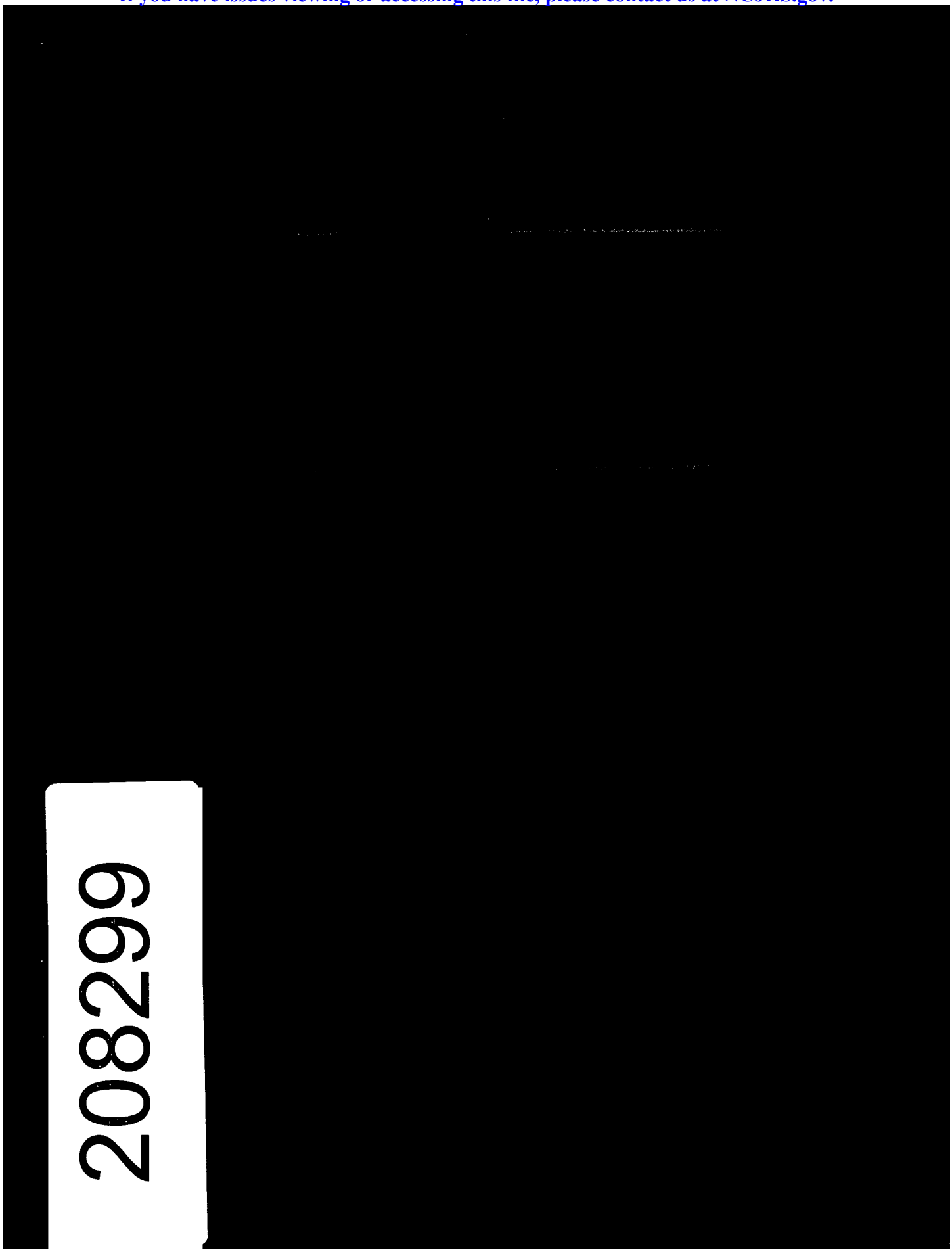

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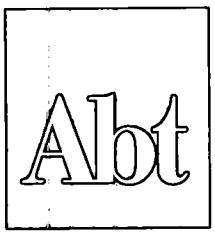

Abt Associates Inc.

School COP: Implementation and Benefits in Six Sites

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Final Report

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FINAL REPORT

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Contents

Part I: Introduction

Chapter 1: How to Use This Report

The School Crime Operations Package – *School COP* – is a free software application for entering and analyzing incidents occurring in and around K-12 schools. The National Institute of Justice (NIJ), the research and evaluation arm of the U.S. Department of Justice funded the development of *School COP*. As on the end of 2003, at least two thousand people – primarily School Resource Officers (SROs) and school administrators – were using *School COP*.

This report is intended for school administrators, SROs, and other persons responsible for school safety. It examines how six sites used *School COP*, what implementation issues they faced, and what benefits they realized from the software. In doing so, the report helps you determine whether you should use *School COP*. If you are already using *School COP*, the report will provide you with ideas on other interesting and creative ways to use *School COP*.

This report is divided into 2 parts and 1 appendix:

- Part I provides background information on *School COP*, including its key features, implementation options, and dissemination history.
- Part II describes how six different sites implemented, used, and benefited from *School COP*.
- The appendix shows a number of the *School COP* screens and provides other technical information about the software.

Additional information on *School COP* is available. Visit the *School COP* Web site – ***www.schoolcopsoftware.com*** – to get your copy of *School COP*, as well as software updates, news, support tips, and other information about *School COP*.

Also available are the following written documents:

- *School COP: A Software Package for Enhancing School Safety*. The final report of the NIJ project that funded development of *School* COP is available at http://www.abtassociates.com/reports/200189127272_67259MRCHIPS.pdf.

- *The School COP user manual.* The user manual contains step-by-step instructions on how to use *School COP*, including a detailed description of each screen in the software. The user manual is installed automatically when you install *School COP*.

- *Guide to Using School COP to Address Crime and Discipline Problems.* This document describes how to use *School COP* in conjunction with a formal problem solving approach called "SARA" (Scanning, Analysis, Response, and Assessment). The Guide also includes extensive information on how to setup and customize *School COP*. The Guide is available at the *School COP* Web site.

- *School COP Evaluation Report.* This report summarizes the National Institute of Justice-funded project to enhance and evaluate *School COP*. The evaluation report is available from NIJ or Abt Associates.

Chapter 2: Overview of *School COP*

What is *School COP*?

School COP is a Windows-based software application that enables sites to enter, map, and analyze crimes and school rule violations that occur in and around K-12 schools. There are several important points about *School COP*:

- Because the package was developed with Federal funding, it is available at no-cost and can be downloaded from the *School COP* Web site www.schoolcopsoftware.com.

- It was designed to be widely distributed – it can be installed on any Windows (95 or later) PC, it requires no other software to run (i.e., you don't have to purchase a commercial database or other software package), and is usable without formal training.

- *School COP* organizes information according to the data model that the U.S. Department of Education's National Center for Education Statistics' Crime, Violence, and Discipline Reporting Task Force recommends. *School COP*'s database includes data related to the *incident* (e.g., date, time, type, location) and to *persons involved* in the incident (e.g., name, grade, action taken). In other words, *School COP* is an incident-based system, rather than a student-based system (see the Appendix "Differences Between An Incident-Based and Student-Based System").

- Sites can customize *School COP* for their school(s) (see the box "Customizing *School COP*"). For example, before entering any incident data, you can enter all the possible incident types (e.g., trespassing, bullying) that you want to use. Then, when you enter a new incident, instead of typing in the incident type, you just pick the incident type from a drop down list containing all the pre-entered incident types. *School COP* comes with "default" incident types; you can use the defaults as is, delete some, or enter new ones. In addition, you can define special categories of incidents or persons they especially want to track, such as hate crimes, gang-related incidents, or incidents involving special education students.

Customizing *School COP*

There are 18 'fields' of information related to the incident and 15 'fields' of information related to each person involved in the incident. In some of these fields (e.g., date and time), you just type in the information. But in other fields, rather than typing in text you can select a code from a previously entered list of code values. Before you begin to enter

incidents in *School COP*, you should enter the various codes that will be used during the data entry process to describe incidents, persons involved in incidents, and activities. By entering the various codes described on this page, you will improve the quality of your data and the completeness and accuracy of your maps and reports.

To set up *School COP*, you should:

- Enter codes that describe characteristics of incidents, including:
  - Severity codes, which describe the relative seriousness of the incident. Be sure to enter severity codes before entering incident codes.
  - Incident codes, which describe the specific type of incident that occurred.
  - Status codes, which describe the current status of an incident and its resolution.
  - Special circumstances codes, which describe incident characteristics of particular interest, such as drug-related or gang-related.
  - Weapons codes which describe the type of weapon (if any) used in the incident.

- Enter codes that describe the persons that were involved in incidents, including:
  - Person type codes, which describe the various types of persons involved in incidents (e.g.,students, teachers).
  - Grade level codes, which indicate the various grade levels at your school(s).
  - Action taken codes, which indicate the action taken (if any) against a person involved in an incident.
  - Involvement codes, which describe how the person was involved in the incident (e.g., victim, witness, perpetrator).
  - Race codes which describe the race of a person who was involved in the incident.
  - Special characteristics codes, which describe special characteristics (e.g., a member of a particular gang) of persons involved in incidents.

- Build the *School COP* Geobase, which is used to describe the location where incidents occurred. To build a *School COP* Geobase:
  - Enter information about your school(s) on the School Screen.
  - Decide how many areas will be established in each school and, if you want to use *School COP's* mapping features, use a scanner to create a digital image of existing hard-copy map or draw a new map using Microsoft Paint or some other graphics program.
  - Enter the areas in each of your schools on the Area Screen.
  - Specify the locations in each of the areas on the Location Screen. If you are using the *School COP* mapping feature, you can "point" to where each location is on the map.

School COP balances ease-of-use and functionality by offering a variety of techniques for analyzing school incidents, including tabular reports, bar graphs, pie charts, and maps. Some methods appeal to novice computer users; others appeal to computer "experts." You will generally conduct analyses in one of three ways:

- The easiest method is to run one of the many 'canned' reports and graphs – for example, a bar graph showing the number of incidents by location over a particular date range.

- A single 'build-a-map' screen enables users to create a multi-layer graduated symbol map – for example, a map showing the building floor plan could include, for a particular date range, separate layers for drug, alcohol, and tobacco offenses.

- The most useful analysis method is first to search for a subset of incidents and then analyze that subset. Users can search on any single field (e.g., all incidents involving a weapon) or combination of fields (e.g., all incidents occurring inside the building in which girls were victimized). Incidents meeting the search criteria can be browsed, printed in tabular form, graphed, or mapped.

How can *School COP* be configured?

As summarized in Exhibit 2.1, there are four basic ways to configure *School COP* depending on the number of people who use the software and the number of schools for which incident data are collected.

Exhibit 2.1: *School COP* Implementation Options

# People Using *School COP*[1]	# Schools For Which Incident Data Are Collected	Examples
1	1	• An assistant principal records in *School COP* all instances in which a student is referred for disciplinary action • A School Resource Officer (SRO) uses *School COP* to record information about all incidents in which they are involved
> 1	1	• The principal's secretary enters incident data into *School COP*. The principal, assistant principal, guidance counselor, and SRO use *School COP* to view and analyze the incident data.
1	> 1	• A school district security chief receives (paper) reports of incidents from all principals in the district; reports are then entered into *School COP*. • An SRO Supervisor receives *School COP* databases from several SROs, uses the *School COP* Merge Utility (see Exhibit 2 "Summary of *School COP* Utilities") to combine the databases into a single district-wide *School COP* database, and uses *School COP* to analyze the district-wide database.
> 1	> 1	• Assistant principals at all schools in the district enter incident data into a common, district-wide *School COP* database. Principals and other school administrators can view and analyze the data. • Several SROs enter data into a common *School COP* database, which is also accessible to their supervisors.

Notes:
1. *School COP* can be implemented on a local- or wide-area network to facilitate multi-user operation. Instructions for networking *School COP* are available on the *School COP* Web site.

If you want more than one person to use *School COP*, there are additional options regarding the extent to which restrictions are imposed on what each user is allowed to do, once they are logged in:

- *All users have complete access.* *School COP* can be installed on several PCs and have the database copied to a shared network folder. In this case, all users will be able to add, edit, or delete any incident in the database. Instruments for installing *School COP* on a local or wide area network are on the *School COP* Web site.

- *Users have either complete access or complete read-only access.* The *School COP Viewer* (also available on the *School COP* Web site) is a modified version of *School COP* that enables users to view – but not add, edit, or delete – incident information.

You can install either the full-version of *School COP* or the *School COP Viewer* on a PC.

- *User-specific restrictions to reports and analysis features.* The Web-based version of *School COP* affords you great flexibility in assigning access rights to specific users and specific reports or analysis features.[1] This version also allows authorized persons with a Macintosh (or other non-Windows computer) or who are not part of a school district's computer network to access *School COP* data.

Exhibit 2.2: Summary of Optional *School COP* Utilities

Enhancement	Key Features and Benefits
School COP Merge Utility	Enables users to combine several *School COP* databases into a single database, which in turn can be analyzed using *School COP*. Primarily useful for schools and agencies with limited networking capability. Available on the *School COP* Web site.
School COP Viewer	A modified version of *School COP* that does not allow the user to add, edit, or delete incidents. The user also does not have access to the *School COP* Administrative Menu. Available on the *School COP* Web site.
Web *School COP*	Enables sites to provide access to *School COP* data via a Web browser. Access to specific reports can also be limited to specific users. Contact the *School COP* Project Director at tom_rich@abtassoc.com for more information on Web *School COP*. Web *School COP* must be installed on either the site's Intranet or on a secure third-party Web server.

How has *School COP* been disseminated?

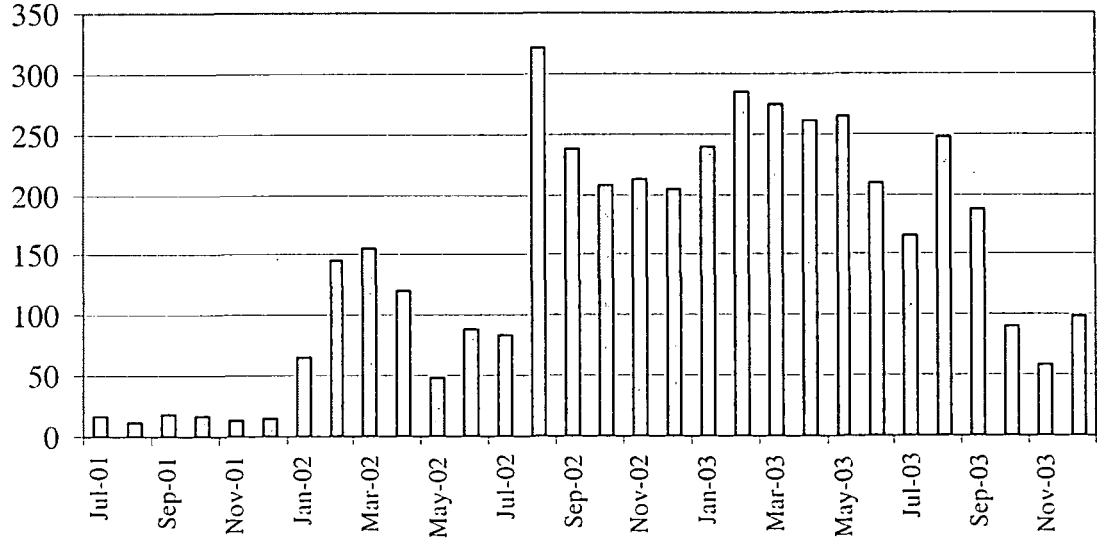
A fully-functioning version of *School COP*, including on-line help and a sample database containing 100 incidents at a fictitious school, was produced in January 2001. Since then, *School COP* has been disseminated in two major ways:

- **Download from *School COP* web site**. Starting in June 2001, *School COP* has been available for downloading from www.schoolcopsoftware.com. From June 2001 through December 2003, *School COP* has been downloaded a total of 4,368 times (see Exhibit 2.3). The Web site does not ask persons downloading the software how they heard about *School COP*, but informal conversations with users indicates that

[1] The Web-based version of *School COP*, which requires a Microsoft Windows 2000 Server to run, does not have data entry features; data are imported from the Windows-based *School COP*. Contact the *School COP* Project Director at tom_rich@abtassoc.com for additional information on Web *School COP*.

they hear about *School COP* from other users and SRO conferences and trainings (e.g., the instructor or an attendee recommends *School COP*).

Exhibit 2.3: *School COP* Downloads from *School COP* Web Site By Month



- **COPS In Schools training conference series**. *School COP* is included in a monthly school safety training conference called "COPS In Schools," sponsored by the Office of Community Oriented Policing Services (COPS Office). Since 1999, COPS In Schools funds have been used to hire approximately 6,100 SROs in 2,600 jurisdictions. These jurisdictions are required to send all the SROs hired under the program, as well as one school administrator, to one of the training conferences. *School COP* is featured in the 'Problem Solving' session at the conferences. During this session, attendees are shown how the software can facilitate school-based problem solving and are provided a copy of the *School COP* CD. From January 2001 through December 2003, 37 conferences were held, each with approximately 175 attendees (roughly 2/3 are SROs and 1/3 are school administrators).[2]

In total, between January 2001 and December 2003, over ***10,000*** of copies of *School COP* have either been downloaded from the *School COP* Web site or distributed through the COPS In Schools conference series. This figure does not include several hundred *School COP* CDs that have been distributed at other conferences over the past three years (e.g., those sponsored by the National Center for Education Statistics, NIJ's Office of Science and

[2] An additional 10 conferences are scheduled for 2004; the number of conferences beyond 2004 depend on whether the COPS Office awards additional grants for SRO hiring.

Technology, NIJ's Mapping and Analysis for Public Safety Program, and the National Association of School Safety and Law Enforcement Officers) or copies of the software passed from user to user (e.g., an SRO returns from a COPS In Schools conference, installs *School COP* on his PC, and then gives the CD to other SROs).

What fraction of people acquiring *School COP* actually use it?

Information is available on the number of COPS In Schools conference attendees who, after attending a presentation on *School COP*, *say* they will use it in their school. At that end of each conference, the conference logistics vendor tallies responses on conference evaluation forms, which attendees have to complete in order to be reimbursed for their expenses. One question asks whether or not the attendee (or someone else at their school) will use *School COP*. Over the 37 conferences from January 2001 through December 2003, the percentage of attendees who indicate "yes" to this question has ranged between 75 and 92 percent.

The conference logistics vendor also conducts follow-up interviews with a random sample of attendees approximately six months after the conference. During the interview, attendees are asked whether they are using *School COP*. Out of 452 attendees surveyed, ***35 percent indicated that they or someone at their school was using School COP***. The large difference between the percentage who say they will (between 75 and 92 percent) and actually do use it is not surprising. In the end, it is common to request software – especially free software – but never actually use it.

Applying the 35 percent "actual use" figure to the COPS In Schools conferences implies that the number of *School COP* users is roughly ***2,250***. For three reasons, this is a very conservative estimate of the *total* number of *School COP* users:

- The 2,250 figure ignores the more than 4,000 downloads from the *School COP* web site. Further, the percentage of persons who download it from the Web site and then actually use the software may be higher than the 35 percent figure for the COPS In Schools conferences. Conference attendees go to the conferences because it is a grant requirement, not because they want to get *School COP*. By contrast, presumably people download *School COP* because they are seriously considering using it.

- The 2,250 figure ignores an estimated 1,000 persons who obtained *School COP* from one of a eight other conferences held from 2001 to 2003 at which *School COP* CDs were distributed, including four NIJ, two COPS Office, and two Department of Education conferences.

- An unknown, but probably significant, number of *School COP* users obtain the software from other *School COP* users (e.g., one SRO from a school district attends a COPS In School conference but then gives the CD to all the other SROs in the district). For example, across the six sites discussed in this report, 11 persons attended COPS In Schools conferences; in addition, staff at the sites also downloaded

School COP a total of 5 times. However, there are at least 36 persons using *School COP* at the six sites.

Part II: Case Studies

This section describes implementation and use of *School COP* at six different sites. (See the sidebar "Methodology" for a discussion of how the sites were selected and how data were collected.) The key topics in each case study are:

- the process for deciding to use *School COP*,
- implementation issues and obstacles, and
- the benefits the site has realized from using *School COP*.

The names of the sites, although fictional, reflect the sites' geographic location and key *School COP* users. Fictitious names are used because of the Institutional Review Board (IRB) rules for the project, which required us to preserve the confidentiality of the sites and persons interviewed.

Methodology

Our goal for the project was to select six sites that varied along several dimensions. Most importantly, we wanted a mix in terms of the types of persons who originally advocated use of *School COP* and who actually used the software. This would enable us to document use by all of the different persons with school safety responsibility, including administrators, SROs, and school district security staff, thus broadening the utility of the project findings. We also wanted a mix of sites with respect to geographic setting of the school district (e.g., urban, rural), the size of the school districts (i.e., number of students and number of schools), and the number of schools at the site for which *School COP* data are collected. A less quantifiable, but nonetheless, important criterion is that we wanted sites that planned to use *School COP* in "interesting" ways – meaning for more than just satisfying a bureaucratic reporting requirement. An SRO using the software only to submit required monthly reports to her supervisor, who in turn simply puts the reports in a file cabinet and doesn't distribute them to anyone, would not make a very interesting site to study.

Site selection occurred, one site at a time, during the 2002/2003 school year. Because we did not have a list of *School COP* users from which to select sites, we relied on e-mail and personal communications (e.g., at school safety conferences) with current and potential users to identify possible sites. That is, as we heard about sites' plans to use *School COP*, we invited them to participate in the project, as long as the addition of the site preserved our objective of having a mix of sites, as defined above.

Once sites were selected, interviews were conducted with a variety of persons at each site, including persons involved in the decision to use *School COP*, persons who actually used the software, and persons who regularly received *School COP* reports or data.

As shown in the Table 1, the six sites offer some diversity in terms of the selection criteria described above. For example, *School COP* "advocates" – the person who initially heard about *School COP* and pushed for its implementation – include an SRO (2 sites), an SRO supervisor (1 site), a law enforcement analyst (1 site), a school administrator (1 site), and a school district security chief (1 site).

Table 1: Site Characteristics

Site Name	School District Characteristics			Primary *School COP* Advocate	How Advocate Initially Heard About *School COP*
	Setting	# Schools	# Students		
South Middle School	Rural	18	7,000	SRO assigned to South Middle School	COPS Office Conference
Southwest School District	Mid-Sized City	65	60,000	Analyst at local law enforcement agency	Contact at the COPS Office
Far West Middle School	Small City	9	3,500	Assistant principal at Far West Middle School	NIJ School Safety Conference
West School District Security Department	Large City	95	97,000	Director of School District Security Office	Conference for school security directors
Eastern Police Department	Small City	13	7,000	SRO assigned to one schools	National Association of School Resource Officers Web site
Midwest Police Department	Mid-Sized City	35	20,000	SRO Supervisor	National Association of School Resource Officers training program

So that the reader can easily determine which of the six sites most closely resembles their own, Table 2 below shows additional characteristics of the sites. The six sites varied in terms of:

- the extent of *School COP* implementation in the school district (single school in two sites; district-wide in three sites; and a partial district in one site),
- the types of persons using the software (only school administrators in two sites, only law enforcement officials in two sites, only school district security staff in one site, and law enforcement officials and school administrators in one site), and
- what data are entered in *School COP* (student referrals[3] in three sites, incidents involving security staff in one sites, and incidents involving SROs in two sites).

[3] Referrals are instances when students are sent to the school administration office for possible disciplinary action as a result of violating the student code of conduct or some other school rule.

Table 2: Implementation Decisions at the Six Sites

Site Name	Pre-*School COP* Data Collection: Automated System Used	Pre-*School COP* Data Collection: Key Problem with System	Person Making Decision to Implement *School COP*	# Schools for which *School COP* Data are Collected	What Is Entered in *School COP*	Primary *School COP* Users
South Middle School	Student Information System	Poor querying and reporting	Non-user (Superintendent)	1	Student referrals	7 (Principal, Assistant Principals, SRO, Counselors, and Secretary)
Southwest School District	None	N/A	*School COP* User (Principals)	3	Student referrals	4 (Principal, Assistant Principals, and Counselors)
Far West Middle School	Microsoft Excel	Poor querying and reporting	*School COP* Advocate	1	Student referrals	2 (Assistant Principal, school security officer)
West School District Security Department	Custom Microsoft Access Application	Limited querying and reporting	*School COP* Advocate	95	All incidents involving security officers	3 (Security Office Chief, Assistant Chief, and Secretary
Eastern Police Department	Police Records System	Unable to document all SRO incidents	*School COP* User (SRO Supervisor)	13	All incidents involving SROs	9 (8 SROs and SRO Supervisor)
Midwest Police Department	Microsoft Excel	Poor querying and reporting	Supervisor of *School COP* Advocate	35	All incidents involving SROs	12 (10 SROs and 2 SRO Supervisors

Chapter 3: South Middle School

Summary

In early 2001, the School Resource Officer (SRO) and principal at the South Middle School attended a three-day COPS In School training conference. There, they received the *School COP* CD and heard a brief 20-minute overview of the software. The SRO immediately began using *School COP* to record information on criminal incidents occurring at the school. Later, before the start of the 2001-2002 school year, the principal decided to stop using their existing system for tracking student referrals and use *School COP* instead. The SRO subsequently configured *School COP* to run over the school's local area network and he trained the principal, the two assistant principals, the two school counselors, the School Resource Officer, and the receptionist in how to use the software.

Thus, at South Middle School, *School COP* has become the school's operational system for recording and tracking incidents and disciplinary actions. The software is used every day at the school. The primary benefits of *School COP* for South Middle School are an increase in the quality and quantity of automated disciplinary information and a reduction in the time required to administer discipline. These benefits have been realized because (1) the principal sees *School COP* as a valuable tool and has supported the SRO in the implementation of *School COP*, and (2) the SRO is technically competent, has extensive knowledge about *School COP*, and is a strong advocate within the school for *School COP*.

Of note is that South Middle School continues, as of January 2004, to use *School COP*, even after the SRO who originally advocated *School COP* was re-assigned to regular patrol duties in the county prior to the start of the 2003-2004 school year. The principal, in fact, is leading an effort to get every middle and high school in the county to use *School COP*.

South Middle School is located in a largely rural area approximately 50 miles from a city of 200,000 residents in the southern part of the United States. South Middle School is one of three middle schools in an 18-school district with 7,000 students, 20 percent of whom are eligible for free or reduced lunches. The approximately 800 students at South Middle School are divided in three "houses" that emphasis science, technology, and the arts, respectively. School staff believe that their school is "very safe" and that the students are generally "good kids."

Program Origin

In 1999, the school district received a grant from the Office of Community Oriented Policing Services' COPS In Schools grant program and used that funding to create a School Resource Officer (SRO) position at South Middle School. Prior to receiving the grant, the school telephoned the county sheriff when law enforcement assistance was required, and any available fielded patrol car would be dispatched to the school. One of the patrol deputies assigned to patrol volunteered for the SRO position and started work at the school in the spring of 2000.

Prior to the 2000/2001 school year, the SRO received basic and advanced SRO training and attended an SRO conference sponsored by the state's SRO association. To fulfill a COPS In Schools grant requirement, the SRO and the South Middle School principal attended a three-day COPS In School training conference in early 2001. At one of the required conference sessions, they received the *School COP* CD and heard a brief 20-minute overview of the software.

Immediately after the *School COP* presentation, the SRO loaded *School COP* on the laptop he brought to the COPS In School conference, and explored the software's sample database during the conference. Since he had been hand-writing reports of criminal incidents occurring at the school (and producing hand-tallies for annual reports), he immediately felt that *School COP* would reduce the amount of time he spent writing incident reports and year-end summary reports.

The Decision to Use School COP

During the remainder of the 2000/2001 school year, the SRO used *School COP* to record information on criminal incidents occurring at the school. (Since he was using *School COP* for his own purposes, he did not need the principal's approval to use *School COP*.) Because only one or two such incidents occur each month at the school, this represented a very limited use of *School COP* and a modest time investment by the SRO.

However, during the summer of 2001, the principal considered using *School COP* to track disciplinary activity in the school. Since 1990, the school had been using a computer system to document "referrals" – instances when a teacher or other staff member sends a student to one of the school administrators for possible disciplinary action. The school averages about 800 referrals a year. The computer system, which is one module of the school's student information system, was designed primarily as a data entry, rather than data analysis, system to help the school report disciplinary actions to the state department of education. As such, its usefulness to school staff was limited. For example:

- Minimal information can be recorded about the incident that led to the disciplinary action. Aside from personal information about the student being disciplined, the only information about the incident that could be entered are the date of occurrence, the

person reporting the incident (limited to 4 characters), the disciplinary action taken (a 4 character code), and brief narrative comments (up to 40 characters).

- The only way to search the discipline records is by student name or number.
- The only report available from the system that school administrators can view is a discipline history for a particular student. In particular, since the tracking system is a "person-based", rather than "incident-based", system, it could not provide summary information on the incidents that gave rise to the disciplinary events (see the appendix, "Differences Between Person-Based and Incident-Based Systems).

In addition, staff felt that the system wasn't particularly user friendly, primarily because it displayed codes rather than the English-equivalent of the codes.

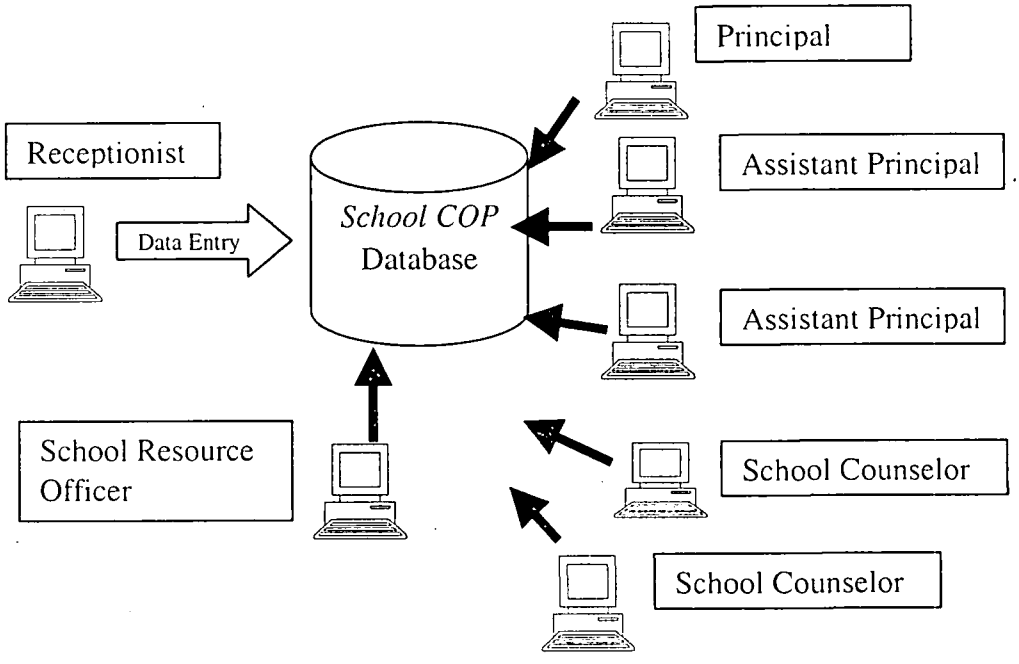
Both the SRO and the principal felt that *School COP* could provide much more useful information to school staff involved in disciplinary issues, as well as provide staff with an opportunity to analyze incident and disciplinary information. With the Superintendent's approval, the principal decided to use *School COP* for disciplinary tracking at the start of the 2001/2002 school year, instead of the discipline module of the student information system.

Implementation Process

The SRO was confident that he could oversee school-wide implementation of *School COP* without the assistance of county or school district information technology staff. Although he had not had any formal computer training, the SRO admitted that "I'm a tinkerer who enjoys solving problems with computers."

The principal decided that any staff at the school involved in safety, discipline, or working with at-risk students should have access to *School COP* – this included, in addition to himself, two assistant principals, two counselors, and the SRO. The school receptionist would have primary responsibility for data entry. Thus, the SRO configured *School COP* so that all six users could share a common *School COP* database (see the diagram below). As a result, new information entered in *School COP* became immediately accessible to all the *School COP* users.

School COP System Configuration in South Middle School



Before making *School COP* available to the administrators, the SRO customized *School COP* (see the sidebar in Chapter 2, "Customizing *School COP*"). In particular, the SRO entered all the disciplinary codes that their old discipline system used. The SRO also imported a map of the school building into *School COP* and defined 75 separate locations on the map, one for each room or hallway in the building.

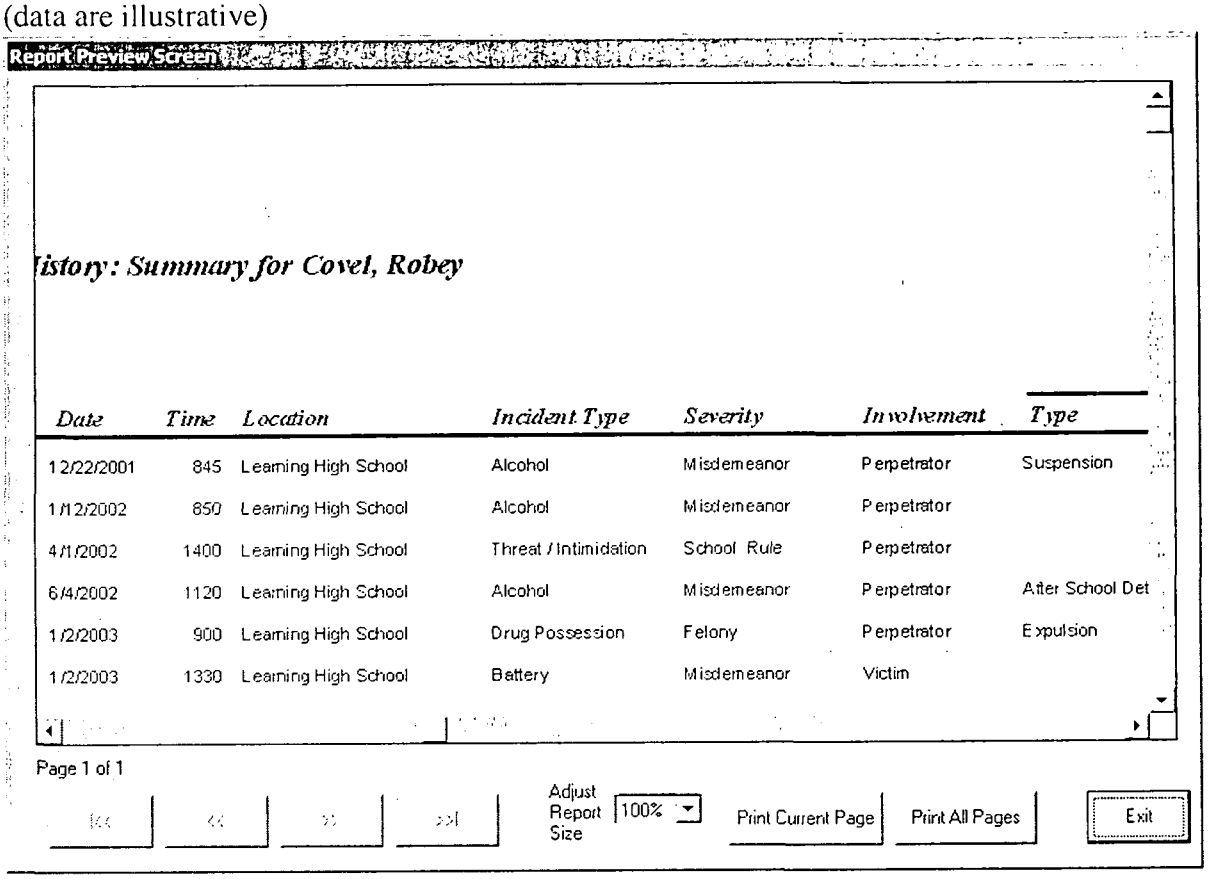
The SRO spent 15-20 minutes training each of the *School COP* users. According to the SRO, "the thing that staff first noticed – and appreciated – was that *School COP* didn't use the cryptic codes that they hated about the old system." For example, instead of displaying "AFSD" for the action taken by the disciplinarian, *School COP* displayed "after school detention." After the initial training, the SRO occasionally pointed out features, short cuts, and tricks to users (e.g., how to quickly produce a report showing all referrals for a student). The administrators felt that these tips were extremely helpful and contributed greatly to their acceptance and use of the system.

The data entry process was set up as follows. A teacher fills out an "Office Referral Form" and escorts the student to the office of an assistant principal, who in turn decides what action to take (the assistant principal also refers serious incidents to the principal). A copy of the Office Referral Form, containing handwritten notations on what action s/he has decided to take, goes to the Receptionist, who enters information about the incident and the student in *School COP*. (This procedure will change in the near future, since it is clear to school staff that it is more efficient to have the assistant principal enter data into *School COP*, instead of filling out a paper form and then having the secretary enter information on the form into *School COP*.) If the SRO elects to file criminal charges against the student, the SRO updates

the *School COP* record and enters the police case number on the *School COP* incident form (in the "Other Agency Case Number" field).

School COP is used every day at South Middle School. As the principal had originally envisioned, *School COP* is used primarily to support day-to-day discipline management and tracking. All seven *School COP* users indicated that the report they most frequently run is a listing of incidents in which a particular student has been involved (see Exhibit 3.1). Specifically, when a student comes into their office to discuss an incident, the administrator can easily display a summary of previous referrals for that student, including the circumstances of the incident and what action was taken.

Exhibit 3.1: Most Frequently Produced *School COP* Report at South Middle School
(data are illustrative)



Administrators also use *School COP* to compile:

- information for the superintendent on criminal incidents (i.e., number by month at the school),
- the required information that must accompany a student who is transferred to an alternative school (i.e., all information related to each incident in which the student was involved),
- annual reports summarizing disciplinary actions taken during the year (e.g., number of suspensions and expulsions), and

- documentation for suspension hearings and other disciplinary proceedings (i.e., incident reports for all incidents in which the student was involved).

While, as noted above, the SRO did set up *School COP*'s mapping feature, no incident maps have yet been produced. This is primarily because the system has been used mainly to support day-to-day administration of discipline, rather than problem solving or safe school planning.

Benefits

Implementation of *School COP* at South Middle School has increased both the quantity and quality of information collected and automated on school incidents. Administrators have used this information to streamline and improve school disciplinary processes. *School COP* users reported that the most important benefit is saving time when they have to find out a student's disciplinary history or compile disciplinary information for the superintendent or other persons outside the school involved in disciplinary proceedings. Because of the limitations of the system previously used to record discipline information (in particular, the 40 character limitation in the narrative comments), administrators could only get a complete disciplinary picture by consulting the student's master folder in the main administrative office. Administrators also like the more professional looking documentation and reports that *School COP* produces.

While *School COP* is used daily for disciplinary purposes, administrators mentioned two other likely future uses for *School COP*. The first involves examining the frequency with which teachers refer incidents to administrators. The SRO plans to study this issue in order to see if there are any teachers who, because they have made an excessively large number of referrals, may need additional assistance or training in discipline management.

Second, the principal plans to use *School COP* to help assess the effects of establishing three separate "houses" in the school. Some school board members and community residents questioned this decision, even though the principal felt it would improve the school's climate and foster a better sense of community. In addition to examining changes in academic achievement, the principal plans to measure changes in safety and climate by generating *School COP* reports that show annual trends in the total number of referrals and specific types of referrals.

Chapter 4: Southwest School District

Summary

At the Southwest School District, a formal problem solving project was implemented at three elementary schools – Washington, Adams, and Jefferson – that focused on reducing the incidence of bullying. The School District partnered with the local police department and an outside consultant with expertise in bullying. An analyst at the local police department had heard of *School COP* through contacts with the U.S. Department of Justice's Office of Community Oriented Policing Services and believed that *School COP* could be used in the project to collect incident information at the three schools and then enable project staff to analyze the collected data. After showing *School COP* to the principals at the three schools, the principals – and the project steering committee members – agreed to use *School COP*.

Prior to installing *School COP* at the elementary schools, a committee met to discuss how to customize *School COP*. Over the next 1 ½ hours, the committee went through each of the *School COP* code tables and decided what codes to delete and what new codes to add. The list of incident types, in particular, was greatly expanded, based on a list of 27 behaviors that one of the school principals had compiled from what he had observed at his elementary school. The incident code list represents a stark contrast to the default incident code list that comes with *School COP*, which includes many criminal charges.

The three schools plan to use *School COP* to analyze data on bullying, adjust their strategies for addressing the problem, and assess the outcomes of specific interventions. Analysts at the local police department will also compare the incidence of bullying using survey data versus actual reports of bullying. However, because of delays in implementing *School COP* at the three schools, limited information are currently available on how *School COP* has benefited the schools.

Washington, Adams, and Jefferson Elementary Schools[4] are three of the 40 elementary schools located in a city with population 200,000 in the western part of the U.S. The three schools have a combined student population of 2,100.

In early 2002 the Southwest School District applied for – and was awarded – a grant to enhance school safety. The grant program required school districts to focus on a particular safety problem at specific schools. Southwest School District decided to focus on bullying –

[4] Not their real names.

not because they could quantify the seriousness of different problems, but rather because they sensed that this was at the root of many problems in the school and because they were not sure how to approach and solve the problem. In addition, the school district's grant proposal focused on the three elementary schools – Washington, Adams, and Jefferson – with the highest overall incidence of reported crime, according to figures provided by the State Department of Education. In the proposal the school district partnered with the local police department, who, because of their community policing orientation, had experience in formal problem solving efforts. A local consultant with expertise in bullying also participated.

The school district's proposal said that the SARA problem solving process would be used during the project (see the sidebar "SARA Problem Solving Process"). Specifically, project staff wanted to include a variety of data sources in the scanning and analysis phases of the project, including:

- Victimization data, based on a comprehensive survey of students,
- Project staff observations of the campus to identify areas with low supervision or that are particularly crowded or isolated during different times of the day,
- Surveys of administrators and staff to determine the nature and extent of the problem, and,
- Incident data that provide information on specific incidences of bullying and related events.

SARA Problem Solving Process

- Scanning—identifying and selecting a problem (e.g., bullying)
- Analysis—examining what is causing or permitting the problem (e.g., the bullies' insecurity, lack of reporting by victims, parental tolerance or helplessness)—and identifying resources for help with solving the problem
- Response—designing and implementing a solution to the problem based on analysis (e.g., providing school-wide education regarding bullying, counseling students who bully, working with the parents of bullies)
- Assessment—evaluating whether the response reduced the severity of the problem

Decision to Use *School COP*

Existing incident data at the three schools was incomplete. Two of the three schools did not have formal incident data collection procedures in place, and instead kept informal handwritten notes on incidents in student folders in the principal's office. The third school had an incident form that captured a minimum amount of information on the incident – the student's name, the date of occurrence, a description of what happened, and what action was taken. None of this information was automated. Five to ten of these forms were completed

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on average per day, usually by administrators when a student was referred to their office for disciplinary action but also sometimes by a teacher who wanted to document a certain behavior.

Given this current incident reporting situation, project staff needed to implement some type of data collection process. An analyst at the local police department had heard of *School COP* through contacts with the U.S. Department of Justice's Office of Community Oriented Policing Services and believed that *School COP* could be used in the project to collect incident information at the three schools and then enable project staff to analyze the collected data.

In September 2002 the police department analyst gave an overview of *School COP* at a project steering committee meeting, which included representatives from each of the three schools (two principals and one counselor). The representatives were asked to bring their existing incident information that they collected, so that they could compare what they collected to what could be collected – and analyzed – using *School COP*. The software was also loaded on a laptop so that the representatives could test *School COP*.

Based on this presentation, the representatives agreed to use *School COP* in the project and have it installed at their schools. The principal from Washington Elementary School, in particular, felt that having documentation on specific bullying incidents was an important step in first understanding, and then solving the problem. Another principal also felt that *School COP* would help in the project, but was concerned that staff at her school would not have time to enter the incident data. This issue was resolved by deciding to use grant funding to hire a part time data entry clerk.

Implementation

Prior to installing *School COP* at the elementary schools, a committee – consisting of the three principals, an outside consultant with expertise in bullying, a School Resource Officer at the schools, and an analyst from the police department – met to discuss how to customize *School COP*. Over the next 1 ½ hours, the committee went through each of the *School COP* code tables and decided what codes to delete and what new codes to add. The list of incident types (see the box "Southwest School District's *School COP* Customization"), in particular, was greatly expanded, based on a list of 27 behaviors that one of the school principals had compiled from what he had observed at his school. The incident code list represents a stark contrast to the default incident code list that comes with *School COP*, which focuses largely on criminal activity.

The committee also overhauled:

- the list of actions taken, to reflect the wide range of options available to elementary school administrators; and
- the list of weapons, again to reflect those common on elementary school campuses.

Following this meeting, a police department analyst entered these new codes in *School COP*. In addition, she set up the mapping features, using a computerized floor plan of each school. Using Microsoft Paint, the analyst added landmarks on the school grounds (e.g., parking lots, playgrounds) to the maps. This effort took the analyst about four hours.

Southwest School District's *School COP* Customization

Incident Types

Arguing Over Game
Biting
Chasing
Choking
Cursing
Cyber-Bullying
Defiant to Adult
Discrimination w/ Words
Disobeying Yard Duty
Drug Possession/Sale
Exposing Self
Fighting
Hitting w/ Ball/Rope
Inappropriate Gesture
Invading Privacy in Bathroom
Name Calling
Possession of Weapon
Pulling Hair
Pulling Down Other's Pants
Pushing/Hitting/Kicking
Restraining
Rock Throwing
Rumor Spreading
Social Isolation/Exclusion
Spitting
Stealing Property (Theft)
Stealing Prop. W/ Force
Taking Another's Toy
Teasing/Taunting/Making Faces
Throwing Food
Threat/Intimidation
Tobacco
Touching Privates
Vandalism/Destroying Property
Verbally Aggressive to Adult
Other

Actions Taken

Action Taken with Suspect

- No Further Action Taken
- Verbal Warning
- Privileges Lost
- Time-Out
- Recess Lost
- Recess Modified
- Contract/Agreement
- Discipline Partner
- Parents Contacted by Student
- Parents Contacted by Staff
- Referred to Principal/Designee
- Replaced Property
- Reflection Sheet
- Community Service
- Counseling
- Parent/Teacher Conference
- Parent/Principal/Teacher Conference
- Parent/Principal/Teacher/SRO Conf.
- Referred to FRC
- SRO Called
- In-house Suspension
- Suspension
- Expulsion
- Referred to Police
- Other

Action Taken with Victim

- Immediate Follow-up
- Continuing Follow-up
- Parents Contacted by Staff
- Parent/Teacher Conference
- Parent/Principal/Teacher Conference
- Parent/Principal/Teacher/SRO Conf.
- Counseling
- Referred to FRC
- No Action Taken
- Other

Weapons

Firecracker
Gun
Hands/Feet
Knife
Matches
PE Equipment
School Supplies
Sharp/Pointed Instrument
Sling Shoot
Stick
Stink Bomb
Toy Gun
Other

The original project schedule called for *School COP* to be installed at the three schools in January 2003. The schools would also share a common database (installed on a common network folder). In fact, the software was not installed until after the start of the 2003/2004 school year, primarily because the police department project manager left her position in January 2003 and a new manager was not hired until the summer. In addition, it was decided

that the three schools would *not* share a common database, both because of concerns about staff at one school seeing incident details at the other schools and because the school district's overworked information technology staff was not able to set up the common database in a timely manner.

As a result, each school collected *School COP* data in their own database. The police department project manager installed the software at the three schools in November 2003. The software was installed on the principal's and assistant principal's PC at Washington Elementary School, on the counselor's PC at Adams Elementary School, and on the principal's PC at Jefferson Elementary School. After each installation, she spent about an hour showing users how the software worked, as well as re-emphasizing how the software would benefit them in dealing with behavior problems at the school.

Later, in December, a school district information technology specialist networked the two copies of *School COP* at the Washington site, so that the principal and assistant principal could share a common database.

In conjunction with *School COP* implementation, new incident reporting procedures were rolled out at each of the schools. Rollout consisted of four major steps:

- The school principal notified school staff that a key element of the school's anti-bullying program was complete and accurate reporting of instances of bullying.
- The project manager trained school staff in the new reporting procedures. At the three schools, incident reporting forms where bundled into the form of tear-off pads of paper (see the box). All adult staff members were given a pad of incident reports. One teacher affixed the pad right next to the door of her classroom ("we wanted the kids to know that we are serious about reporting bullying"). When an incident occurred, the staff member witnessing the incident completes the form (except for the Action Taken section) and submits the form to the principal, who records the actions taken on the form. The form is then entered into *School COP*. Since one of the program objectives is to have "progressive discipline" (i.e., increasing consequences for subsequent offenses), the principal will check a student's discipline history in *School COP* when deciding the action taken for the current incident.
- A four-hour training program was conducted for all project staff. The training focused on the definition, causes, effects of bullying, the results of student and parent surveys on bullying, and the specific components of the school's anti-bullying program at the school, classroom, individual, and community level.
- An evening kick-off event was held at each school to explain the program to parents and build community-wide support for the initiative. The event included a dramatization of bullying performed by several students, a presentation of the parent and student survey results, and a discussion of "what is bullying." In addition, the principal carefully explained the purpose of the new incident reporting system ("to identify repeat bullies, repeat victims, and repeat bystanders") and assured parents that "we will know what's going on, because of the incident reporting system."

Washington, Adams, and Jefferson Incident Reporting Forms

Incident Report

Name: _____
Suspect/Supported Suspect/Victim/Witness

Grade: _____ Teacher: _____
Date: ____/____/____
Time: ____: ____ AM/PM

_____

Incident Type:

_____ _____ _____

Weapon(s):

_____ _____ _____

_____

Incident Description:

_____
_____
_____
_____
_____

Incident Location:

_____

_____

Incident Reported By:

_____

_____

Form Completed By:

_____

_____

Action Taken:

_____ _____ _____

Notes About Action Taken:

_____
_____
_____

Benefits

At Washington Elementary School, incident data entry in *School COP* began near the end of 2003, with roughly 25-30 incidents being entered per month. In keeping with the focus on the grant, only incidents suspected to involve bullying are entered. Data entry began later, in January 2004, at the Adams and Jefferson schools. In contrast to Washington, these two schools have been entering all incidents, not just those involving bullying. Combined, the two schools are entering roughly 30-40 incidents per week.

In general, the schools feel that they have not entered sufficient data into *School COP* to conduct much analysis. One exception is that administrators at the Washington Elementary School indicated that they quickly noticed how bullying incidents are clustering in and around bathrooms. They plan to adjust supervision policies to address this problem. These administrators also report that *School COP* has helped with day-to-day handling of disciplinary cases, including helping staff monitor the behavior and actions taken against students frequently reported for bullying and providing backup documentation when speaking with parents of bullying offenders and victims.

The three schools envision other future uses of *School COP* data, once they have collect several months of data. These include:

- When configuring classrooms for the next school year, *School COP* data will be studied to help ensure that students are not placed with others with whom they get into trouble.
- Teachers will receive summarizes of bullying incidents involving students assigned to their class.
- At the end of each school year the schools will study the locations where incidents occur (in particular, whether the number of incidents at these locations is increasing or decreasing) and then adjust supervision policies accordingly.

For the bullying grant, the key forum for problem identification, analysis, and response will be monthly meetings at each school with teachers at which summary data from *School COP* will be presented. These meetings will begin in the spring of 2004. Whether the summary data will simply confirm suspected problems or identify new problems is unknown. The project coordinator at the police department feels, however, that the "teachers will be surprised at how widespread the problem is."

Chapter 5: Far West Middle School

Summary

Far West Middle School is located in a city of 80,000 people. The school's 600 students represent a mix of youth from working class and white collar families.

Before using *School COP*, the Far West Middle School assistant principal had been using his own—unsatisfactory, according to him—*Excel* spreadsheet to track discipline referrals. Now, he enters discipline data into *School COP* himself. He finds that the software makes it possible to see each student's "rap sheet" effortlessly, making it easy to apply progressive discipline based on a student's previous punishment history.

The assistant principal shares the information he generates with *School COP* widely:

- Eight times a school year, he assembles 10-12 students to review a set of graphs and maps, asking the students to point out significant patterns in the data, help explain any unexpected findings, and propose solutions. One solution the group proposed for problems in the 6th grade hallway that the assistant principal will consider is to move some 7th and 8th grade classrooms—with their more mature students—to the 6th grade section of the building.

- Every quarter, the assistant principal leaves one or two packets of graphs and tables in the teacher's lounge for faculty to review. He may use information on which teachers make the most referrals to identify ones who may need help disciplining students.

- He shared a packet of graphs from *School COP* with the school bus drivers, who told him they were pleased to learn that their discipline reports were actually read and tabulated. He plans to enter data by individual bus driver to determine whether some drivers may need help coping with disruptive students.

Far West Middle School serves a city of 80,000 located about five miles from a city of 200,000. The school is one of two middle schools (grades 6-8) in a school district that also has four elementary schools, a high school, and two alternative high schools. There are about 3,500 students in the school district, 42 percent of whom are eligible for the Federal Government's free and reduced cost lunch program.

The approximately 600 students at Far West Middle School represent a mix of youth from working class and white-collar families, with 51 percent eligible for the free and reduced cost

lunch program. The school has 40 teachers. The school's most serious — although infrequent — misconduct is fighting, but there have also been some thefts. However, school administrators, faculty, and security staff believe that their school is "very safe."

The school district has two civilian security officers, both retired commissioned law enforcement officers, and a full-time sworn School Resource Officer who serves the entire school district.

Every school holds quarterly safety meetings to prepare a formal report to the district assistant superintendent identifying its most pressing safety issues. The school district allocates safety resources based on these reports and on common knowledge about where the need is—for example, the district installed surveillance cameras first in the high school because of anecdotal evidence of more problems there compared with problems in other schools.

Program Origin

While the assistant principal was attending a school safety conference in January 2002, a U.S. Department of Justice employee who was sitting next to him suggested he attend a break-out session devoted to describing *School COP*. Since the administrator had always been interested in managing discipline data, he went. After attending, he was "sold" on the benefits of using the software program.

After returning home, the assistant principal downloaded the software to his personal laptop computer from the *School COP* Web site address provided at the workshop. It took him only a few minutes to load the software and get it up and running. "I'm not particularly computer savvy," he says, "but I got it running quickly because it was easy to use." He used the help files that come with the software, along with one of the district's information technology (IT) specialists, to scan in and use a map of the school. (The assistant superintendent encourages teachers and administrators to test new software on their own and then take it to the IT specialists to evaluate.)

Before he began to enter disciplinary data, the assistant principal customized *School COP*; in particular, he reduced the number of incident types, including eliminating murder and arson. He reported that "I liked the flexibility of being able to change fields—incident types and [disciplinary] actions taken—that's very, very helpful."

Over the course of two Saturdays during the 2001-2002 school year, he entered incident data for just the 6th grade students. He has since entered incident data for the 7th and 8th grade students.

The Decision to Use *School COP*

While the school district has a central database run and housed off-site, the district does not use the database to collect information about student misconduct. There is no district-wide

software package devoted to collecting this information—each school's assistant principal uses his or her own system for tracking student discipline problems. Some administrators have developed their own spreadsheets, one uses a software program provided by a local university, and others use hand-written 3x5 cards. The information each school collects is not centrally housed.

Before using *School COP*, the assistant principal at Far West Middle School had been using an *Excel* spreadsheet he created himself to track discipline referrals, but the program did not enable him to call up the conduct record and discipline history of a student who needed to be disciplined for a new incident. In addition, while he had loaded his *Excel* program onto the computer of the in-school suspension secretary, each time one of them made changes to the file he or she had to be sure to give the other person the new file. "This procedure," he says, "was both awkward and subject to error—forgetting to trade spreadsheets each time we entered new data." As a result, he decided to switch to *School COP*.

Implementation Process

Teachers at Far West Middle School had been using a short, half-page form to report student misconduct. However, the assistant principal was eager to ensure that teachers used incident categories that matched his customized options in *School COP*. As a result, he created a new discipline referral form (see the box) to ensure that teachers' options for checking off incident types—and prior interventions—matched the options he had customized for *School COP*.

Revising the Teachers' Discipline Referral Form to Accommodate *School COP*

The assistant principal gave an introduction to *School COP* at an in-service training for faculty in August 2002 as part of his explanation for having developed the new discipline referral form. Some teachers initially resisted using the new form, because it requires them to provide information about each incident, including type, location, and time of day, that the old form did not ask for. However, the information is pre-identified, and teachers need only check the appropriate box in each category (with the option of providing further explanations).

The assistant principal enters the data from the new discipline forms into *School COP* himself. He uses the information primarily to support day-to-day discipline management and tracking. He finds the software particularly useful for purposes of imposing progressive discipline. When he needs to punish a student, he calls up the student's existing disciplinary record so that he can determine an appropriate punishment to impose this time.

The assistant principal showed the software to one of the district's two civilian security officers, who became very interested in using the software district-wide. As a result, the IT specialist who had helped scan in the school map the assistant principal's computer installed the software on the security officer's desktop computer and installed the *School COP* database on a shared folder. Thus, the officer and assistant principal can now see each other's data.

Sharing *School COP* Data

The assistant principal has shared information generated by *School COP* with students, faculty, school bus drivers, and parents.

Students

Twice each quarter—eight times a school year—the assistant principal assembles a group of 10-12 students to spend about 30 minutes reviewing a set of graphs, tables, and maps that he generates using *School COP*. He decided to share the information with students because his own sons were curious about what he was doing when he practiced using *School COP* at home. He asked them if they thought other kids would be interested in the charts, and they said, "Definitely!" As a result, he personally invited several students to participate in the group.

At one meeting, the assistant principal shared the following types of *School COP* reports:

Incidents by:

- type (pie chart)
- location (pie chart)
- day of week (bar graph)
- month (bar graph)
- time of day (bar graph)

Students involved in misconduct by:

- race (list)
- gender (list)

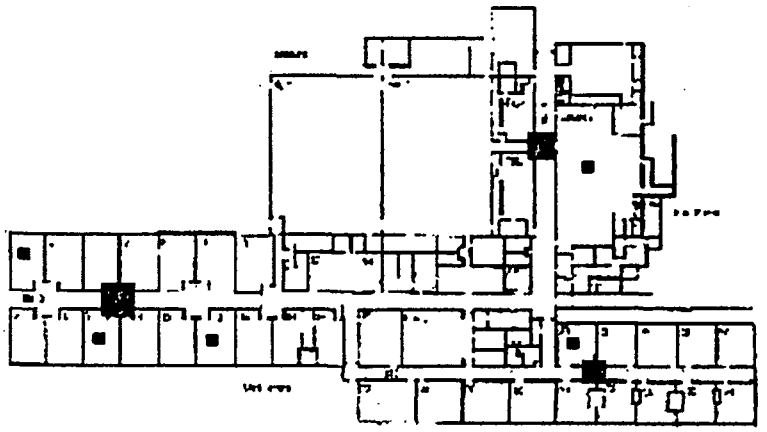
Maps of incident location for:

- all incidents
- threats
- theft
- physical altercations

The principal focuses the discussion on asking the students to point out significant patterns and trends in the data and to help him to explain any unexpected findings. Then he asks them to propose solutions.

- A solution students have recommended in response to *School COP's* evidence of misconduct in the hallways (see Figure 1) and playground is providing more adult supervision in these areas. (In effect, these students are "ratting" on the teachers, because the assistant principal had already been urging teachers to stand in the hallways during class breaks. Evidently, the teachers are not complying: "I'm getting the sense from the kids," he said later, "that there isn't enough supervision.")

Figure 1: Map of "Physical Altercation" Incidents Inside School Building (largest square icon = 7 incidents at a location)



- Each of the school's three grade levels is clustered on its own hallway. To solve a problem with misconduct along the 6th grade hallway documented by *School COP*, the students suggested staggering the classrooms—that is, moving some 7th grade classrooms to the 6th grade hallway. The current system of homogenously grouping all 6th grade classrooms in the same corridor results in the entire 6th grade—with all its energy and immaturity—pouring into the same hallway between every class period and before and after recess and lunch. Alternatively, the group suggested, the times the 6th graders go into the hallway for recess and lunch could be staggered, so that half of them leave and return five minutes earlier than the second half, thereby avoiding having all the 6th graders out in the corridor at the same time.

- Because *School COP* data on time of day that incidents occur showed there was a problem with 6th grade recess, the group suggested giving students who behave appropriately coupons redeemable for candy from the school secretary. The assistant principal let a student sit at his computer and create and print the coupons. He gave

each member of the group a half dozen coupons, telling them not use them to reward their friends. Members handed out the coupons at recess to well-behaved students.

To participate in the group, the assistant principal chose not only students with an analytic bent but also some students who had been in frequent trouble "but weren't so 'squirrelly' that they couldn't sit through a meeting." One student who regularly got into trouble asked the assistant principal if he could join the group. Having some disruptive students in the group "probably helps other kids trust this group," he says, "because it's not just goodie two-shoes who participate—it adds integrity to the group. In addition, kids [from different backgrounds and with different behaviors] learn to understand each other."

The assistant principal has observed from their behavior that the members "are not coming to manipulate the system so they can break the rules [without getting caught]." In fact, two girls in the group have gotten into much *less* trouble than in the past. "There could be other things that the school is doing with them that helped [reduce their misconduct]," he says, "but their membership in the group is probably the principal explanation."

Teachers

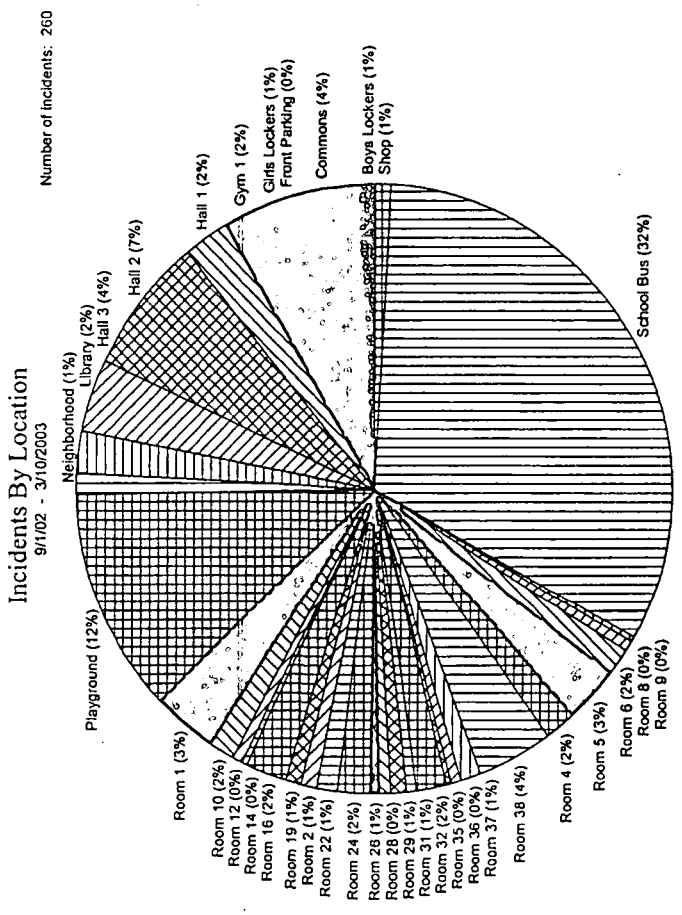
Every quarter, the assistant principal leaves one or two packets of graphs and tables in the teacher's lounge for faculty to look at. Some teachers initially felt that "big brother" was looking over their shoulders because a pie chart documents the number of discipline referrals by classroom (see Figure 2). Indeed, the assistant principal says he may use this information to identify teachers who need help disciplining students. A teacher reported that teachers review the data, with some of them teasing each other about how the data show they are responsible for a lot of discipline referrals. Another teacher reported, "I already do corridor duty, but the maps reminded me of the importance of doing it."

Bus Drivers

The assistant principal shared a packet of graphs from *School COP* with school bus drivers to let them know what happens when they fax him a discipline slip. He demonstrated to them how he enters their data into the software program. The drivers told him they were pleased to find out that their discipline reports were actually read and tabulated—"They don't just go into a black hole." In addition, because one of the graphs showed that there was more student misconduct on the buses than at any other single location in the school (see Figure 2), the information was a morale booster because the drivers now know that school administrators are aware of their problem. Ironically, however, the assistant principal has received *fewer* referrals from the bus drivers since showing them the *School COP* graphs—not because of a reduction in student misbehavior, he speculates, but because the bus drivers can no longer use the forms simply to "vent" their frustration without someone taking notice.

Eventually, the assistant principal will enter data by individual bus driver to get a sense of whether some drivers have more problems than others, and therefore—like teachers with many discipline referrals—may need help coping with disruptive students.

Figure 2: Incidents by Location



The Assistant Principal Keeps Parents Informed about *School COP*

The Far West Middle School assistant principal described the software program to a group of parents who make up an advisory group to the school that meets several times a year. The parents agreed that the software could be useful for helping to identify and address misconduct problems.

The assistant principal and the principal considered making a more formal presentation on *School COP* to the group, including distributing some of the graphs, but they decided against it because they do not want to leave parents with the impression that there are rampant problems at the school. However, "[d]iscussing the software program and its capabilities can demonstrate that school administrators manage discipline data effectively and are fair to the students," the assistant principal observed.

The mother of one member of the group of students with which the assistant principal shares *School COP* data is on the school board. The assistant principal once asked the mother if the girl talked about the meetings. "Not a lot," the mother said. He told her, "You can come to a meeting, if you like, too." She has not yet taken him up on his offer.

Benefits

The assistant principal and the interested security officer feel that *School COP* can provide them with much more useful information than the schools' existing data collection approaches permit because the software makes it possible to see each student's "rap sheet" effortlessly. This makes it easy to apply progressive discipline based on a student's previous punishment history. In addition, before or even while the assistant principal is meeting with or on the phone with a parent, "I call up the data on the parent's child while we're talking so I can be on solid ground" in talking about the student's previous misbehavior and latest punishment. "I can show and recite the history of *specific* incidents—and can say we've bent over backwards for the kid. This history can get foggy in parents' minds, too." In addition, he says, "Teachers may say I've done nothing with this kid [by way of punishment], but I can document [with *School COP*] everything I've done."

The assistant principal also finds that it is easier for him to sort data in *School COP* than in *Excel* because, "if the information in *School COP* isn't entered in exactly the right way—for example, distinguishing between in-school and out-of-school suspensions—the data won't be merged if I want a tally. The fields are predetermined, so it forces you to have the ability to sort the data accurately. Also, different people can enter data without having to tell each other when they do it."

The assistant principal and security officer believe the software will result in more reliable data than if every school's assistant principal uses his or her own idiosyncratic data tracking collection system. In addition, when the entire school district implements *School COP*, it will be possible to track incidents centrally and in a consistent manner. The current non-uniform system makes it very cumbersome to combine the data from different assistant principals on weapons violations and suspensions for inclusion in the school district's annual report to the state.

While in general the assistant principal feels that the data from *School COP* have not provided any surprises about the nature or frequency of discipline problems, the information has been useful in confirming suspicions. For example, the *amount* of misconduct on school buses revealed by *School COP* surprised school administrators, although they already suspected there were some problems associated with the buses. The assistant principal also knew that there was a problem with 6th graders in the hallways but says, "I had never really considered the students' solutions [mixing grade levels and staggering recess times]. The students' suggestions put the problem on the front burner [of his list of problems he needed to address]."

The assistant principal also plans to use the empirical data to remind teachers in nearby classrooms of the need to at least poke their heads briefly into the hallways between classes. One teacher felt that the assistant principal could use the information to determine which faculty members were not doing their hall monitoring and then singling them out for "remediation." In addition, he suggested, "If most incidents are occurring in one corridor, [you can] use stricter monitors there—even move them so they teach in a classroom closer to the problem area."

Another option is to shift one of the two teachers' aides regularly assigned to the school cafeteria to hallway duty. Because the school district allocates teachers' aides by school, the substitute assistant principal thought that district administrators could use *School COP* data to reallocate aides to schools with trouble spots. He also felt that the school might be able to use the data on the disproportionate number of incidents on school buses to lobby the school district for the installation of cameras on more buses.

School COP Benefits *Students* by Helping to Ensure They Are Punished Fairly

According to the Far West Middle School assistant principal, "By making it possible to apply progressive discipline, the program will make sure that administrators are fair in how they punish students [in the sense of] having tried less severe interventions before using more serious ones." The documentation of each student's discipline history makes it possible for assistant principals to provide students with a defensible rationale for the severity of the punishment for their most recent misconduct.

The software makes it possible to be fairer with students in another respect—by imposing consistent punishment from one student to another. For example, the assistant principal says, "If I catch a student who has stolen a teacher's calculator, I will look at other thefts this year [recorded in *School COP*] to see how I responded. Lots of parents and kids say, 'That other kid got only a talking to, so why did I get a three-day suspension?' Kids see inconsistencies in discipline right away, so [with *School COP*] I have a defense." Being scrupulously fair is particularly important for school administrators, he observes, "because we are judge, jury, and jailer, so we need accurate data."

Plans to Expand *School COP* Districtwide

Currently, only the Far West Middle School's assistant principal and one of the two civilian security staff are entering data into *School COP*. Any decision to use *School COP* district-wide will involve the assistant superintendent asking the head of the school district's Information Technology (IT) unit for his opinion of the suitability and usefulness of doing so, because IT decides whether to deploy new software packages. In turn, the IT head will ask his technology specialist for his opinion of the software. This process is already well advanced. The assistant principal has already shared information about *School COP* with the IT specialist, who, as a result, has decided he will recommend using it district-wide. After receiving central office approval, he will offer in-service training for a core group of users.

In March 2003 the assistant principal and security officer met with the district assistant superintendent of schools—their immediate supervisor—to explore using the system district-wide. The upshot of the meeting was a decision to proceed with implementing the software in every school (see the box).

A meeting in March 2003 among the assistant superintendent, the Far West Middle School assistant principal, and one of the district's two security officers took significant steps toward reaching the assistant principal's goal of implementing *School COP* districtwide.

Assistant superintendent: "I had a software program when I was principal at the high school that was designed for business, not schools. Is it a burden to enter data into *School COP*?"

Assistant principal: "No. I and ---------- [the security officer] would access the same database.

Assistant superintendent: "Will it help with information for the state report?"

Assistant principal: "Yes."

The assistant principal gives the superintendent the same packet of graphs and maps from *School COP* that he shared with the group of students. After looking through them, she says, "The November spike [in incidents] is interesting." Then the security officer demonstrates the software's principal features, especially its search capabilities and ability to track victims as well as offenders.

The previous fall, the assistant principal had already presented the concept of using the software to the school district's administrative team consisting of the superintendent, assistant superintendents, security officers, and school administrators.

Assistant superintendent: "Have you updated the team?"

Assistant principal: "No."

Assistant superintendent: "Do it again and talk about how busy assistant principals can enter data so easily." [To the security officer:] "Are you entering incidents just for Far West Middle School?"

Security officer: "Yes, but I'd like to see it [*School COP*] used districtwide, even at the elementary level so I can track kids throughout their school career. Also, kids bounce between schools, so it can track them even when they switch schools. The ways you can sort the information is what makes it so useful. And it's easy to use."

Assistant superintendent: "We can also use it to convince parents that their kid isn't an angel. And the school district has to develop a bullying policy, so it

could be valuable for tracking victims."

Security officer: "The main reason to use it is for the end-of-year reports. Normally, every assistant principal has to give me their information about guns and so forth for the state report and it's a crisis. I prepare the report by meeting individually with each principal to secure the data and then give the data to the superintendent's secretary to compile. *School COP* will help tremendously with preparing the state report because the data are so accessible. Over the next year, I'd like the secretaries to input the data."

Assistant superintendent: "Anything else we need to discuss?"

Security officer: "One other thing. I'm going to be able to access information [from *School COP*] for use in court cases, subpoenas, and placement hearings [e.g., for special education students who have been expelled from the regular high school but have to be placed somewhere]."

Once the school system has implemented the software district-wide, school district administrators plan to use it to help provide data for purposes of submitting grant proposals. A State Readiness to Learn grant requires the district to link students who are at risk for poor academic performance with agencies in the community. One criterion for identifying eligible youth for the program is a history of misconduct. The district plans to use *School COP* to secure and provide this information, which previously was available only from the inconsistently collected and possibly inaccurate data tracking system each school's assistant principal currently uses. The district may also use data from the software program to prepare a grant proposal to fund a drug and alcohol intervention staff person.

While the school district had planned to use *School COP* district-wide at the start of the 2003-2004 school year, over the previous summer the decision was made to purchase a new student information system for the district. This system would record information on student's schedules, grades, attendance, and – most importantly in terms of their decision regarding *School COP* – disciplinary actions. The school district still has not decided whether to use *School COP* or the new student information system for tracking disciplinary information. A final decision will be made by the start of the 2004-2005 school year.

Chapter 6: West School District Security Department

Summary

West City has a population of 450,000 living in an area of 70 square miles. The city's school district has 90 schools and 100,000 students. The school district's Security Department functions in largely the same manner as a municipal police department, with a 24-hour dispatch center and 45 sworn patrol (security) officers who assist local school administrators in handling criminal and non-criminal calls for service. The chief of the Security Department became interested in generating more comprehensive reports than an existing Microsoft Access application could provide. After he learned about *School COP*, he asked a school district software consultant to investigate the feasibility and usefulness of using *School COP*.

The consultant reported that *School COP* was far superior to the Access application in its ability to collect, summarize, and report incident-related data. As a result, the Security Department chief decided in July 2003 to implement *School COP* department-wide.

Since then, *School COP* has been used for three main purposes:

- ***Patrol allocation***. The department is using *School COP* to redeploy security officers among the four patrol areas on a daily basis.
- ***Sharing reports***. Every two weeks, the chief furnishes the superintendent of schools with reports generated by *School COP* that document where incidents are occurring—information the superintendent never received before.
- ***Making the case for additional officers.*** Surprised by the data *School COP* generated showing how over-committed the Security Department was, the superintendent initiated discussions with the school board about adding 10 additional officers and gave the chief permission to formally request them in next year's budget.

West City, with a population of 450,000 living in an area of 70 square miles, is an ethnically diverse community that is about one-third Hispanic, one-third white, one-fifth black, and one-fifth Asian/Pacific Islander. The city, a popular tourist destination, includes major suburban shopping centers along several major highways, as well as socio-economically

diverse residential neighborhoods. The West City police department has 900 sworn officers and 500 civilian staff.

The West City School District comprises 90 elementary and secondary schools. The school district's annual budget is about $700,000,000. Of the district's 100,000 students, between 35-60 percent, depending on grade level, participate in the Federal Government's free and reduced lunch program. The student body (like the city) is ethnically diverse: depending on grade level, 20 to 50 percent are Hispanic, 15 to 20 percent black, 15 to 20 percent white, and 8 to14 percent Asian.

The West Security Department functions in largely the same manner as a municipal police department, with sworn patrol (security) officers and a 24-hour dispatch center. The 60-person Security Department includes a chief, assistant chief, four field supervisors, 45 full-time sworn security officers, five full-time dispatchers and a part-time dispatch supervisor, and three office support staff.

For patrol purposes, the Security Department divides the school district into four geographic areas of roughly equal geographic size and number of schools. The boundaries correspond roughly to those of the city police department's patrol sectors. The school district fields five patrol units on the day shift, three units on the second shift, and two units at night. Until recently, the Security Department did not move on-duty security officers among or within areas—that is, redeploy them. With one exception, the Security Department has single-officer cruisers: a West City police officer and school district security officer patrol together in one of the school district cruisers, an illustration of school district-police collaboration.

The Security Department's 45 security officers assist local school administrators in handling criminal and non-criminal calls for service. However, local school administrators call the Security Department only when they need help that their own staff cannot provide.

The Security Department handles some calls for service by themselves; in other cases, they will work with other agencies, such as the city police department, fire department, and department of child and family services, to resolve the matter. During the day shift, the Security Department handles about half of the calls it receives by itself, while during the night shift it handles about 90 percent of the calls by itself. The Security Department communicates with school administrators and students on about 80 percent of all service calls.

The Security Department's dispatch center, located in the school district's main headquarters building, has two rooms: one houses two dispatcher workstations and their associated radio equipment, printers, and paper files; the other room is the shift manager's office. The dispatch center usually has two dispatchers on duty on the day shift and one dispatcher evenings and nights.

The dispatch center receives an average of 15-20 calls each day shift when school in session and an average of 30-35 total calls each day. The center logs in every incoming call. In general calls fall into three categories: those that can be handled by local school staff; those that require assistance from district security staff; and those that require intervention by West City police department officers.

- Example 1– *call handled by local school staff*: an elementary-level student who was not picked up from school at the end of the day.
- Example 2 – *call handled by school district security officer*: one of the alarmed spaces at a school was entered (or the alarm went off accidentally) and a district security officer responded to check out the area.
- Example 3 – *call required assistance from city police*: an employee's car was vandalized and a formal police report was required.

Program Origin

During the 1990s, the dispatch center began using an Excel spreadsheet to track incoming calls, with each "row" in the spreadsheet containing information on a single call for service. Prior to that, calls were logged by hand on paper sheets. In December 1999, the Security Department hired a consultant to develop a customized Microsoft Access application that mirrored the Excel spreadsheet. Although no additional information was captured, there were significant advantages to switching to the Access application:

- the ability to have two dispatchers enter and view incoming incident reports at the same time;
- an easy-to-use data entry screen that would not require dispatchers to be familiar with Excel;
- the ability to store incident data in one place for easy backup and for subsequent historical review; and
- being able to prepare "presentable" summary reports for review by other agencies in the district.

The two dispatcher workstations, the shift manager, and the school district receptionist each have a personal computer with the Access application. The chief, his secretary/receptionist, and one shift supervisor also have the software on their personal computers.

Every call made to the dispatch center is logged into the Access application. However, the Access application included very few reports and no query capability. Over time, more reports were developed, as new requirements surfaced, such as statistical reports on school safety issues for the state and reports to individual schools about events on their campuses. Staff also began using the software to try to track and assess security officer manpower allocations and to look for trends in offenses. At the time *School COP* was introduced, the Access application was producing reports on incidents by:

- call type,

- school,
- security officer,
- responding unit
- shift,
- incidents for which city police assistance was requested, and
- site summary (all incidents for each school).

The Access application also prepares daily logs that list officers and dispatchers on duty, their shifts, and their on/off-duty times.

The Decision to Use *School COP*

The chief of the Security Department learned of *School COP* in late 2002 at a National Association of School Safety and Law Enforcement Officers conference. (In addition, the assistant chief heard about the software at a 2003 U.S. Department of Education Office of Safe and Drug Free Schools conference.) Despite the ability of the existing Access application to provide some valuable information (see above), the Security Department had already been interested in preparing more comprehensive reports than this existing system could generate.

As a result, in June 2003 the chief asked the consultant who had already been providing contracted software services to the school district related to the Access application to investigate the feasibility and usefulness of using *School COP*.

After comparing the capabilities of *School COP* with the Access system, the consultant reported that ***School COP was far superior in its ability to collect, summarize, and report incident-related data***. Furthermore, since *School COP* was free, the least expensive solution to the school district's interest in preparing more comprehensive reports was to see how well the new software could meet this objective.

The consultant recommended—and the school district agreed—that he install *School COP* at the Security Department headquarters where staff could compare it directly with the existing Access application. A few days after the initial users had become familiar with the software program's capabilities, the consultant showed the chief several reports generated by *School COP*.

The initial reaction of the chief and the other school district personnel to *School COP* was very positive. The principal reason they liked the software was the comprehensive reporting capabilities it offered that would make it possible to easily and quickly provide the school superintendent with improved security reports. In addition, it was clear to them that the software provided the potential for improving security officer deployment. *School COP* also offered three other attractive features:

- *capabilities for preparing graphical reports*;

- ***the ability to use maps*** of the various school sites—several of which are large and complex—to display data about the location of incidents; and
- ***the no-cost nature*** of the software—the only expense to the district was a few hours of the consultant's time to download and install it.

For all these reasons, the chief and his staff decided in July 2003 to implement *School COP* department-wide. Importantly, they did not need to discuss the decision with other departments in the school district because there was no significant cost involved. (The consultant's costs were covered by a recurring annual agreement negotiated separately with the school district.) Furthermore, because the consultant did all the work required to download, set up, and install *School COP*, the chief did not need permission from the school district's information technology manager, who ordinarily needs to get involved in software purchase and installation decisions.

Implementation Process

The process of implementing *School COP* proceeded very quickly (see the box "Implementation Chronology"). Initially, the consultant installed *School COP* on the personal computers of the Security Department assistant chief and the department secretary/receptionist. The *School COP* database was installed on a network server so that all users could share a common database. In total, the installation took about three hours and occurred without problem.

Implementation Chronology

As shown below, only three months elapsed from the time the Security Department decided to investigate the possibility of using *School COP* to when *School COP* was being used department-wide.

Late 2002	Security Department chief learns about *School COP*
June 2003	Security Department chief asks consultant to "check out" *School COP*
July 2003	Chief approves department-wide use of *School COP*
September 2003	Staff begin entering new incidents into *School COP*
October 2003	Chief takes *School COP* reports to school superintendents' meeting to request additional officers

The process of customizing the software's prepackaged set of incident and response types was similarly easy because the consultant used the existing Access application's list of

incident types and typical response types. The department decided initially not to use *School COP*'s mapping feature, primarily because of the large number of schools in the district and, therefore, the amount of time involved in preparing maps for the schools.

There was no formal training in how to use the new software. Each user learned to use the system on his or her own. For example, because the secretary/receptionist was familiar with backing up, archiving, and restoring data through her experience with the Access application, she was able to learn these same functions for *School COP* with little difficulty.

At the beginning of the new school year, the Security Department's assistant chief began entering every incident report into *School COP* that required action from a school district officer. This enabled the department to track *all* patrol officer activity. He also entered calls handled directly by the West City police department that do not involve school district security staff but take place on school grounds, so that a more accurate picture of the school safety issues could be ascertained from *School COP*.

Incident data are entered after an officer's field documents are completed—typically within 72 hours of the original incident, but sometimes the same day. The assistant chief spends a total of 15 to 30 minutes each day entering the incident-related data from about 10 records, including date and time, school, type of incident, weapon, type of drug, narrative of the event, and police report number.

Interestingly, the district continues to enter call for service data into the Access application; that is, the Access application is used in the dispatch center to enter, in real-time, facts about each call for service and *School COP* is used to record facts about those calls for service that require a response from a Security Department officer. The school district has recently received a Federal grant that allowed it to purchase a commercial Computer Aided Dispatch (CAD) system that was installed in October 2003. However, the assistant chief of the Security Department reported that the school district will continue using *School COP* for tracking incidents even after the commercial CAD system is fully operational because, even though the department has spent thousands of dollars on the new CAD system, the chief still wants to use *School COP* because of its superior reporting capabilities.

Benefits

To date, the Security Department has benefited from using *School COP* to improve the allocation of security officers, to improve communication with the school superintendent, and to increase the possibility of obtaining funding to increase the number of security officers.

Patrol Allocation (Deployment)

The school district uses the information *School COP* provides about incidents ***to redeploy officers from one patrol area to another based on need***. Previously, school and security officials believed that the vast majority of incidents were taking place at the high school level. They *thought* that the split in the number of high school vs. elementary/middle school

incidents was roughly 70/30. However, ***reports generated by School COP documented empirically that middle schools had the most incidents***—the actual split was 30/40/30 among the three school types levels. However, data from *School COP* also showed that ***the high schools had more serious crimes than the middle schools*** (primarily due to gang activity).

The contrasting findings that most of the serious crimes occur at the high schools but that most incidents requiring officer assistance occur at middle schools (which are far more numerous than high schools) represents two different—but equally serious—kinds of service requirements that the department is currently considering how best to handle.

In the meantime, the Security Department is already using the data *School COP* ***to temporarily redeploy on-duty security officers on a daily basis from one patrol area to another***. For example, the old deployment system involved fixed assignments of officers to the four areas; now, the number of officers assigned to each area can vary throughout the day. For example, while the typical deployment is to have one officer assigned to each of the four areas, that deployment may be changed temporarily during the day to three officers in one area, one officer in a second area, and no officers in the third and fourth areas.

Sharing Reports with the School District Superintendent

Since the beginning of the 03/04 school year, every two weeks the Security Department chief provides the school superintendent with reports generated by *School COP* that document where and what type of incidents are occurring – information the superintendent never received before the *School COP* made it available. The typical reports provided are incidents by school and incidents by severity (i.e., felony, misdemeanor, and school rule infractions).

The superintendent was surprised at the incident volume documented by *School COP* reports that the Security Department was handling. After seeing how over-committed the Security Department was, the superintendent initiated discussions with the school board about the possibility of adding ten more officers. To support this request, ***the chief took several School COP reports that showed incidents by location, time of day, and shift to a meeting of the school board to request additional officers***. After the meeting, the superintendent gave the chief permission to formally request additional officers in next year's budget request.

Overall, when asked what they like most about *School COP*, the West Security Department said:

- it is *easy to use*,
- its *flexibility* in the type of information it can provide,
- its ability to *generate reports* that present this information *in a clear and easily understood manner*, and
- it is *inexpensive* to obtain and install.

The chief summed up his experience with the new software by saying that "Any school district could use *School COP* to get the statistics it needs to better manage its security department."

Chapter 7: Eastern Police Department

Summary

The Eastern Police Department, which serves a city of 40,000, has eight School Resource Officers assigned to the city's 13 schools. A lieutenant supervises the SROs. One of the SROs read about *School COP* while perusing questions and answers that had been posted to an electronic bulletin board on the National Association of School Resource Officers (NASRO) Web site. On the site, other SROs had praised *School COP*. The Eastern SRO downloaded *School COP* from the *School COP* Web site and experimented for a few weeks with the sample database.

Toward the end of the 2001-2002 school year, the SRO demonstrated *School COP* to his lieutenant. After the SRO successfully pilot tested *School COP* in his schools at the start of the 2002-2003 school year, the lieutenant ordered the other SROs to use *School COP*. The most important reason the lieutenant decided to implement *School COP* was his belief that *School COP* would help him sustain the SRO program once grant funding ended. While he believed strongly that the SROs provided significant benefits to the schools, given the fiscal climate in the city he knew he would have to justify the program, especially at the end of the 2004-2005 school year when a Federal grant would be ending. To do this, he would need to have "stats on everything the SROs did."

The SRO who originally used *School COP* subsequently customized the software for the other SROs (including defining over 900 separate locations and obtaining over 35 maps on the schools), installed the software on all the SROs computers, and conducted a formal training sessions for the SROs and the lieutenant. The SROs then began entering incident data into a common database, to which the lieutenant also has access.

School COP seems to have achieved the lieutenant's main objective in using the software. The lieutenant used information and exhibits generated by *School COP* to give to the chief to use in a presentation to the school board at the end of the 2002-2003 school year. For the presentation, the SRO advocate prepared a series of maps and graphs, including incidents by school, incidents by type, and locations of incidents on the school grounds. As a result of this, and similar presentations made possible by the software program, the lieutenant reports that "Now they [city officials] are asking, 'Where are we going to find the funds to keep the SRO program going,' rather than wondering, "Do we want to continue this program?' "

Eastern City, with a population of about 40,000, is an hour's drive from several major cities. Located on the edge of a large lake, the city is a recreational and tourist attraction. The Eastern City school district's 13 schools include nine elementary schools, three middle schools, and one high school with a combined student population of about 7,000.

The Eastern City police department, with 70 sworn officers and 20 civilian personnel, has a K-9 unit, police mountain bike unit, S.W.A.T. and tactical units, public housing officer – and eight School Resource Officers (SROs). The department has provided security services to the school district since 1980, when it began a police-school liaison program. This program started with an officer in the three middle schools and one officer in the high school.

A formal SRO program began in 2001 in the elementary schools when the department received a COPS in Schools grant from the U.S. Department of Justice's Office of Community Oriented Policing Services that funded four SRO positions. At the same time, the department converted the four existing school liaison officers into SROs. As a result, a total of eight SROs were assigned to the schools, representing about 10 percent of the department's sworn personnel. A lieutenant supervises the SROs.

Two of the officers were assigned to the high school, one to each of the three middle schools, and three shared the nine elementary schools.

SROs have always been required to submit a police department incident report to the lieutenant whenever a criminal offense is committed in a school; the lieutenant reviews the report and submits it to the department's records division for entry into its Record Management System (RMS). The lieutenant also requires SROs to submit a monthly activity log that documents what they did during the month. In addition to describing criminal incidents, the logs typically include classes taught, meetings with school administrators, and instances of mentoring of at-risk students. Most of the SROs hand wrote their logs. The SROs do not have access to school district disciplinary records, such as suspensions and expulsions, or to records of minor student misconduct, such as in-school detention, unless requested by the officer for official purposes.

The Decision to Use School COP

An SRO who is responsible for three of the elementary schools read about *School COP* while perusing questions and answers that had been posted to an electronic bulletin board on the National Association of School Resource Officers (NASRO) Web site. After an officer had posted a message to the bulletin board asking if anyone could recommend a record keeping system for SROs, three officers responded and endorsed *School COP* (see the box).

Postings to the NASRO Newsgroup Regarding *School COP*

Question: My chief is wanting me to come up with a data base of all my activities that I do at school. I am not able to come up with what I need to put in the data base to be most effective. I am wanting to use Microsoft Office as a database. Any input on how and what needs to be added would be greatly appreciated.

Answer 1. I don't know if I'm too late to respond to your question, however, the School COP program is very good.

Answer 2. I have it and it's awesome!!!!!

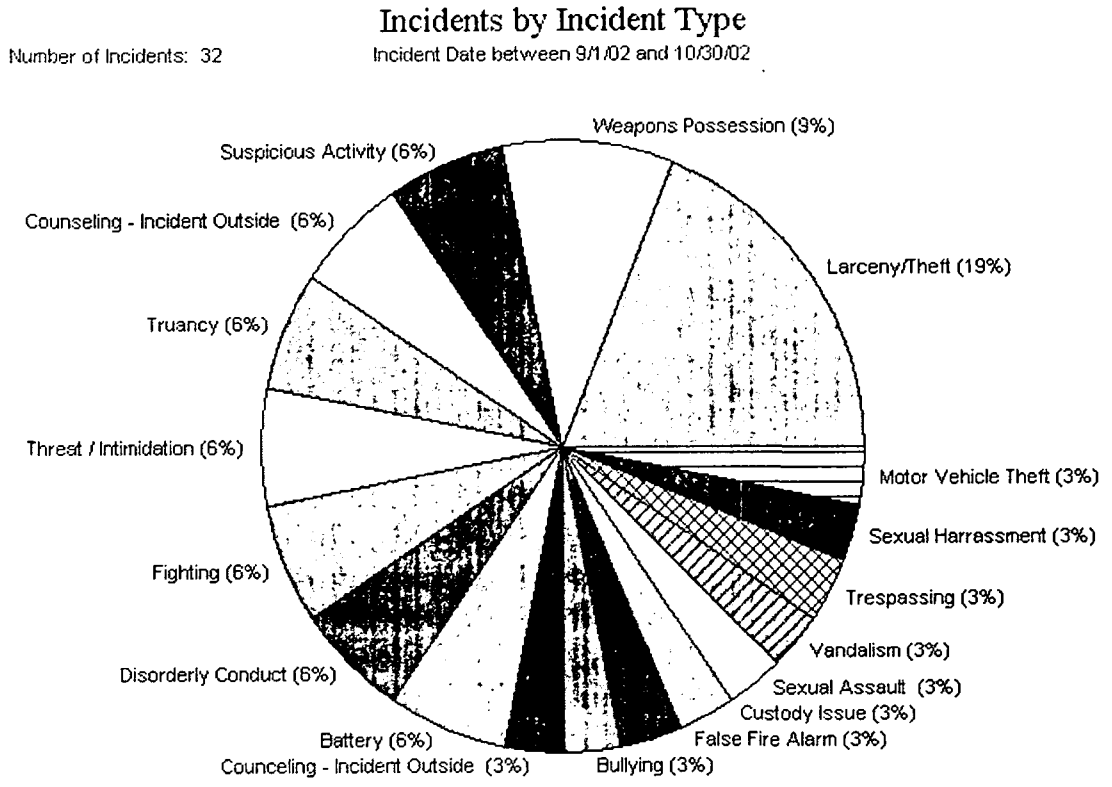
Answer 3. I was just requested to do a daily report. I am currently using School COP and I love it.

The SRO downloaded *School COP* from the *School COP* Web site. He immediately liked ***how easy it was to install on his laptop computer and, especially, how easily and effectively he would be able to customize*** **School COP** ***for his three elementary schools***. He experimented for a few weeks with the sample database (included in the software package) and then, toward the end of the 2001-2002 school year, demonstrated *School COP* to his lieutenant. The lieutenant immediately saw the potential benefits of *School COP*, especially how additional automated information could be maintained in *School COP* compared to the police department's RMS. For example, with *School COP* they could enter information on *more reports* (just criminal reports in the RMS vs. criminal reports, non-criminal reports, and SRO activities in *School COP*) and enter *more detail* on each incident (e.g., the RMS lists the school address as the incident location, while *School COP* could record the precise location in the school building or on the school ground).

The lieutenant and the SRO agreed that the SRO would pilot test *School COP* at the beginning of the 2002-2003 school year. After a few months of use, they would meet again to assess the software program, at which time the lieutenant would decide whether to order all eight SROs to use it.

During the summer before the 2002-2003 school year, the SRO customized *School COP* for his three elementary schools by entering the names of the schools, the names of common disciplinary actions the schools take, and several new incident types, including bomb threat, false fire alarm, physical child abuse, traffic complaint, and suicide threat. The SRO also included several types of "activities" in the list of incident types, including counseling and meetings. Over the first two months of the school year, the SRO entered roughly 30 incidents, about half of which involved criminal activity (see Figure 1).

Figure 1: Incidents by Incident Type During First Two Months of *School COP* Use



In November 2002, the SRO met as planned with his lieutenant to reassess *School COP*. Based on his two-month pilot test, the SRO strongly encouraged the lieutenant to require all eight SROs to use the software program. Two considerations tilted the lieutenant toward adopting the software. First, the alternative was to continue to require the SROs to submit time-consuming, uncoded (i.e., very difficult for the lieutenant to analyze), handwritten monthly tallies of their work. Second, the lieutenant had to reject the idea of using a commercial alternative to *School COP* because he could not afford the expense.

However, the most important reason the lieutenant decided to implement *School COP* was ***his belief that School COP would help him sustain the SRO program once grant funding ended.*** While he believed strongly that the SROs provided significant benefits to the schools, given the fiscal climate in the city he knew he would have to justify the program, especially at the end of the 2004-2005 school year when the COPS in Schools grant would end. To do this, he would need to have "stats on everything the SROs did."

The SRO gives special credit to his lieutenant for deciding to implement *School COP*, noting that "He is open to new technology, in spite of the fact that he's not particularly computer literate."

The Implementation Process

With the decision made to have all eight SROs use *School COP*, it fell to the officer who originally promoted using *School COP* ("the SRO advocate") to spearhead implementation. The key requirement was that his lieutenant be able to use the software program himself (1) "to see what my individual SROs are doing" and (2) to produce summary reports on *all* SRO activities.

Installing the Database

It was clear that the SROs would have to do their own data entry – submitting paper incident and activity forms to the police department's data entry staff to input was not an option given its current workload. Data entry would also need to happen at the schools, where the SROs had laptops. This left two options:

(1) Have each SRO enter *School COP* data into their own database (on their laptop) and then periodically e-mail their database to the SRO advocate. The SRO (i.e., the *School COP* advocate) would then use *School COP*'s Merge Utility (see the appendix for a description of the Merge Utility) to combine the eight individual databases into a single database. The single, merged, database could then be installed on the lieutenant's computer so that he could analyze it with *School COP*.

(2) Have all the SROs use *School COP* on their laptop but have it linked to a common database residing on a police department server. The advantage of this approach is that no databases would have to be e-mailed, as they would in Option 1. However, this option presented a technological obstacle: because the laptops were outside of the police department's firewall, a special "hole" in the firewall would have to be implemented to enable this option to work.

Because the SRO (i.e., the *School COP* advocate) knew *he* did not want to be responsible for periodically merging eight *School COP* databases (Option 1), he elected to go with the second option. He made this choice even though he knew there would be a significant delay because he had to ask the city's overburdened MIS department to implement the hole in the firewall.

In the end, the process of requesting and implementing the firewall hole took 10 months. As a result, *School COP* was not ready for use by all the SROs until the start of the 2003-2004 school year.

Customizing School COP

Although already customized for his three elementary schools, in preparation for "rollout" of *School COP* to the other seven SROs the SRO advocate had to customize the software for

them. After he had reviewed the "Incident" and "Action Taken" codes with his lieutenant, the SRO advocate added five action taken codes and nine incident type codes (see the box "Changes the SRO Made in Customizing *School COP*").

Changes the SRO Made in Customizing *School COP*

After reviewing with his lieutenant the codes already programmed into *School COP*, the SRO added nine incident type codes and five action taken codes.

Incident Types Codes Added	Action Taken Codes Added
Bomb Threat	Assigned Behavioral Contract
Counseling - Incident Outside	Disciplinary Slip
Custody Issue	Loss of Recess(s)
False Fire Alarm	Referred to DSS
Meeting	Referred to Juvenile Intake
Physical Child Abuse	
Suicide Threats/Attempt	
Suspicious Activity	
Traffic Complaint	

The SRO advocate also entered the names of all 13 schools. ***He then assigned "areas" to each school and "locations" to each area*** (see the box "*School COP* Geography"). The process involved three principal steps:

- *He defined a total of 38 different geographic "areas" for the schools.* He defined two areas for all the single-story schools—the school building and the school grounds—and three areas for the two-story schools—one for each floor of the building and one for the school grounds.

- *He created a map for each of the 38 areas.* The SRO was able to scan maps from each of the schools' crisis plans.

- *He defined 935 locations within the 38 areas (about 25 locations per area), indicating on each map where each location was.* Of particular interest is how the SRO defined locations on the school grounds (locations within the school buildings were largely obvious, corresponding to the different rooms in the buildings). For example, he defined the following 14 locations for the school grounds of one of his elementary schools:

[name][5] Sidewalk	[name] Sidewalk
Nature Center	[name] Diamond
Basketball Hoops	New Playground Equipment
Blacktop in NE Corner	Old Playground Equipment
East Side of Building	[Name] Sidewalk
Grass Football Field	Staff Parking Lot
Grass Near Front Sign	SW Corner – Blacktop Area

The customization involving the areas, maps, and locations took eight hours. The SRO described the effort as "a pain," but he "wanted to have everything all set for the other SROs."

School COP Geography

School COP has a three-tiered system for specifying where an incident occurred: schools, areas, and locations:

- *Areas.* In *School COP*, schools can be divided into one or more areas. If you want to use *School COP*'s mapping features, each area must have an associated map. At a minimum, we suggest you have one area for each floor in each school building and one area for the school grounds. After you enter the schools names in *School COP*, you use the Area Screen to enter the names of the areas and specify the name of the file that contains the area map.

- *Locations.* Each area can be divided into one or more locations. Examples of locations include classrooms, bathrooms, and offices. After you enter the schools and areas, you will use the Location Screen to enter the names of the locations and to indicate where on the area map the location is. You need to decide how specific you want to be in defining the *School COP* locations. At a minimum, there should be one location for each room in the school building; one location for each major section of hallways; and one location for each major section of the school grounds (e.g., parking lots and playgrounds).

Training

Once the customization work was completed, the SRO planned and conducted a one-hour PowerPoint training session (focusing primarily on data entry procedures) for the other seven SROs and the lieutenant, on all of whose personal computers he had installed the software. The SRO commented on how the other SROs "were happy with all the 'pull downs,' since most of them are not very good typists" (being able to select choices from pull down menus

[5] Location names that contain identifying information are masked.

minimizes the amount of typing required to enter an incident). Furthermore, even though eight different SROs do data entry, consistency has not been much of an issue, because using the pre-entered codes in the drop-down lists helps standardize data entry. However, a couple of SROs grumbled about the data entry requirement, especially since they still had to complete a Record Management System report for each criminal offense.

The lieutenant admitted, "I'm not terribly computer literate." When he does run into a problem, he says, "I call [the SRO who advocated *School COP*] if I have questions." The lieutenant also relies on a "cheat sheet" (see the box).

School COP Cheat Sheet Developed for the SRO Supervisor

To see all incidents at a particular school:

- Select **Search Incidents** on the Main Menu
  - Select a school from the School drop down
  - Enter a date range or other criteria, if desired
  - Click 'Search'
- On the Incident Screen, you can:
  - Click |<, <, >, or >| to browse through the incidents
  - Click List Summary to see one-line incident summaries
  - Click Graph to see the incidents by month or type

To see all incidents for a particular SRO:

- Select **Graphs and Tabular Reports** on the Main Menu
- Select the report titled "Incident List: Summary of Incidents"
  - In the Sort By drop down, select "Investigator"
  - Enter a new date range, if desired
  - Click 'Show Report'

School COP – or, rather, the manner in which the Eastern City police department is using it -- has some limitations. The database does not provide a complete picture of school safety at the schools in part because minor student misconduct in which the SROs are not involved is not entered into *School COP*. The schools keep the only complete record of "referrals" (i.e., instances in which students are sent to the principal's office for violating a school rule or for some other form of improper behavior), and some of them are never entered into *School COP*. The complete picture of safety in the schools would require linking the school data system and *School COP*. However, the lieutenant reports that, even though the software program does not capture the total picture of school misconduct, "That's not a big deal because of the overall nature of the schools here."

The police department also does not provide school officials with direct access to *School COP* or to its data. However, the lieutenant argues that, because there is regular "routine word of mouth data sharing," there is no compelling reason to give the schools access. Furthermore, the lieutenant reports that city MIS officials "would throw up a red flag" if school officials were to have access to something on the police department's server.

Benefits

The department's main purpose in adopting *School COP* was to provide evidence that the city should continue to fund the four SROs supported by the COPS in Schools grant after it expires. (The chief will continue to pay for the four officers who were liaisons before he converted them into SROs). *School COP* seems to have achieved this goal. The lieutenant used information and exhibits generated by *School COP* to give to the chief to use in a presentation to the school board at the end of the 2002-2003 school year. For the presentation, the SRO advocate prepared a series of maps and graphs, including incidents by school, incidents by type, and locations of incidents on the school grounds. The lieutenant reported that "The board was impressed." ***As a result of this and similar presentations made possible by the software program,*** the lieutenant reports that ***"Now they [city officials] are asking, 'Where are we going to find the funds to keep the SRO program going,' rather than wondering, "Do we want to continue this program?' "***

School COP has also made it possible to ***improve dramatically the department's documentation of the SROs' activities***. Before they began using *School COP*, the SROs had in reality not done much by way of documenting their activities beyond preparing the incident reports that they forwarded to the Records Management System. Furthermore, before they began using *School COP* the incident reports that were entered into the Records Management System represented a small fraction of the SROs' activities. While it was theoretically possible to have logged in all SRO activities in the records system, that would not have been appropriate because the system was intended only for crimes and suspected criminal activity. Furthermore, the department did not want to add work to its already overburdened data entry staff.

From the beginning, the lieutenant instructed the SROs to enter *everything* they do into *School COP* (excluding minor student misconduct, such as disrespecting a teacher, in which the SROs are typically not involved). Furthermore, the SROs enter the people involved in the incidents—perpetrators, suspects, and victims. This improved documentation, of course, ultimately helps the department to lobby for continued program funding (see above). But the comprehensive documentation also meets the lieutenant's objective of knowing "what my people are doing" – that is, improving his ability to monitor and supervise his officers. The database also makes it possible to compare the types and rates of incidents among the district's schools (see the box "Comparing Incidents Among Schools").

Comparing Incidents Among Schools

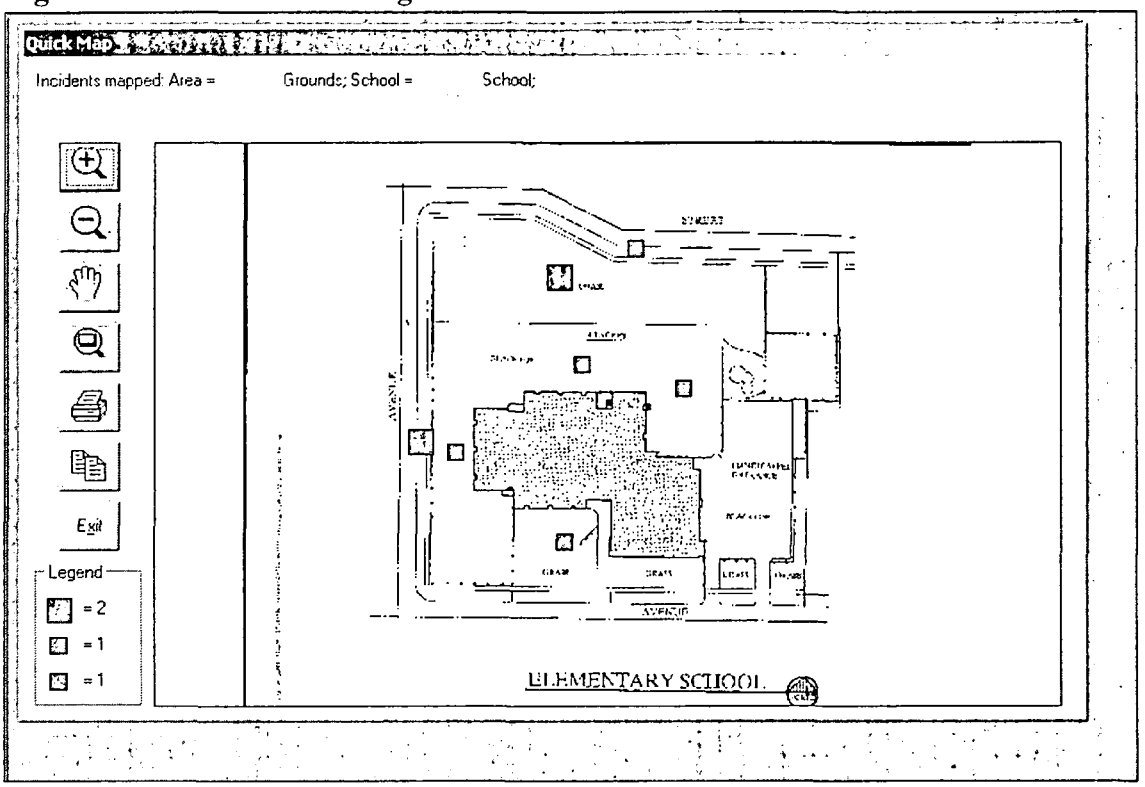
School COP has enabled the police department to make school-to-school comparisons of criminal incidents. Fortunately, there have been no conflicts with the school administration over the department's ability to prepare what could be seen as invidious distinctions among the schools. The comparisons have not created conflict in part because the schools' incident totals are very similar. The schools' lack of expressed concern over these comparisons may also reflect what the lieutenant refers to as "a good working relationship between the police department and the schools."

In addition to vastly increasing documentation about school incidents, because the SROs almost always enter the information into *School COP* within 24 hours, the new software has reduced the often two-week delay in computerizing incidents using the Records Management System. *School COP* also decreased the time the SROs have to spend recording incidents because previously they had kept hand-written logs of what they did and, at the end of each month, had to tally these activities before they could submit the information to the lieutenant.

School COP is also providing better information for SROs posted to the middle and high schools regarding incoming 6th and 9th grade students the officers can expect to be dealing with the following year. Prior to implementing *School COP*, the SRO advocate kept handwritten incident and other reports in a file in his office where he would hand them on request to the other SROs. Now, each SRO can at any time from the convenience of his or her school look up a student in the *School COP* database.

Finally, ***School COP enables the lieutenant to prepare reports that can convincingly substantiate a request for a change in school safety policy***. For example, by mapping where criminal incidents had occurred on school grounds over an eight-month period(see below), he was able to support a recommendation to a principal to change a school supervision policy on the playground.

Figure 2: Incidents Occurring on School Grounds



Chapter 8: Midwest Police Department

Summary

The City of Midwest, with a population of about 130,000, is a regional center for the medical care, banking, and credit card industries, as well as a major shopping center. Ten of the Midwest police department's 200 sworn personnel are School Resource Officers (SROs).

One of the two sergeants who supervise the SROs learned about *School COP* from attending a National Association of School Resource Officer (NASRO) training. Both supervisors liked the software because it would make it possible to effortlessly keep a running tally of the SROs' activities, documenting how busy and productive they are. They also liked its graphing and reporting capabilities, mapping feature, and ease of use.

After quick approval from the community services division lieutenant and captain, the process of implementing *School COP* was rapid and simple. Each school's information technology person installed the program on the SROs' computers. Then, the supervisors customized the software, including configuring *School COP* with digital maps of each of the schools. The supervisors also spent 20-40 minutes training each officer to use the software.

Every month the SROs e-mail data entered into *School COP* to the supervisors, who then merge the data using *School COP*'s "Merge Utility," which creates a single database of all the SROs' data, which in turn can be analyzed with *School COP*.

The community services division's main purpose for adopting *School COP* was to document convincingly how busy and productive the ten SROs are in order to avoid the possibility of other divisions in the police department, such as patrol, traffic, or detectives, "raiding" the SROs to increase their own personnel.

The software also reduces the time the SROs have to spend recording their activities compared with the handwritten logs they used to fill out. In addition, according to one SRO, "We can legitimately pinpoint where incidents occur in the building and identify high-risk areas." In fact, when the principal invited the school's SRO to a meeting with video camera vendor representatives who were installing cameras throughout the school, he demonstrated the software to them. As result, he was able to document that considerable vandalism was taking place *outside* the school building, thereby making a compelling case for installing cameras outside as well as inside the building.

The City of Midwest, with a population of about 130,000, is 200 miles from any city of considerable size. As a result, it has become a regional center for the medical care, banking, and credit card industries, as well as a major shopping center. A state prison also provides employment. The city school district's 33 schools include 23 elementary schools, 5 middle schools, and 5 high schools with a combined student enrollment of over 20,000 students.

The Midwest police department has roughly 200 sworn officers, including ten School Resource Officers (SROs). A 2001 COPS in School grant from the Office of Community Oriented Policing Services (COPS Office) funded the first five SROs. When the grant expired, the department picked up their salaries—and added five more SROs. One SRO is stationed full time at each of the school district's five middle schools and five high schools; each SRO is also assigned to, on average, three elementary schools that "feed" their particular middle or high school. Two sergeants spend nearly full time supervising the SROs (one sergeant also supervises a School Safety Officer; the other sergeant also supervises the D.A.R.E. officers).

When the SRO program began in 1998, each SRO filled out a daily log of incidents and activities by hand and forwarded it to one of the SRO supervisors. However, this tracking system was cumbersome—for example, an SRO who served a middle school and two feeder elementary schools had to complete three different logs each day—a process one SRO referred to as "ridiculous" because of the time it took. As a result, he said, "The supervising sergeant used to have to hound us for the logs."

After more than a year, the supervisor was able to get the county's data processing unit to develop a computer database into which the SRO logs could be entered. The supervisor arranged for a volunteer to collect the forms from each SRO each morning and then spend 20 to 30 minutes entering them in the database. This arrangement was satisfactory, enabling the supervisor to access specific SROs' activities by day, week, or month, but the database was abandoned a year later when the volunteer left the department. Then the SRO supervisor was reassigned to another division in the police department.

In early 2003, one of the two current SRO supervisors developed an Excel spreadsheet to enter and track incidents and activities from the SROs' logs, but the data entry—which she did herself—was extremely time consuming. Furthermore, incident "narratives" could not be entered in the spreadsheet and any analysis of the data was difficult and cumbersome.

The Midwest school district uses a student information system to track disciplinary actions taken against students. SROs, however, are prohibited by the school district from using the system.

The Decision to Use School COP

During the summer of 2003, the police department hosted a National Association of School Resource Officer (NASRO) training that one of the two supervising sergeants and four of the SROs attended. The NARSO trainer apparently had *School COP* loaded on his laptop, because, as part of the training, he demonstrated on his laptop how SROs could use *School COP* for purposes of storing and analyzing data. "The NASRO people used the sample database to demonstrate the program to me," the supervisor reported. "That's what was

exciting because it shows right away what you can get out of the software. *School COP* put my Excel program to shame." Furthermore, she said, "*School COP* was a godsend because, in moving our computers [to the new police department headquarters building], I lost my Excel program."

The SRO supervisor had the NASRO instructor download the software from the *School COP* Web site onto her computer; she then showed it to the other SRO supervisor. He—a computer buff—experimented for a few hours with the sample mock database, which he, too, found to be "a very useful starting out point that helps you get the gist of using the program." He then prepared a mock-up of his own using dummy names and incidents.

Both supervisors liked the software because its data tracking capability would make it possible to effortlessly keep a running tally of the SROs' activities, documenting systematically their busy schedules. At the same time, they liked the software's graphing and reporting capabilities. "Mapping is a bonus, too," one of them said. Finally, they appreciated how easy it was to use the software.

The computer savvy supervisor then made a presentation on *School COP* to the community services division lieutenant and captain. The administrators were immediately convinced that the SROs should use the program. The captain liked the software's ability to track where incidents occur so that SROs could be more proactive in preventing problems—for example, providing increased supervision at hot spots and closing off some areas of school buildings to students. He also liked the software's mapping feature. Although not the decisive factor—the captain could have found money to pay for a commercial product—the fact that *School COP* was free simplified his decision to give the supervisors permission to implement it. The police department's information technology department played no role in the decision to use *School COP*.

Implementation Process

The process of implementing *School COP* was rapid and simple. First, the supervisors sent the software to each school's information technology person, who installed it on computers that the principals gave to the SROs. Then, the supervisors customized the software and trained the SROs to use it.

Customizing School COP

The most recent version of *School COP*, has been revised to allow users to enter information about SRO activities and the number of hours they spend on them. The software was upgraded in this fashion precisely because, as with the Midwest Police Department, many agencies (and schools) reported they wanted to be able to track their SROs' many activities that did not involve law enforcement actions. Taking advantage of this opportunity, the SRO Supervisors customized the software so that SROs can enter data separately for:

1. *incidents*, involving student misconduct, from criminal behavior to mischief, that occur at school, and
2. *activities*, non-incident-related activities the SROs are involved in.

The supervisors customized some of the *incident type* categories, principally ensuring that they were the same as those in the police department's case list—for example, adding CHINS (Children in Need of Supervision)—but also adding a few other categories, such as "Medical Emergency," because an SRO was involved in a medical crisis precisely during this time.

The supervisors completely changed the categorization of activities. Instead of using the five default categories that come with *School COP* (administrative, advising/mentoring, classroom activity, law enforcement, and safe school preparation), the supervisors defined three categories – extracurricular, school, and law enforcement:

1. Extracurricular activities include dances and sporting events,
2. School activities include mentoring and parent meetings, and
3. Law enforcement includes activities SROs engage in that, while not performed in response to an incident that occurred at the school, are nevertheless law-related. Examples include law enforcement training or assist detectives during investigations.

In total, 17 different types of activities (within the above three categories) were defined.

Because there is still room for confusion with this subcategory, SROs sometimes ask the sergeants whether something they did is an incident or a law enforcement activity. For example:

> *An SRO asked whether participating in checking a student's home at the request of the department of youth services to determine whether a student was living in squalor is an activity. The answer was yes—even if the SRO takes the child into custody—because it did not occur on campus.*

After this initial customization, one of the supervisors copied the customized *School COP* database to a master disk and then installed it on each SRO's computer. Over the next several days, as the SROs began entering data, some of them saw the need to include still other incident types and activity categories, such as "Helped Department of Youth Services." The supervisors added some of these suggestions to the incident type and activity type drop down lists.

According to a supervisor, "Some SROs initially complained that there wasn't a category for this or that, but I told them it is too much for you to keep track of everything—just lump the incident or activity into the most appropriate [existing] category." The supervisors themselves combined accidents and traffic stops on school grounds as "traffic contact" rather than develop separate categories in the incident type drop down menu.

Even though some SROs requested changes in incident and activity types that did not apply to other schools, the supervisors had all the SROs install every new menu change on their computers so that all the SROs' drop down lists would be identical.

The supervisors also entered the names of all the schools and defined "areas" within each of the schools (e.g., school grounds and school building). They also installed on each SRO's computer school-specific maps (obtained from the school district) of the different "areas." The supervisors did not, however, enter in *School COP* a complete list of "locations" for

each "area" in each school. Instead, based on information from each SRO, the supervisor defined a few locations for each school that were the suspected "hot spots", thus enabling the SRO and the supervisor to monitor these particular locations.

All this occurred in the first week of using *School COP*.

Training

According to one supervisor, "I had to train them [the SROs] one-on-one because some are computer phobic." However, he added, "The SROs did not have a lot of questions for me—even later." The supervisor had each SRO enter several incidents during the session. Each individualized "training" took 20-40 minutes per SRO.

During the training, the supervisors had to make clear to the SROs that they needed to be scrupulous about making sure that each one entered information in the exact same manner into the database; otherwise, the supervisors feared, the merged database containing data from all the SROs would not contain consistent data. For this reason, only the supervisors did the customizing, prohibiting the SROs from changing the categories in the drop down menus on their own. According to one SRO, "They told us not to monkey with trying to customize our own programs." Instead, SROs who wanted to add or change a category in a drop down list reported this to the supervisors, who then sent out an e-mail instructing *all* the SROs to make the *same* change with instructions on how to do so (see Exhibit 8.1). The SROs were permitted, however, to identify on their own initiative the locations on their school maps where they wanted to be able to record incidents, and then enter these new locations in *School COP*.

Exhibit 8.1: Email from SRO Supervisor to all SROs

From:
Sent: Friday, August 29, 2003 4:05 PM
To:
Subject: Addition to School Cop

We need your help in adding two incidents we want to track. Please follow these steps in doing so from the main screen: **(You may want to print this out)**

1) Select Administrative Functions button

2) Select Incident type button

3) Select Add New

4) Type **CHINS** with capital letters in Incident Code Box

5) Tab down to Severity box

6) Select Misdemeanor

7) Select Save

8) Again select Add New

9) Type **Medical Emergency** exactly like I did

10) Tab down to Severity

11) Select Other

12) Save

Thank you.

Sgt.

The SROs were originally skeptical about using *School COP*. Most were concerned that the software program would be "another piece of wasted work" and were worried it would distract them from their other responsibilities. In addition, one SRO said, entering the data "means closing the [office] door [for privacy]," which prevents students from coming in spontaneously for counseling or to report an incident. However, he observed, "our attitude changed once everyone got a couple weeks into it—I've never heard a single complaint from another SRO."

According to an SRO who admitted to not being particularly computer savvy, "An average guy with average intelligence can figure [*School COP*] out and make use of it." His only problem was forgetting the supervisor's instructions about how to enter a new location and assign it to a point on the map. "But I played around a bit and figured it out." Another SRO reported that he spent a few hours experimenting with the *School COP* sample database and (like the supervisors) found it "very helpful because you can't do any damage [using it]."

SROs Are Not Allowed to Enter Students' Names into *School COP*

One of the SRO supervisors gave his PowerPoint presentation on *School COP* to a high level school district administrator. The administrator liked the software but, because of concerns about limitations on sharing information about students imposed by the Federal Family Educational Rights and Privacy Act (FERPA), he refused to allow the SROs to enter any student names in *School COP*. The administrator was concerned, for example, that if SROs acceded to requests for student information from a detective, this sharing of data would violate the statute.

The police department agreed not to enter any names, because it depended on the schools to agree to install *School COP* on the SROs' computers, which school principals had provided to the SROs.

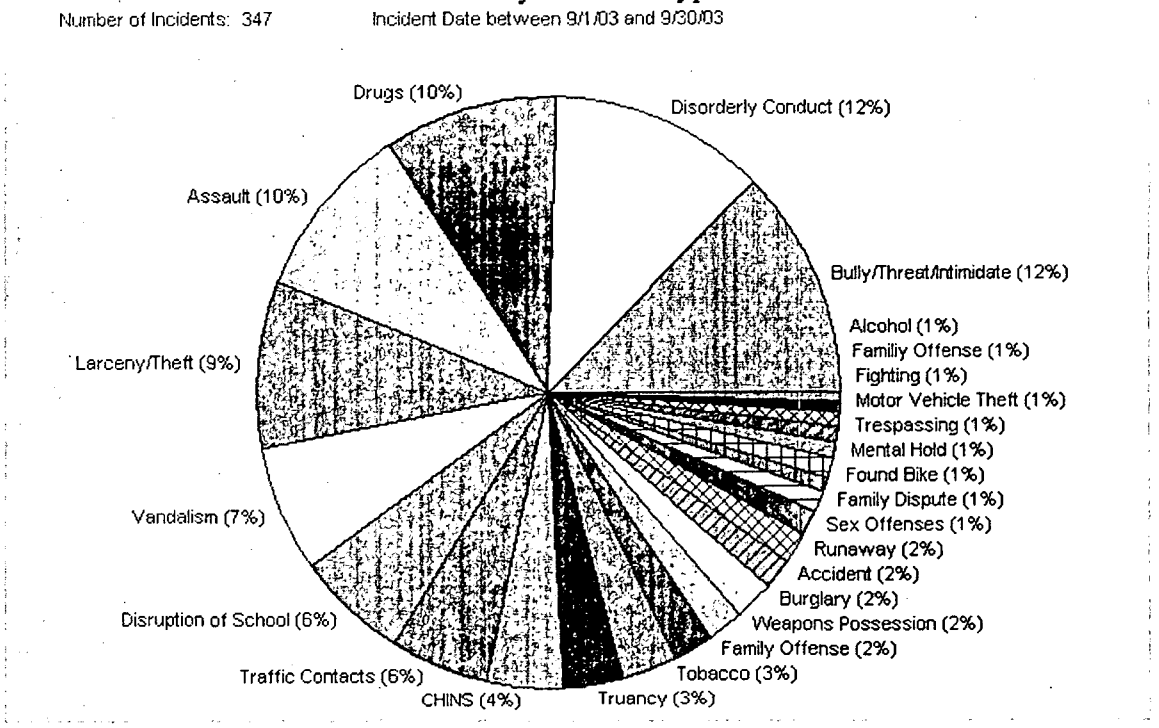
The administrator did agree that student names could be entered if the SROs were officially declared to be "school officials." However, for legal and other reasons the police department refused to allow the SROs to be designated in this manner. Furthermore, entering student names is a concern not just for the school system but also for the police department, which is worried about someone hacking into its computer network and obtaining the names.

Reporting Data to the SRO Supervisors

Every month, the SROs e-mail (or provide on diskette) their *School COP* data to their supervisor. The supervisors then merge the ten sets of data using *School COP*'s "Merge Utility". This feature, which the supervising sergeants had only minor problems using, makes it possible to combine all the SROs' data into a single database, which in turn can be analyzed with *School COP*. The merged database is kept only on the two supervisors' computers; the SROs cannot access the merged database.

SROs report that it takes them between 20-30 minutes a day to enter their incidents and activities; one said it took him about an hour a week. Most enter the data either at the beginning or end of each day. One SRO enters the data "when I get a moment—it could be every day or every other day—when I can close the door for a half hour." During the first month of *School COP* use, the SROs had collectively entered 347 incidents. The pie chart in Exhibit 8.2 describes these incidents by incident type.

Exhibit 8.2: Incidents Entered During First Month of *School COP* Use



The School Safety Officer Also Uses *School COP*

As a means of *adding* personnel to the community services division—not just avoiding *losing* personnel—the SRO supervisors asked the police department's School Safety Officer (also assigned in the community services division) to use *School COP* to track *his* activities, since he had been recording his activities tediously and not very accurately on 5 X 7 cards. In addition to simplifying his job, the supervisors wanted to be able to make a case some day that a second School Safety Officer was needed. The officer has been giving classes to every elementary school in the city since 1998, as well as to Head Start and pre-school programs. However, the number of elementary schools alone increased from 28 to 32 during this time period, forcing him to cut back on the number of classes he can offer. Furthermore, the existing elementary schools have added new classes.

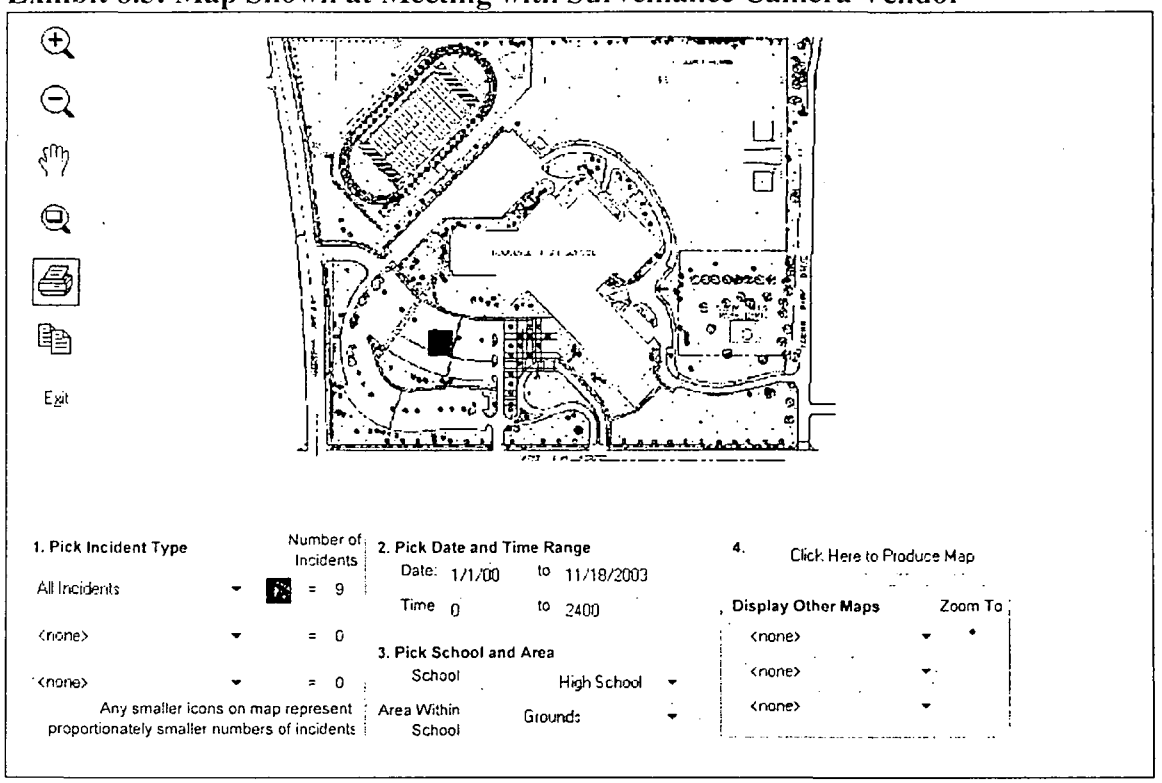
Benefits

The community services division's main purpose for adopting *School COP* was to document conclusively how busy and productive the ten SROs are in order to avoid the possibility of other divisions in the police department, such as patrol, traffic, or detectives, "raiding" the

SROs to increase their own personnel level and to justify continued support of the program by the police administration. Although the community services division is being proactive *in case* other divisions should try to "steal" its officers, there is historical precedent for being concerned. After the 9/11 tragedy, the police department lost nearly ten percent of its sworn officers to the military. As a result, those department divisions that lost officers sought to make up for their reductions in personnel by asking the chief to transfer officers from elsewhere in the department to their divisions. The police chief, for example, abandoned the D.A.R.E. program and transferred its officers to the depleted divisions (although eventually the State picked up the cost of paying for replacement D.A.R.E. officers).

School COP has also benefited the individual SROs. According to one SRO, "The software provides statistical data that are usable in many ways. On the law enforcement side, we can legitimately track incidents—pinpoint where they occur in the building, identify high-risk areas." In fact, unrelated to the introduction of *School COP*, this SRO's school had already made arrangements to install video cameras in high traffic and high incident areas throughout the school. When the principal invited him to the meeting with the video camera vendor representatives, the SRO brought and demonstrated the software to them. While most of the locations for placing the cameras were self-evident (e.g., the commons area), "the software was invaluable for showing the people who have the contract why we're putting the cameras where we were." Furthermore, the school had been planning to install the cameras only indoors. However, the SRO was able to demonstrate through *School COP*'s mapping capability that considerable vandalism was taking place *outside* the school building (see Exhibit 8.3). As a result, the school decided to place cameras outside as well as inside the school. Finally, by showing how *School COP* could map where incidents occurred, the SRO was able to help the school obtain even more funds for the cameras.

Exhibit 8.3: Map Shown at Meeting with Surveillance Camera Vendor



Individual SROs reported they have already learned useful information from the data. One SRO reported three surprises:

- "I hadn't realized that I spend the most time on counseling and mentoring—38 percent of my time—compared with law enforcement and teaching. That was shocking."

- "I had expected that Fridays would be the busiest day for incidents, but *School COP* documented that Thursdays were the most active days."

- "I was also surprised to discover that the peak time for incidents and for reports of incidents [that might have occurred the previous day] was between 10:00 a.m. and noon [not mid-afternoon]."

The SRO Supervisors Reject Using *School COP* to Monitor SRO Activities

An SRO reported that another SRO who covered for him while he was out of town for training said that the substitute SRO told him to "make sure to include [in *School COP*] the incidents I handled with my name on them"—because the covering SRO wanted the supervising sergeants to know that he had been busy. As this suggests, the supervisors *could* use the software to track the activities of individual SROs to ensure they are performing appropriately—especially since the SROs enter the number of hours they spend on each activity. However, the supervisors indicated that for a number of reasons—at least for the present—they do not intend to use the data in this manner:

- The SROs would resent being "watched."
- The data do not necessarily give an accurate picture of everything the SROs do because they engage in a number of activities they either do not have the time to enter or forget to enter.
- Some SROs spend more time on some activities than do other SROs because of their particular interests and talents—for example, some do a lot of teaching because they enjoy it and are good at it, whereas other SROs engage in considerable mentoring. In addition, some schools facilitate the efforts of SROs who want to teach, while others do not. As a result, using the data to compare SROs' level of activities would be unfair.
- The data would tell nothing about the quality of the SROs' work—how effective they are as counselors, for example.

One SRO said that "My supervisor trusts me. He's said over and over that that he would not use the software for monitoring purposes, reminding me that 'you were picked [as an SRO] because you can work on your own.' "

The software also reduces the time the SROs have to spend recording their activities compared with the "ridiculous" handwritten logs they used to fill out. According to one SRO, "It was like a revolution for statistical reporting."

Appendix

The appendix contains:

- A discussion of the differences between incident-based systems (e.g., *School COP*) and person-based systems (e.g., student information systems)

- A detailed description of both the Windows and Web versions of *School COP*.

Differences Between Incident-Based and Student-Based Systems

There are important, but perhaps subtle, differences between incident-based systems (the model used in *School COP*) and student-based systems (the model used in discipline referral systems and student information systems). Three key differences involve:

- *When does the incident get documented?* With incident-based systems, the incident is documented when it is reported to school administrators; with student-based systems, the incident is documented when (if ever) the alleged perpetrator is identified and taken to administrator's office.

- *What type of information is documented?* Incident-based systems record (1) basic facts about the incident (e.g., what happened, where did it happen, and when did it happen), (2) information about who was involved in the incident, including perpetrators, victims, witnesses, and suspects, and (3) information about what actions were taken against perpetrators. Student-based systems record information pertaining to a particular student (e.g., when and why was s/he referred and what action was taken against the student). Importantly, in student-based systems, there is no direct link to other students involved in the incident. Another way to think about this is in terms of what corresponding paper forms would look like:
    - A paper incident form is divided into two sections. The top section captures basic facts about the incident – what happened, where did it happen, and when did it happen. The bottom section captures information about all the different persons involved in the incident (i.e., there is one subsection for each person involved in the incident).
    - A paper student referral form has only one section, which captures information about a specific person involved in the incident.

- *What follow-up questions can be asked to understand the scope of the problem?* Incident-based systems can answer questions about both incidents and students involved in the incidents, whereas student-based referral systems, because there is no direct link between students involved in the same incident, can only answer questions about students. In other words, incident-based systems allow school administrators to identify problem *areas* (e.g., a specific hallway, specific times of the day) as well as problem *students*.

The following scenarios illustrate these differences:

Scenario 1

A teacher breaks up a fight involving two students and sends them immediately to the principal's office.

	Incident-Based System	Student-Based System
What gets recorded	• Information about the incident (e.g., where and when it happened) • Information about the two students involved in the incident. Both are linked to the incident information.	• Information about the first student and, separately, information about the second student. The two records are not linked.
General types of related questions that can be answered at the end of the year	• The number of fights • Characteristics about students involved in fights • Characteristics about where and when fights occurred	• Characteristics about students involved in fights

Scenario 2

A teacher enters her classroom and discovers three windows have been broken. A suspect is never identified.

	Incident-Based System	Student-Based System
What gets recorded	• Information about the incident (e.g., where and when it happened)	• Nothing
General types of related questions that can be answered at the end of the year	• The number of vandalism incidents • Characteristics about where and when acts of vandalism occurred	• Nothing

Scenario 3

A student tells a school administrator that she was sexually harassed but is afraid to identify the students who harassed her.

	Incident-Based System	Student-Based System
What gets recorded	• Information about the incident (e.g., where and when it happened) • Information about the student who was victimized	• Nothing until the alleged perpetrators are identified
General types of related questions that can be answered at the end of the year	• The number of sexual harassment incidents • Characteristics of students who engage in sexual harassment • Characteristics of students who sexually harassed	• Characteristics of students that engage in sexual harassment

Finally, another method of distinguishing incident-based and student-based systems is to examine a few of the specific data elements that could be captured in these systems:

Incident-Based System	Student-Based System
Incident number (unique identifier)	Referral number (unique identifier)
Reported by	Referred by
Incident type	Incident type (referral reason)
Incident date and time	Incident date and time
Incident location	Incident location
General description of incident	General description of incident
Investigator	Investigator
For each person involved in the incident: • Person's Name • Identifying information (e.g., student ID #) • How involved (e.g., perpetrator, victim) • Action taken (e.g., suspension)	Student's name
	Identifying information (e.g., student ID #)
	Action taken (e.g., suspension)

Windows *School COP* Description

This section provides an overview of the Windows version of *School COP*.[6]

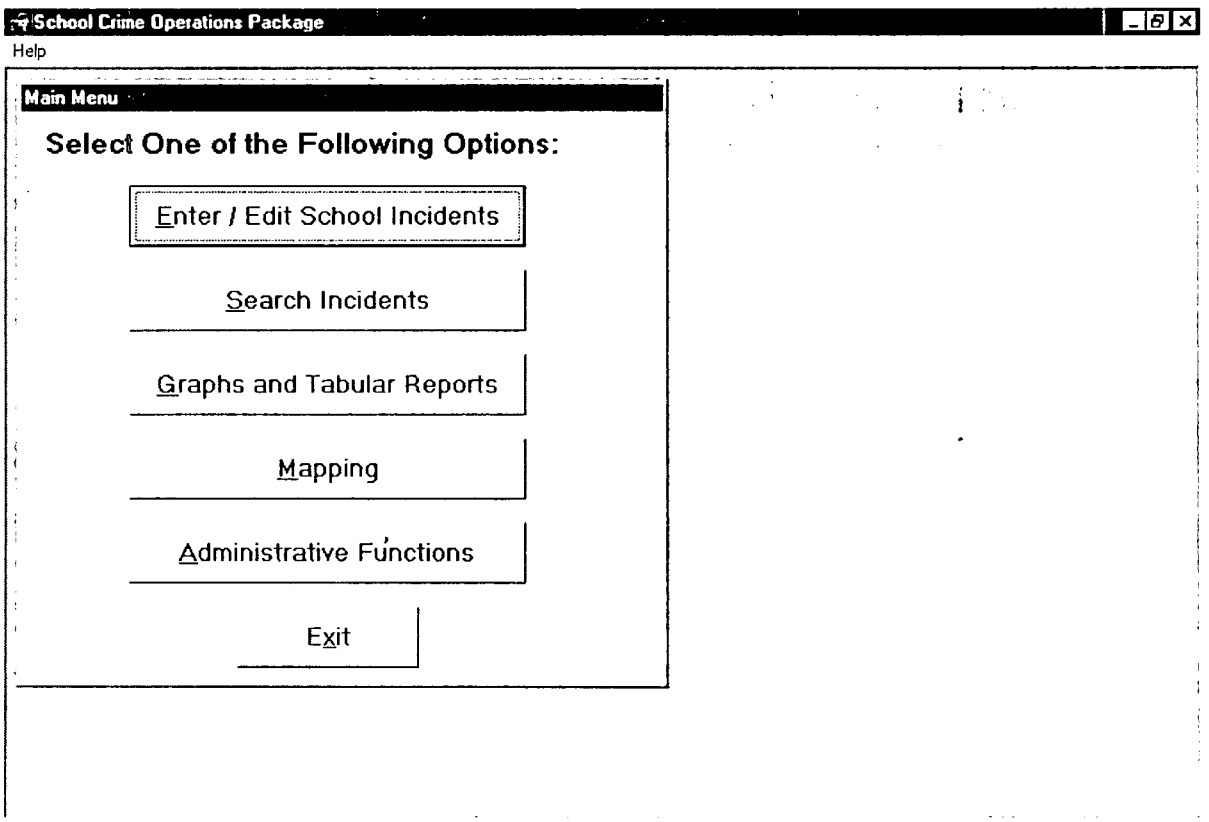
Installation and Login

The *School COP* installation routine conforms to Windows standards and thus will be familiar to anyone who has previously installed any software. The installation routine creates commands off the Windows Start button for running (1) *School COP* with a sample database containing roughly 100 incidents at a mythical school; (2) *School COP* with an empty database into which the user will enter their own data; and (3) the *School COP* help system.

Starting *School COP* displays the login screen. *School COP* comes configured with one login ID and password set. Additional login IDs and passwords can be created, and users can change the admin login ID password.

After a valid login ID and password set are entered, the *School COP* main menu is displayed (see Exhibit A.1).

Exhibit A.1: *School COP* Main Menu



[6] Near the end of the *School COP* Enhancement and Evaluation grant period, additional changes were made to *School COP* under a different (non-NIJ) funding stream. The current version available on the *School COP*

The Main Menu is the gateway for entering new incidents, performing searches, running canned reports and graphs, and producing multi-layer maps. The Administrative Functions button provides access to screens for building the *School COP* geobase, configuring other code tables, and performing other administrative functions, such as login ID management and backing up data.

Setup and Customization

Before starting to use *School COP* to enter their own incident data, users can customize the package to meet the needs of their school(s). Specifically, *School COP* allows users to pre-enter codes in code tables for attributes related to incidents (e.g., incident type and location) and for attributes of persons involved in incidents (e.g., how they were involved and what action, if any, was taken against them). Pre-defining code tables before entering data enables users to enter information about new incidents faster – instead of having to type in information from scratch, users simply click on the desired code from a drop-down list. This also helps ensure consistency in the information entered about each incident and protects against misspelling and typographical errors.

In all, there are 14 *School COP* code tables. Three must be built from scratch – schools, areas, and locations, which together constitute the *School COP* geobase (see 'Geobase Construction' below). *School COP* includes values for the other 11 code tables that can be modified to meet local needs. Five of the 11 are related to an incident:

- *incident severity*, which indicates the general seriousness of the incident (e.g., felony, misdemeanor, school rule violation);
- *incident type*, which provides a description of what happened (e.g., assault, defiance, dress code violation);
- *weapon used*, which indicates which type of weapon involved in the incident (e.g., knife, gun);
- *special circumstances*, which enables users to track specific types of incidents that are not included in the other code tables (e.g., gang-related incidents, hate crimes); and,
- *status*, which indicates whether the incident is currently under investigation or is closed.

The other six are related to people involved in an incident:

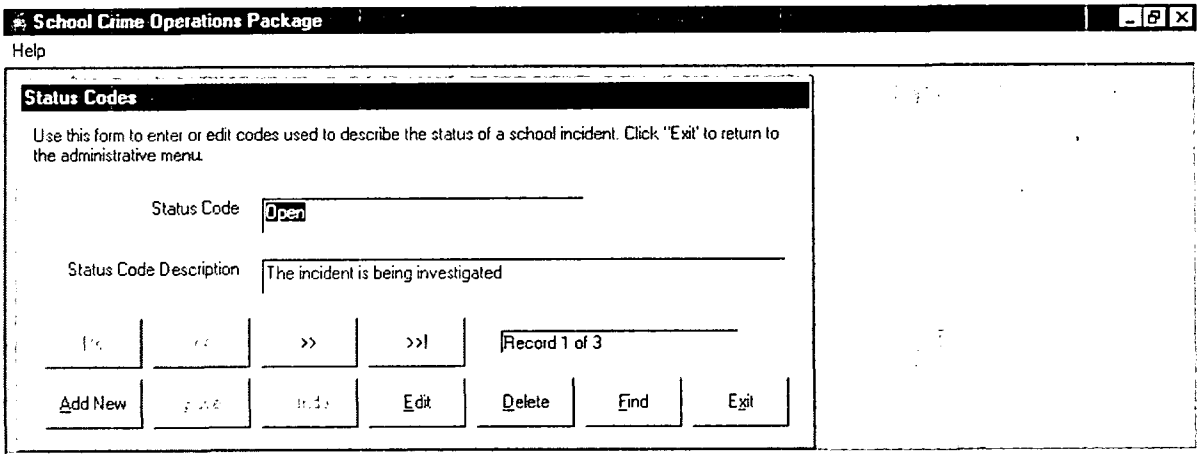
- *person type*, which indicates whether the person was a student, staff, teacher, non-student, etc.;
- *race*, which indicates the person's racial background;
- *special characteristics*, which enables users to track specific types of persons that are not included in the other code tables (e.g., special education students, gang members);

Web site has some features – notably a new screen for recording school safety "activities" – that are not depicted in the screen shots below.

- *grade*, which indicates the grade level of the person;
- *involvement*, which indicates how the person was involved in an incident (e.g., victim, perpetrator, witness, suspect); and,
- *action taken*, which indicates what type of sanction, if any, was given to the person (e.g., suspension, expulsion).

Code values are entered using screens such as the one shown in Exhibit A.2, which is the status code table screen. The "Record 1 of 3" label indicates that three status codes are currently defined.

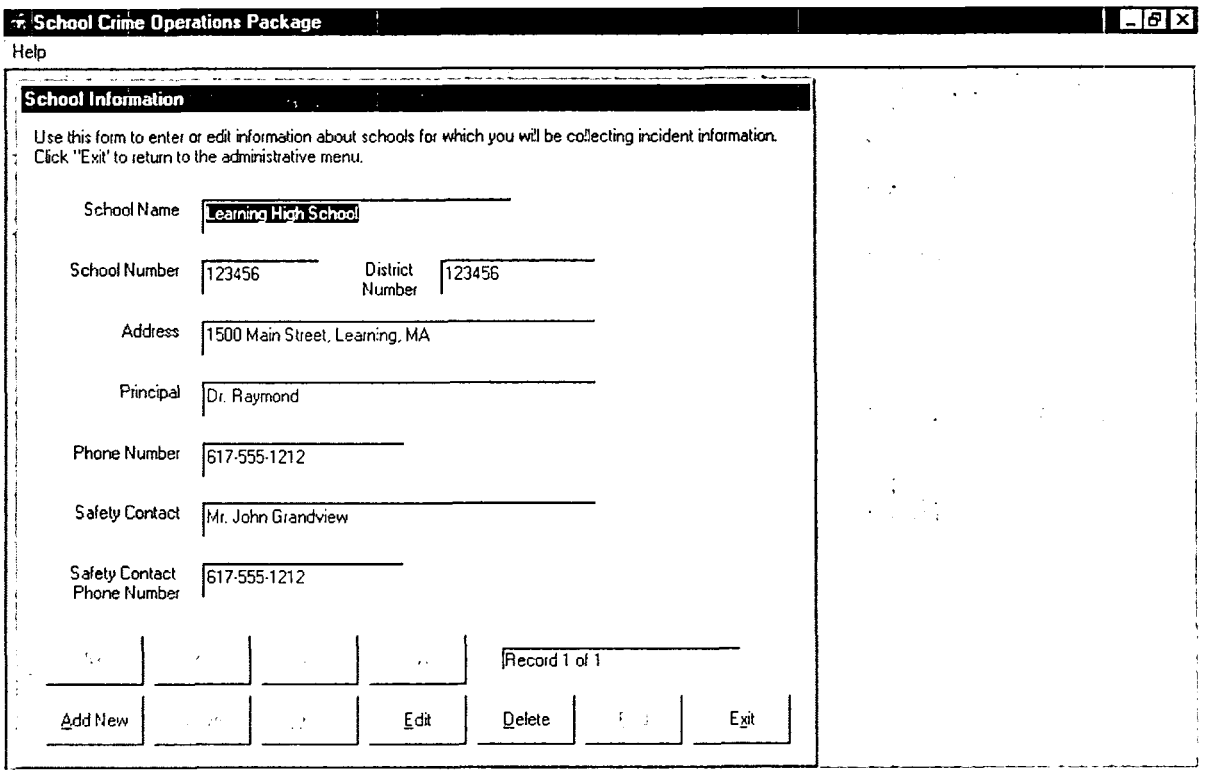
Exhibit A.2: Status Code Entry Screen



Geobase Construction

The most important part of customizing *School COP* is building the geobase. Users create their own geographic description of their school(s) in *School COP*, using a three-tiered system of schools, areas, and locations. Any number of schools can be entered in *School COP*, using the screen shown in Exhibit A.3.[7]

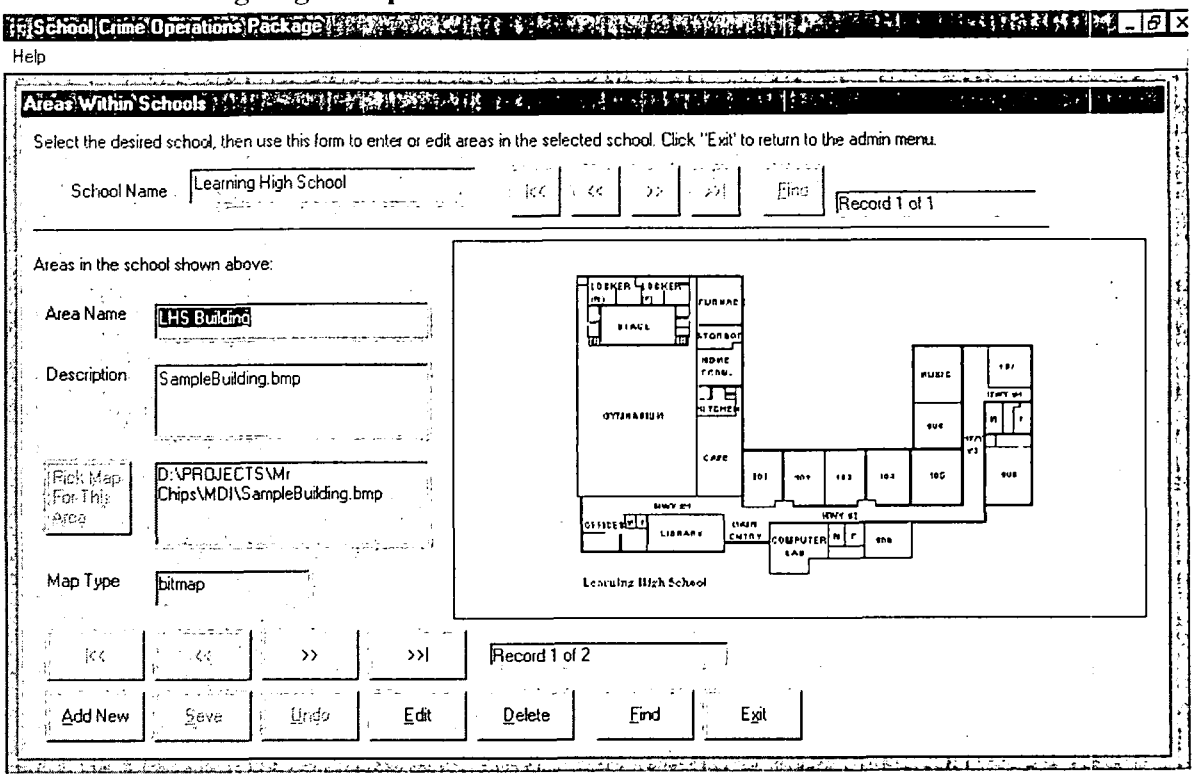
Exhibit A.3: Defining Schools



Each school that users define can be divided into one or more "areas," with a specific map associated with each area. For example, a modest sized two-story school might have four areas – one for each floor, one for the school grounds, and one for the bus routes. Exhibit A.4 shows the map that has been assigned to the area "LHS Building," which is one area within the school named Learning High School. The label "Record 1 of 2" below the map indicates that this particular school has two areas.

[7] The names of all schools and persons shown in the exhibits in the Appendix are fictitious.

Exhibit A.4: Assigning a Map to an Area



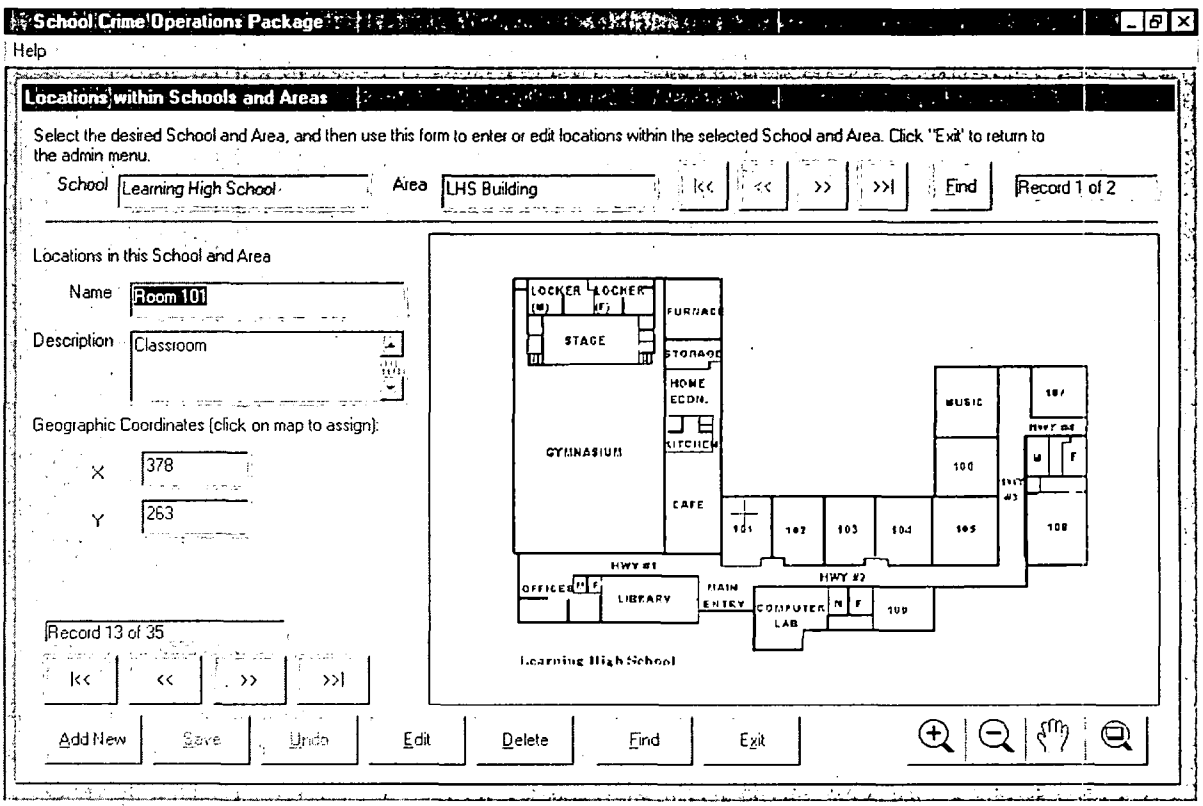
Next, users can define specific point locations within each area by typing in names of locations and then clicking on the map to specify where the location is. This allows users to be as specific as desired in defining locations. For example, a hallway could be a single location or divided into several locations. Exhibit A.5 shows the screen for assigning locations to areas. The label "Record 13 of 35" indicates that the displayed location (i.e., "Room 101") is one of 35 locations in the area "LHS Building," which is part of the school named "Learning High School." The cross-hairs on the map show where the user clicked the map when assigning the location named "Room 101" to a point on the map. When the map is clicked, the X and Y coordinates are automatically read and associated with this location. When scanned images are used, the coordinate pair (0, 0) is located in the lower left corner of the map.

It should be noted that *School COP* only allows "point locations" – regions cannot be defined. Accordingly, *School COP* cannot produced thematic maps. As discussed earlier in this section, all *School COP* incident maps are graduated symbol maps.[8] Regions could have been incorporated in *School COP* if an alternative approach to building a geobase with scanned images had been used. That approach involves overlaying a fine-structured grid on a map, wherein the map is divided into, say, a 1000 by 1000 matrix of cells. There are

[8] In general, different methods are used to construct graduated symbol maps. In *School COP*, the "square root" method is used – that is, the symbol size at a particular location on the map is proportional to the square root of the number of points at that location divided by the maximum number of points at any location on the map.

advantages and disadvantages of both the grid and *School COP* approaches. The grid approach involves less setup work for the user, but more work when entering incidents (i.e., locations must be specified on a map when entering new incidents, as opposed to when the geobase is defined). It is also easier to be more precise in specifying the location of new incidents using the grid approach (e.g., rather than picking 'Faculty Parking Lot' from the list of pre-entered locations, users could simply click on the exact spot in the parking lot where the incident occurred). In the end, however, the grid approach was not selected because, again, of the project goal of making *School COP* usable by as many agencies as possible, and using the grid approach would require agencies to have and use maps to define locations. The *School COP* approach outlined in this section allows for detailed mapping, but does not *require* users to have maps. That is, schools, areas, and locations can be defined without reference to any maps.

Exhibit A.5: Assigning Locations to Areas

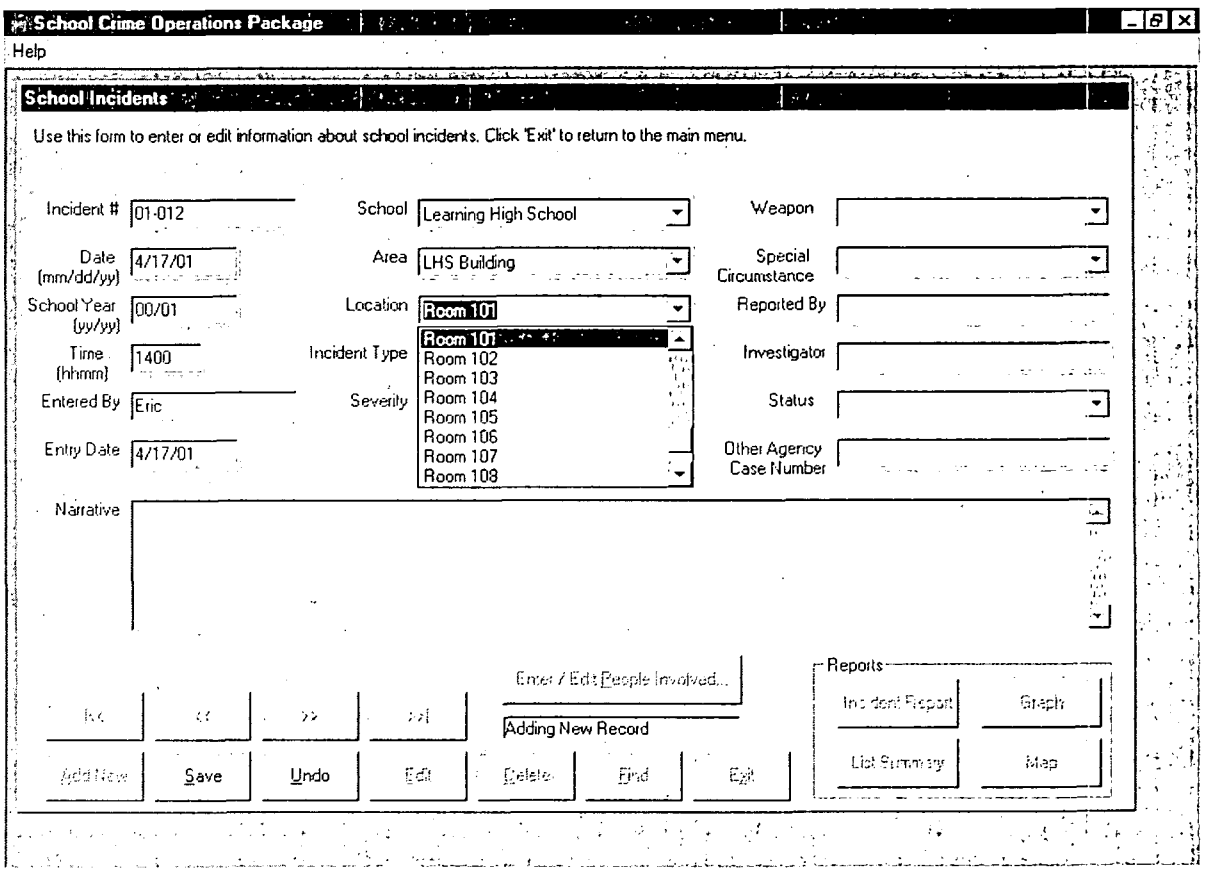


Geocoding Incidents

To complete the discussion of how *School COP* implements mapping, an overview of how incidents are geocoded – that is, how geographic coordinates are associated with an incident location – follows; additional details on the data entry process, of which geocoding is one component, are discussed later in the Appendix.

When new incidents are entered in *School COP*, users indicate where the incident occurred by first selecting the school, area, and location where the incident occurred. Exhibit A.6 shows the incident data entry screen, with a new incident that occurred in Room 101 being added. The exhibit shows that users need only choose from the pre-entered list of schools, areas, and locations. In particular, the location drop-down list shown in Exhibit A.6 only contains the pre-entered locations associated with Learning High School and the area "LHS Building." Selecting from the lists, as opposed to typing in the location, enhances data quality by ensuring consistent spelling. Once the location is entered and the incident is saved, the X and Y coordinates associated with the location are automatically stored in the incident record, where they can be used for producing incident maps.

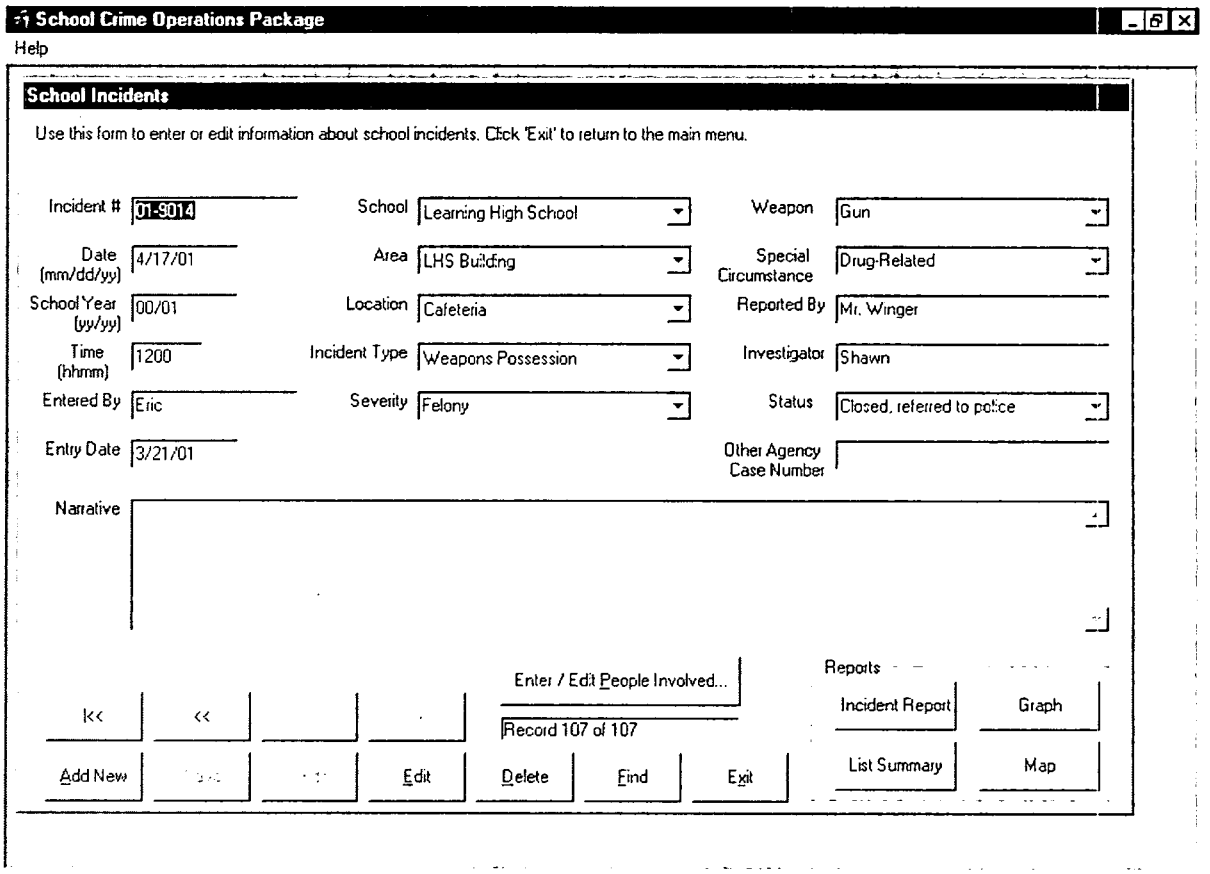
Exhibit A.6: Geocoding New Incidents



Data Entry

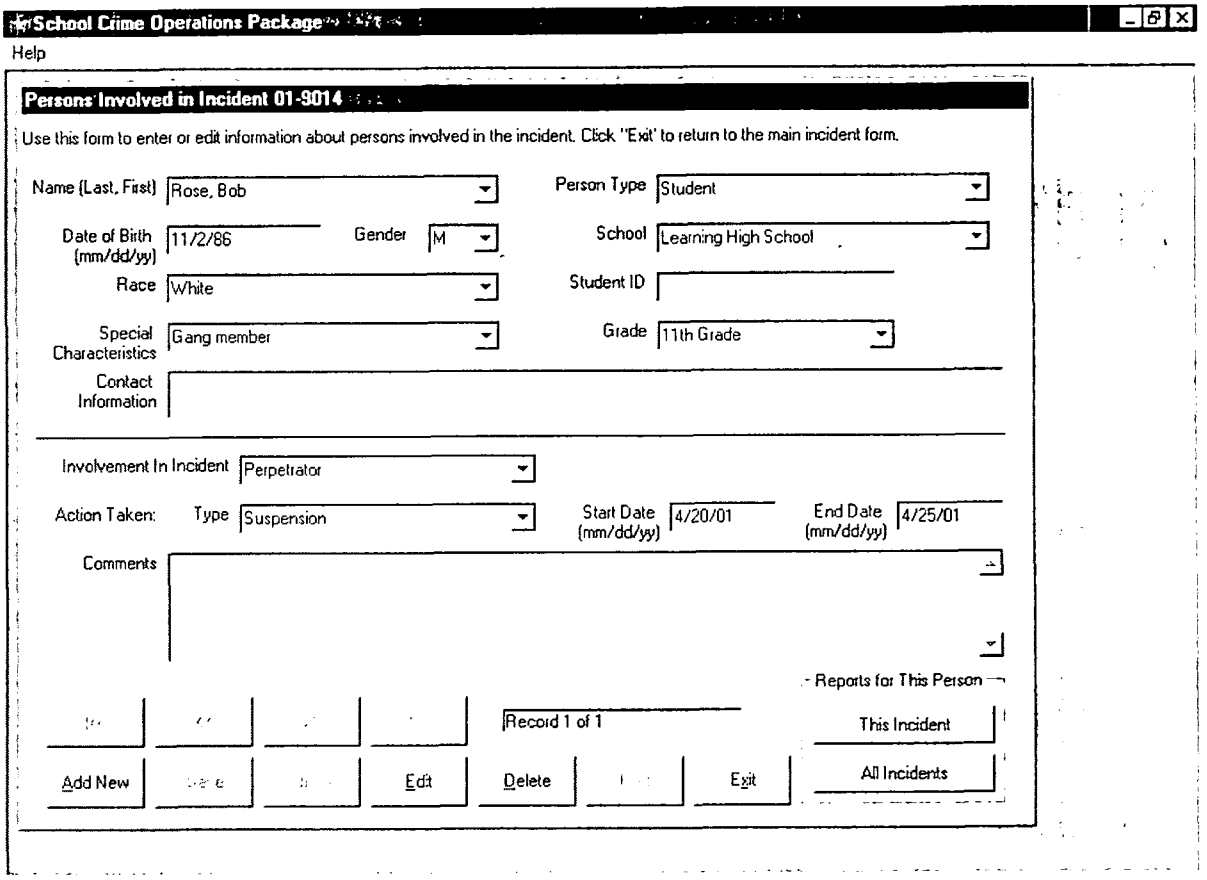
There are two *School COP* data entry screens – one for attributes related to the incident (see Exhibit A.7) and the other for attributes related to a person involved in the incident (see Exhibit A.8).

Exhibit A.7: Incident Data Entry Screen



After the screen in Exhibit A.7 is filled out and saved, information about people involved in the incident can be entered by clicking the button labeled "Enter / Edit People Involved...", which displays the People Involved Screen (see Exhibit A.8). Zero, one, or more than one persons can be associated with an incident.

Exhibit A.8: People Involved Data Entry Screen



Together, Exhibits A.7 and A.8 show the data elements included in the *School COP* database. Of particular note in the screens are the fields with drop down lists (i.e., fields with the pull down arrows on the far right). These fields correspond to those that have associated code tables.

Data Analysis

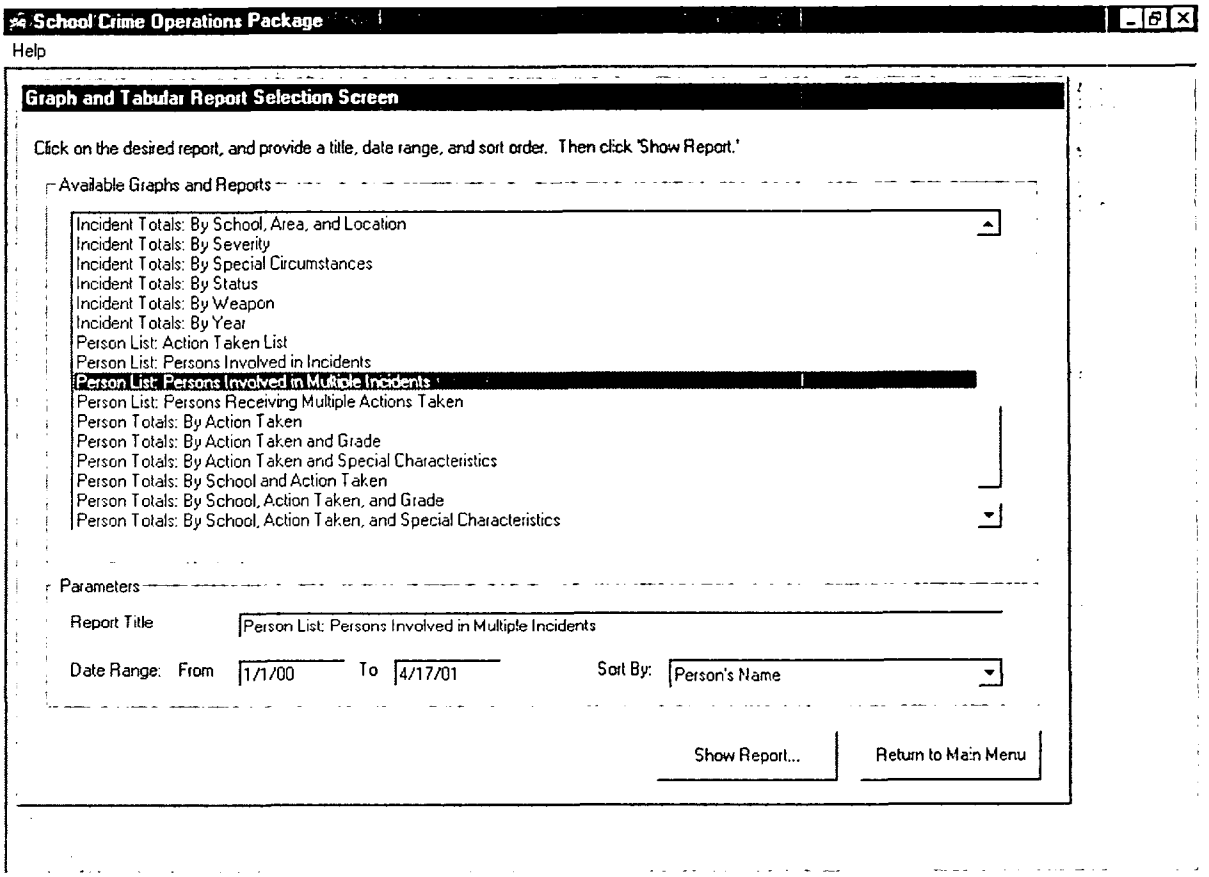
School COP has three main options for analyzing data: running canned reports and graphs, 'search and analyze,' and creating multi-layer maps.

Canned Reports and Graphs

The easiest method for analyzing data – geared primarily toward data novices – involves running one of the pre-formatted 'canned' reports and graphs. Clicking 'Graphs and Tabular Reports' on the Main Menu (see Exhibit A.1) displays a list of available graphs and tabular reports (see Exhibit A.9). The list includes aggregate graphs (e.g., the number of incidents by location), incident lists (e.g., all incidents occurring in a specified time period sorted by date and time), person lists (e.g., persons involved in multiple incidents), aggregate incident reports (e.g., the number of incidents by school and type), aggregate person reports (e.g., the

number of persons involved in incidents by school and action taken), and utility reports (e.g., code table listings).

Exhibit A.9: List of Canned Reports and Graphs



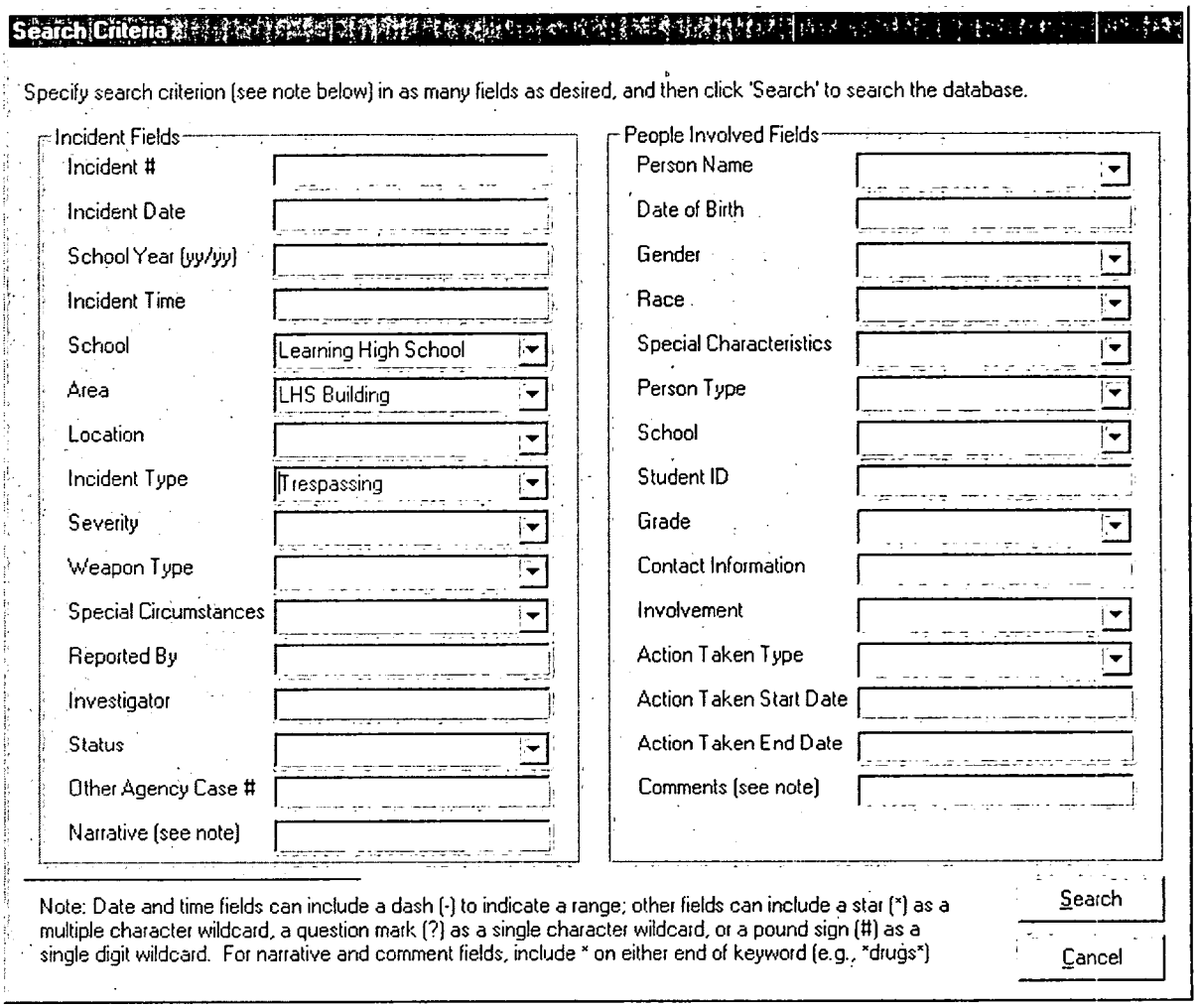
Date ranges and sort orders can be selected for most reports.

Search and Analyze

Whereas the canned reports are geared toward novice database users, the search and analyze method offers advanced users an unlimited number of ways to analyze a *School COP* database.

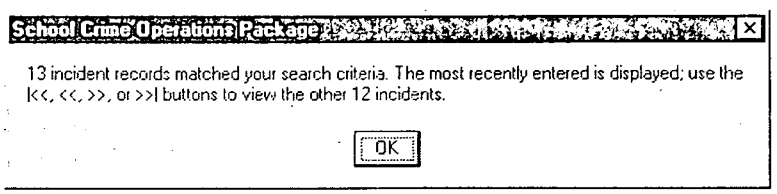
The Search Incident screen (see Exhibit A.10) enables users to search for incidents meeting a single condition (e.g., all incidents involving a weapon) or multiple conditions (e.g., all incidents involving a weapon at a particular school occurring during a particular time period that involved a victim). As many conditions as desired can be specified on the Search Incident screen, including values in the free form incident narrative and person comments fields. For example, Exhibit A.10 shows a search for all incidents occurring inside the building of Learning High School that involved vandalism.

Exhibit A.10: Search Incident Screen



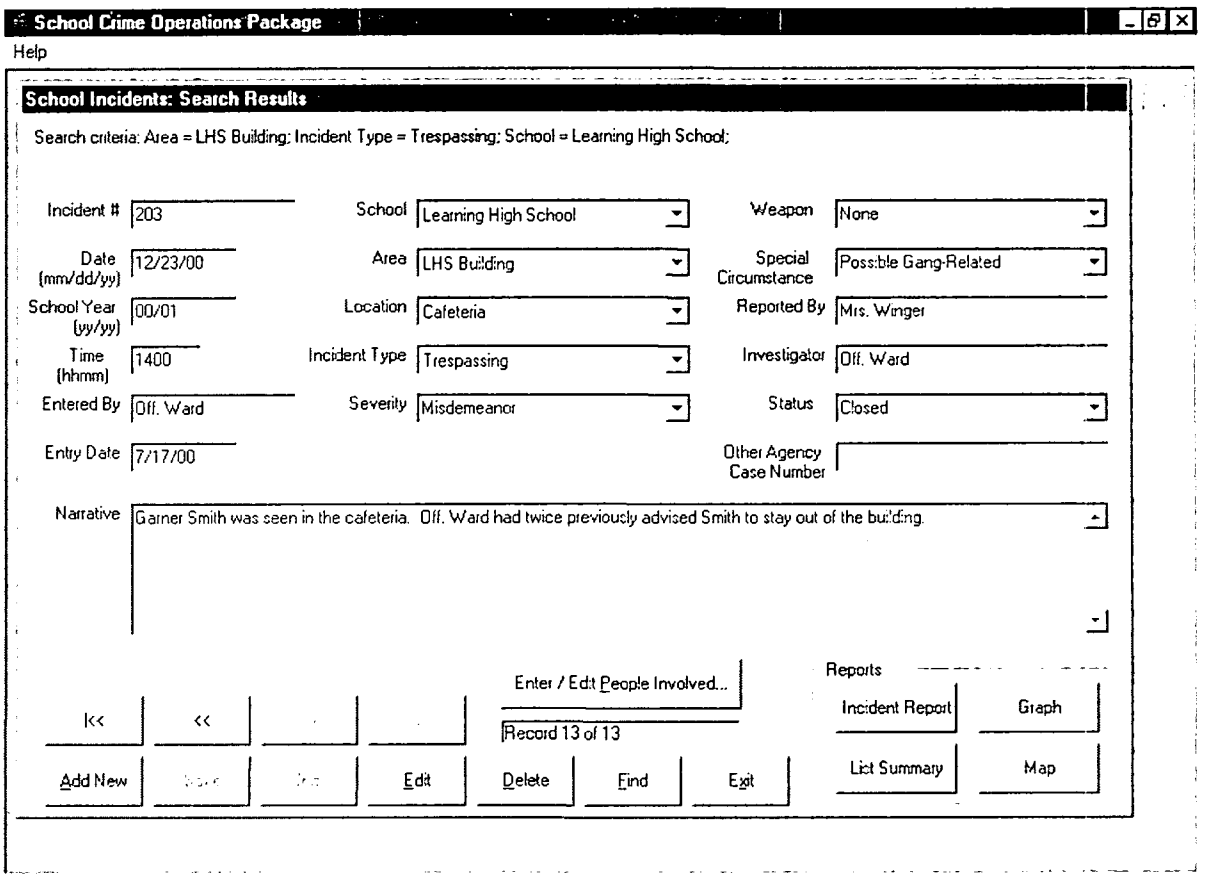
After the 'Search' button is clicked, the database is searched and the number of incidents meeting the specified conditions is announced to the user (see Exhibit A.11). In the example shown in Exhibit A.10, 13 incident matched the search criteria:

Exhibit A.11: Search Results



At this point, users have a number of options. They can view details of the records matching the search criteria (see Exhibit A.12):

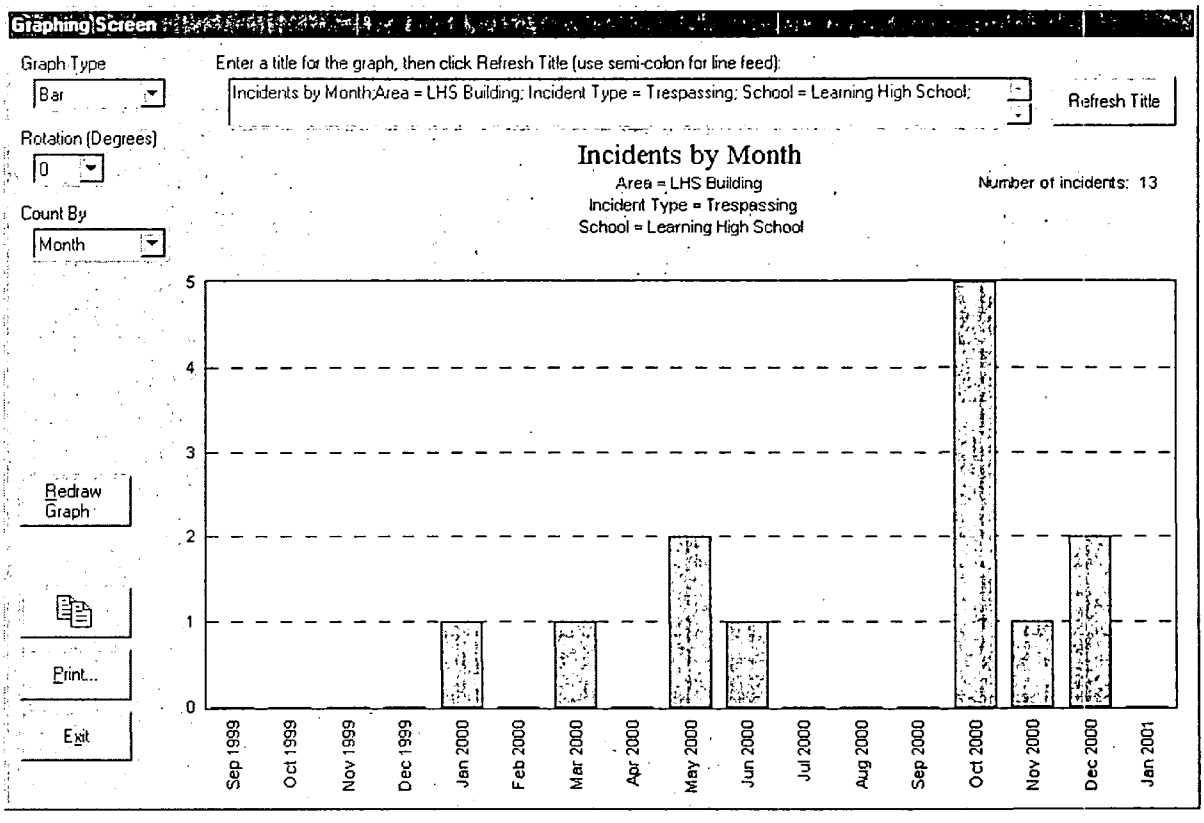
Exhibit A.12: Browsing Search Results



The label "Record 13 of 13" in Exhibit A.12 indicates the number of records matching the search criteria and the English language equivalent of the criteria is shown near the top of the screen. The navigation buttons (|<<, <<, >>, >>|) can be used to view the other incidents meeting the criteria.

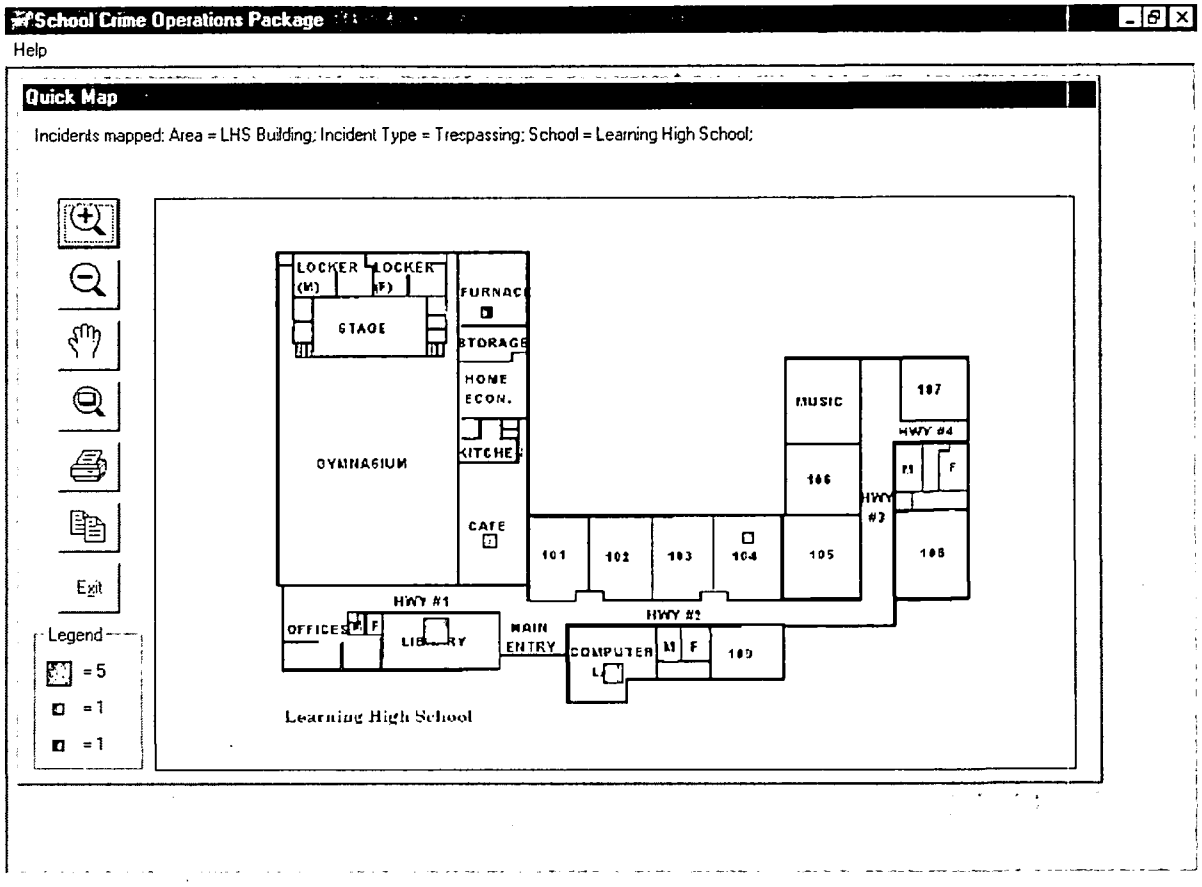
Clicking the 'Graph' button on Exhibit A.12 displays a graph of the incidents meeting the search criteria (see Exhibit A.13). A default graph showing the number of incidents by month is displayed, but by clicking the 'Count By' drop down, the X-axis variable can be changed to date, year, school year, time, school, area, location, incident type, severity, weapon, special circumstance, or status. Clicking the 'Graph Type' button can change the bar graph to a line graph, pie chart, or 3-D graph (in which a second variable can be included on the graph). Graphs can be pasted into word processing or presentation documents by clicking the copy button on the screen.

Exhibit A.13: Records Meeting Search Criteria Displayed Graphically



Finally, if an incident search criteria includes a specific school and area, the results of the search can be mapped. Exhibit A.14 shows the map produced if the 'Map' button on Exhibit A.12 is clicked. As noted earlier this section, all *School COP* maps are graduated symbol maps, in which symbol sizes vary in proportion to the number of incidents at each location. With potentially a large number of different symbol sizes displayed on the map, legends for graduated symbol maps typically do not show the value corresponding to all the different symbol sizes. *School COP* map legends show icon size associated with three symbol sizes – the maximum, middle, and minimum values. The algorithm for generating the legend sometimes yields three different symbol sizes in the legend; other times, as is the case with Exhibit A.14, only two different symbol sizes are shown. Finally, it should be noted that, as with graphs, maps can be pasted into other documents by clicking the copy button on the screen.

Exhibit A.14: Map of Incidents Meeting Search Criteria

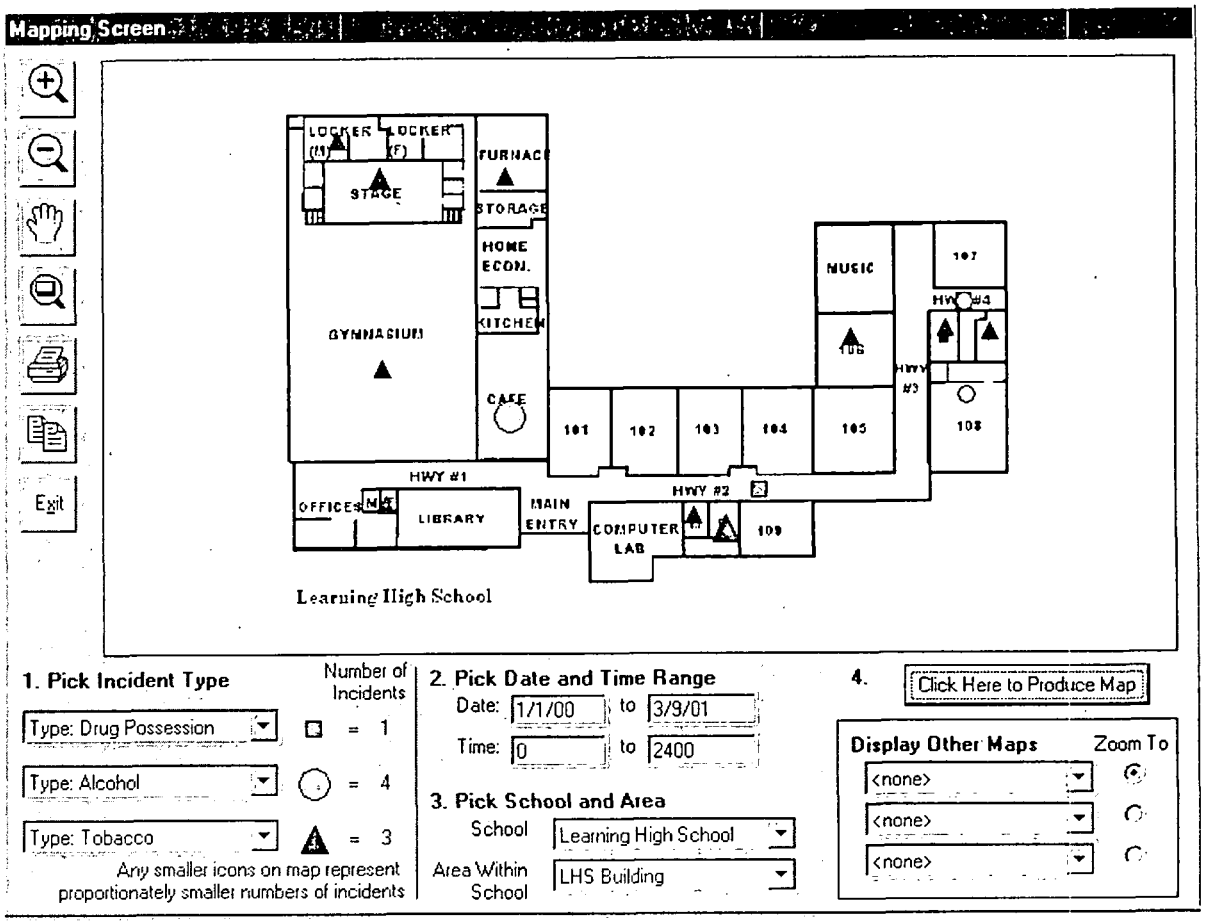


Multi-Layer Maps

A general mapping screen allows *School COP* users to create multi-layer maps of school incidents. The map in Exhibit A.15 shows incidents involving drug possession as one layer, incidents involving tobacco as another layer, and incidents involving alcohol as another layer. The legend in the lower left corner shows the maximum sized icon on the map for each of the layers.

The idea behind this screen is to present a very simple user interface for building a multi-layer map. All of the controls for building the map are shown on a single screen, as opposed to a series of "question and answer" screens, enabling users to quickly change the map and, more importantly, be reminded of what they mapped. In trading off ease-of-use, the screen does limit the user in terms of what can be mapped: currently the data layers can only include one of the incident severity or incident type codes, in addition to a date and time range. On the other hand, other map layers (e.g., police data in either bitmap or ESRI shapefile format) can be included in the map.

Exhibit A.15: Multi-Layer Map



School COP Viewer Description

The *School COP* Viewer is a modified version of *School COP* that enables users to view – but not add, edit, or delete – incident information. The Viewer is intended for sites that have installed *School COP* on a network, but want to restrict some users to read-only access of *School COP* data. The Viewer also does not allow access to the *School COP* Administrative Functions menu.

Installation

To install the *School COP* Viewer, simply replace the *School COP* executable (schoolcop.exe) with the *School COP* Viewer executable (schoolcopviewer.exe) on each PC where you want the Viewer installed, and then modify the *School COP* shortcut so that the Viewer is run.

Viewer Features

The Viewer features are best explained by contrasting it to analogous features in *School COP*.

Exhibits A.16 and A.17 show, respectively, the Main Menus in *School COP* and the Viewer. Note that the Viewer Main Menu does not have the Administrative Functions button.

Exhibit A.16: *School COP* Main Menu

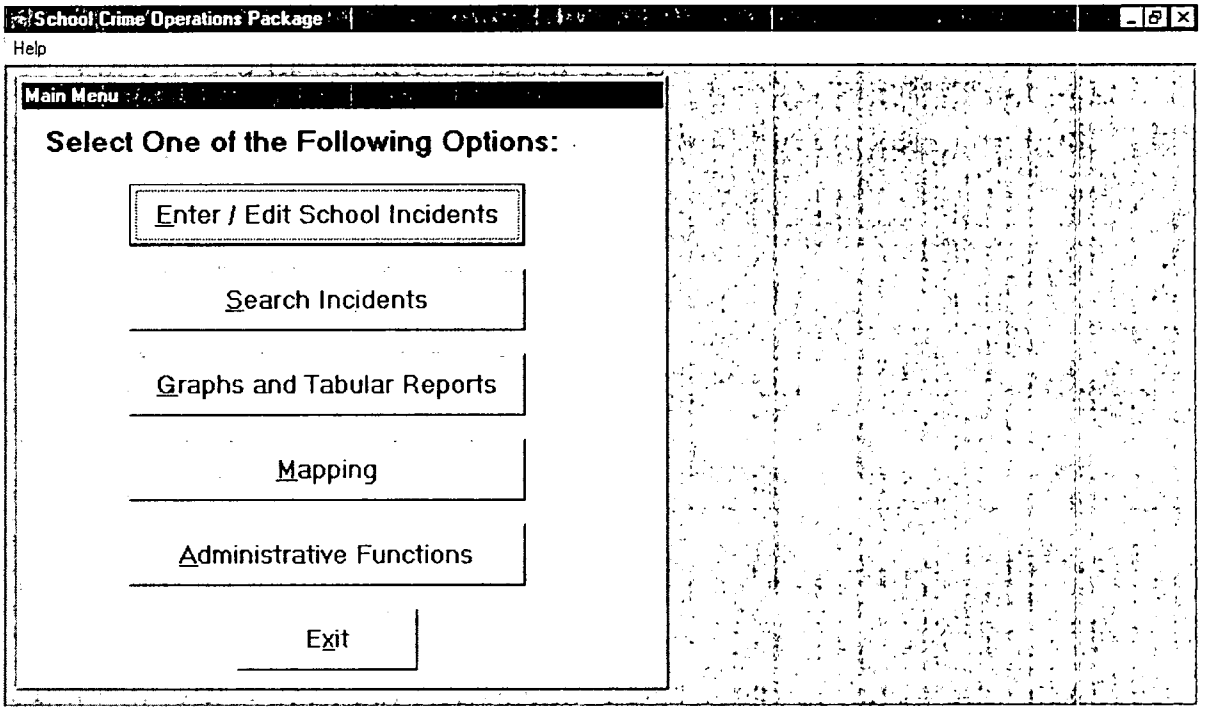
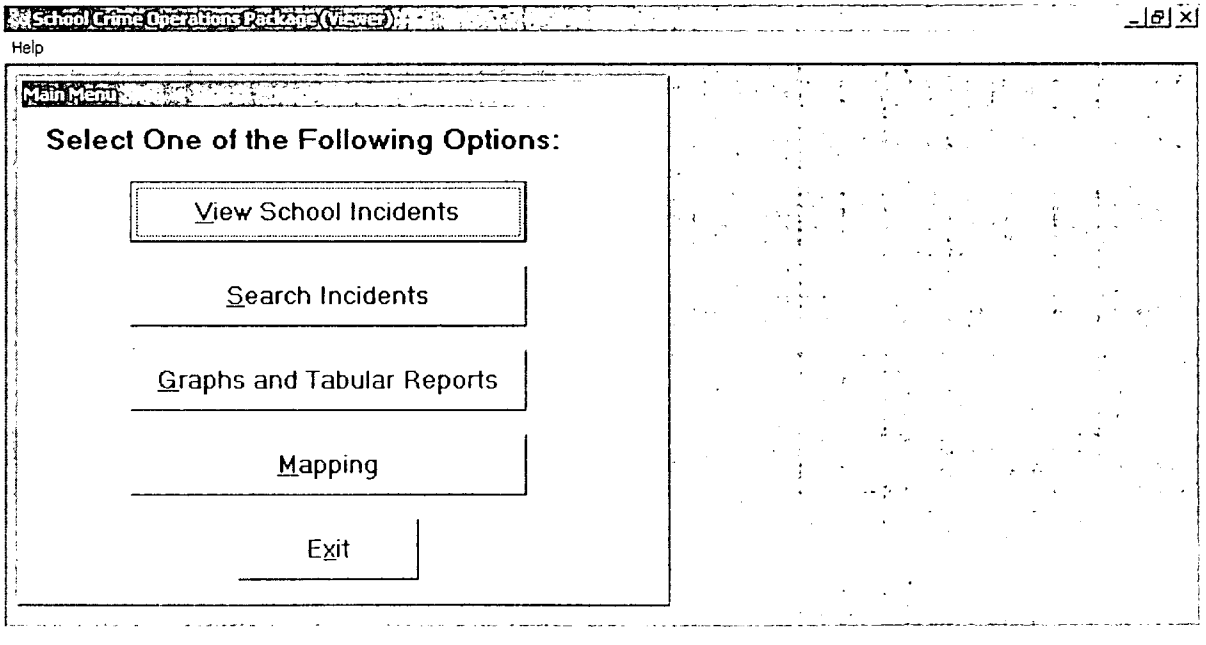


Exhibit A.17: *School COP* Viewer Main Menu



Exhibits A.18 and A.19 show, respectively, the Incident Screen in *School COP* and the Viewer. Note that the Add, Edit, and Delete buttons are absent on the Viewer's Incident Screen.

Exhibit A.18: *School COP* Incident Screen

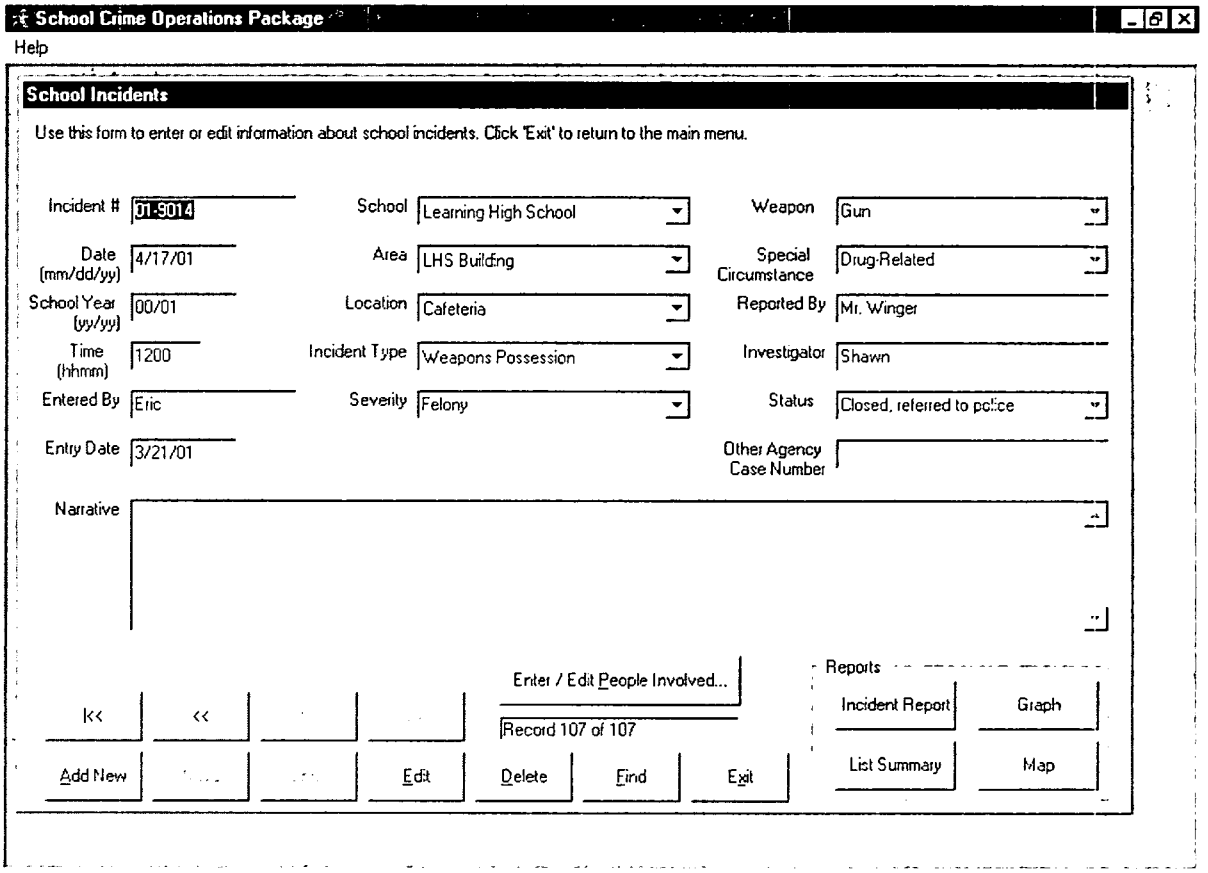
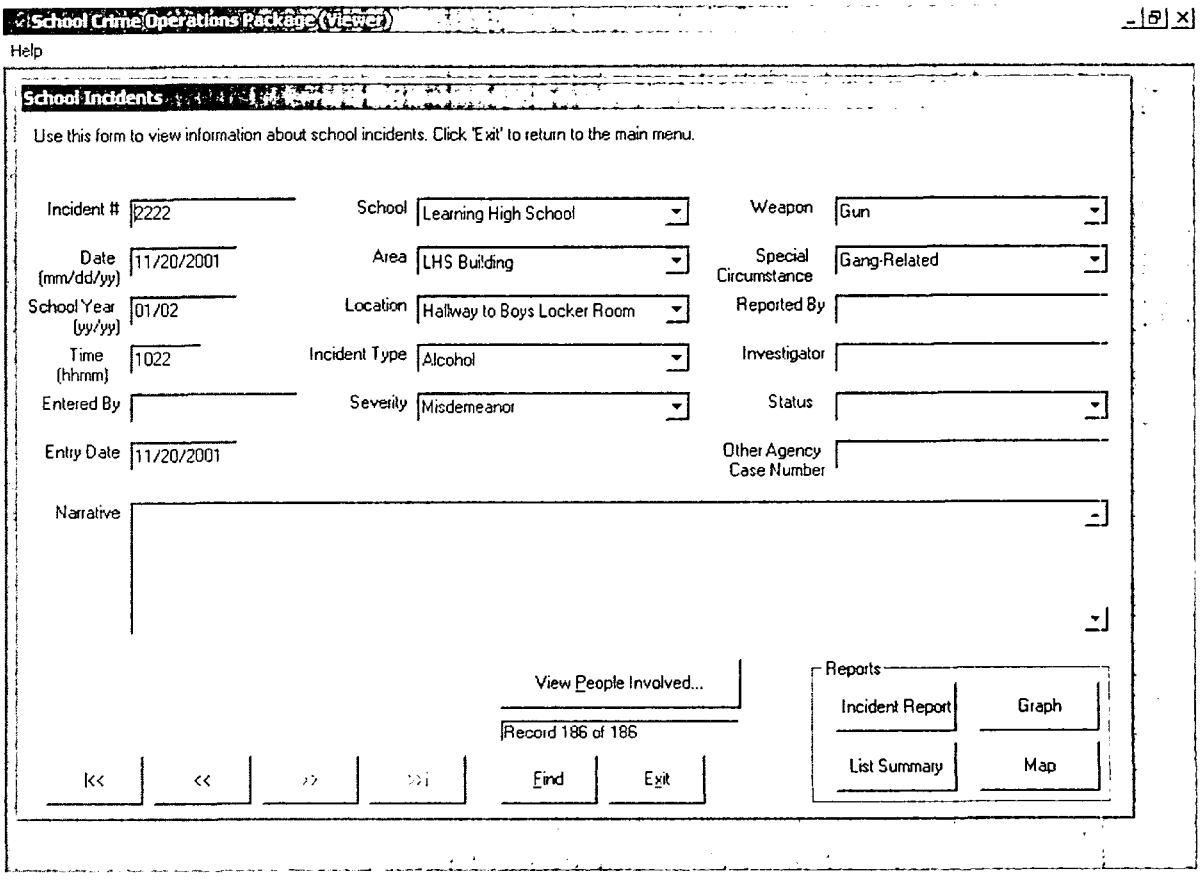


Exhibit A.19: *School COP* Viewer Incident Screen



School COP Merge Description

The *School COP* Merge application allows you to combine several *School COP* databases into a single database, which in turn can be run using *School COP*.

The application may be useful if, for example, staff at several individual schools use *School COP* at their school, and staff at the school district office want to be able to analyze incidents entered at all the schools. In this case, local school officials could e-mail their *School COP* databases to the district office, where staff could use the Merge application to combine all the school-level databases into a single database.

Installation

The *School COP* Merge installation routine conforms to Windows standards and thus will be familiar to anyone who has previously installed any software. The installation routine creates commands off the Windows Start button for running (1) the *School COP* Merge and (2) the *School COP* Merge help system.

In order to run the *School COP* Merge application you must have *School COP* installed on your computer. In addition, the *School COP* executable (schoolcop.exe) should be in the same folder as the *School COP* Merge executable (schoolcopmerge.exe)

Operation

Operating the Merge application involves three steps (see Exhibit A.20):

1. Indicating which *School COP* databases you want to merge. Any number of databases can be merged. The application verifies that each database is a valid *School COP* database. NOTE: The code tables from the only the first database in the list are copied to the Merged database – this means that login IDs and passwords from only the first database in the list can be used on the Merged database.

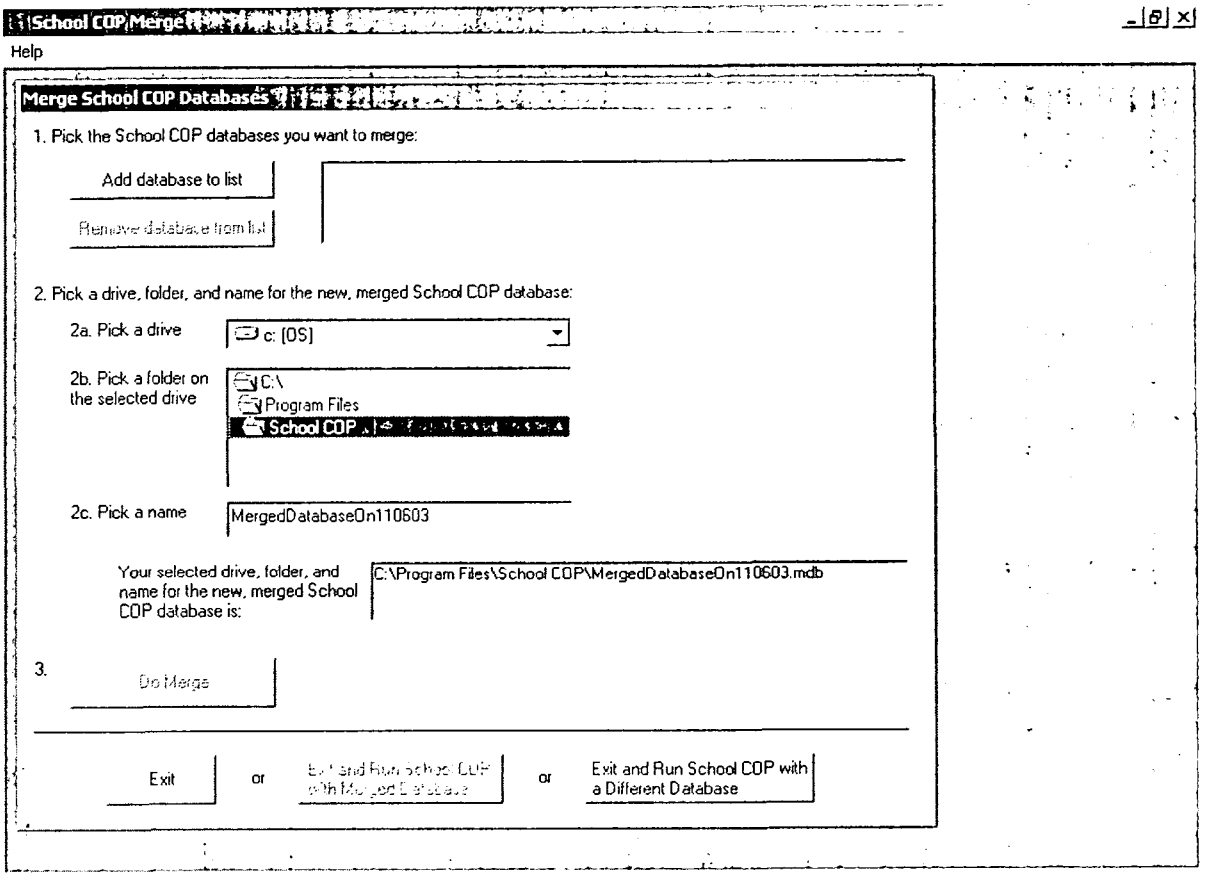
2. Indicating the name and location (i.e., folder) of the newly created merged database. A default name is provided that includes the current date.

3. Merging the databases, by clicking the 'Do Merge' button.

After the databases are merged, you can immediately launch *School COP* with the newly created merged database by clicking the 'Exit and Run *School COP* with Merged Database' button.

The 'Exit and Run *School COP* with a Different Database' button can be used to launch *School COP* with some other database – for example, a merged database that was created the previous month.

Exhibit A.20: *School COP* Merge



Web *School COP* Description

This section provides an overview of Web *School COP*. A copy of this version of *School COP* can be obtained from the *School COP* project director.[9]

Installation

Web *School COP* was developed using the Microsoft .NET platform. As such, it must be installed on a Web server that includes:

- Windows 2000 Server
- SQL Server 2000
- .NET Framework (Version 1.1)

Users who access Web *School COP* must have Internet Explorer Version 5 (or more recent).

The application and database are packaged into a single zip file. The zip file contains:

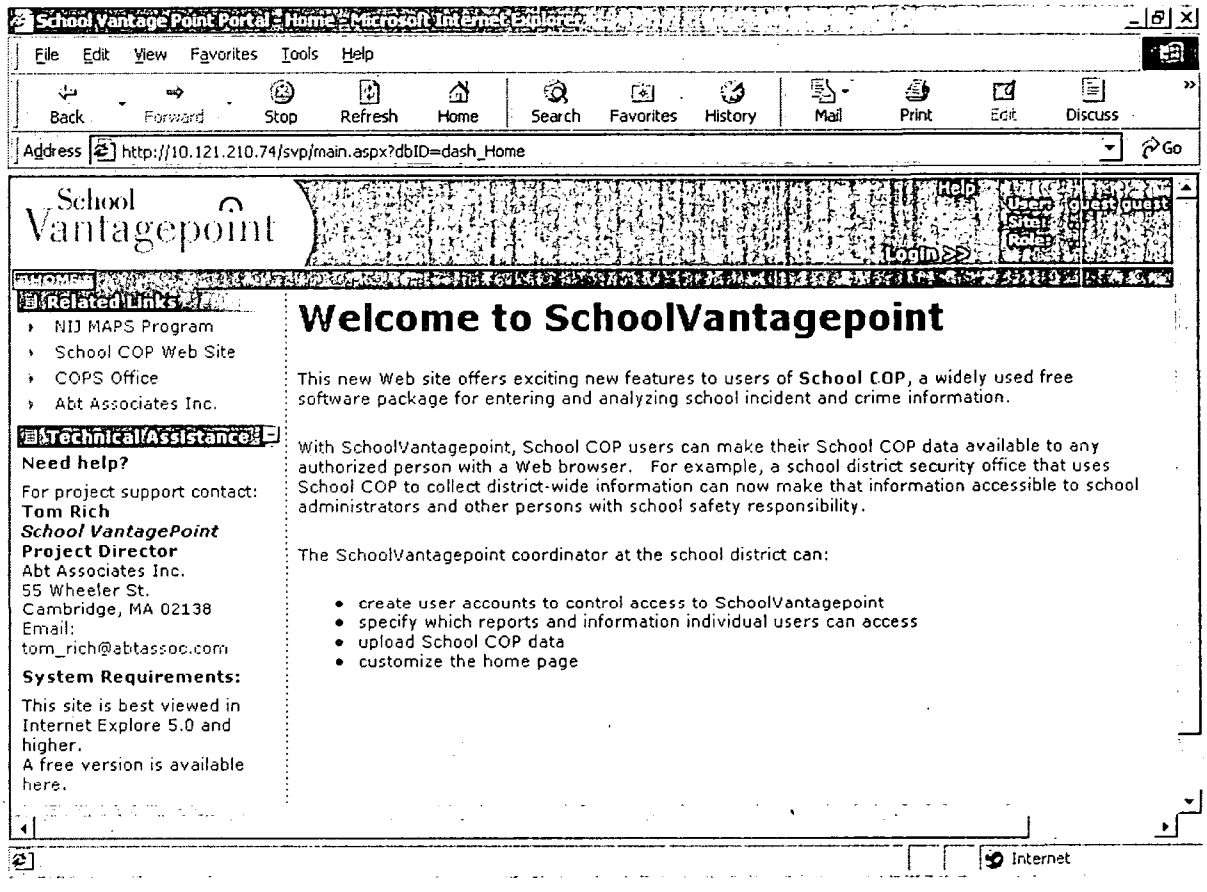
- Web *School COP* source code
- The compiled Web application
- Scripts for creating the database

Copy the Web Application subdirectory of the zip file to your Server, and rename the directory, as appropriate. Then use the Internet Information Server management console to configure the directory as a Web application.

[9] tom_rich@abtassoc.com.

Exhibit A.21 below shows Web *School COP*'s home page created for the demo application.[10]

Exhibit A.21: Web *School COP* Home Page

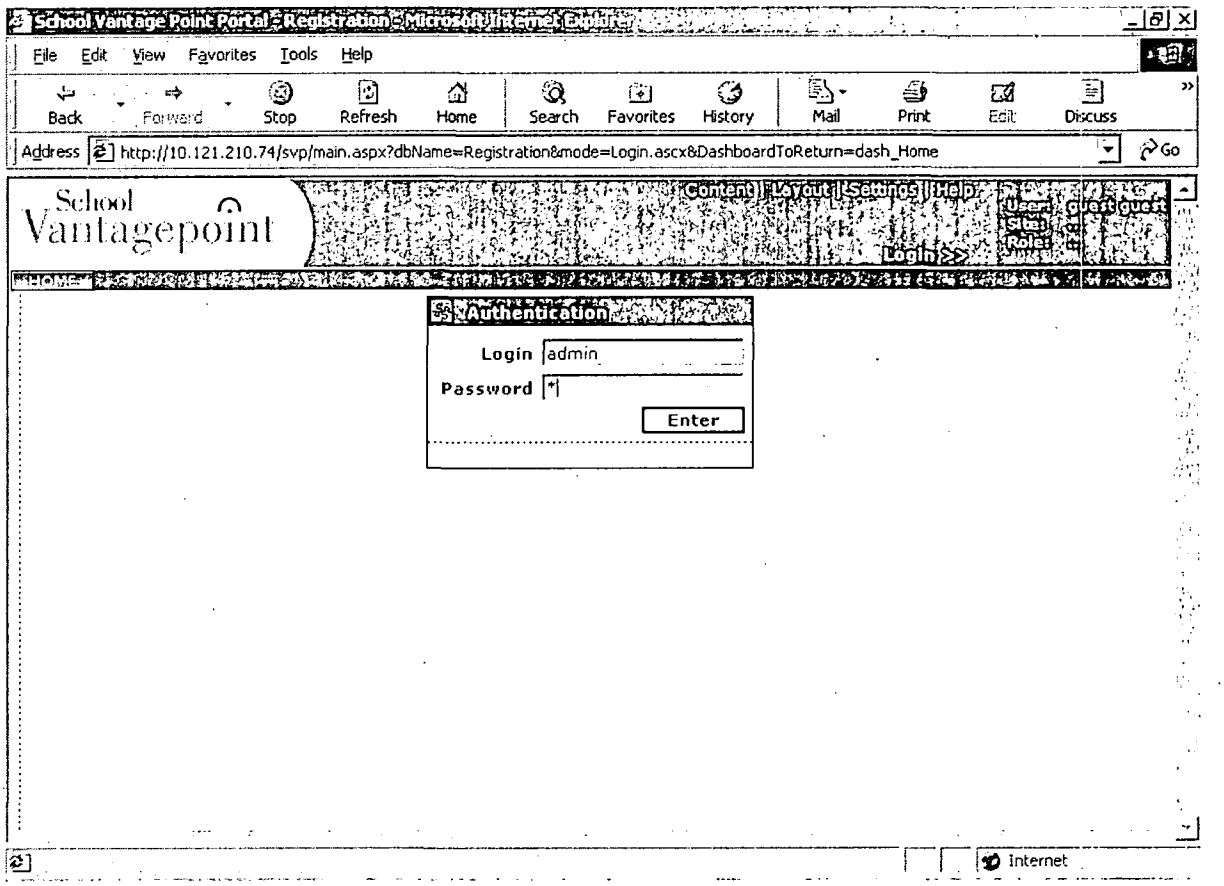


As discussed below, the site's system administrator can easily modify any of the text on the Home Page – for example, change the "Welcome to SchoolVantagepoint" to "Welcome to Anytown's School Safety System". The system administrator can also change the list of Web links section in the upper left corner.

[10] SchoolVantagepoint is a name project staff used for a demo version of Web *School COP*. Sites using Web *School COP* would select their own names (and modify the Web page headers accordingly).

To login to the system, the user clicks the "Login >>" link in the upper right part of the Home Page. A login dialog box then appears:

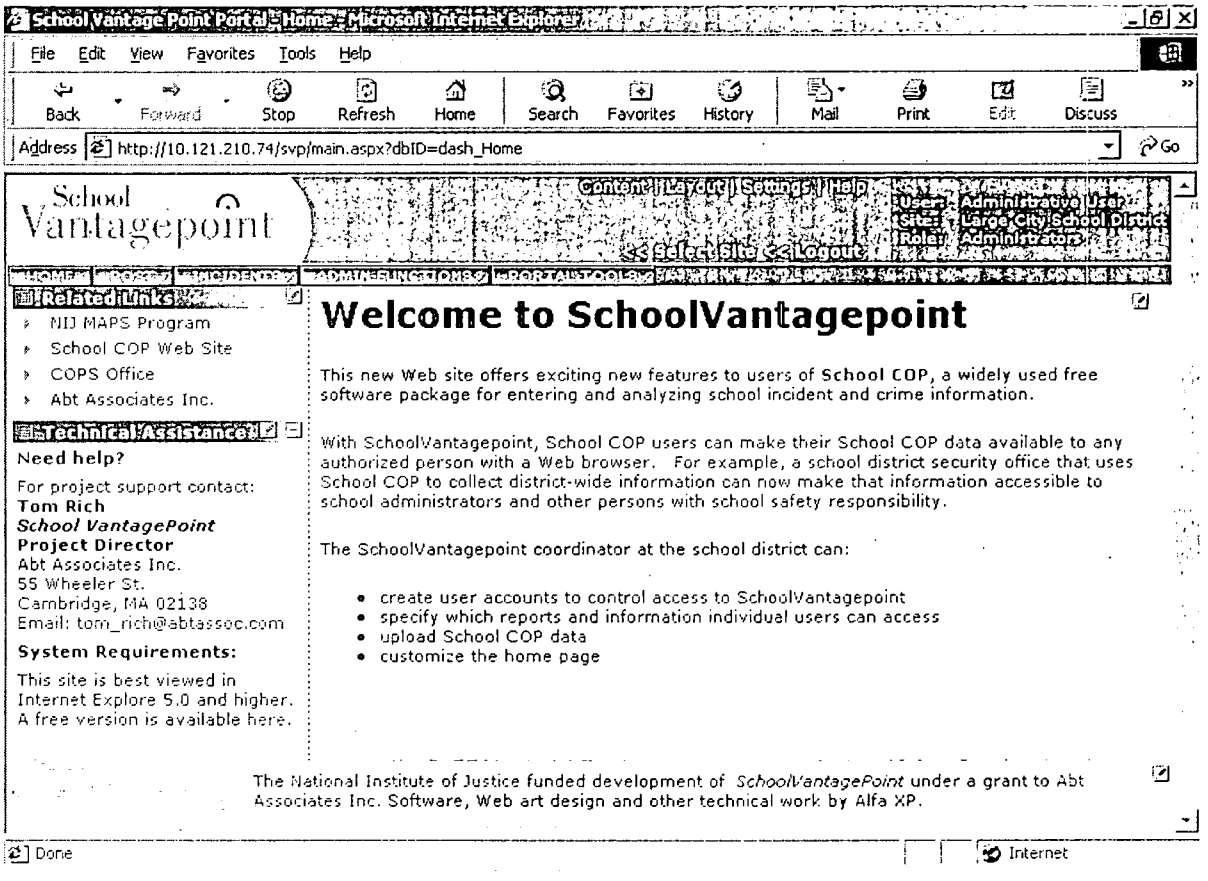
Exhibit A.22: Web *School COP* Login



What appears after a successful login depends on the access privileges granted by the site's system administrator to the person logging in. In Exhibit A.22, the system administrator is logging in; the Web page then displayed is shown in Exhibit A.23. Notice some important changes between the Home Page (Exhibit A.21) and the Home Page after the system administrator logs in (Exhibit A.23):

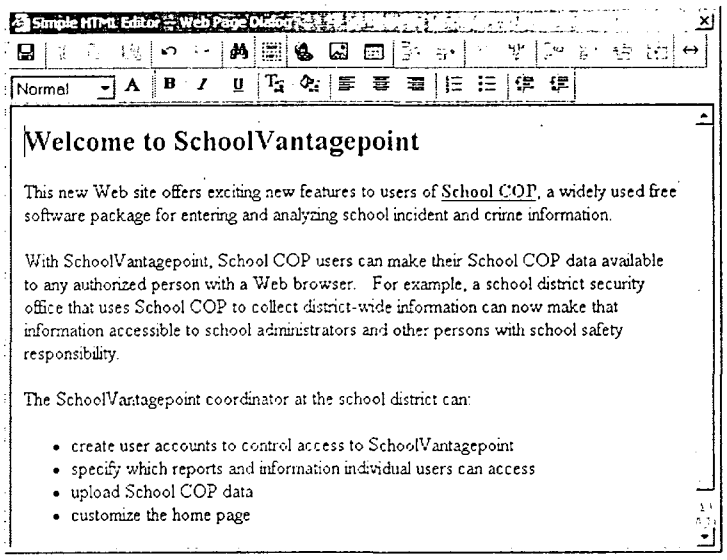
- Additional menu bars – Post, Incidents, Admin Functions, and Portal Tools – appear on the Page that give the system administrator access to a variety of functions.
- The User, Site, and Role in the upper right corner of the screen have been filled in.
- Three panels on the Page – Related Links, Technical Assistance, and the main panel (where "Welcome to SchoolVantagepoint" appears) – have small pencil icons in the upper right corner of the panels, which signifies that the panel can now be edited (see below).

Exhibit A.23: Home Page After System Administrator Logs In



Clicking the main panel's pencil icon displays a text editing screen (see Exhibit A.24) that can be used to change the content of the main panel.

Exhibit A.24: Edit for Changing the Content of the Home Page

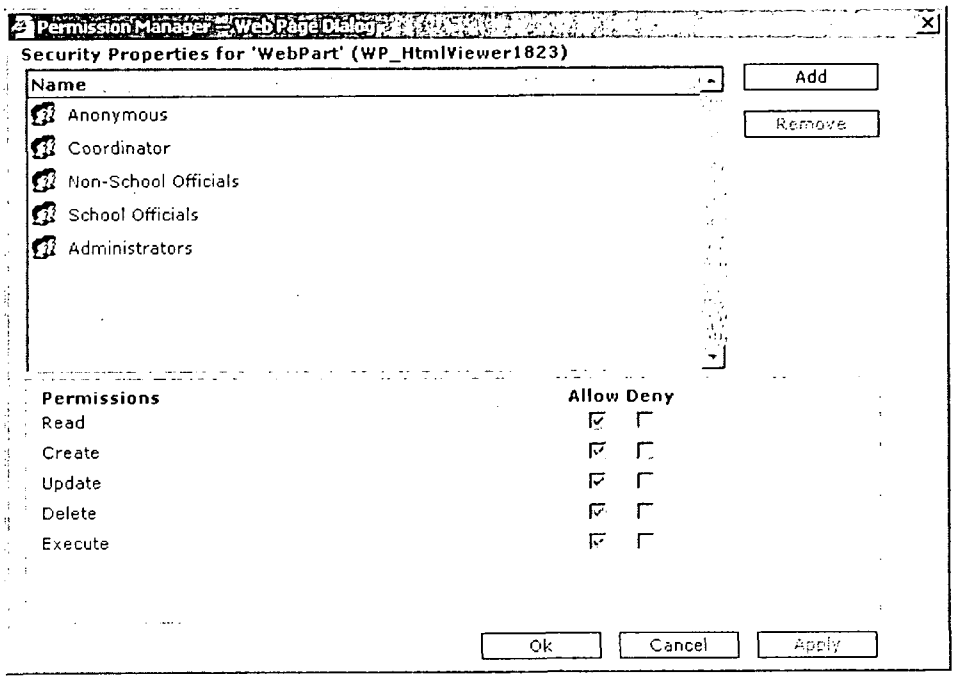


As shown in Exhibit A.24, the system administrator has access to a full array of editing tools, so that place text, graphics, hyperlinks, tables, and other objects can be placed on the Home Page.

Exhibits A.25 and A.26 show why the system administrator can edit the Home Page, but other users cannot. These exhibits illustrate Web *School COP*'s "Permission Manager".

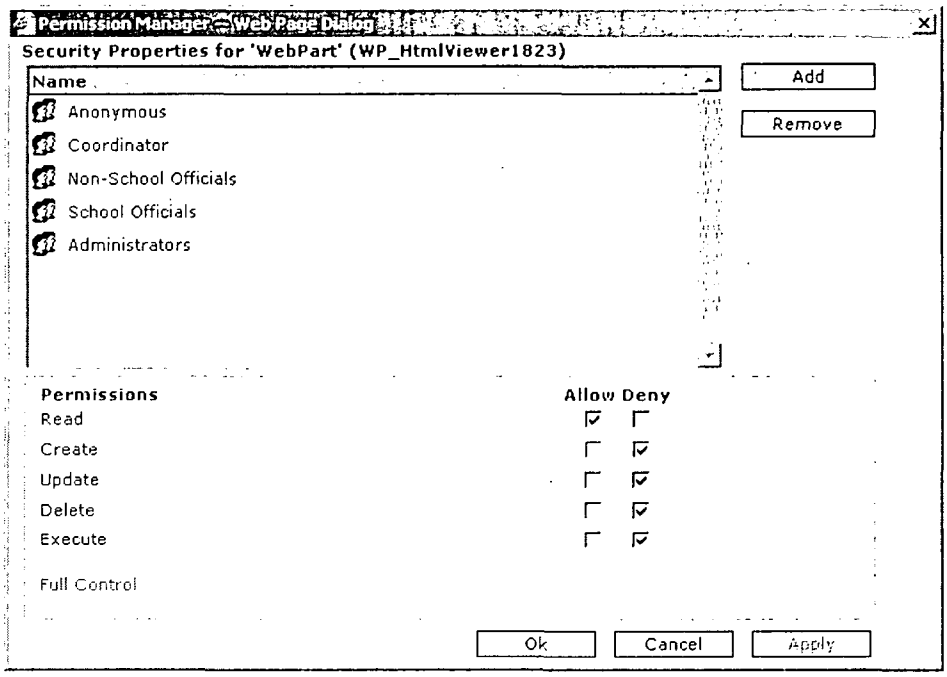
Clicking the Portal Tools menu on the Home Page (see Exhibit A.23) provides access to the Permission Manager. Exhibit A.25 shows the current permission settings for the main panel on the Home Page for the system administrator. Note that "Allow" is checked for all the different types of permissions.

Exhibit A.25: System Administrator Permissions for the Main Panel on the Home Page



By contrast, Exhibit A.26 shows the current permission settings for the Coordinator: users with this assigned role can "read" the main panel on the Home Page (i.e., they can see it), but they cannot change it.

Exhibit A.26: Coordinator Permissions for the Main Panel on the Home Page



In general, the Permission Manager is used to control access to any object within Web *School COP*, including panels on the Home Page, menu bars, and individual reports and graphs.

As shown in Exhibit A.26, five "roles" were created for the demo version of Web *School COP*, which sites implementing the system can retain or create their own (i.e., via the 'Add' button in Exhibit A.26). Every authorized user is assigned one of these roles. Specific rights (i.e., access to Web pages, to reports, etc.) were also created for each role (again, these are modifiable by a site's system administrator):

- The Administrator has complete access to every object on every Web page (e.g., they can edit the content of the Home Page, create a new report, edit an existing report).
- The "Coordinator" role is envisioned for the key school safety person in the district; s/he would be responsible for importing *School COP* data collected with the Windows version of the package and would have access to all reports in the system.
- The "School Officials" role is envisioned for security and administrative staff at the schools; these users may have more limited access to data and reports than the coordinator.

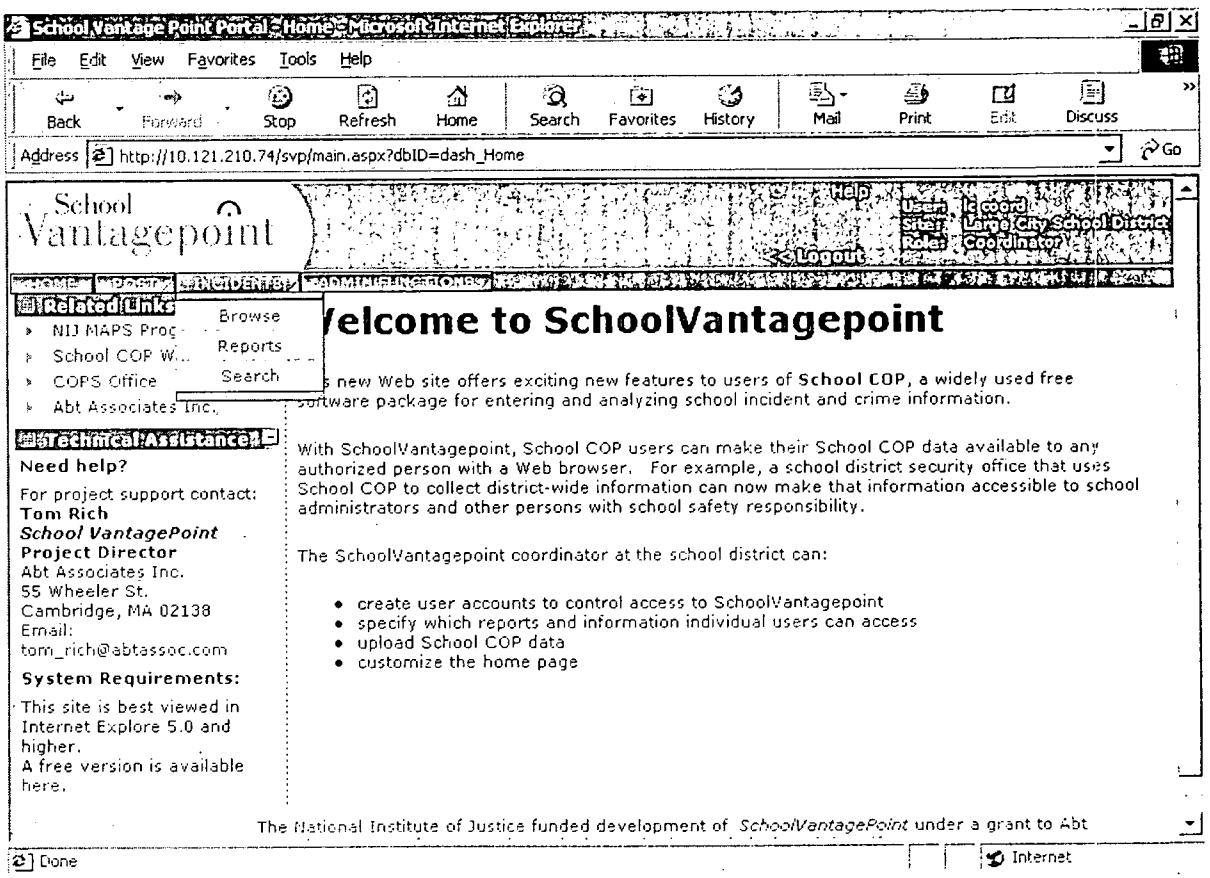
- The "Non-School Officials" role is envisioned for parent groups or staff from other agencies whose access to *School COP* data is severely restricted (e.g., only certain aggregate reports).
- The "anonymous" role is envisioned for the general public – in all likelihood, sites would disable this role.

Data Analysis

Web *School COP* data analysis features are accessible under the Incidents menu bar. Exhibit A.27 shows the Home Page and contents of the Incident menu bar for a user assigned the role "Coordinator."

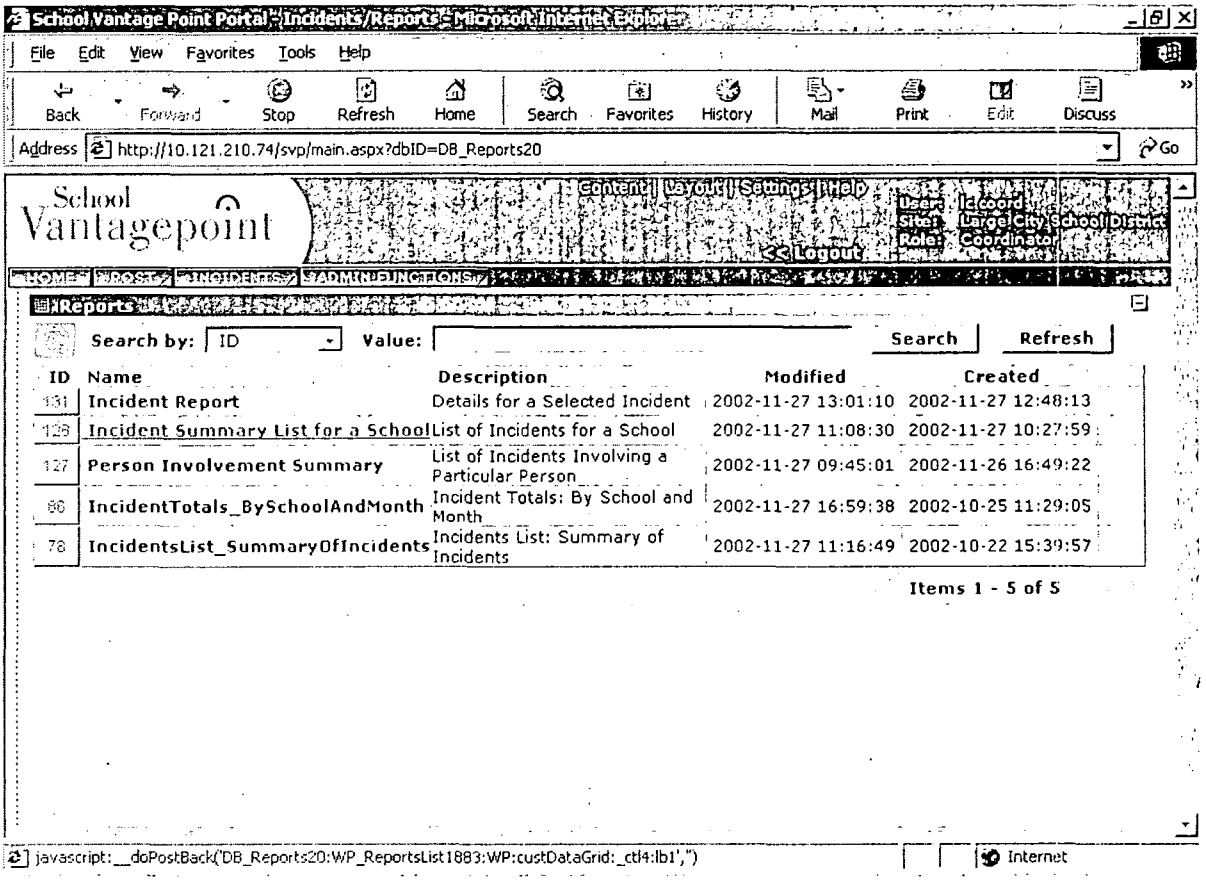
The Browse and Search options provide access to incident level details. In all likelihood, sites would want to restrict this level of detail, so, for example, a user with a "non-school official" role would not have access to either of these options (i.e., when a "non-school official" logged into Web *School COP*, the only command appearing under the Incident menu bar would be 'Reports'). Both screens are similar to the analogous screen in the Windows *School COP* (see Exhibits A.7 and A.10).

Exhibit A.27: Data Analysis Options for Users with Coordinator Role



The Reports screen (see Exhibit A.28) shows the tabular reports and graphs available to the user, which again varies according to permissions set by the system administrator. For example, only one of the five reports shown in Exhibit A.28 – the Incident Totals by School and Month aggregate report – might be made available to non-school officials.

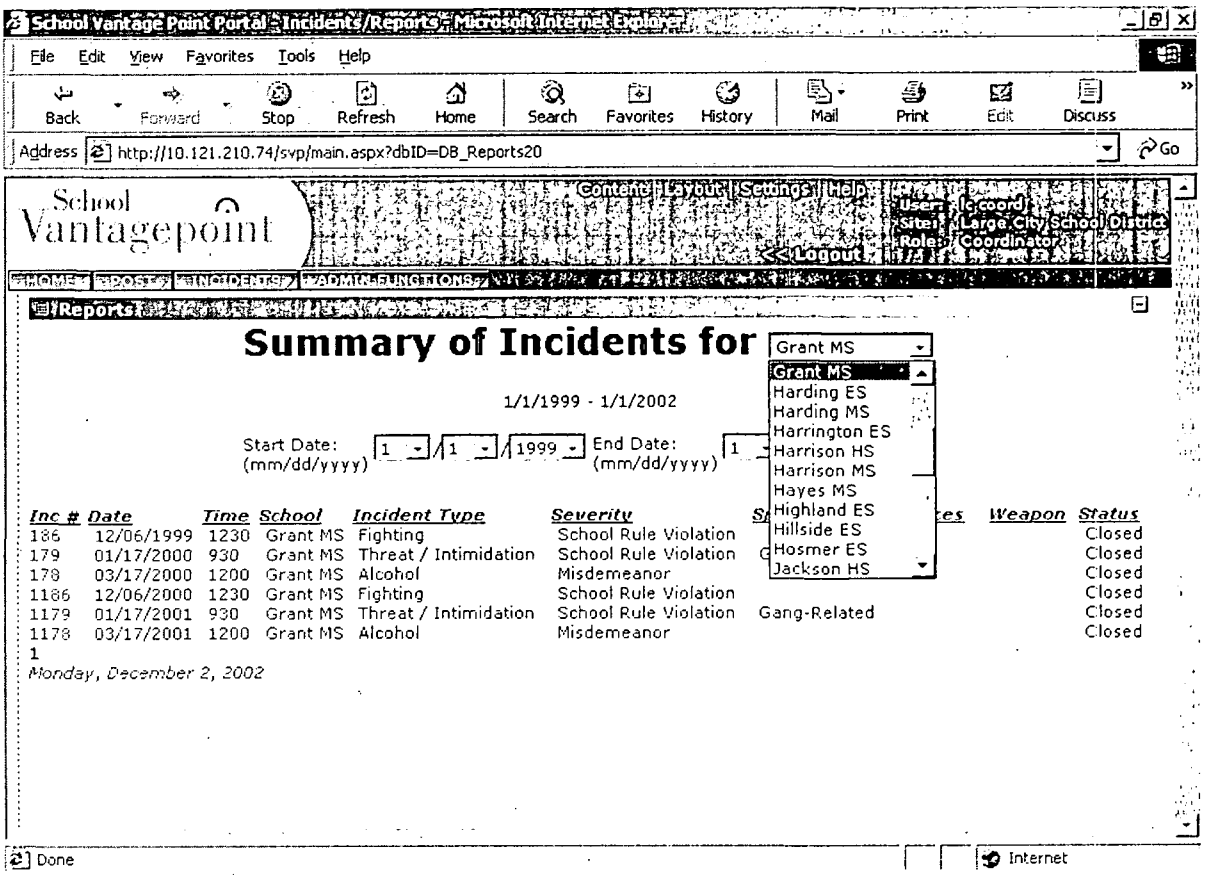
Exhibit A.28: Illustrative Reports Screen



To see the output of a report or graph, the user simply clicks on the name of the report. For example, Exhibit A.29 shows what happens when the user clicks the "Incident Summary List for a School" link shown in Exhibit A.28.

In general, compared to the Windows version of *School COP*, Web *School COP* reports can have far more functionality, including dynamic drop down lists (i.e., the content of the drop down depends on other selections made on the screen). The system administrator can also modify static text on existing reports or insert the site's logo in the report, none of which is possible with the Windows version.

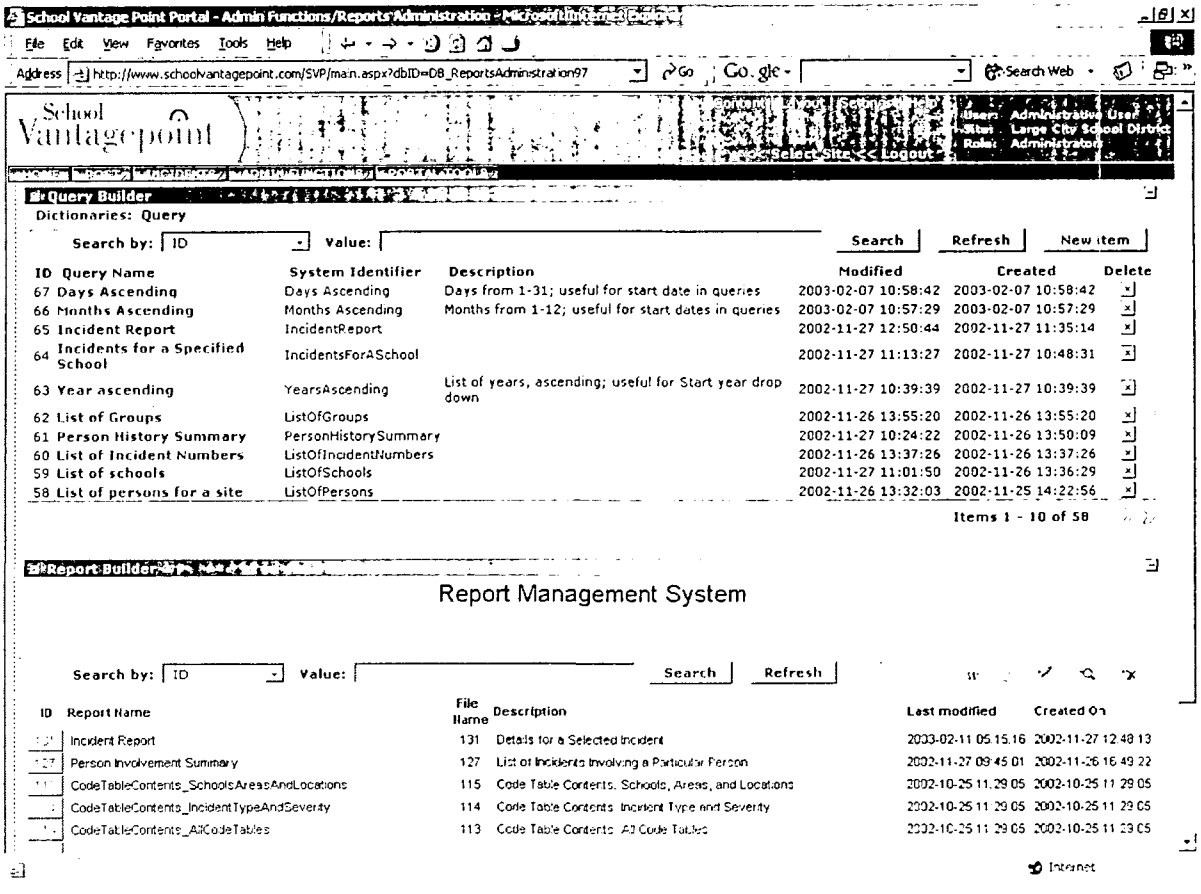
Exhibit A.29 shows a "Summary of Incidents" for a particular school report.



Building Custom Reports

Unlike with the Windows version of *School COP*, system administrators can create their own reports with the Web *School COP* or modify reports that were developed for the demo version. Selecting 'Reports Administration' under the 'Admin Functions' menu bar (again, only accessible to the system administrator) displays both the "Query Builder" and "Reports Administration" page shown in Exhibit A.30.

Exhibit A.30: Query and Reports Builder



Queries and reports can be built in two different ways. For system administrators (and, if desired, users in the "Coordinator" role) that have rudimentary (yet still well beyond the skills of users that only browse the Internet or do word processing) database skills, queries can be built (click the "New Item" button shown in Exhibit A.30).

In addition, Web *School COP* includes a "Report Wizard", shown below in a series of screen shots (Exhibit A.31). To start the Wizard, click the 'W' icon below and to the right of the "Reports Management System" header. As shown below, the Web *School COP* Report Wizard is similar to the chart wizard in Excel.

Exhibit A.31(a): Initial screen of the Report Wizard

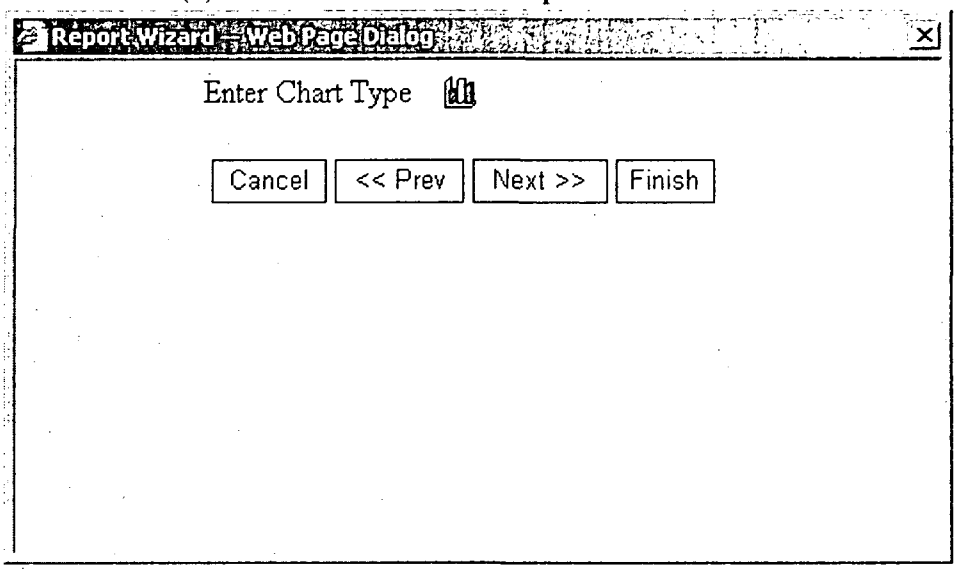
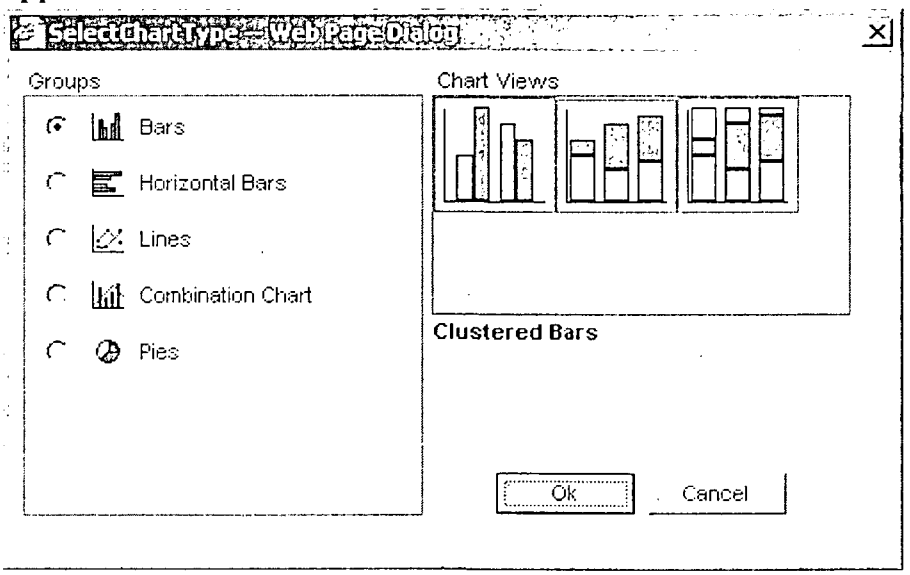


Exhibit A.31(b): When the user clicks "Enter Chart Type", the chart selection screen appears.



Importing *School COP* Databases

Data collected with the Windows version of *School COP* are imported into Web *School COP* via the Incident Import page, accessible via the "Post" menu bar.

Exhibit A.32: Importing Windows *School COP* Databases