



SYSTEMSTATS

North Carolina Criminal Justice Analysis Center

Governor's Crime Commission

Automation and Technology Capabilities Survey: Domestic Violence and Sexual Assault Service Providers

Introduction/Study Rationale

Currently North Carolina lacks a statewide, comprehensive, truly secure, integrated and automated data collection system for domestic violence and sexual assault service agencies. Agency personnel are limited in their ability to collect and share relevant data which if readily available and automated would facilitate more effective and efficient service provision and enable agency staff to compile more reliable and useful data for various reporting functions. In addition, readily available, up to date and accurate administrative and programmatic data can be extremely strong and powerful evidence for funding justifications, promoting legislative change, developing and implementing new public policy and other advocacy related functions.

Consistent and standardized data can also be beneficial for documenting the quality of service provision, demonstrating the impact that these services have had on victims, quantifying and establishing program performance, and presenting a collective, stronger and much more pronounced voice on behalf of victims.

In an effort to address this technology void, a joint partnership between the Z Smith Reynolds Foundation, the North Carolina Coalition Against Domestic Violence, the North Carolina Coalition Against Sexual Assault, the Council for Women & Domestic Violence Commission and the Governor's Crime Commission was formed to study and evaluate the feasibility of creating an automated information system for the service providers. As part of this evaluation, personnel from the state funded domestic violence and sexual assault service agencies were surveyed to assess the current status of their automation and technology capabilities as well as computer related expenditures and current data collection methods.

This SystemStats presents the findings from this assessment with the anticipation that these results will establish baseline measures for further discussion regarding the development and implementation of an automated and integrated statewide data collection system. This information will be considered along with the input of the service providers who will be given the opportunity to discuss various issues such as client confidentiality, costs, network security, as well as system utility, design and content.

Methods

Survey Instrument

A 35 item questionnaire was developed to assess the respondents' automation capabilities and to determine the status of the agencies' current computer systems. Questions were included that addressed any automated systems that are currently being used and their attributes, and if the agency did not have an automated system, what were the reasons for the absence of an electronic data collection system. The number of staff members who have routine access to computers, the Internet and e-mail as well as the number of computers in the agency were also included. Questions related to the age of these computers, current operating systems, Internet connectivity and annual computer related expenditures were included in the survey in order to ascertain the status of the service providers' systems, to determine if these systems were technologically up-to-date and to determine the level of computer compatibility across the divergent agencies. Questions also centered on who is responsible for managing and maintaining an agency's computer system and on user proficiency relative to use of the Internet and staff comfort levels with computers in general.

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The survey was developed using Microsoft Access within a Cold Fusion environment and placed on the Crime Commission's website for the respondents to complete via the Internet. Survey drafts were analyzed and critiqued by numerous individuals from the partnership agencies referenced above with the final Web based version being pilot tested through the Commission's Internet site in order to identify and remove any computer programming errors and to insure that the Access database was being populated correctly and consistently.

Survey Sample

The Executive Directors of every state funded domestic violence and sexual assault service agency (N=92) received a letter outlining the purpose of the survey and how the results would be useful for guiding further discussions relative to developing and implementing a statewide automated system for the service providers. The letter contained the appropriate Internet URL or web address as well as general instructions for completing the survey. Follow-up phone calls were made after the originally specified deadline to bolster return rates which would generate a greater degree of agency representation and consequently provide for increased validity when generalizing the results on a statewide basis.

Results

A total of 59 surveys were completed on-line producing a study response rate of 64.1%. Over one-half of the survey respondents (N=34, 57.6%) reported that their respective agencies currently have electronic data collection systems. The two most prevalent systems that are currently being used are VAMS, or Victims Assistance Management System, with 11, or 32.3%, of the agencies using this product and Microsoft product systems which run on Access or Excel applications. Ten agencies (29.4%) use these Microsoft products while four agencies (11.8%) reported ALICE as their current data management system. The remaining nine

agencies (26.5%) use either products that were developed internally which operate on other software platforms or are using other commercially produced programs such as R-Client, TACT, Therapist Helper or Therascribe. Only one respondent (2.9%) described their current system as being Web based or Internet accessible with the remaining 97.1% of the systems being stand alone or agency specific and non-integrated databases.

The respondents appeared to have mixed feelings about how useful their systems are and on how much they liked or disliked them. Of the 23 survey participants who provided a response in this area ten (43.5%) liked and felt comfortable with their automated data collection systems while four (17.4%) expressed a dislike for their systems. The remaining nine (39.1%) were less emphatic and expressed either neutral feelings or appeared to be simply content with the status of their systems.

Twenty-five respondents (42.4%) noted that their agencies do not have electronic data collection systems. Reasons for this absence overwhelmingly centered on financial issues as most systems were seen as being cost prohibitive. Of the 22 respondents who offered comments 12, or 54.5%, offered this explanation with other comments suggesting a lack of technological capacity or resources, a history of simply not considering the need for such a system and an inability to find a program that meets all of the agency's data management and reporting requirements or needs. One respondent noted their own philosophical position, and the desire to maintain client confidentiality, precluded their agency from implementing and supporting the use of an electronic data collection system.

The number of both PCs and laptops per agency ranged from two to 105 with the typical service agency possessing 10 computers and laptops (M=9.9). A total of 588 computers and laptops were reported to be operational within the 59 service agencies¹.

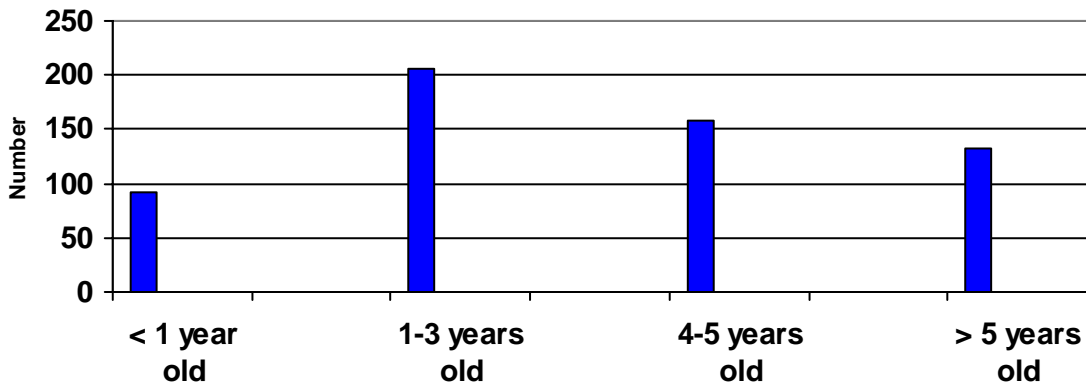
¹ For the remainder of this paper the term computer will denote both PCs and laptops.

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As Figure 1 depicts the greatest number of the agencies' computers are between one to three years old (N=206, 35%) followed by computers between four and five years old (N=159, 27.1%). Slightly more than 22 percent of the computers were reported to be greater than five years old (N=132, 22.4%) with the lowest number of computers being extremely new or less than one year old (N=91, 15.5%).

On the average each service agency has 3.5 computers that are between one to three years old, 2.7 computers that are four to five years old, 2.2 computers that are older than five years and 1.5 computers that are less than a year old.

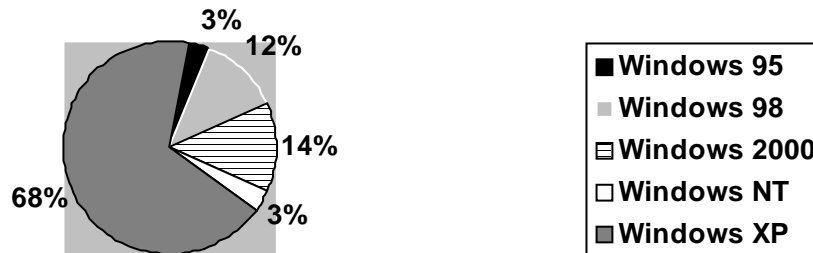
Figure 1 Relative Age of DV/SA Agency Computers



The most frequently reported monitor size was 15 inches with 30, or 50.8%, of the agencies reporting that most of their computer monitors were this size. Slightly less than one-fourth of the respondents stated that most of the monitors in their agencies were 17 inches in size (N=23, 39%) with only two, or 3.4%, reporting larger monitors of 19 inches. Four, or 6.8%, of the respondents were not sure of their monitor sizes.

Figure 2 (page 4) presents the frequency distribution of the computer operating systems which are currently being used in the respondents' respective organizations.

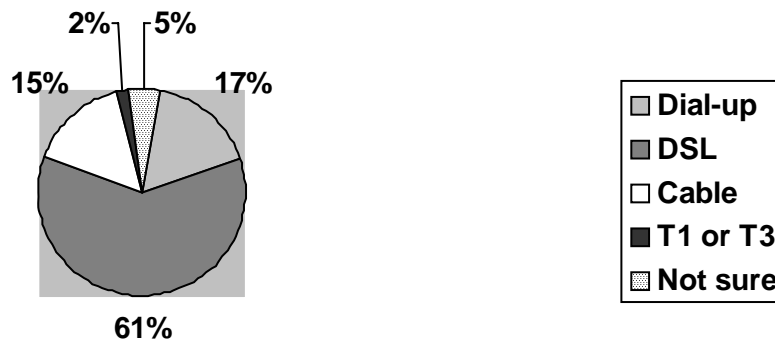
Figure 2 Agency Operating Systems



As part of the on-line questionnaire the respondents were asked if **all** of the computers in their agency have Internet access. The majority of the respondents noted that every computer in their agency has Internet connectivity (N=39, 66.1%). The remaining 20 respondents (33.9%) stated that their organizations' respective computer systems

were not 100 percent Internet enabled. These 20 agencies reported a total of 202 computers of which 121 do have Internet capabilities thus the remaining 81 computers are not Internet enabled. Consequently, the majority of the combined 588 computers which were included in the study are Internet ready or enabled with 86.2% of the computers having Internet capabilities.

Figure 3 Agency Internet Connection



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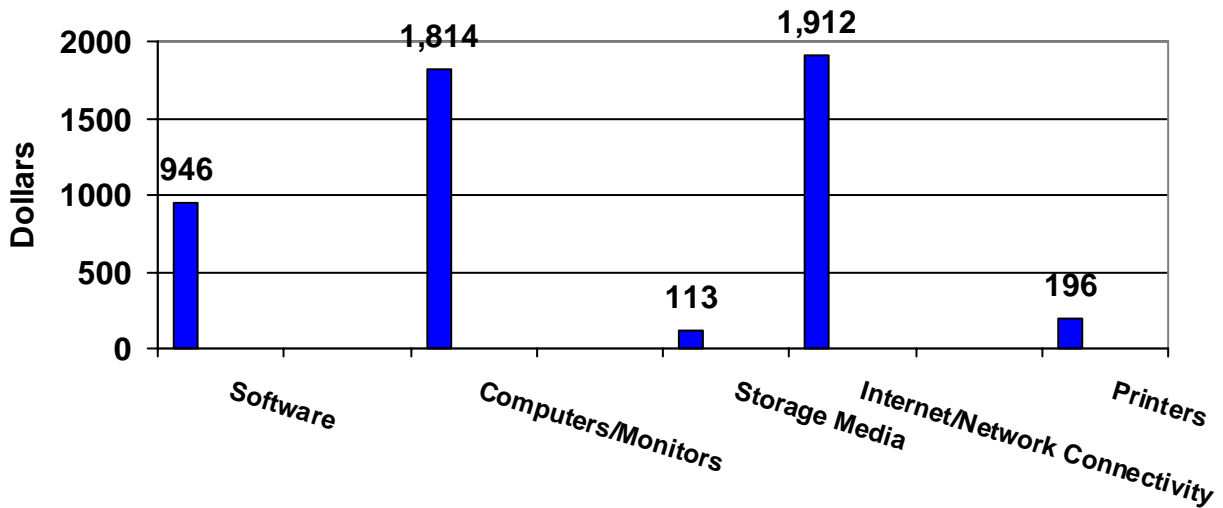
The most prevalent Internet connection type was DSL with 36 agencies (61%) having this configuration followed by dial-up (N=10, 16.9%) and cable (N=9, 15.3%). One agency (1.7%) had a T1 or T3 line while the remaining three (5.1%) respondents were not sure of their connectivity status (refer to Figure 3 page 4).

A plethora of Internet Service Providers (ISPs) were reported with many being local or regionalized providers. The most frequently reported ISPs were Time Warner (N=8, 14.3%), Bell South (N=7, 12.5%), Sprint (N=6, 10.7%), Earthlink (N=4, 7.1%) and Verizon (N=3, 5.4%). Internet Explorer was the most popular Web browser with 51, or 86.4%, of the respondents reporting the use of this software. One respondent (1.7%) used Netscape while the remaining seven (11.9%) respondents were either unsure or used another browser type.

Managing the agencies' computers and network systems is equally likely to be accomplished by an outside consultant (N=22, 37.3%) or by computer savvy staff (N=22, 37.3%). In-house computer or IT managers were only reported to be present in eight agencies (13.6%) with seven (11.8%) of the respondents suggesting that no one manages their systems.

When computer problems arise nearly half of the respondents noted that their agencies call in technical professionals (N=29, 49.2%) while 18, or 30.5%, rely on computer competent staff. Seven agencies rely on internal IT managers (11.9%) with the remaining five respondents either relying on no one or not being able to respond to the question (8.4%).

Figure 4 Average Annual Computer-related Expenditures



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As Figure 4 (page5) depicts computer related expenditures also varied considerably with annual software costs running from zero to a study high of \$38,776. The average service agency spends \$946 per year on software. Annual expenditures for computers and monitors ranged from zero to \$38,748 with the agency average being \$1,814 annually. Expenditures for storage media, such as disks, CDs, backup tapes etc. ranged from zero to \$1,000 with the study average being \$113. Costs for Internet and network connectivity ranged from zero to \$38,717 with the typical agency expending \$1,912 per year for this service. Printer expenditures ranged from zero to \$1,000 with the average annual expenditure being \$196 per service agency.

The number of staff members working in the 59 service agencies ranged from two to 126 with the average service agency having 12.7 staff members. A total of 749 staff members were reported by the respondents. A total of 435 full-time staff members were reported to have regular and routine access to a computer with this number ranging from one to 72 across the service agencies. The typical agency has 7.4 full-time staff members who have regular and routine access.

A total of 159 part-time workers have regular and routine access to a computer with the number of part-time employees, with this access, ranging from one to 12. The typical agency has 2.7 part-time employees with regular and routine access. Combined, 594 staff members, or 79.3%, have regular and routine access to a computer. Fewer staff members have regular and routine access to e-mail with a total of 504 individuals, or 67.3% of the total 749 staff members, having this e-mail access. An average of 8.5 staff members have regular and routine e-mail access per service agency.

Staff competency levels with computers in general and with their abilities to successfully use the Internet were described in a positive manner with 47, or 79.7%, of the respondents suggesting that staff are comfortable and confident when it comes to using computers. Eight, or 13.6%, described their staff as being not very comfortable with computers while a slightly lower number stated that their respective staff members were excellent with computers (N=4, 6.8%).

Internet familiarity was similar with 33 respondents (55.9%) suggesting that staff were very comfortable using the Internet while 25 survey participants (42.4%) stated that staff possessed an average level of comfort when using the Internet.

Discussion

Over one-half of the responding service agencies currently have electronic data collection systems and the majority of the respondents were either comfortable or at least neutral with regards to their perceptions of these systems. Agencies without automated systems expressed concerns over the associated costs and technology requirements for establishing automation efforts. Agency computers appear to be approaching obsolescence with nearly 50 % being at least four years old. Numerous respondents expressed concerns over the difficulty in obtaining newer computers and staying up-to-date from a technology standpoint. Despite possessing relatively older computers most agencies do appear to be technological current with respect to their operating systems, Internet availability and Internet connectivity capabilities; however 16.9% still rely on dial-up services. While most staff do have regular and routine access to computers and e-mail, and are comfortable and confident with their computer and Internet skills, technical assistance, training and troubleshooting issues should be paramount when developing a statewide automated system. A user-friendly and simple system would be advantageous as most agencies currently rely on either outside consultants or computer savvy staff for their technical assistance needs. Costs, both start-up and yearly maintenance, may be problematic for many agencies as the average software expenditures were less than \$1,000 with the average service agency spending less than \$2,000 per year for computers/monitors and roughly the same for Internet and network capabilities.

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Prior SystemStats and reports include:	Recruitment and Retention of Sworn Police Personnel (SystemStats)
Basic Domestic Violence/Sexual Assault Service Provision: A Statewide Statistical Profile	Juvenile Day Treatment Centers - Strategies and Effective Practices
Law Enforcement Tools for Latino Communities	Recruitment and Retention of Telecommunications Offices(SystemStats)
Dispositional Outcomes of Domestic Violence Exparte and Domestic Violence Protective Orders (SystemStats)	Evaluating North Carolina's Statewide Automated Victim Assistance and Notification (SAVAN) System
Domestic Violence Shelters and Minorities	Domestic Violence: Dispositional Outcomes of Protective Orders in the Courts
North Carolina Citizens' Perceptions of Crime and Victimization (SystemStats)	Technology on Patrol: An Evaluation of Mobile Data Computers in Law Enforcement Vehicles (SystemStats)
Methamphetamine Fact Sheet (SystemStats)	



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The Governor's Crime Commission was established in 1977 by the North Carolina General Assembly under G.S. 143B-479. Its primary duty is "to be the chief advisory body to the Governor and the Secretary of the Department of Crime Control and Public Safety for the development and implementation of criminal justice policy." The Crime Commission is always open to comments and suggestions from the general public as well as criminal justice officials. Please contact us and let us know your thoughts and feelings on the information contained in this publication or on any other criminal justice issue of concern to you.

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