officers (NASRO) of attendees at their 2004 national conference found that 45% of respondents indicated that their SRO positions were currently or formerly supported by a CIS grant.[82] The NASRO survey does not represent an

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[81] *Assigning Police Officers to Schools*, p. 1; Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors, p. 2

[82] National Association of School Resource Officers, *School Safety Left Behind? School Safety Threat Grows as Preparedness Stalls & Funding Decreases*, Final Report on the 4th Annual National Survey of School-based Police Officers, February 2005, p. 20, http://www.schoolsecurity.org/resources/
(continued...)

unbiased national sample of SRO programs, and any results should therefore be interpreted with caution, but it is one of the few indicators of how many SRO positions were funded by CIS grants. The available data suggest that CIS funding probably supported a significant expansion of SRO programs across the country. The data also suggest that local law enforcement agencies have funded a majority of SRO positions, and they have continued to do so even after grants through the CIS program expired.

Even a conservative estimate of the cost of placing an SRO in each school in the country shows that it could cost billions of dollars to accomplish that goal. This estimate is partly founded on assumptions based on 2007 data (the most recent available). Data from the NCES show that in the 2009-2010 school year there were 98,817 public schools in the United States.[83] Data from the BJS show that there were a total of 19,088 SROs in 2007 (see **Table A-1**and **Table A-2**). If it is assumed that the number of SROs did not decrease in subsequent years and it is further assumed that each SRO is assigned to work in only one school, it would mean that there would need to be an additional 79,729 SROs hired to place an SRO in each school in the United States. Data from the BJS show that in 2007 the average minimum salary for an entry-level police officer was $32,900[84] and for an entry-level sheriff's deputy it was $31,100,[85] and the weighted average minimum salary for an entry-level law enforcement officer in 2007 was $32,412.[86] Assuming that the average minimum salary for entry-level police officers and sheriff's deputies has not changed, it would cost about $2.6 billion to hire the additional 79,729 SROs needed to place an SRO in each school. However, this cost could be higher because, as previously discussed, the number of SROs declined between 2003 and 2007. In recent years, many law enforcement agencies faced significant budget constraints due to the recent recession, so it is possible that the number of SROs continued to decline as they were reassigned or laid-off. Also, it is possible that the salaries for entry-level police officers and sheriff's deputies have increased since 2007. On the other hand, the estimated cost could be lower if SROs were assigned to patrol more than one school in some school districts.

If Congress acted to expand the number of SROs, it is likely that many of those officers would go to law enforcement agencies serving jurisdictions of fewer than 25,000 people. Data from the BJS show that nearly 88% of police departments and almost half of sheriff's offices serve jurisdictions of fewer than 25,000 people.[87] However, a smaller proportion of police departments and sheriff's offices that serve populations of less than 25,000 reported using SROs in 2007 (see **Table A-3** and **Table A-4**).

(...continued)

2004%20NASRO%20Survey%20Final%20Report%20NSSSS.pdf.

[83] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 2011*, Table 5, http://nces.ed.gov/programs/digest/d11/tables/dt11_005.asp.

[84] Brian A. Reaves, *Local Police Departments, 2007*, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, NCJ 231174, Washington, DC, December 2010, p. 12, http://www.bjs.gov/content/pub/pdf/lpd07.pdf, hereinafter "*Local Police Departments, 2007.*"

[85] Andrea M. Burch, *Sheriff's Offices, 2007—Statistical Tables*, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, NCJ 238558, Washington, DC, December 2012, p. 7, http://www.bjs.gov/content/pub/pdf/lpd07.pdf, hereinafter "*Sheriff's Offices, 2007.*"

[86] There were a reported 463,147 sworn police officers and 172,241 sworn sheriff's deputies in 2007 for a total of 635,388 sworn law enforcement officers. Therefore the weighted average salary for law enforcement officers was calculated as (($32,900 * 463,147) + ($31,100 * 172,241)) / 635,388.

[87] *Local Police Departments, 2007*, p. 9; *Sheriff's Offices, 2007*, p. 6.

Not surprisingly, data from the LEMAS show that law enforcement agencies serving smaller jurisdictions have smaller operating budgets. Concomitantly, smaller law enforcement agencies have, on average, fewer sworn officers. Policymakers might consider whether it would be financially sensible to provide federal funding to place an SRO in every school across the country, or to even substantially expand the number of SROs. Traditionally, COPS grants have provided "seed" money for local law enforcement agencies to hire new officers, but it is the responsibility of the recipient agency to retain the officer(s) after the grant expires. Since smaller law enforcement agencies tend to have smaller operating budgets and smaller sworn forces, retaining even one or two additional officers after a grant expires might pose a significant financial burden. If the law enforcement agency cannot retain the new SROs after the grant period ends, then the federal government has only supported a temporary expansion of SRO programs. The COPS Office has required law enforcement agencies that receive hiring grants to retain any officers hired with federal funds for at least one year after the grant period ends. While this might help promote the retention of federally-funded law enforcement officers, this requirement, if applied to any potential funding Congress might provide for hiring SROs, might limit who decides to apply for grants.

The Effect of School Resource Officers on the Educational Setting

An August 21, 201, story in the *Washington Post* highlighted several incidents of students in public schools in Texas being ticketed and required to appear in court for behavior that was traditionally dealt with by teachers and principals.[88] This and similar stories[89] might raise some concern among policymakers that a wide-scale expansion of SRO programs could contribute to what has been referred to as the "school-to-prison pipeline." One review of the literature on SROs asserts that the increased use of police officers in schools facilitates the formal processing of minor offenses and harsh responses to minor disciplinary situations.[90]

On December 12, 2012, the Senate Judiciary Subcommittee on the Constitution, Civil Rights and Human Rights, held a hearing titled "Ending the School-to-Prison Pipeline." In his opening statement Chairman Richard Durbin stated that

> For many young people, our schools are increasingly a gateway to the criminal justice system. This phenomenon is a consequence of a culture of zero tolerance that is widespread in our schools and is depriving many children of their fundamental right to an education.[91]

While recent interest in SROs programs has stemmed from proposals to use SROs as a way to prevent school shootings, it should be noted that SROs are more than armed sentries whose sole purpose is to stand guard and wait for an attack. SROs are sworn law enforcement officers who, among other things, patrol the school, investigate criminal complaints, and handle law violators. Therefore, while assigning an SRO to a school might serve as a deterrent to a potential school

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[88] Donna St. George, "Texas Students Sent From Classroom to Courtroom," *The Washington Post*, August 21, 2011.

[89] Leslie Postal and Lauren Roth, "Thousands of Student Arrests Alarm Florida Justice Leaders," *The Orlando Sentinel*, February 10, 2013 Greg Toppo, "Students, Civil Rights Groups Say 'No' to School Cops," *USA Today*, April 6, 2013; Donna Lieberman, "Schoolhouse to Courthouse," *The New York Times*, December 8, 2012.

[90] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors, p. 4.

[91] Office of Senator Richard Durbin, "Durbin Holds Hearing on Ending the School-to-Prison Pipeline," press release, December 12, 2012, http://www.durbin.senate.gov/public/index.cfm/pressreleases?ID=7dcaee2b-b40e-4199-bf20-557b4b1bc650.

shooter, or provide a quicker law enforcement response in cases where a school shooting occurs, it will also establish a regular law enforcement presence in the school. There might be some concern that any potential deterrent effect generated by placing SROs in schools could be offset by either the monetary cost associated with a wide-scale expansion of SRO programs or the social costs that might arise by potentially having more children enter the criminal justice system for relatively minor offenses.

Research on SROs and School Arrests

A study conducted by Theriot used data from a school district in the southeastern United States to test the criminalization of student misconduct theory.[92] Theriot's analysis produced mixed results. Middle and high schools with SROs had more arrests per 100 students than schools without SROs, but this relationship was no longer significant when the analysis controlled for school-level poverty. The results of the study indicated that students in schools with SROs were more likely than students in schools without SROs to be arrested for disorderly conduct, which lends credence to the idea that student misbehavior is being criminalized. The researcher also found that schools with SROs had lower arrest rates for assault and possessing a weapon on school grounds. The researcher opined that this suggests that SROs might serve as a deterrent. For example, students might be less likely to bring a weapon to school if an SRO is present because they fear they might be caught. Students might also be less likely to fight if they believe they will be arrested for assault. A critique of Theriot's study notes that the analysis did not collect data for a long enough period before SROs were assigned to some schools and the control group (i.e., the non-SRO schools) still had some contact with law enforcement.[93]

The study conducted by Na and Gottfredson, discussed previously, also included an analysis of whether schools that added SROs had a greater percentage of crimes reported to law enforcement and whether a greater proportion of students were subject to "harsh discipline" (i.e., the student was removed, transferred, or suspended for five or more days).[94] The researchers found that schools that added SROs were more likely to report non-serious violent crimes (i.e., physical attack or fights without a weapon and threat of physical attack without a weapon) to the police than schools that did not add SROs. The reporting of other crime types and the reporting of crime overall, were not affected by the addition of SROs. The results of Na and Gottfredson's analysis mirror the finding of Theriot's study. Na and Gottfredson conclude that their findings are "consistent with our prediction that increased use of SROs facilitates the formal processing of minor offenses."[95] However, their analysis also found that students at schools that added SROs were not any more likely than students at schools that did not add SROs to be subject to harsh discipline for committing any offense that was reported to the police.

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[92] The analysis compared arrests at middle and high schools with SROs (SRO schools) to middle and high schools without SROs (non-SRO schools). The researcher took advantage of a natural experiment in the school district whereby the metropolitan city's police department placed an SRO in each middle and high school in the city while middle and high schools in the district that were outside the city limits did not have a SRO assigned to them. SROs were assigned based only on geography, not on a school's need, history of violence, or demographics. Schools outside of the city were patrolled by sheriff's deputies, who focused solely on law enforcement activities, were assigned to patrol more than one school, and received less training in school-based training than their SRO counterparts in the city. Matthew T. Theriot, "School Resource Officers and the Criminalization of Student Behavior," *Journal of Criminal Justice*, vol. 37, no. 3 (May-June 2009), pp. 280-287.

[93] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors, p. 7.

[94] Police Officers in Schools: Effects on School Crime and the Processing of Offender Behaviors.

[95] Ibid., p. 22.

School Security Measures and School Disciplinary Policies

The use of SROs in schools occurred in the context of increasing concern about security in schools and the concomitant adoption of more security measures in schools and the strengthening of school discipline policies. Although research on the efficacy of security measures in reducing school violence is limited, schools have been adopting more security measures over time. Between school year 1999-2000 and 2009-2010 there was an increase in the percentage of schools adopting the following security measures: restricting access to buildings during school hours (from 75% to 92%); using one or more security cameras to monitor the school (from 19% to 61%); and requiring faculty to wear badges or picture IDs (from 25% to 63%).[96] During the same time period the percentage of students reporting the presence of security guards and/or assigned police officers at school increased from 54% to 68%.[97]

Following the adoption of the Gun Free Schools Act (GFSA) in 1994,[98] some schools expanded on the GFSA's prohibition against guns in schools by adopting school-wide policies with strict disciplinary consequences for other rule violations. These so called "zero tolerance" policies vary from school to school, but are generally characterized by the application of specified, mandatory discipline procedures in response to rule violations. Like the hiring of SROs, these policies were intended to improve school security. The theory behind zero tolerance policies is that certain, severe punishments would deter violent behavior by students. However, data on the rising number of out-of-school suspensions that disproportionately impact minority students, as well as data indicating the potential negative effects of suspensions on students, have increased attention on these policies.

Disparities in School Discipline

The most recent U.S. Department of Education biennial Civil Rights Data Collection survey (CRDC) includes data indicating that some school disciplinary measures disproportionately affect minority students and students with disabilities.[99] The CRDC data indicate that African American students were over 3½ times more likely to be suspended or expelled than white students.

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[96] These data are based on responses from the school principal or the person most knowledgeable about crime and safety issues at the school. The three examples included here experienced the greatest percentage increase; for a complete list see Roberts, S., Zhang, J., and Truman, J. (2012). *Indicators of School Crime and Safety: 2011* (NCES 2012-002/NCJ 236021). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.

[97] This information is based on the percentage of students ages 12-18 who reported selected security measures at school. Roberts, S., Zhang, J., and Truman, J. (2012). *Indicators of School Crime and Safety: 2011* (NCES 2012-002/NCJ 236021). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.

[98] The Gun Free Schools Act (GFSA) was included in the 1994 (P.L. 103-382) reauthorization of the Elementary and Secondary Education Act (ESEA). GFSA requires states to enact a law that obligates schools to impose a one year expulsion on any student who brings a weapon to school. However, the law permits the chief administering officer of a local educational agency (LEA) to modify the expulsion requirement on a case-by-case basis.

[99] These data are based on a sample of 7,000 school districts and 72,000 students. Data on suspensions are broken down by race, sex and disability. The Office for Civil Rights indicates that 85% of the nation's public school students are covered by this survey, however it is not intended to be viewed as an estimation of national data. See http://www2.ed.gov/about/offices/list/ocr/docs/crdc-2012-data-summary.pdf.

Additionally, students with disabilities were more than twice as likely as non-disabled students to receive one or more suspensions.[100]

Although African American students represented 18% of the students in the CRDC survey, 46% of these students were suspended more than once. In zero tolerance school districts that reported expulsions under that policy, Hispanic and African Americans comprised 56% of those expelled, although they comprised 45% of the total student population in these schools. Furthermore, the CRDC survey found that over 70% of students arrested at school or referred to law enforcement were African American or Hispanic.[101]

Efficacy of School Disciplinary Measures

One of the main purposes of zero tolerance discipline policies was to serve as a deterrent to further school violence; however, existing empirical research has been too limited to validate the effectiveness of these disciplinary measures. A task force convened by the American Psychological Association to examine the evidence on the effectiveness of zero tolerance in schools found that

> it is problematic that despite 20 years of school implementation of zero tolerance policies, and nearly 15 years as federal policy, the research base on zero tolerance is in no way sufficient to evaluate the impact of zero tolerance policy and practices on student behavior or school climate.[102]

Concern about the effectiveness of school suspensions and their impact on students has led to a growing body of research on potentially more effective alternatives, particularly efforts to improve school climate.[103] The Centers for Disease Control (CDC) defines a positive school climate as one that is "characterized by caring and supportive interpersonal relationships; opportunities to participate in school activities and decision-making; and shared positive norms, goals, and values."[104] Available research suggests that one of the most important elements in a positive school climate is for students to have a feeling of school connectedness. School connectedness is defined as "the belief by students that adults and peers in the school care about their learning as well as about them as individuals."[105]

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[100] The survey defines students with a disability as those served under the Individuals with Disabilities Education Act.

[101] http://www2.ed.gov/about/offices/list/ocr/docs/crdc-2012-data-summary.pdf.

[102] American Psychological Association Zero Tolerance Task Force, "Are Zero Tolerance Policies Effective in the Schools? An Evidentiary Review and Recommendations," *American Psychologist*, vol. 63, no. 9 (December 2008), pp. 852-862.

[103] The Department of Education's Office of Special Education Programs funds a Technical Assistance Center on Positive Behavioral Interventions and Supports. The Center provides capacity-building information and technical assistance to schools, districts, and states who are implementing a school climate protocol called *School-wide Positive Behavioral Interventions and Supports* (SWPBIS). SWPBIS is a three-tiered prevention-based approach to improving schoolwide disciplinary practices. According to the Center, SWPBIS is used in more than 9,000 schools across 40 states.

[104] Centers for Disease Control and Prevention, School Connectedness: *Strategies for Increasing Protection Factors Among Youth*, Atlanta, GA, Department of Health and Human Services, 2009, p.7.

[105] See http://www.cdc.gov/healthyyouth/adolescenthealth/pdf/connectedness.pdf.

The National School Climate Center (the Center) has published numerous reports on school climate.[106] A 2012 report from the Center cites research indicating that a positive school climate influences student motivation to learn, mitigates the effect of socioeconomic factors on academic success, and contributes to less aggression and violence, among other positive outcomes.[107] Both social emotional learning[108] and positive behavior management strategies have been identified by researchers as positive approaches to improving school climate.[109] A program to improve school climate called *School-wide Positive Behavioral Interventions and Supports* (SWPBIS) is currently supported by the U.S. Department of Education through capacity-building information and technical assistance to schools, districts, and states who are implementing SWPBIS. SWPBIS is a three-tiered prevention-based approach to improving schoolwide disciplinary practices. According to the Center, SWPBIS is used in more than 9,000 schools across 40 states.[110] SWPBIS has been linked to reductions in student suspensions and office discipline referrals.[111]

In addition, an interagency initiative titled "Safe Schools/Healthy Students" (SS/HS) focuses on a comprehensive approach to school violence.[112] SS/HS is funded jointly by ED and the U.S. Department of Health and Human Services (HHS), Substance Abuse and Mental Health Services Administration (SAMHSA). The program is administered by ED, SAMHSA, and the U.S. Department of Justice (DOJ). The SS/HS initiative is a discretionary grant program that provides schools and communities with federal funding, via LEAs, to implement an enhanced, coordinated, comprehensive plan of activities, programs, and services that focus on healthy childhood development and the prevention of violence and alcohol and drug abuse. Grantees are required to establish partnerships with local law enforcement, public mental health, and juvenile justice agencies/entities.

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[106] The National School Climate Center and the Education Commission of the States have developed a definition of school climate: "School climate refers to the quality and character of school life. School climate is based on patterns of students', parents' and school personnel's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive school climate fosters youth development and learning necessary for a productive, contributing and satisfying life in a democratic society. This climate includes (1) Norms, values and expectations that support people feeling socially, emotionally and physically safe. (2) People are engaged and respected. (3) Students, families and educators work together to develop, live and contribute to a shared school vision. (4) Educators model and nurture attitudes that emphasize the benefits and satisfaction gained from learning. (5) Each person contributes to the operations of the school and the care of the physical environment. See http://www.schoolclimate.org/climate.

[107] Available at http://www.schoolclimate.org/climate/documents/policy/sc-brief-v3.pdf.

[108] The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines social emotional learning as: " ... the processes through which adults and children develop social and emotional competencies in five areas:" self-awareness, self-management, social awareness, relationship skills, and responsible decision making. Collaborative for Academic, Social, and Emotional Learning, *The Missing Piece: A National Teacher Survey on How Social and Emotional Learning Can Empower Children and Transform Schools*, May 2013, p. 4, http://casel.org/wp-content/uploads/casel-themissingpiece-report.pdf.

[109] Catherine Bradshaw, et al., "Examining the Effects of Schoolwide Positive Behavioral Interventions and Supports on Student Outcomes," *Journal of Positive Behavior Interventions*, vol. 12, no. 3 (July 2010).

[110] Assistance is provided through a U.S. Department of Education funded Technical Assistance Center on Positive Behavioral Interventions and Supports.

[111] Catherine Bradshaw, et al., "Examining the Effects of Schoolwide Positive Behavioral Interventions and Supports on Student Outcomes," *Journal of Positive Behavior Interventions*, vol. 12, no. 3 (July 2010).

[112] For more information on this program see http://www.sshs.samhsa.gov/.

Concluding Thoughts

The practice of placing SROs in schools has become more popular over the past two decades. As of 2007, there were more SROs working in schools across the country than there were in 1997, though the number of SROs was down from its peak in 2003. Data show that police departments and sheriff's offices have, by-and-large, sustained their SRO programs over the years, even as federal grants for hiring SROs have waned.

The expansion of SRO programs coincided with a decrease in reported serious violent victimizations of students while at school and generally lower numbers of violent deaths and homicides at schools. The extent to which SRO programs contributed to the decrease is not known. Indeed, trends in at-school violence mirror a downward trend in overall violence against children and juvenile homicides. Yet schools are not free of violence and crime, and some schools—such as city schools, middle schools, and schools with a higher proportion of low income students—have higher rates of violent incidents.

Policymakers might contemplate increasing the number of SRO programs across the country as a way to address the threat of mass shootings at or violence in schools. However, the body of research on the effectiveness of SRO programs is noticeably limited, and the research that is available draws conflicting conclusions about whether SRO programs are effective at reducing school violence. In addition, the body of research on the effectiveness of SROs does not address whether their presence in schools has deterred mass shootings.

While a law enforcement presence at a school might facilitate actions, such as security planning or threat assessments, that might promote school safety, and the presence of an SRO might serve as a deterrent to a potential school shooter or provide for a quick response if a shooting occurs, some might be concerned that a regular law enforcement presence might have some unintended consequences for students. Research suggests that the presence of SROs might result in more children being involved in the criminal justice system for relatively minor offenses, and this, in turn, can result in other negative consequences, such as higher rates of suspension or a greater likelihood of dropping-out of school.

The school shooting in Newtown, CT, might lead some policymakers to consider ways to provide funding to law enforcement agencies or school districts to establish or expand SRO programs. However, even a conservative estimate of the cost of placing an SRO in every school across the country shows that this proposal might be too expensive to be feasible. Also, these grants typically have been meant to provide "seed" money for the recipient agencies, and at some point local governments would be required to absorb the cost of a wide-scale expansion of SRO programs.

The analysis presented in this report raises several even more specific issues policymakers might contemplate should Congress consider measures to promote placing more SROs in schools.

- Should the federal government provide grants for school safety that can only be used for hiring SROs, like the CIS program, or should grants be for a more comprehensive approach to school safety, like the Administration's proposed Comprehensive School Safety Program?

- Should the federal government collect annual data on the number of SROs, the type of schools they serve, and their roles in schools?

- If funding is available for hiring SROs, should there be a requirement that the officer(s) attend SRO training before being assigned to a school? Also, should applicants for potential SRO grants be required to submit a signed memorandum of understanding that outlines the responsibilities of the SRO?

- If there are concerns about the presence of SROs resulting in more children being arrested for minor offenses, should there be a limitation on what SROs can do while working at a school? If limitations are placed on the role of SROs, would placing an officer at a school represent the most effective use of the officer's time?

- Should funding for school safety programs be awarded to schools that have higher rates of reported violent incidents or should funding be distributed to law enforcement agencies or LEAs based upon a formula?

- If Congress adopts the Administration's proposal and provides funding for the Comprehensive School Safety Program, would requiring local jurisdictions to submit a comprehensive school safety plan prove to be too onerous a task for some jurisdictions, thereby limiting who would be able to apply for funding? On the other hand, might it provide an indication of which jurisdictions are the best suited for implementing comprehensive school safety programs?

- Should applicants for any potential funding for school safety programs be required to submit a plan for how they will continue funding the program after federal funding ends? Should priority be given to applicants who can continue to operate programs after the grant expires?

- If grants are awarded for hiring SROs, should grant recipients be required to submit data that could be used to analyze the effectiveness of SRO programs and their effect on the educational environment? For example, should grant recipients be required to submit data on reported crimes and arrests of students both before and after an SRO is assigned to the school? If so, what if the school district already has a working relationship with the local law enforcement agency and wants to use a grant to permanently assign an officer or officers to one or more schools? Would such a school district be prohibited from receiving a grant for hiring an SRO since it could not provide unbiased baseline data? Would school districts that could not provide baseline data be prohibited from applying for grants?

Appendix. Data on Police Departments and Sheriff's Offices Referenced in the Report

This appendix provides tables for some of the data referenced in the body of the report. **Table A-1** and **Table A-2** provide data on the percent of police departments and sheriff's offices using SROs, the total number of officers and deputies who were assigned to work as SROs, and the average number of SROs by the size of the jurisdiction served.

Table A-1. School Resources Officers Employed by Police Departments

	Percent of Agencies Using				Total Number of Officers				Average Number of Officers			
	1997	2000	2003	2007	1997	2000	2003	2007	1997	2000	2003	2007
All sizes	38%	44%	43%	38%	9,446	13,760	14,337	13,056	3	2	3	3
1 million or more	75%	73%	69%	77%	874	942	855	913	93	85	75	87
500,000-999,999	67%	67%	73%	71%	306	603	760	788	40	26	27	34
250,000-499,999	65%	85%	93%	89%	462	497	715	664	49	15	18	15
100,000-249,999	80%	85%	87%	85%	807	1,193	1,468	1,480	17	8	10	9
50,000-99,999	77%	86%	83%	88%	901	1,380	1,893	1,678	8	4	5	4
25,000-49,999	70%	82%	84%	88%	1,060	1,757	1,734	1,950	5	3	3	3
10,000-24,999	62%	66%	70%	68%	1,493	2,127	2,441	1,992	2	2	2	2
2,500-9,999	42%	45%	44%	34%	2,009	3,095	2,861	2,142	1	2	2	2
Under 2,500	21%	25%	20%	16%	1,533	2,167	1,611	1,447	1	2	2	2

Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Local Police Departments* for 1997, 2000, 2003, and 2007.

Notes: Average number of officers excludes agencies that did not employ any full-time SROs.

Table A-2. School Resource Officers Employed by Sheriff's Offices

	Percent of Agencies Using				Total Number of Deputies				Average Number of Deputies			
	1997	2000	2003	2007	1997	2000	2003	2007	1997	2000	2003	2007
All sizes	38%	48%	47%	50%	2,897	5,311	5,554	6,032	2	4	4	4
1 million or more	64%	59%	89%	85%	223	872	351	589	11	44	14	23
500,000-999,999	46%	66%	71%	71%	195	418	488	429	7	9	10	10
250,000-499,999	54%	70%	67%	69%	304	607	748	873	5	8	9	10
100,000-249,999	60%	63%	66%	73%	689	951	1,306	1,231	4	5	6	5
50,000-99,999	44%	62%	54%	60%	360	712	749	1,137	2	3	4	4
25,000-49,999	46%	52%	51%	56%	538	805	898	672	2	2	3	2
10,000-24,999	35%	40%	45%	43%	419	603	694	700	1	2	2	2
Under 10,000	16%	33%	26%	27%	169	344	320	402	1	2	2	2

Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Sheriffs' Offices* for 1997, 2000, 2003, and 2007.

Notes: Average number of deputies excludes offices that did not employ any full-time SROs.

Table A-3. Per Department Operating Budget and Average Number of Sworn Officers, Police Departments, 2007

	Per Department Operating Budget	Average Number of Sworn Officers
1 million or more	$848,799,000	6,790
500,000-999,999	211,991,000	1,575
250,000-499,999	93,414,000	713
100,000-249,999	38,844,000	289
50,000-99,999	16,068,000	122
25,000-49,999	7,474,000	63
10,000-24,999	3,260,000	31
2,500-9,999	1,127,000	12
Under 2,500	263,000	3

Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Local Police Departments, 2007.*

Table A-4. Per Department Operating Budget and Average Number of Sworn Deputies, Sheriff's Offices, 2007

	Per Department Operating Budget	Average Number of Sworn Deputies
1 million or more	$336,753,000	1,396
500,000-999,999	68,447,000	331
250,000-499,999	34,897,000	194
100,000-249,999	15,139,000	102
50,000-99,999	7,095,000	52
25,000-49,999	3,194,000	28
10,000-24,999	1,659,000	14
Under 10,000	657,000	6

Source: CRS presentation of data from the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Sheriff's Offices, 2007.*

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ATTACHMENT 2

Finishing High School: Alternative Pathways and Dropout Recovery

John H. Tyler and Magnus Lofstrom

Summary

John Tyler and Magnus Lofstrom take a close look at the problems posed when students do not complete high school. The authors begin by discussing the ongoing, sometimes heated, debate over how prevalent the dropout problem is. They note that one important reason for discrepancies in reported dropout rates is whether holders of the General Educational Development (GED) credential are counted as high school graduates. The authors also consider the availability of appropriate student data. The overall national dropout rate appears to be between 22 and 25 percent, but the rate is higher among black and Hispanic students, and it has not changed much in recent decades. Tyler and Lofstrom conclude that schools are apparently doing about as well now as they were forty years ago in terms of graduating students. But the increasingly competitive pressures associated with a global economy make education ever more important in determining personal and national well-being.

A student's decision to drop out of school, say the authors, is affected by a number of complex factors and is often the culmination of a long process of disengagement from school. That decision, not surprisingly, carries great cost to both the student and society. Individual costs include lower earnings, higher likelihood of unemployment, and greater likelihood of health problems. Because minority and low-income students are significantly more likely than well-to-do white students to drop out of school, the individual costs fall unevenly across groups. Societal costs include loss of tax revenue, higher spending on public assistance, and higher crime rates.

Tyler and Lofstrom go on to survey research on programs designed to reduce the chances of students' dropping out. Although the research base on this question is not strong, they say, close mentoring and monitoring of students appear to be critical components of successful programs. Other dropout-prevention approaches associated with success are family outreach and attention to students' out-of-school problems, as well as curricular reforms. The authors close with a discussion of second-chance programs, including the largest such program, the GED credential.

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John H. Tyler and Magnus Lofstrom

By most measures, the nation's high schools did a remarkable job of educating the populace throughout the twentieth century. At least in part because of the secondary education they received in American public high schools, hundreds of millions of U.S. citizens have been able and ready to participate in a dynamic democracy and to contribute to and benefit from an ever-changing economy. Many have used public high schools to help them transition from first-generation immigrant to American citizen. To be sure, the opportunities and the rewards have been uneven, varying by gender, race, and geographic region, but if the twentieth century was, as Claudia Goldin has argued, "the human capital century," with America as leader, then the American public high school system deserves due credit.[1]

Even so, in the final decades of the twentieth century, public education, including public secondary education, increasingly became the focus of criticism and controversy because of failures perceived or real.[2] And criticism directed at the nation's schools has not abated in this new century. A recent focus of widespread concern has been the number of students, particularly black and Hispanic students, who never graduate from high school. One high-profile national dropout study, for example, begins ominously, "There is a high school dropout epidemic in America."[3] And the popular press gave widespread and front-page coverage to a Johns Hopkins University study that coined the term "dropout factory" to describe certain high schools and estimated that the nation has 1,700 such schools.

Whether termed a "problem," a "crisis," or an "epidemic," the large numbers of students who do not graduate from high school generate clear and widespread concern. To bring some additional light and clarity to the topic, we examine different facets of the dropout issue. We begin with two questions. Just how bad is the dropout "problem"? And who, exactly, is dropping out? We then turn to the costs associated with leaving school early. We conclude by examining the state of knowledge regarding dropout-prevention and "second-chance" programs.

Dropout Rates: The Magnitude of the Problem and Measurement Issues

Given the importance of graduation rates as a performance metric of the nation's high schools, one might assume the existence of well-defined, well-agreed-upon measures of that performance. One would be wrong. Although each state and the National Center for Education Statistics (NCES) all produce graduation and dropout statistics based on "standard measures," recent heated debates over the "true" rates underscore a general unease about how accurately and consistently officials are able to document school performance when it comes to graduating students.

The NCES provides the nation's most commonly cited dropout and school completion statistics. Using primarily two data sources, the Current Population Survey (CPS) and the Common Core of Data (CCD), the NCES provides four different statistics: event dropout rate, status dropout rate, status completion rate, and averaged freshman graduation rate. Table 1 defines these measures, along with the respective data sources. Figure 1 shows the trends in these four statistics from 1972 to 2005.

Based on figure 1, one might conclude that in terms of historical trends, schools are doing relatively well at moving students to

Table 1. Dropout and School Completion Measures

Rate	Age group	Description	Data source	GED status
Event dropout rate	15–24	Percentage of high school students who dropped out of grades 10–12	Current Population Survey	GEDs do not count as dropouts
Status dropout rate	16–24	Percentage of people who are not enrolled in high school and who do not have a high school credential	Current Population Survey	GEDs do not count as dropouts
Status completion rate	18–24	Percentage of young adults who have left high school and who hold a high school credential	Current Population Survey	GEDs are counted as having a high school credential
Averaged freshman (ninth-grade) graduation rate	NA	Percentage of public high school students who graduate with a regular diploma four years after starting ninth grade	Core of Common Data	GEDs are not counted as graduates

graduation. School attainment appears generally to be on the rise—dropout event and status dropout rates are decreasing and school completion rates are steady (averaged freshman graduation rate) or rising slightly (status completion rate). In 2005, a relatively small share, 3.8 percent, of students dropped out of grades ten through twelve, and almost nine in ten (87.6 percent) of the country's eighteen- to twenty-four-year-olds held a high school credential. But conclusions based on

these government statistics are controversial. Some observers feel that these measures paint too positive a picture of what some call a dropout "crisis," while those on the other side of the debate suggest that the government figures are at least close to the mark and that the "crisis" label is yet another undeserved black mark on the nation's schools. Driving the debate are questions about what data are used to calculate the relevant statistics and who is considered a "graduate."

Figure 1. Dropout and School Completion Rates, 1972–2005
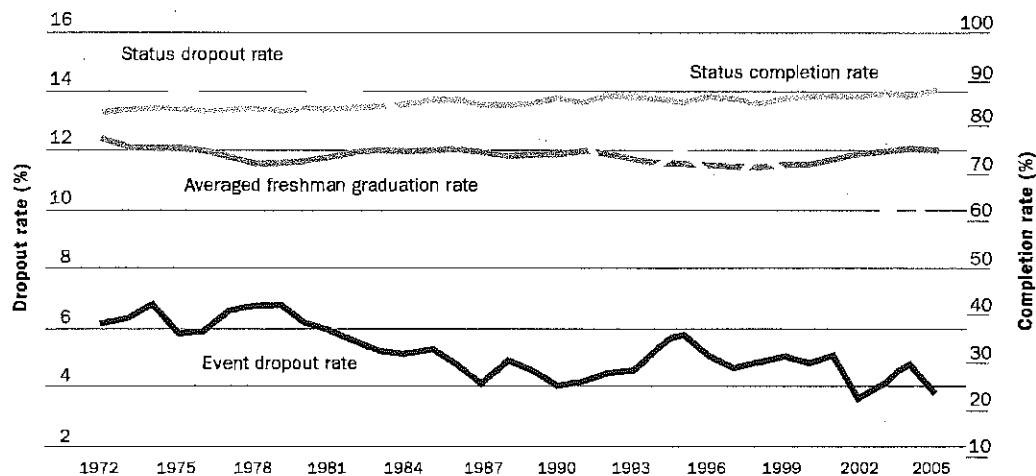
Data issues primarily focus on the fact that three of the four widely used national measures—the status completion rate, the status dropout rate, and the event dropout rate—use the CPS. The CPS is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics and is a primary source of information on the labor force characteristics of the U.S. population. But the CPS has some recognized deficiencies as a basis for calculating dropout and graduation statistics.

The more important issue, however, is which individuals are considered to be high school graduates. In particular, it matters substantially whether the data count individuals who leave school and later earn a General Educational Development (GED) credential as high school graduates or as dropouts. In terms of official NCES statistics, people who hold GEDs are not counted as graduates in the calculation of graduation rates, such as the averaged freshman graduation rates, but they are treated as completers in the status completion rate.[4]

The distinction between having a traditional high school diploma or a GED credential would be less important if the two differently credentialed groups had equally favorable outcomes in the labor market and higher education. But in terms of labor market outcomes such as wages and employment, GED holders fare consistently worse than do regular high school graduates, and GED holders also get less postsecondary education than do regular high school graduates.[5] Given that dropouts who hold a GED are not the equivalent of high school graduates on two such important outcomes, it seems problematic to treat GED holders as "graduates" in official educational attainment statistics.[6] Indeed, the adequate yearly progress

requirements of the 2001 No Child Left Behind Act (NCLB) state that only students who receive a traditional diploma should be counted as high school graduates. Furthermore, although the GED program may be beneficial to some dropouts, it may have unintended consequences. Several studies, for example, find that the GED program may induce some students to drop out.[7]

Not surprisingly, there are competing views about the GED credential as a marker of successful high school "completion." For example, some states and local school districts count GED recipients as high school "completers" when computing their own administrative graduation statistics, while others stake out compromises between the two polar positions. In January of 2008, the state board of education in Virginia entertained a proposal to establish a school-level "Graduation and Completion Index" that would give regular high school graduates a weight of 1.0 and GED recipients a weight of 0.75. Satisfactory scores on this index by each school would then be a part of the state's accreditation process.[8]

Policies of the GED Testing Service (GEDTS) seem to establish a clear boundary between enrolled students pursuing a high school diploma and dropouts who pursue the GED credential. GEDTS policy states that the GED tests may be administered only to people who are "at least 16 years of age and not currently enrolled in an accredited high school...."[9] There are, however, exceptions to the requirement that a candidate for the GED credential must be a school dropout.

In response to requests from state departments of education, the GEDTS has authorized in-school "GED Option" programs whereby some students may remain enrolled

in their regular high school as they pursue a GED. Twelve states now have GEDTS authorization to offer GED Option programs to students who meet certain criteria, including credit deficiency, that place them at risk of dropping out.[10] (Before 2002, a few states operated in-school programs that used the GED tests without the authorization of the GEDTS, but they no longer do so.) The ostensible purpose of these in-school GED programs, whether sanctioned or not, is to keep potential dropouts enrolled and involved in high school. Thus, even though the GED program was designed as a second-chance option for school dropouts, it has a secondary focus on dropout "prevention."[11]

Schools have strong incentives to participate in the GED Option program, because it allows them to continue to receive average daily attendance funds for participating students, funds they would lose were the students to drop out and leave the school rolls. A close inspection shows a lack of consistency nationwide in how GED Option students are treated in calculating graduation statistics. Some states may award students who successfully complete the GED Option program a regular high school diploma and count them as high school graduates; others count them as "completers" but not as "graduates" in calculating graduation statistics.[12] No good national data on the size of the GED Option program exist, but a 2007 document from the Mississippi Department of Education concludes that if the state were to count GED Option students as high school graduates, the state graduation rate would rise from 61.1 percent to 62.9 percent.[13]

Comparing the NCES status completion rate, which treats GED holders as completers, with the NCES freshman graduation rate, which does not count GED holders as graduates, makes clear the importance of this issue. In 2005, the NCES status completion rate was 87.6 percent, 13 percentage points higher than the freshman graduation rate of 74.6 percent. The GED is not the only reason for the discrepancy but it may plausibly be the most important. This view is consistent with the work of James Heckman and Paul LaFontaine, who report that graduation rates estimated using data from the October CPS—the data used by NCES to generate the status completion rate—are upwardly biased by 7 to 8 percentage points because they count GED holders as high school graduates. Heckman and LaFontaine conclude that this is the most important source for overstated U.S. graduation rates.[14]

The GED, however, is not the only source of bias in the measures of school attrition and completion. Heckman and LaFontaine report that sample coverage (that is, inclusion or exclusion) of people who are incarcerated, people in the armed forces, and immigrants also creates a bias in secondary educational attainment measures.[15] These coverage issues affect both trends and differences across groups.

Heckman and LaFontaine also find that official statistics that show white and minority graduation rates converging over time are inaccurate, particularly so for males. They note that young black and Hispanic men have been incarcerated at increasingly higher rates than young whites. Such men are not counted in the CPS-based status completion rates because the CPS sample excludes people who are incarcerated. In addition, blacks in particular have been earning GEDs at higher rates in recent years than have whites. Heckman and LaFontaine contend that white-black differences in graduation rates are roughly the same as they were thirty years

ago, about a 15-percentage-point difference favoring whites.

Finally, Heckman and LaFontaine show that when comparable measures are used on comparable samples, a consensus of the graduation rate can be reached across data that have been used by various researchers—for example, the Current Population Survey, the Common Core of Data, the National Education Longitudinal Study of 1988, High School and Beyond, and the National Survey of Youth.[16]

The work by Heckman and LaFontaine helps to reconcile the competing dropout and graduation rate figures computed by researchers such as Jay Greene, Christopher Swanson, and Lawrence Mishel and Joydeep Roy.[17] On balance, the Heckman and LaFontaine estimates suggest that today's overall graduation rates are in the 75 to 78 percent range, with white rates at 84 percent, Hispanic rates at 72 percent, and black rates at about 65 percent. These figures tend to be lower than both official government figures and those put forth by Mishel and Roy. Heckman and LaFontaine's overall graduation rate estimates are higher than the roughly 67 percent rate suggested by Greene, and their minority graduation rates are not as dire as Greene's 50 percent rate.

The apparent confusion and resulting debates over how well U.S. schools are graduating students leads one to consider what kind of data set might be a "gold standard." One possibility would be a national student ID system that would follow students no matter where they were enrolled. Thus, a student who left a school or a district or a state but re-enrolled in another school would remain in the system until graduation or until he or she otherwise left the system. But even an effective national

student ID system would not reveal that some ninth graders had dropped out and left the system until they failed to show up as graduates with their age cohort. Of course, the missing graduates could not be counted as "dropouts" without giving them an extra year or two to graduate in case they had been held back a grade in high school or had decided to return to school. The problem is that even with a very good, individual student ID data system, a dropout becomes a dropout when he or she leaves school and the school-leaving often happens without the kind of consultation that would allow for accurate data coding as to dropout status.

The apparent confusion and resulting debates over how well U.S. schools are graduating students leads one to consider what kind of data set might be a "gold standard."

If schools are to do a better job at having up-to-date information on dropout and graduation rates, they must have more accurate and more appropriate data. And although the Heckman and LaFontaine effort may go a long way in quelling the "dropout debates," it provides no information that a state, school district, or school can use to inform practice and policy. Most researchers who have explored this topic agree that the starting point for quality data is with a student-level ID that would allow states to follow students across schools and districts at least within states and over time.

One national effort to promote consistent state information on student performance is the Data Quality Campaign, which provides guidelines for what constitutes "good graduation and dropout data."[18] But even when acceptable data systems are in place, the question remains how administrative units at the state, district, and school level will use those data in their reporting. For example, how will these units count GEDs when the incentives from virtually all sources are to have graduation rates that are as high as possible? New Jersey might provide some insight on this question. Heckman and LaFontaine report that in New Jersey, an individual need only mail in GED test scores that meet the state GED score requirements to qualify for a state-endorsed high school diploma. These newly credentialed individuals are then included in the official state diploma counts. The critical issue here, as Christopher Swanson and Duncan Chaplin have pointed out, is that under the federal system it is states, not the federal government, that have final authority in determining requirements for a high school diploma.[19] Thus, agreement across states on what represents high school completion may be as important as data development and consistency when it comes to developing "well-defined and well-agreed-upon" measures of schools' performance in graduating students. The U.S. Department of Education recently recognized the need for action and tightened the NCLB regulations regarding how states calculate high school graduation rates.

We close this section by suggesting the need to consider current graduation rates in the context of historical trends of this measure and the need to consider both trends and current rates in the context of the current global economy. Our interpretation of the research at hand is that graduation rates have

certainly not been increasing steadily since 1960, as table 1 would suggest. Neither have they been in a steady decline. Rather, the evidence from Heckman and LaFontaine suggests a 2- to 3-percentage-point fluctuation around a relatively flat forty-year trend line centered at about 77 percent. Thus, schools are apparently doing about as well now as they were forty years ago in terms of graduating students. The problem is that just as the competitive pressures associated with an increasingly global economy have increased, the importance of education in determining personal and national well-being has also grown. "Steady as she goes," then, is an alarming rather than comforting reality when it comes to how well the nation is getting students successfully through high school.

Who Drops Out—and Why?

Even the most optimistic assessments of national dropout rates suggest that far too many students are leaving school early. Economic, societal, and equity considerations all point to the need for interventions that could cause some of the roughly one million students who leave school each year to make a different decision. The importance of reducing the number of school dropouts is also reflected in NCLB, which requires states to incorporate graduation rates in their accountability systems for schools and school districts.

A first step in thinking systematically about how to affect dropout decisions is to have a good understanding of the characteristics and lives of students most at risk of leaving school early. That is, who are the students who tend to drop out, and what causes them to leave school? Although researchers know quite a bit about the characteristics of students who leave school, we know much less about the causal factors that lead to the school-leaving decision.

The great bulk of the research on why students leave school comes from post-dropout surveys and interviews of students who have left school. A recent example is "The Silent Epidemic," a study of dropouts supported by the Bill & Melinda Gates Foundation that interviewed 467 sixteen- to twenty-four-year-old dropouts across the nation.[20] Other research relies on student responses to questions posed in data sets such as the National Education Longitudinal Study of 1988.[21] Not surprisingly, students report a variety of reasons for leaving school early, and studies consistently find that a complex set of relationships between student, family, school, and community factors are linked with the dropout decision. Importantly, a substantial body of research suggests that the decision to drop out is often not made suddenly as the result of recent and potentially temporary factors, but rather is part of a longer process of disengagement from school.[22]

Although interesting, the reasons dropouts offer to explain why they leave school do not necessarily reveal the true underlying causes, and hence do not positively identify specific factors that school officials and policymakers can address. But effectively and efficiently addressing the dropout problem clearly requires knowing these underlying causal factors.

Students regularly report, for example, some measure of school disengagement as the primary reason for leaving school.[23] The commonuality of these responses ("did not like school" and "classes were not interesting") is often cited as a reason that schools must become more "relevant" and that teachers must learn to structure curriculum and pedagogy so that it is more "interesting" and "engaging" to students at risk of dropping out. Both suggestions may be completely on

the mark and, if enacted on a wide scale, might reduce dropout rates.

But if the causal arrow in the above responses ran the other way, the types of school reform being urged would have a much smaller than anticipated effect on dropout rates. That is, if other nonschool factors cause a student to lose interest in school and drop out, then focusing on school disengagement and ignoring the underlying factors that cause the school diseugagement might do little to change the dropout decision. Of course, the goal is to uncover the underlying causes, and it is not clear how well research has done in that realm. As a result, information on the "causes" of dropping out generally rests on a combination of the observable characteristics, behaviors, and outcomes of dropouts, along with their self-reported reasons for leaving school.

Student Characteristics

Student characteristics associated with a higher probability of dropping out, often called student "risk factors," are both numerous and oft-cited as dropout "predictors." Not surprisingly, poor school performance is a strong predictor of dropping out of school. For example, low test scores, course failure, and grade retention have all been found to be strongly associated with leaving school.[24] As noted, weak student engagement, often measured by absenteeism and discipline problems in survey data, is also strongly linked with a higher dropont probability.[25]

Early adult responsibilities have also been linked with a lower likelihood of graduation. One such responsibility is becoming a parent. Although teen parents are more likely than their peers who are not parents to drop out of school, research does not provide a clear picture of whether childbearing has a causal

impact on the probability of quitting school. Not surprisingly, much of the research focuses on women.[26] Early research quite clearly indicates that having a child has a strong negative effect on educational attainment, but more recent work questions this conclusion.[27] Joseph Hotz, Susan McElroy, and Seth Sanders use a creative empirical method in an attempt to obtain causal estimates and find a small negative but statistically insignificant effect of childbearing on teenage mothers' probability of earning a traditional high school diploma.[28] The additional responsibilities and demands of parenthood make this finding surprising. Most recently, Jason Fletcher and Barbara Wolfe, using an empirical approach similar that of Hotz and his colleagues, but also controlling for community effects and using alternative comparison groups, find that teenage childbearing decreases the probability of graduating with a traditional high school diploma by 5 to 10 percentage points.[29]

Out-of-school work also affects the probability of dropping out. Several studies find that students who work while in school are more likely to drop out.[30] A closer look reveals, however, that working a few hours a week has no negative effect and may even have a positive effect on graduating.[31] The negative effect appears with intensive work involvement—more than twenty hours a week—and with certain types of jobs.[32] The effects also vary by gender, race, and ethnicity. Clearly some students who work do not do so voluntarily but as a result of a family situation.

Family Characteristics

Students' family background greatly affects their educational outcomes and is commonly viewed as the most important predictor of schooling achievement.[33] Among the strongest family domain dropout predictors are parental education, occupation, and income—in other words, socioeconomic status.[34] Although students who need to take a job to help out the family are more likely to drop out of school, Stephen Cameron and James Heckman find that long-run factors associated with parental background and family environment matter the most for students' schooling progress, including graduation from high school.[35] These long-run factors may partially reflect parental involvement in school and the greater human capital investment in children's education in relatively well-to-do families.[36] Family stability, reflected in both family structure and school mobility, has also been linked to quitting school.[37] Potentially important, but less well-researched, are the roles played by family preferences, and attitudes, and how well families are informed about the importance of education in modern society.

School Characteristics

Much of the task of reducing dropout rates falls on the schools. Implicit in NCLB is the notion that schools can affect the dropout decision of students, and research shows that school characteristics do affect student achievement.[38] But although some school characteristics, such as school practices and processes, resources, size, and pupil-teacher ratio, are under the control of school policy, others, such as student composition and location, are arguably not. Russell Rumberger and Scott Thomas find that pupil-teacher ratio, the quality of teachers, and school size all influence the dropout probability of students in the expected direction.[39] And Magnus Lofstrom reports that spending per pupil, school location, and student composition affect students' dropout probability.[40] Furthermore, Cory Koedel finds that teacher quality also determines dropout outcomes.[41]

Accountability and High-Stakes Exit Exams

High-stakes exit exams are the tests that students must pass to graduate. These exams are controversial for a number of reasons, not least because they may lower high school completion rates, especially those of minority students. Existing research does not provide an entirely clear picture of the effect of high-stakes testing. Brian Jacob found that graduation tests appear to have no effect on the probability of dropping out of high school for the average student, but that they make it significantly more likely that the lowest-performing students, who are disproportionately minorities, will drop out.[42] The disproportionately negative effect on low-performing students is also stressed by Thomas Dee and Brian Jacob.[43] Research is decidedly mixed. Several other studies indicate a more widespread negative effect of exit exams on high school completion rates.[44] But one study finds no link between exit exam requirements and high school completion, even for low-achieving students.[45] Overall, most of the evidence suggests that exit exams may not be a graduation barrier for the average student, but that they are for disadvantaged and low-achieving students.

Clearly, of the many factors that affect students' decision to leave school, relatively few, including the economic situation of students' families, are easily affected directly by school policy. But the decision to drop out, once made, is highly costly both to the student and to society.

Costs of Dropping Out

Every year more than a million children leave school without a traditional high school diploma. The costs associated are large, both for the student who drops out and for society as well. Because minority and low-income students are significantly more likely than well-do-do white students to drop out of school, the individual costs fall unevenly across groups and ultimately affect important social issues, such as racial and ethnic education gaps, the income distribution, and health disparities.

Costs to the Individual

The most obvious cost to failing to complete high school is lower expected lifetime earnings. In 2006, the median annual earnings of women without a high school diploma were $13,255; those of men without a diploma were $22,151.[46] The median earnings of women and men with a diploma were, respectively, $20,650 and $31,715.[47] The earnings of women who drop out are thus only about 65 percent of those of female high school graduates—an annual difference of $7,395. The earnings of men who drop out are slightly less than 70 percent of those of men with diplomas—an annual difference of $9,564.

Graduating from high school does not necessarily cause these earnings differences. Because students self-select into schooling levels by the way they perceive the lifetime benefits and costs to themselves of such schooling, it may be wrong to conclude that if a randomly selected individual dropout were to complete high school, his or her earnings would increase by these amounts. But after reviewing research attempting to obtain the causal effects of education on earnings, Cecilia Rouse concludes that "the basic 'cross-sectional' relationship (that is, the mean difference in income between those with and without high school degrees) is a fairly good approximation to the causal relationship."[48] In addition, Rouse shows that relative to high school graduates, dropouts have higher unemployment rates and lower employment

rates. They also work fewer weeks each year.[49] Because of these less favorable employment outcomes, the estimated lifetime earnings of dropouts are $260,000 less than those of high school graduates. Rouse also shows that dropouts are less likely to benefit from employer-provided pension plans and health insurance.[50]

More education may also improve individuals' health in a causal manner. The observed link between low schooling levels, and poor health may be due to other factors, such as income, that are correlated with both schooling and health. Or it could be that the causal arrow runs in the other direction, with poor health preventing the full pursuit of higher schooling. David Cutler and Adriana Lleras-Muney find a clear relationship between education and health that cannot be entirely explained by labor market outcomes or family background and conclude that better health outcomes have to be included as one of the benefits of more education.[51] The flip side of this link, of course, is that poorer health and higher health spending are additional costs that dropouts face.

Costs to Society

The costs of failing to graduate from high school are not limited to dropouts themselves, but also spill over to society. These social costs include lower tax revenues, greater public spending on public assistance and health care, and higher crime rates.

Because dropouts do not perform as well in the labor market as high school graduates, as measured by earnings, employment, and unemployment, they also do not contribute as much in terms of tax revenues. Rouse estimates that dropouts pay about 42 percent of what high school graduates pay in federal and state income taxes each year ($1,600 and

$3,800, respectively).[52] Over a lifetime, Rouse estimates, the difference in the discounted present value of federal and state income tax revenues is about $60,000.[53] Given a cohort of 600,000 eighteen-year-old dropouts, these estimates suggest a yearly loss of $36 billion in state and federal income taxes.

Every year more than a million children leave school without a traditional high school diploma. The costs associated are large.

Public assistance to dropouts is also out of proportion to their share of the population. Jane Waldfogel, Irwin Garfinkel, and Brendan Kelly report that nearly half of single mothers receiving Temporary Assistance for Needy Families (TANF) are high school dropouts and that 27 percent of all single mothers lacking a high school diploma receive TANF (17 percent of high school graduates with no further education).[54] Waldfogel and her colleagues estimate that single mothers with a high school education are 24 percent less likely to be on TANF than are those who are high school dropouts.[55] The authors also estimate that if all welfare recipients who were high school dropouts were high school graduates, welfare costs would fall some $1.8 billion.[56] Public spending on health insurance is also estimated to be higher for dropouts. Peter Muennig estimates that over a lifetime, the discounted average public health insurance spending is $35,000 for school dropouts, compared with $27,000 for high school graduates.[57]

Dropouts are also greatly overrepresented in U.S. prisons. The Bureau of Justice Statistics reports that 68 percent of the nation's state prison inmates are dropouts.[58] Dropouts constitute 62 percent of white inmates, 69 percent of black inmates, and 78 percent of Hispanic inmates. Although these figures represent strikingly strong relationships between education and crime, the extent of causality is unknown. For example, children who grow up in poor, inner-city neighborhoods are more likely both to drop out of school and to engage in criminal activities during the adolescent and post-adolescent years. It is clearly challenging to estimate the causal effect of education on criminal behavior.

In an influential study, Lance Lochner and Enrico Moretti find that education does causally affect individuals' propensities to engage in criminal activities, though with racial differences.[59] Black male high school graduates are more than 3 percentage points less likely to be incarcerated than black dropouts; the share for white males is less than 1 percentage point. Lochner and Moretti also estimate the effect of schooling on different types of crime. They find that, on average, one additional year of schooling will reduce the murder and assault rate by close to 30 percent, motor vehicle theft by 20 percent, arson by 13 percent, and burglary and larceny by about 6 percent. They find no significant negative effect on robbery and rape.[60] Their findings indicate that a 1 percent increase in male high school graduation rates could save as much as $1.4 billion a year, or up to $2,100 for each additional male high school graduate.

Students who drop out may also be less effective at parenting and may participate less often and less effectively in the nation's democratic processes. To date there is little research on these costs of school dropout.

The discussion so far has dealt only with the costs—individual and social—associated with dropping out. A full social cost-benefit analysis would include potential social benefits associated with having students leave school early, such as lower public spending on education. It could also be that relatively high dropout rates improve the education of students who remain in school, especially if the dropouts were students who commanded much teacher time and energy. But almost certainly the high individual and societal costs associated with dropping out make it very hard to come up with a plausible scenario where the "benefits" of dropping out outweigh the costs.

Dropout Prevention

The high costs associated with dropping out make clear the need for programs to help students stay in school. The Dropout Prevention Center/Network lists hundreds of dropout-prevention programs in its online database of "model programs."[61] Only relatively few of these programs, however, have been rigorously evaluated for effectiveness. Even fewer have proved effective in achieving this goal. As Mark Dynarski and Philip Gleason write in a report on dropout-prevention programs, "Dropping out is as hard to prevent as it is easy to do."[62] Based on the evidence, one might add that it is equally hard to identify confidently the programs that are effective.

In what follows, we group dropout-prevention interventions into two categories. The first is interventions that set dropout prevention as the primary goal and that target specific students or groups of students. The second is interventions that have a broader goal than dropout prevention and a broader target audience than "at-risk" students, but that, nevertheless, aim to lower dropout rates. The first category embraces programs in the

regular school or in the community, alternative schools for at-risk students, and smaller learning communities that tend to fit the "school-within-a-school" model and that target at-risk students. The second, broader category includes school restructuring or school reform models. Broadly stated, programs in both categories aim to lower dropout rates through one or more of four mechanisms: increasing school attendance, increasing student school engagement and learning, building student self-esteem, and helping students cope with the challenges and problems that contribute to the likelihood of dropping out.

To date, relatively few evaluations of dropout-prevention interventions could be considered rigorous. One of the largest rigorously conducted evaluations was a late 1990s study of twenty-one different interventions, each funded by the U.S. Department of Education's School Dropout Demonstration Assistance Program (SDDAP). In addition to the SDDAP evaluations, a second source of evidence on the efficacy of dropout-prevention interventions can be found in the Department of Education's What Works Clearinghouse (WWC), which reviews and synthesizes studies of a wide variety of education interventions. The combined findings of the SDDAP evaluation and the WWC synthesis of dropout-prevention programs leave one less than sanguine about the knowledge base about how to lower dropout rates.

The SDDAP evaluation, conducted by Mathematica Policy Research, Inc., included both targeted and broadly defined dropout-prevention efforts. Targeted interventions were usually evaluated through randomized, controlled experiments, while the evaluations of the school-restructuring efforts were quasi-experimental and used observationally similar schools as the comparison group for

SDDAP schools. The evaluation looked at sixteen targeted interventions and five school-restructuring projects. Eight of the interventions took place at the middle school level. Two of the targeted interventions at the high school level were community-based programs aimed at helping students who had already left school acquire a GED.

The key finding from the SDDAP evaluations is that "most programs made almost no difference in preventing dropping out *in general*."[63] Some SDDAP programs did make a difference on some outcomes, and we will take a closer look at one of the more successful programs. One of the more consistent positive findings in the SDDAP evaluations, however, involves programs to increase GED acquisition among students who have already left school. Although increasing the GED attainment rate of school dropouts may be a laudable outcome, it seems less clear that it should be considered as successful dropout *prevention*.

The picture is hardly any brighter when it comes to findings of the What Works Clearinghouse. To date, the first-wave WWC review of dropout-prevention programs has looked at fifty-nine studies of sixteen programs.[64] From this group, ten of the programs had undergone evaluations that were rigorous enough to make it possible to reach firm conclusions about program effectiveness.[65] These ten programs include a wide range of interventions: counseling and monitoring, school restructuring and curriculum redesign, financial incentives for students and families, and community services designed to mitigate factors that can negatively affect school achievement and success.[66]

Of the ten programs, five showed promise in reducing dropout rates.[67] Two of the five—

Achievement for Latinos through Academic Success (ALAS) and High School Redirection—are no longer active. ALAS, a pilot program launched in San Diego during the early 1990s, was designed to address student, school, family, and community factors that affect dropping out. At the end of the ninth grade, 98 percent of the students who were randomly assigned to the ALAS program were still enrolled, compared with 83 percent of the students in the non-ALAS control group.[68] Meanwhile, three years after random assignment, 43 percent of the students assigned to the High School Redirection program—an alternative high school program for students considered at risk—had dropped out, compared with 53 percent of the randomly assigned control group.[69]

The three remaining positive programs represent three distinct approaches to dropout prevention. One, Check & Connect, is a relatively intensive program for (mostly) high school students; a second, Career Academies, fits the school-within-a-school model; a third, Talent Development High Schools, is best described as whole-school reform. We discuss each in turn.

A Dropout-Prevention Program: Check & Connect

The Check & Connect[70] model, developed through a partnership between the University of Minnesota, local public schools, and local community service organizations, was originally funded by the Department of Education. The Check & Connect model "was initially developed for urban middle school students with learning and behavioral challenges and was designed to promote students' engagement with school and learning, and to reduce and prevent dropping out. The model is currently being replicated and field-tested for youth with and without disabilities in

grades K–12 in urban and suburban communities."[71] Broadly speaking, Check & Connect works with and coordinates services among the student, family, school, and community to help the student succeed and stay in school.

The signature feature of Check & Connect is the assignment of a "monitor" to each student in the program to be the student's mentor and case worker. In the Check component, the monitor continually assesses the student's school performance, including attendance, behavior, and academics. Monitors are trained to follow up quickly at the first sign that a student is struggling in any of these areas. The Connect component combines individualized attention to the student with the coordination of services and information about the student across school personnel, family, and community service providers. The program carries a minimum two-year commitment to students and families, including the promise and ability to follow highly mobile youth from school to school so that students do not lose services when they move from their original program site.

In two separate experimental evaluations, Check & Connect showed positive effects on staying in school and progressing through school. One study showed that ninth-grade students enrolled in Check & Connect were substantially less likely than control group members to have dropped out of school by the end of the year—9 percent compared with 30 percent. Another study showed that by the expected graduation year, 39 percent of students in the Check & Connect treatment group had dropped out of school compared with 58 percent of the control group. The high dropout rate associated with both groups indicates the level of dropout risk present in the population targeted by Check & Connect. The cost of implementing the

Check & Connect model was about $1,400 per student during the 2001–02 school year.[72]

The School-within-a-School Model: Career Academies

Career academies are another intervention that rigorous evidence shows effective in lowering dropout rates, at least for students most at risk of dropping out.[73] The career academy model has three key features. First, it is organized as a school-within-a-school: students in a smaller and more personal learning atmosphere stay with the same teachers over the three or four years of high school. Second, it includes both academic and vocational coursework, with the two integrated in the curriculum and in pedagogy. And, third, it uses partnerships between the academy and local employers to build links between school and work and to provide students with career and work-based learning opportunities.

Begun in the 1970s, the career academy model has both evolved in concept and grown in numbers over time. Today some 1,500 career academies nationwide serve a much wider set of students than the "vocational ed" students who were seen as the original constituents of the academies.

The most important study of career academies is an experimental evaluation of more than 1,700 students who applied for admission to one of nine career academies across the nation. The study found that among high-risk youth, the career academies reduced the baseline dropout rate of 32 percent by 11 percentage points and that in the students' projected twelfth-grade year, 40 percent of the high-risk academy students had earned enough credits to graduate compared with only 26 percent of the high-risk students in the control group.[74] The best cost estimates are that in 2004 the per-pupil cost of

educating a student in a career academy was $600 more than the average per-pupil cost of non-academy students.[75]

High School Reform Models: Talent Development High Schools

High school reform models do not usually state "dropout prevention" as the sole objective for school restructuring. Nevertheless, these reform models often have goals related to dropout prevention, in particular increasing students' school engagement and academic achievement. Common components of many reform models include: reorganizing schools into smaller "learning communities"; focusing instruction and curricula on careers or on intensive or high-level English and math instruction, or both; increasing family involvement; and sometimes focusing on a college preparatory curriculum for everyone.

Many different reform models have been tried over the years, most without rigorous evidence of success. One exception is Talent Development High Schools (TDHS), a reform model for large high schools that face persistent problems with student attendance, behavior, performance, and dropout rates. The model, developed at Johns Hopkins University, calls for schools to reorganize into small learning communities that feature a curriculum designed to prepare all students for high-level English and math courses, along with measures to increase parent and community involvement in the school. Begun as a partnership between Johns Hopkins and a high school in Baltimore, the TDHS program now includes schools in forty-three districts in fifteen states across the nation.[76] The added cost is about $350 per student per year.[77]

A research design that followed twenty cohorts of ninth graders for up to four years

in high school in Philadelphia found that 68 percent of the students in TDHS schools were promoted to tenth grade compared with 60 percent of the comparison group.[78] These positive TDHS findings are notable as it has been hard for high school restructuring efforts to document positive results on outcomes of interest, including keeping students in school. At the same time, the findings should probably be viewed with some caution because they are based on a quasi-experimental research design.

Other Programs

As noted, there are many, many dropout-prevention programs, most of which are "stand alone" programs and many of which are much larger than either ALAS or Check & Connect. As examples, the Valued Youth Program served 108 schools in twenty-four cities in the United States and Brazil during 2002–03, along with an unknown number of schools in Great Britain; the Teen Outreach Program served more than 13,000 students across sixteen states during the 2001–02 school year.[79] These and other larger-scale programs, however, have not been rigorously evaluated, and thus in spite of their apparent popularity, their effectiveness in reducing dropout rates remains unknown.

One program that has been rigorously evaluated through random assignment is the Quantum Opportunities Program (QOP). An intensive and relatively expensive pro-gram that offers comprehensive services that begin in the ninth grade, QOP can last for up to five years, providing services even after a student drops out. In six of seven QOP demonstration sites, the cost of the program ranged from $22,000 to $28,000 per enrollee (in 2006 dollars) over the full five years of the demonstration, and labor costs in another QOP demonstration site made the program

there even more expensive. In spite of the high costs and intensive nature of the QOP model, experimental evaluations do not offer evidence that QOP participants were more likely to advance in or complete school than were the control group non-participants.[80] These examples suggest that one cannot use a program's popularity or size, cost, or even intensity as evidence of effectiveness.[81]

Although common risk factors are important in helping to identify potential dropouts, they are relatively inefficient predictors of who will in fact drop out.

Summary

An examination of the dropout-prevention interventions that show measurable results shines some light on what it likely takes to reduce a student's chance of dropping out. Successful programs have some or most of five elements in common. The first element is close mentoring and monitoring of students. With restructuring models, this mentoring occurs as part of the movement to smaller schools or to school-within-a-school models. The normally high adult-student ratio in a smaller learning environment would have to be higher still to reach the level of monitor-ing found, for example, in Check & Connect. In the High School Redirection model, teachers are encouraged to serve as mentors as well as instructors, and classes are kept small to foster high levels of individual attention. The second element is case management of individual students. Again,

case management is most likely to happen in a restructuring model with a movement to a smaller learning community. The remaining three elements are family outreach; curricular reforms that focus either on a career-oriented or experiential approach or an emphasis on gaining proficiency in English and math, or both; and attention to a student's out-of-school problems that can affect attendance, behavior, and performance.

In closing, we note one complication in designing and implementing dropout-prevention programs. Namely, although common risk factors are important in helping to identify potential dropouts, they are relatively inefficient predictors of who will in fact drop out.[82] For example, the risk factors that best predict dropout for high school students are high absenteeism, being over-age by two years, having low grades, and having a child. Using these factors should help identify a group of students with the highest probability of dropping out. Mark Dynarski and Philip Gleason found that these factors would in fact identify a group where one in three students would actually drop out. Although this rate is higher than the baseline 15 percent dropout rate that Dynarski and Gleason find based on the full sample of high school students, one could still question the use of these predictors to assign students to dropout-prevention programs. After all, a program serving students based on these predictors would serve many students who would not need the services and would fail to serve many students who would need them.[83] Because most programs use a common set of risk factors to target students for intervention, Dynarski and Gleason's work helps to explain why so few programs show positive results, and it challenges program designers and practitioners to develop better ways to identify potential dropouts.

Second-Chance Programs

Many national education systems around the world tend to channel students into particular pathways at an early age, with few opportunities for mid-course corrections. In contrast, the decentralized U.S. system has relatively porous boundaries between different "paths" through the system and, in particular, tends to offer "second-chance" options that can allow for mid-course corrections. We now look at the second-chance options for students who have made the dropout decision.

As measured by sheer numbers, the most important second-chance option for dropouts is, by far, the GED program. Conceived and developed in the late 1940s as a way to certify that returning World War II veterans who had left their high school classrooms to serve in the war were ready for college or the labor market, the program has grown from 50,000 test takers in 1955 to about 670,000 individuals who attempted the exams in 2007.[84]

As noted, GED holders do not fare as well as regular high school graduates in the labor market, and they get much less postsecondary education. What do these findings say about the GED as a second-chance option for dropouts? The answer is that it depends on the skills that are in place when one drops out of school. For an academically able student who leaves school with a solid set of basic cognitive skills, there is little advantage to acquiring a GED *except* to move into postsecondary education.[85] Because the academically able person can probably pass the GED exams with little extra effort or preparation, the GED is unlikely to lead to extra human capital accumulation.

On the other hand, for a person who leaves school with poor reading, writing, or math

skills, it may take substantial work and time to improve these skills enough to pass the exams. For such a person, pursuing a GED could increase marketable skills, making the GED a valuable second-chance option. To the extent that the market rewards these skills, such students could expect better labor market outcomes.[86]

Although the GED is the preeminent second-chance option, students who have left school also have opportunities to get a regular high school diploma, typically in an alternative school operated by the school district. These alternative schools structure coursework and class time to better accommodate the work schedules and parenting responsibilities of students who have left or are contemplating leaving school.

In New York, for example, thirty "transfer high schools" in the 2007–08 school year served some 9,000 students. These alternative schools, which operate out of the Office of Multiple Pathways to Graduation in the New York City Department of Education, are designed for students who are "over-age and under-credited or have dropped out of school."[87] As this target population shows, the line between dropout prevention and second-chance option is not always distinctly drawn: some programs and schools serve both purposes.

A second alternative school option in New York is the Young Adult Borough Centers (YABC), evening academic programs for students "who might be considering dropping out because they are behind or because they have adult responsibilities that make attending school in the daytime difficult."[88] In the 2007–08 school year, twenty-two YABCs served about 5,500 students. When students earn all required credits and pass all required

exams, they are awarded a diploma from their regular high school.[89]

New York's transfer high schools and YACBs, like most other alternative school programs such as Chicago's Evening High School Program, try to address dropout risk factors that are more difficult for more traditional high schools to address. Alternative schools tend to be smaller and to have lower student-teacher ratios. They try to offer a more individualized and personalized education experience, and they are often characterized by flexible course scheduling or non-traditional school hours, or both. These schools also tend to offer more support programs for students, such as child care for teen parents, and they often focus on connections to college or work, or both. Although alternative high schools are increasingly seen as an important tool for both dropout prevention and dropout "recovery," researchers as yet know little about how well these schools achieve stated goals.

There are two other routes to a high school diploma for students who have dropped out of school. One requires the student to earn the necessary high school credits that were lacking when he or she left school. These credit-earning programs are often delivered by community-based organizations that have an agreement with a sanctioned diploma-granting organization such as the local school district or with the state department of education. No hard data exist on the numbers of students who receive a high school diploma by going back and earning the necessary credits.

A second route to a high school diploma for school dropouts is through programs that allow individuals to demonstrate that they have high school–level skills. Although some

states have developed and offer a diploma program that relies on demonstration, a national program has been in existence since 1979. Students in the National External Diploma Program (NEDP) demonstrate their high school–level skills by "applying their life experiences in real-life situations."[90] When an NEDP assessor certifies that the applicant has met benchmark skill levels, the cooperating school district awards a high school diploma. This alternative high school diploma program is as yet a very minor part of the second-chance landscape; only 1,700 people nationwide earned a high school diploma through the NEDP program in 2006–07.[91]

In terms of both human capital accumulation and education credentialing, the nation's community colleges provide another second-chance option for dropouts. Most community colleges have an open-enrollment policy combined with placement exams that determine whether applicants are ready for postsecondary education credit programs or whether they first need to complete remediation courses to raise their skill levels. Open admission policies, combined with relatively low tuition and an array of remedial courses, make community colleges a potentially viable second-chance option for school dropouts who wish to move directly into postsecondary education.

Of course many dropouts may well need more from a second-chance program than human capital accumulation or education credentialing. Given the many different factors that are often associated with the dropout decision, dropouts often need help with non-academic issues to get their life back on track. Since most program evaluation studies have focused on the effectiveness of programs in reducing dropout rates or

improving educational attainment or labor market outcomes, researchers have little information on how existing programs achieve these goals by improving the overall quality of life of dropouts.

Conclusion

In a world in which education is becoming ever more important, finding solutions to the dropout problem is one of the most pressing issues facing America's high schools. A first step on this path is to accumulate data that will allow for a more accurate depiction of the dropout problem. Most states now have data systems in place that assign unique identification numbers to public school students. These student IDs can be used to link students to school enrollment and graduation data, providing a way to produce accurate enrollment and graduation statistics for students who remain in public schools in the state. These state-by-state systems rarely allow the accurate tracking of a student who leaves a school in one state to re-enroll in another state—a problem given the relatively high dropout rates associated with student mobility. At the same time, states are still likely to be able to obtain rather accurate graduation and dropout statistics because the prevalence of across-state moves for school-leaving-age students is relatively low. The ideal solution would be a national student identifier akin to Social Security numbers that would allow for dropout statistics from the national to the state to the individual school level.

Even if the United States were to move to a national student ID system, it would still be necessary to settle on how the GED credential should be viewed in computing dropout statistics. Should students who are enrolled in high school in a GED Option program be counted in enrollment statistics?

Should students in these programs who get their GED while still enrolled in high school be counted as high school graduates or as dropouts or as partially-weighted high school graduates? How should students who drop out of school and obtain out-of-school GEDs "on time" for their graduation cohort be counted when it comes to computing dropout rates? Given the many students who obtain a GED, answers to these questions will have a large effect on ultimate dropout statistics. Given the evidence indicating that dropouts with the GED credential do not do as well in the labor market, or pursue postsecondary schooling to the same extent, as traditional high school graduates, treating GED holders as equivalent to high school graduates seems inappropriate.[92]

Finally, what is to be done to lower dropout rates and increase high school graduation rates? The research base for answering this question is woefully inadequate. Although hundreds of dropout-prevention programs exist, from small, discrete programs to whole-school reform models, little hard evidence reveals what does and does not work to decrease the probability of dropping ont. The direction for future research is thus clear: more rigorous studies of dropout-prevention strategies are needed. Studies that take advantage of lottery assignment mechanisms in programs that tend to have more applicants than places can produce powerful results that can withstand scrutiny. Likewise, pilot programs can often be designed to generate a rigorous and convincing evaluation, as did the previously discussed ALAS program in San Diego.

Increasing the minimum school-leaving age is another possible, partial, policy solution to the dropout problem. States vary both in minimum school-leaving age, between sixteen and eighteen, and in the extent to which they offer exemptions to the rule based on, for example, parental consent or student-related work reasons, or both.[93] Research has quite consistently shown that students in states with a higher school-leaving age stay in school longer.[94] But before concluding that all states should raise to eighteen the age at which students may legally leave school, it is necessary to recognize that the most recent research indicates that raising the minimum drop-out age above sixteen will not fix the dropout problem. Philip Oreopoulos estimates that such a change would decrease the dropout rate about 1.4 percentage points.[95] He also finds that enforcing the school-leaving age is a factor and recommends that "if states are serious about lowering dropout rates through compulsory schooling, they need to better enforce these laws." Overall, minimum school-leaving-age policies appear to be a tool that, used properly, can have some, but not a large, effect on dropout rates.

Although researchers have much to learn about which dropout-prevention programs work, they do know that trying to keep students in school is not cheap. They have also learned, however, that the costs to society of each student who fails to graduate from high school are high. What lies ahead is learning not only how to keep students in school, but also how to muster the public will to fund and support programs that are proven effective in doing so.

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ATTACHMENT 3
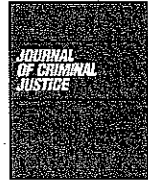
School resource officers and the criminalization of student behavior

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ABSTRACT

As school resource officer (SRO) programs continue to be widely implemented, there is concern that an increasing police presence at schools will "criminalize" student behavior by moving problematic students to the juvenile justice system rather than disciplining them at school. If true, this has serious implications for students and schools; yet research on this topic is limited and the discourse is often based on speculation or anecdotal evidence. To address this issue, this study evaluated the impact of SROs on school-based arrest rates by comparing arrests at thirteen schools with an SRO to fifteen schools without an SRO in the same district. Poisson and negative binomial regression models showed that having an SRO did not predict more total arrests, but did predict more arrests for disorderly conduct. Conversely, having an SRO decreased the arrest rate for assault and weapons charges. Implications of these findings for understanding SROs and their role in criminalizing student behavior are discussed.

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Introduction

Following a handful of high-profile incidents of lethal school violence in the 1990s, growing attention has been given to the protection of students and faculty at school. Though contrary to statistics showing that school crime nationally was declining, relatively rare, and usually nonviolent (Dohrn, 2002; Jackson, 2002; Miller, Gibson, Ventura, & Schreck, 2005), school shootings like those in Littleton, Colorado, and Jonesboro, Arkansas, fed growing public fear of juvenile and school crime. This led to the rapid implementation and expansion of numerous school security measures, ranging from the use of high-tech security devices like metal detectors and surveillance cameras to student-driven peer mentoring programs, school resource officer programs, and punitive zero-tolerance policies for disciplinary infractions (Eisenbraun, 2007).

Empirical evaluations of these various security strategies are limited, have varying levels of methodological rigor (D. C. Gottfredson, 2001), and often report conflicting findings (Brown, 2005). For example, while research done by Green (1999) and Johnson (1999) reported that metal detectors and school resource officers, respectively, enhanced school security, Schreck, Miller, and Gibson (2003) found them to be ineffective while Mayer and Leone (1999) found that they actually led to more school disorder. Moreover, while development of a positive school environment is considered critical to violence prevention (Eisenbraun, 2007; D. C. Gottfredson, 2001), common security measures like strip searches and use of undercover agents actually lower students' self-esteem and cause emotional distress (Hyman & Perone, 1998). According to Beger (2003), such strict measures foster an "adversarial

relationship" between students and school personnel and interrupt student learning (p. 340). Conflicting findings like these make it difficult to determine what works to prevent school violence while showing clearly that more research is needed (Brown, 2005; Eisenbraun, 2007).

Criminalizing student behavior

Moreover, several criminologists and legal scholars have expressed concerns that some strategies designed to make schools safer—particularly the growing number of school resource officers (SROs)—might actually *criminalize* student behavior and lead to a substantial increase in the number of school-based arrests. SROs are sworn law enforcement officers assigned full-time to patrol schools. As they become more common on school campuses, it is argued, discipline problems traditionally handled by school principals and teachers now are more likely to be handled by a school police officer (Hirschfield, 2008). Thus, as a scuffle between students becomes assault or disrupting class becomes disorderly conduct, it is expected that the number of youths referred from public schools for delinquent and criminal prosecution will climb, especially for behaviors that pose no legitimate threat to school safety (Beger, 2003; Brown, 2006; Dohrn, 2001, 2002; Hirschfield, 2008; Lawrence, 2007). According to Dohrn (2002), American schools have been transformed into "prisonlike" facilities, replete with locked doors, metal detectors, camera surveillance, and greater police presence (p. 283).

More information on this matter is urgently needed given the implications of criminalization for students, schools, juvenile and criminal justice systems, and communities. Students removed from school miss educational opportunities. These students also face humiliation and stigma from classmates and teachers after being led from school in handcuffs. Being stigmatized and labeled as an offender

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also might result in greater scrutiny, surveillance, and questioning from school staff and security. This type of regular suspicion and harassment could lead some youth to drop out of school (Scheffer, 1987) and could even contribute to a rise in community and school crime rates. Furthermore, having a criminal record might negatively impact access to jobs and institutions of higher education (Dohrn, 2001).

Currently, however, data are limited and confidentiality rules protecting juvenile court records make it difficult to calculate the number of arrests made by SROs (Center on Juvenile and Criminal Justice, 2000). Much of the discourse about criminalization is based on speculation, anecdotal evidence, or descriptive statistics. The present study therefore contributed to the literature by quantifying and evaluating the impact of school resource officers on school arrest rates. By comparing schools with an SRO to schools without an SRO in the same district, this study sought to identify differences in the number of arrests and types of charges. Such comparisons are critical for understanding the effect of SROs on school arrests while also considering their possible role in criminalizing behavior.

School resource officer programs

While a few school resource officer (SRO) programs have existed since the mid-1900s, the number has swelled since the late 1990s. Today, these officers represent a significant and popular trend in school violence prevention. Following the fatal shooting of a school principal by a middle school student, for example, Tennessee Governor Phil Bredesen announced that he would "look into making the SRO job a part of the framework for every public school" (Kovac, 2006, p. B7). It is not surprising then that, according to the National Association of School Resource Officers (NASRO, n.d.), a member service organization boasting about 10,000 members, school-based policing is the fastest growing area of law enforcement. While it is difficult to know the exact number of school resource officers, it is estimated that there might be more than 20,000 law enforcement officers patrolling schools in the United States (Brown, 2006).

School resource officers in the United States (also known as *school police officers* or *school liaison officers*) typically are employed by a local law enforcement agency and assigned to work in a school or schools. They perform traditional law enforcement functions like patrolling school buildings and grounds, investigating criminal complaints, handling students who violate school rules or laws, and trying to minimize disruptions during the school day and at after-school activities (Lawrence, 2007). SROs also are charged with educating students and school staff about crime and violence prevention, acting as mentors to students, and helping to improve the school environment (Rich & Finn, 2001). Officers usually are armed and often in uniform. While some schools utilize area law enforcement officers on a part-time or irregular basis, true SROs frequently have received extensive training in school-based policing and are a consistent fixture at the school. For these reasons, Rich and Finn urge clear differentiation between official SROs and other "sworn officers who focus exclusively on law enforcement activities in schools" (p. 4).

School resource officers and criminalization

To date, most published research on school resource officers or school-based policing focused on the implementation of such programs at schools (e.g., Briers, 2003) or on describing officers' duties while at school (e.g., Finn, Shively, McDevitt, Lassiter, & Rich, 2005; Rich & Finn, 2001). There also was literature discussing the development of collaborative partnerships between school and law enforcement personnel (e.g., May, Fessel, & Means, 2004; Patterson, 2007) as well as students' attitudes about school police officers (Hopkins, 1994; Hopkins, Hewstone, & Hantzi, 1992; Jackson, 2002). Though such research, commentaries, and process evaluations are

essential for understanding school resource officers, they rarely discussed the notion of criminalization or provided data about arrests made at school.

Nevertheless, in support of the criminalization hypothesis, there were numerous published reports documenting incidences in which students were arrested for seemingly minor offenses. For example, Rimer (2004) described how a fourteen-year-old student was arrested and detained for violating a school's dress code. The Center on Juvenile and Criminal Justice (2000) similarly described how a fourteen-year-old disabled student in Florida was arrested and charged with felony robbery after stealing $2 from a classmate. The student was held for several weeks in an adult detention center before charges were dropped. In another example, a twelve-year-old student in Louisiana was arrested and charged with making *terroristic threats* and detained for two weeks after telling classmates in the school's lunch line that he would "get them" if they ate all of the potatoes.

Authors also noted the rising number of school-based arrests in some districts as validation of the idea that SROs contribute to criminalizing behavior. Rimer (2004) reported that the number of school-based arrests in one Ohio county increased from 1,237 in the year 2000 to 1,727 in 2002. According to juvenile court officials, most of these arrests were for minor offenses or unruly student behavior while only a very small percentage was for serious threats to school safety. A similar escalation was reported in Miami-Dade County, Florida, where the 2,345 school arrests in 2001 were a threefold increase over the number of school arrests in 1999. The vast majority of these arrests were for simple assaults and disorderly conduct. Given that both locations utilized SROs extensively at district schools, these figures make a compelling statement about the possible criminalization of student behavior. The number of arrests made specifically by an SRO is unknown, however, and such figures can be somewhat misleading since it is unusual for all schools in a district or county to have regular SRO involvement. In Miami-Dade County schools, for example, school resource officers are assigned to middle schools and high schools only, while police service is provided to elementary schools as needed.

Focusing on SROs exclusively, Johnson (1999) studied eighteen SROs recently placed at nine high schools and eighteen middle schools in one district in the southern United States. These officers made 145 arrests in a five-month period, including ninety-seven arrests involving drugs and forty-nine involving weapons. Without a comparison group though, it is difficult to know if this number of arrests is high or unusual for these schools. Similarly, Dohrn (2001) reported the number of arrests from one Chicago-area high school with an assigned police officer. There were 158 arrests during the 1996–1997 school year, including sixty-one for pager possession, twenty-one for disorderly conduct, and sixteen for non-firearm weapon possession. Yet, it is unclear if these data from a single school generalize to other locations since officers' and school principals' discretion as well as the school climate will influence decisions to arrest. In contrast, however, studies citing national statistics likewise were limited because they included data from schools with and without an SRO.

While more empirical research is needed to evaluate school-based arrests made by SROs, there are practical and conceptual reasons to suggest that SROs play an important role in introducing more and more students to the juvenile justice system. First, most crime occurring at schools historically has not been reported to police (Elliott, Hamburg, & Williams, 1998), yet having a police officer available and accessible at school facilitates reporting. One likewise would expect more crime to be witnessed by law enforcement when they are present daily at school. Along these same lines, as SROs assume increasingly more responsibility for handling school disciplinary problems, it is reasonable to expect that more and more situations will be resolved with an arrest now than in the past (Hirschfield, 2008). Finally, Bailey (2006) described SROs as having a "quasi-law enforcement role" in the school (p. 38). This complicates security issues and gives officers more freedom to search students

and detect contraband. Specifically, while the standard to search a suspect for police officers patrolling the streets includes probable cause and/or issuance of a warrant, the standard for school officials as determined in *New Jersey v. T.L.O.* (1985) is reasonable suspicion only. Therefore, an officer acting at the request of school officials—and thus serving as an agent of the school—operates under a less stringent standard for searching students (Bailey, 2006).

The present study

For all of these reasons, it was hypothesized that schools with an SRO have more total arrests and more arrests for charges like disorderly conduct and assault than schools without an SRO. To evaluate the role of SROs in school-based arrests, this study compared arrests occurring at middle schools and high schools with an SRO to those occurring at schools without an SRO in the same district. While school resource officers often are placed at all schools in a district (e.g., Johnson, 1999), the SRO program studied here was implemented by one metropolitan police department within the school district's catchment area. Thus, SROs in this district were not assigned to schools based on a school's need, history of violence, or demographics but rather by geography only and a school's location inside or outside of city limits. One school resource officer therefore was assigned to each of the seven middle schools, five high schools, and one alternative school within the city limits regardless of the school's past experiences with violence or delinquency. Consistent with standards promoted by the NASRO (n.d.), these officers received extensive training in school-based law enforcement, teaching skills, and school violence prevention programming. This police department served the largest city in the county with a population of nearly 200,000 residents.

The remaining seven high schools, seven middle schools, and one alternative school in the district were outside city limits and thus did not have an official, trained school resource officer assigned to them. Deputies employed by the county sheriff's department were responsible for these schools. Unlike the city schools, however, these deputies focused exclusively on law enforcement duties at schools. They received less training in school-based policing, often were assigned to more than one school in an area, and were not expected to make presentations to students or faculty or be a visible or proactive presence in the schools. Instead, when present at a school, deputies typically were stationed at the school's main office and charged with assisting the school principal in handling disciplinary referrals as needed. This activity contrasted markedly with the actions and level of involvement expected from the school resource officers. Such an organizational structure, wherein roughly half of the district's middle and high schools had an SRO and half did not and SROs were assigned based on school location rather than need, provided a unique opportunity to study the alleged criminalization of students by SROs.

Methodology

Sample and study design

To evaluate the impact of school resource officers on arrests at school, this study compared the number of arrests in three consecutive school years at thirteen schools with an SRO and fifteen schools without an SRO in one school district. Analyzing multiple years of data neutralized anomalies that might arise from a single year of data, while comparing schools in the same district controlled for variations in policies and guidelines that might exist across different districts. The district covered one county in the southeastern United States and boasted almost ninety public schools, including fourteen middle schools (grades six through eight), twelve high schools (grades nine through twelve), and two alternative schools serving middle and high school students with behavioral or mental health problems. These twenty-eight schools formed the sample for this study. District schools

were located primarily in urban and suburban settings. There were more than 53,000 students enrolled in all district schools with approximately 13,000 middle school students and 16,000 high school students. The majority of students district-wide were Caucasian (81 percent), followed by African American (15 percent), and Hispanic students (2 percent). Approximately 40 percent of all students received a free or reduced school lunch, while 13 percent had an accommodated disability.

Measures

Dependent variables
Seven dependent variables were analyzed here to assess differences in arrests between schools with and without an SRO. These variables were counts of the total number of arrests at a school during the three years, the number of arrests with a disorderly conduct charge, the number of arrests with an assault charge, the number of arrests involving possession of drugs or drug paraphernalia charges, the number of arrests for possession of alcohol or public intoxication charges, the number of arrests involving a weapon on school property, and the number of arrests involving all other types of charges. To collect these data, all delinquency petitions filed at the county's juvenile court from three consecutive school years (2003-2004, 2004-2005, and 2005-2006) were reviewed to identify those arrests occurring at district middle schools and high schools during normal school hours or at after-school activities. Since all juvenile arrests in the county were processed through the juvenile court regardless of school location and departmental jurisdiction, it was an ideal place to obtain comprehensive and consistent data about delinquency across district schools.

During the three school years, there were 1,012 arrests involving 878 different students at district middle and high schools. To assess differences between schools, arrests were aggregated to generate a duplicated count by school. In a duplicated count, students with multiple arrests are counted multiple times. While an unduplicated count (in which students are counted only once regardless of how many times they are arrested) is expected to underestimate the frequency of arrests at school, duplicated counts provide the most accurate measure of how often arrests are used to control discipline problems. For this reason, Raffaele Mendez, Knoff, and Ferron (2002) strongly encouraged the use of duplicated counts in school discipline research. Similar duplicate counts were generated for each delinquent charge of interest. Almost 90 percent of all arrests ($n = 893$) resulted in a single charge, while 10 percent ($n = 119$) yielded multiple

Table 1
School and delinquency characteristics for SRO and non-SRO schools ($N = 28$)

	Schools with a school resource officer ($n = 13$)	Schools without a school resource officer ($n = 15$)
	Mean ± S.D.	Mean ± S.D.
School characteristics		
Total students	992.2 ± 493.7	1115.9 ± 513.1
Percent economic disadvantage[*]	60.4 ± 23.9	30.0 ± 17.7
Percent ethnic minority students[**]	33.8 ± 23.7	10.5 ± 6.3
Percent attendance	92.0 ± 3.4	93.9 ± 3.7
Rates of arrests and charges per one hundred students		
Total arrest rate	11.5 ± 25.1	3.9 ± 6.9
Alcohol/public intoxication charge rate	0.5 ± 0.9	0.3 ± 0.4
Assault charges	1.0 ± 1.7	0.7 ± 1.5
Disorderly conduct charges	8.5 ± 21.1	1.8 ± 5.6
Drug-related charges	1.2 ± 2.1	0.8 ± 0.5
Other charges	1.1 ± 1.0	0.6 ± 1.0
Weapons charges	0.1 ± 0.2	0.2 ± 0.3

[*]Mean difference is significant; $F(1,27) = 14.87$; $p = .001$.
[**]Mean difference is significant; $F(1,27) = 13.49$; $p = .001$.

Table 2

Negative binomial regression results for total arrests at schools ($N = 28$)

	Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
Independent variable						
SRO at school	1.091[**]	.438	0.055	.404	0.328	.868
Percent economic disadvantage at school	--	--	0.039[***]	.008	0.042[***]	.012
SRO x percent economic disadvantage (interaction term)	--	--	--	--	−0.006	.017
	Likelihood-ratio $X^2 = 5.66$ $p = .02$		Likelihood-ratio $X^2 = 23.90$ $p < .001$		Likelihood-ratio $X^2 = 24.03$ $p < .001$	

[*] $p < .10$.
[**] $p < .05$.
[***] $p < .001$.

charges. For these arrests, each type of charge was counted separately, and as a result, the number of charges exceeded the number of arrests.

Independent variables

Independent variables came from annual reports published by the state's Department of Education. These reports are publicly available and show summary information about each school district in the state, as well as information on all individual schools within a district. Variables in the present study were averages calculated from the three years of data and included *total enrollment at each school, percent of the student body that was ethnic minority* (non-Caucasian), *percent of the student body that was economically disadvantaged* (a measure of school poverty defined as the percentage of students receiving a free or reduced lunch at school), and *attendance rate* (the average number of days students attend school divided by the average number of days the students are enrolled).

These variables were selected because they had been linked to school discipline outcomes in other studies. In studies of school exclusion (out-of-school suspension and expulsion), Bruns, Moore, Stephan, Pruitt, and Weist (2005) found that the percent of students in poverty at a school was positively correlated with the out-of-school suspension rate, while school enrollment and mean school attendance rate were negatively correlated with this rate. In a similar study of rates, Raffaele Mendez et al. (2002) found that school level variables like percent of students receiving free lunch and percent African American were positively correlated with out-of-school suspension rate, while percent Caucasian and percent Hispanic were negatively correlated. Brown (2006) likewise summarized research showing a relationship between school poverty and size and crime rates.

Data analyses

Independent variables are presented on Table 1 and compared using analysis of variance (ANOVA) tests with a Bonferroni adjustment for multiple comparisons. All data met normality assumptions. Since school resource officers were placed at schools based on geography rather than random assignment, these comparisons were done to identify significant differences between the two sets of schools. To better isolate the impact of SROs on arrests, differences in the independent variables must be controlled for in subsequent regression models. As shown in Table 1, data suggested that schools with an SRO had more poverty and a larger percentage of ethnic minority students. Whereas ethnic minority students often are overrepresented in lower socioeconomic groups (Eisenbraun, 2007), these two variables expectedly are highly correlated ($r = .81$; $p < .001$). Therefore, to avoid multicollinearity problems that arise when covariates are highly correlated (and given this study's sample size), only one was included as an independent variable in the subsequent regression models. The decision was made to use *percent of students with economic disadvantage* because it represented a more significant difference in this study, had been explicitly linked to school problems in other studies (e.g., Bruns et al., 2005), and problems confronting ethnic minority students at school often are embedded in poverty and socioeconomic issues.[1] As Skiba, Michael, Nardo, and Peterson (2002) noted in regard to school exclusion, the connection between race and socioeconomic status (SES) in the United States is undeniable and "increases the possibility that any finding of disproportionality [in school exclusion] due to race is a by-product of disproportionality associated with SES" (p. 321). Table 1 also displays the mean arrest and charge rates per one hundred students at schools with and without an SRO. These rates for total arrests and all specific charges of interest were calculated by dividing the total number of arrests or charges in the three-year study period by the average number of students at school for the three years divided by one hundred.

Tables 2–5 show the results of a series of negative binomial and Poisson regression models. These types of statistical analyses are ideal for count data (like *number of arrests at school*) that have nonnegative integers, are highly skewed since some counts will be very low (i.e., some schools will have few arrests), and have heteroscedastic error terms. Tests for overdispersion (the variance is greater than the mean) showed that negative binomial regression was appropriate for all dependent variables except the number of arrests involving weapons charges. For this variable, Poisson regression was used.

The study's modest sample size ($n = 28$ schools) limited the number of independent variables that could be included in the regression models. Though there is still much debate about the minimum sample size needed per independent variable in multivariate analysis (Knofczynski & Mundfrom, 2008), this study used the popular rule of thumb that one independent variable per ten sample members is appropriate (Harrel, Lee, Matchar, & Reichert, 1985; Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996; Vittinghoff & McCulloch, 2007). Vittinghoff and McCulloch suggested this rule might be too conservative, yet other research has found that this rule limits bias and maintains the validity of multivariate models (Harrel et al., 1985; Peduzzi et al., 1996). Specific to this study, three regression

Table 3

Negative binomial and Poisson regression results for arrests involving assault and weapons charges at schools ($N = 28$)

	Assault						Weapon on school property					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Independent variable												
SRO at school	0.262	.468	−0.740[*]	.385	0.849	.688	−0.225	.312	−1.304[**]	.457	−1.295	.931
Percent economic disadvantage at school	--	--	0.038[***]	.008	0.059[***]	.011	--	--	0.032[***]	.008	0.032[**]	.013
SRO x percent economic disadvantage (interaction term)	--	--	--	--	−0.037[**]	.014	--	--	--	--	−0.000	.017
	Likelihood-ratio $X^2 = 0.31$ $p = .58$		Likelihood-ratio $X^2 = 18.17$ $p < .001$		Likelihood-ratio $X^2 = 23.79$ $p < .001$		Likelihood-ratio $X^2 = 0.51$ $p = .48$		Likelihood-ratio $X^2 = 15.15$ $p < .001$		Likelihood-ratio $X^2 = 15.15$ $p = .001$	

[*] $p < .10$.
[**] $p < .05$.
[***] $p < .001$.

Table 4

Negative binomial regression results for arrests involving drugs and alcohol/public intoxication charges at schools (N = 28)

Independent variable	Drugs						Alcohol/public intoxication					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	0.064	.315	−0.162	.379	0.012	.733	−0.020	.439	−0.131	.576	−1.027	.998
Percent economic disadvantage at school	–	–	0.008	.008	0.011	.013	–	–	0.003	.011	−0.016	.022
SRO x percent economic disadvantage (interaction term)	–	–	–	–	−0.005	.016	–	–	–	–	0.026	.025
	Likelihood-ratio $X^2 = 0.04$ $p = .84$		Likelihood-ratio $X^2 = 0.98$ $p = .61$		Likelihood-ratio $X^2 = 1.06$ $p = .79$		Likelihood-ratio $X^2 = 0.00$ $p = .96$		Likelihood-ratio $X^2 = 0.09$ $p = .96$		Likelihood-ratio $X^2 = 1.22$ $p = .75$	

[*] $p < .10$.
[**] $p < .05$.
[***] $p < .001$.

models were presented for each dependent variable described above. This multi-model structure allowed for evaluating the impact of SROs on arrests with and without controlling for other independent variables. The first model included only one independent variable—having an SRO at school or not (coded as SRO at school = 1, no SRO = 0). The second model included this variable plus *percent of students with economic disadvantage*. The final model then added the interaction (SRO x school poverty) of these two variables. This term was added to assess differences in arrests as poverty levels changed at schools with an SRO. This was an important consideration given speculation that the criminalization of student behavior is especially acute at lower socioeconomic schools.

In all models, the *average number of students at a school during the three years divided by one hundred* was included as an exposure variable. This controlled for differences in the number of students across all schools. Dividing the average by one hundred helped in translating the output to more common and easily understood terminology since regression coefficients then can be reported as a percent change in the arrest rate "per one hundred students." Regression coefficients were interpreted using the standard formula where a one-unit change in an independent variable equals a $100(e^b-1)$ percent change in the dependent variable (D'Alessio & Stolzenberg, 2003; DeMaris, 1995; Hannon & Cuddy, 2006). As a final comment, it is important to note that having an SRO at school or not is a dichotomous variable while *percent of students with economic disadvantage* is a continuous variable wherein values can range from 0 to 100 percent. Comparisons of the two variables and their resulting rates hence should be made cautiously since the magnitude of change may vary dramatically across the two different types of variables.

Results

Comparisons of the school characteristics presented in Table 1 show that a larger percentage of students at schools with a school resource officer (SRO) had economic disadvantage compared to schools without an SRO. These schools also had a larger percentage of ethnic minority students. Regarding delinquent arrests, there were 216 more arrests at schools with an SRO ($n = 614$) than at comparison schools ($n = 398$). The most common charge at SRO schools was disorderly conduct ($n = 361$) followed by other charges ($n = 101$) and drug-related charges ($n = 98$). At those schools without an SRO, the most common charges were drugs ($n = 138$), then disorderly conduct ($n = 77$), and possession of alcohol and public intoxication ($n = 72$). Among the forty-two arrests district-wide for possessing a weapon, twenty-three involved a knife, twelve involved a firearm, and the remaining seven involved items like a copper pipe, metal baton, or box cutter. Across all schools, the most common charge in the *other* category was trespassing ($n = 38$ arrests), followed by theft ($n = 24$), and vandalism ($n = 17$).

Without controlling for school poverty level, the presence of an SRO gives a 197.7 percent increase in the rate of arrests per one hundred students (Model 1). Yet, as shown in Model 2 on Table 2, when economic disadvantage is added to the regression equation, having an SRO at school ceases to be a significant predictor of arrests. Instead, for each one percentage point increase in economic disadvantage at a school, the rate of arrests per one hundred students increases by 3.98 percent (without interaction term) and 4.29 percent (with interaction term). The interaction is not significant in Model 3, indicating that the number of arrests does not change as poverty levels change at schools with an SRO.

Regarding specific charges, though not significant when alone (Model 1), Model 2 in Table 3 shows that having an SRO at school leads to a 52.3 percent decrease in the rate of arrests involving assault charges per one hundred students when controlling for the level of economic disadvantage at school. The same model also shows that as economic disadvantage increases by one percentage point, this rate increases 3.9 percent. In the third model, with both independent variables and the interaction term, each one percentage point increase

Table 5

Negative binomial regression results for arrests involving disorderly conduct and other charges at schools (N = 28)

Independent variable	Disorderly conduct						Other					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	1.614[**]	.703	0.825[*]	.482	3.034[**]	1.249	0.798[**]	.373	−0.242	.343	0.178	.668
Percent economic disadvantage at school	–	–	0.070[***]	.011	0.098[***]	.020	–	–	0.031[***]	.007	0.038[**]	.011
SRO x percent economic disadvantage (interaction term)	–	–	–	–	−0.049[*]	.026	–	–	–	–	−0.010	.014
	Likelihood-ratio $X^2 = 4.64$ $p = .03$		Likelihood-ratio $X^2 = 30.72$ $p < .001$		Likelihood-ratio $X^2 = 34.83$ $p < .001$		Likelihood-ratio $X^2 = 4.04$ $p = .04$		Likelihood-ratio $X^2 = 20.60$ $p < .001$		Likelihood-ratio $X^2 = 21.13$ $p < .001$	

[*] $p < .10$.
[**] $p < .05$.
[***] $p < .001$.

in economic disadvantage at a school increases the rate of arrests involving assault charges by 6.1 percent while a rise in economic disadvantage at schools with an SRO decreases this rate by 3.6 percent.

Similar patterns exist regarding arrests involving possession of a weapon on school property. For this charge, when controlling for economic disadvantage, schools with an SRO have a 72.9 percent decrease in the rate of arrests per one hundred students. Conversely, each one percentage point climb in school poverty increases this rate of arrest by 3.3 percent. This same effect is evident in the full model with the interaction term.

Table 4 shows that neither school resource officers nor poverty predicts changes in the rate of arrests involving drug or alcohol and public intoxication charges. The regression coefficients associated with having an SRO at school generally are negative, but none approach a level of statistical significance. The interaction term also is not significant for either dependent variable.

Finally, results presented in Table 5 show that school resource officers dramatically increase the rate of arrests with disorderly conduct charges with and without controlling for school poverty. Specifically, without controlling for economic disadvantage at schools (Model 1), having an SRO yields a 402.3 percent increase in this arrest rate per one hundred students. This percent increase remains large even after controlling for poverty and the interaction of SROs and poverty. As Models 2 and 3 illustrate, the presence of an SRO at school increases the rate of arrests involving disorderly conduct charges by 128.2 percent and 1978.0 percent, respectively. These two models also show that a one percentage point rise in economic disadvantage increases the arrest rate by 7.3 percent when controlling for the presence of an SRO, and 10.3 percent when controlling for having an SRO and the interaction term. Interestingly, regarding the interaction term, a one-percentage point increase in poverty at schools with an SRO equals a 4.8 percent decrease in the arrest rate per one hundred students.

Schools with a resource officer have a 122.1 percent increase in the rate of arrests involving other charges per one hundred students when analyzed without other independent variables. When economic disadvantage is added to the regression models (Models 2 and 3), however, the impact of SROs ceases to be significant. Instead, school poverty emerges as the only significant predictor. A one percent increase in this variable raises the rate of arrests with other charges per one hundred students by 3.1 percent. When controlling for SROs and the interaction term, a one-percentage point increase in economic disadvantage increases this arrests rate by 3.9 percent.

Discussion

Evidence of criminalization

While it was hypothesized that having an SRO at school predicts more total arrests, this hypothesis received only limited support here. While the data presented in Table 1 implied significant differences in the total number of arrests between SRO and non-SRO schools, such differences were not as robust as expected. Though the presence of SROs did predict a dramatic increase in the rate of arrest per one hundred students independent of other variables, this variable ceased to be significant when controlling for school-level poverty. Such mixed results might be a function of the study's sample size since smaller samples limited the detection of smaller effect sizes.

On the other hand, however, this potential limitation makes the observed differences in types of charges all the more noteworthy. The analyses revealed several interesting findings that, when considered together, show an interesting pattern regarding the role of SROs in school-based arrests. Primarily, the high number of disorderly conduct incidences at SRO schools compared to non-SRO schools was consistent with the belief that SROs contribute to criminalizing student behavior. Having an SRO at school significantly increased the rate of arrests for this

charge by over 100 percent even when controlling for school poverty. Given that disorderly conduct was the most common charge in this study, these results have serious implications for schools, law enforcement agencies, and juvenile courts.

Clearly, disorderly conduct is the most subjective, situational, and circumstantial of the charges studied here. Compared to more objective situations like finding a youth in possession of a knife or narcotics, the decision to interpret disruptive behavior as criminal is done at the officer's discretion. Thus, one strategy to reduce the number of school-based arrests is to change how officers approach such situations. When approaching a disruptive student, for example, an arrest should be the least preferred outcome and done only in agreement with the teacher and school principal. Likewise, it also is important to change teachers' and school administrators' expectations of SRO interventions. As Dohrn (2001) described, teachers more often are turning to police officers to handle difficult students. Teachers and principals are ignoring the "teachable moments" that come from student misbehavior and failing to take advantage of opportunities to work with adolescents in need (p. 95). This is truly unfortunate since quality education is a path to success in adulthood. Given the long-term negative consequences that can follow removing a child from the classroom and denying them educational opportunities, improved classroom management skills and appropriate behavioral training for students would seem preferable to arrest and other more punitive outcomes.

For the remaining, more objective charges studied here, having an SRO at school was insignificantly or negatively associated with these outcomes. This latter result was true for assault and weapons charges, wherein the presence of an SRO decreased the rates of arrest involving these charges per one hundred students by 52.3 percent and 72.9 percent respectively. Such findings were counterintuitive since better detection of weapons was expected at schools with an SRO and it was hypothesized in the extant literature that SROs criminalize fighting by pressing assault charges (e.g., Beger, 2003; Dohrn, 2001).

While it was not possible to determine the exact reasons for these unexpected findings, one possible explanation is that the presence of SROs at schools might deter certain behaviors. For instance, students might be less inclined to carry a weapon into the school building knowing that a law enforcement officer will be there. Likewise, students might be less likely to fight knowing that an officer is present and such behaviors could lead to being arrested. They might delay the fight until after school or decide to move it away from school grounds. Along the same lines, Astor, Meyer, and Behre (1999) found that most school violence occurs in "unowned" places, or those locations like hallways and parking lots that usually lack adult supervision (p. 3). Thus, having regular police patrol in these areas might be preventing some acts of violence and crime. Alternately, the presence of SROs at schools might make students feel safer and thus less likely to feel the need to carry a weapon for protection. These enhanced feelings of safety also might contribute to better feelings about school in general, a stronger sense of connection to school, and a better school environment that could then lead to decreased aggression and fewer fights among students.

Arrests and economic disadvantage

The significance of school poverty to predict number of arrests was noteworthy, especially given its high correlation with ethnicity. This study showed that students at schools with greater economic disadvantage had a higher number of total arrests as well as more arrests for assault, weapons possession, disorderly conduct, and other charges than schools with less poverty. While it has been suggested that poverty might play a role in school-based arrests (Brown, 2006; Dohrn, 2001), this association has not been explicitly studied. Yet, such results were consistent with research finding that poverty is a strong predictor of school exclusion (Cameron & Sheppard, 2006;

Raffaele Mendez et al., 2002), as well as research finding that poor and ethnic minority youth are disproportionately involved with the juvenile and criminal justice systems (see Hirschfield, 2008; Laub, 2002; Sampson & Lauritsen, 1997).

Reasons explaining poverty's role in predicting school-based arrests specifically are unclear and warrant further investigation. When examining school violence generally, however, Khoury-Kassabri, Benbenishty, Astor, and Zeira (2004) described the importance of assuming an ecological perspective that considers school violence within the context of student, school, family, and neighborhood factors. As Chen (2008) stated, "schools are extensions of the community" (p. 302). It is not surprising then that previous research had found links between higher levels of community poverty, crime rates, and unemployment and greater school crime and disorder (Chen, 2008; Khoury-Kassabri et al., 2004; Welsh, 2001, 2003; Welsh, Stokes, & Greene, 2000). Other suggested explanations offered in the published literature emphasized the difficulties associated with living in poverty. Dohrn (2001), for example, suggested that parents from lower socioeconomic backgrounds lack the resources and influence needed to protect their children from the juvenile justice system. Moreover, while many families in lower socioeconomic neighborhoods have a single parent only, two-parent families are a protective factor against delinquency (Farrington & Loeber, 2000; D. M. Gottfredson & Snyder, 2005).

It also has been suggested that discrepancies in school discipline result from the clash between middle-class school systems and low socioeconomic status students. For instance, Caucasian teachers and principals might misunderstand or misconstrue the physical communication style common among ethnic minority youth, particularly African American youth (Raffaele Mendez & Knoff, 2003; Skiba et al., 2002). This could lead to an unnecessarily harsh response from teachers, school administrators, or security officers. It should be recognized, however, that data in this study did not support that SROs discriminate against lower socioeconomic status students. In fact, when significant in the analyses, regression coefficients for the interaction term showed that arrest rates declined as poverty increased at schools with an SRO. This was somewhat counterintuitive since research had found that lower socioeconomic status juveniles and minority youths often had poorer attitudes toward the police and legal system (see Hurst & Frank, 2000).

As a final comment, it was interesting to compare the types of charges here with those reported in other studies. Consistent with reports from Ohio and Florida summarized by Rimer (2004), disorderly conduct was the most common charge in the present study followed by other, miscellaneous nonviolent charges. While the majority of arrests at the Chicago-area high school studied by Dohrn (2001) were for pager possession, there were no such arrests during the three years studied here. This most likely was a byproduct of the different time periods when data were collected. During the 1996–1997 school year (Dohrn's study), pagers were relatively new and novel. Now, though, cellular phones are pervasive on school campuses, most students possess at least one, and schools cannot regulate possession like they used to. Regardless, Dohrn's point that the majority of arrests at the school were for relatively minor, nonthreatening behaviors was true in the present study too.

Limitations and future research

A critical avenue for future research is to compare the number of arrests at a school before and after the arrival of SROs. While such within-school comparisons are critical for understanding the impact of SROs on a school's arrest rate, data limitations and availability in the present study precluded these types of comparisons. Specifically, the juvenile court providing data for this project updated its data management system in April 2003. This involved changing management system software, adjusting data-entry procedures, and adding or modifying system variables. Efforts to compare arrests by school

between the old and updated systems thus may yield complicated and unreliable results since data coding and categories varied. Along similar lines, since this study compared school-based arrests across schools in one school district, more research is needed to determine how the findings generalize to other districts and regions.

Furthermore, the present sample was not sufficient to detect small effect sizes in the data. Future research therefore should seek to compare data from more schools located in multiple districts. Analysis done with a larger sample would help to clarify associations in the data, including the role of SROs to predict more total arrests at schools. The sample size also limits the number of independent variables that can be appropriately included in multivariate tests; so, a larger sample size would allow for evaluating the impact of SROs on arrests while controlling for more descriptive and demographic characteristics of the schools. Given the few observed differences between schools in this study combined with the fact that SROs were assigned based on geography rather than school demographics, it was unlikely this would have meaningfully altered the results but it is an important consideration in future research. Nevertheless, since schools with and without an SRO in this study did differ in characteristics that are often associated with arrests, specifically having higher levels of poverty and more ethnic minority students, future research is needed that continues exploring these key variables, their relationship with other school characteristics, and the link between these variables and higher or lower school arrest rates.

In building on this study, future research evaluating the long-term consequences of school-based arrests is needed. Classic labeling theory, for example, postulates that involvement with the juvenile justice system increases the likelihood of future delinquency (Becker, 1963). If valid for students arrested at school, such findings would have tremendous implications for how behavior problems are handled. This is especially true for those juveniles arrested for relatively minor offenses since arresting them might be creating a delinquent where none existed before. Differences in the long-term consequences of school-based arrest by gender, ethnicity, socioeconomic status, and other student characteristics should be investigated. Besides testing labeling theory, future research also should seek to clarify the role of poverty in arrests at schools, particularly at those with an SRO.

Additional areas for future research include investigating how SROs make the decision to arrest, typical circumstances leading to arrests, and if there are demographic or behavioral differences in problematic students who get arrested and those who do not. Finally, research shows that school culture is related to both school violence and successful violence prevention program implementation (D. C. Gottfredson, 2001). It therefore is critical to evaluate the relationships between school culture, arrests at school, and SRO activities. Researching these issues is not possible with juvenile court records and consequently requires additional data from schools, including observational data from police-student encounters as well as surveys of students.

Conclusions

Concerning the role of SROs in criminalizing student behavior, this study yielded mixed results. The findings showing that SROs were not associated with an increase in total arrests when controlling for school poverty and that schools with an SRO had fewer arrests for weapons and assault charges are encouraging. Such results are contrary to the criminalization hypothesis and may even signify that SROs have a positive impact at schools. Nonetheless, the number of arrests involving disorderly conduct charges at schools with an SRO is troubling. As police and school security become more and more omnipresent at schools, school resource officers, teachers, principals, and all school staff need to be mindful of the negative consequences associated with punitive disciplinary strategies and criminal arrests. For most youth, especially those from lower socioeconomic neighborhoods, education is an invaluable resource to insure a brighter future. To deny them an education

because of a minor classroom disturbance or hallway disruption is unacceptable, unfair, and may permanently limit their prospects for a better life.

Acknowledgements

Note

1. To fully understand the relationship between the relevant independent variables and the dependent variables, all regression models were re-estimated with *percent of the student body that is ethnic minority* replacing *percent of students with economic disadvantage* as the independent variable (including the interaction term). These two sets of models show consistent results and strikingly similar relationships between the independent and dependent variables. A copy of this additional analysis is available by contacting the author.

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