

WHERE TO SET THE BAR: DETERMINING APPROPRIATE LEVELS OF PUBLIC SAFETY STAFFING MHA BI-DIMENSIONAL STAFFING FORMULA[™]

Determining appropriate staffing levels is a widespread challenge for university administrators and Campus Public Safety Departments. Difficult economic times have made the situation worse, as fewer resources result in difficult allocation decisions. But even when resources are plentiful, the challenge remains.

Most public safety organizations base their staffing decisions on a ratio of officers to population, the “simplest and least appropriate” method according to the International Association of Chiefs of Police.¹ But the unreliability of benchmarking and difficulties of workload analysis make even those efforts uneven.

Another approach is suggested by John Schuiteman: “Adequate police protection, like beauty, lies in the eyes of the beholder. The optimal or appropriate ratio of troopers (or officers) to population, or traffic volume, reported crimes or accidents, etc., is not a matter of mathematics or statistics. It is a matter of human judgment and community resources.”

Margolis Healy and Associates argues that instead it is a combination of the three: mathematics, human judgment, and resources. Denying the quantitative knowledge found in historical data regarding shift activity results in staffing decisions based on an incomplete picture, just as relying solely on a computer program such as the PAM (Personnel Allocation Model) fails to take into account human judgment. We developed two analyses that together provide an in-depth, accurate description of staffing needs for individual institutions: a Space Analysis (Space FTE Method) based on five factors that include the institution’s gross square footage and buildings; and a Shift Activity Analysis (also known as a workload analysis) based on shift activity levels, deployment philosophy, and human resource practices. The process is known as the MHA Bi-Dimensional Staffing Formula[™] (MHA – BDSF).

To collect data and account for variables, we conduct site visits (when necessary), interview key personnel, and review documents (including but not limited to briefing logs, annual security reports, budget documentation, campus planning documents, daily activity summary reports, dispatch schedule and staffing roster, organizational charts, yearly statistics, patrol zone documentation, position descriptions and staffing information, and written directives and policies). Beyond the base numbers created from the BDSF analysis, the institution must weigh political and other factors to determine the specific mix of public safety staffing (e.g., sworn, non-sworn, contract security, proprietary security, dispatch) ideally suited to meet its public safety needs 24/7/365. This comprehensive approach results in staffing recommendations based on realistic current and future needs.

¹Allocating State Troopers: The Virginia Experience. The Police Chief 41; July, 1985. Cited in Allegan County Sherriff’s Office Law Enforcement Project: Staff Study. (2009). Retrieved from <http://www.allegancounty.org/attachments/calendar2009/board/ps/9-3-09/D2%20-%20LawEnforcementTeam.pdf>

SPACE ANALYSIS

Our “space method” uses a combination of five factors that work together to describe a campus in terms of its public safety needs:

1. PUBLIC SAFETY READINESS LEVEL

This scale is based on square footage and type of space, as the public safety needs of academic, research, administrative and residential facilities differ significantly. Building off of APPA’s work projecting space needs for maintenance and custodial staffing,² we assign a number of public safety staff per one million square feet of space, dependent on the kind of space, and the chosen public safety level (as described by the Public Safety Matrix—see below). Current and future staffing needs must take into account the overall goal for public safety, aligning workload capacity with expectation. When the two are out of alignment (in other words when expectation exceeds capacity), a host of detrimental issues occur, both in terms of staffing (high turnover, stress, excessive overtime, etc), and in terms of satisfaction with the performance of the public safety department.

Public Safety Matrix

We developed the Public Safety Matrix (PSM) to help university administrators and public safety leaders identify and describe the desired levels of public safety services and their impact on the safety and security of the campus. It assists in aligning the expectations of both groups.

The matrix has five levels, with a general description of the essential characteristics expected to measure the effectiveness of campus safety and security at each level.

LEVEL 1 (FULL SERVICE):

- Tightly coordinated and organized
- Well developed written directive system
- Highly trained, professional staff
- Fully developed proactive and reactive services
- High customer satisfaction
- Healthy and/or optimal budgets based on historical data and reasonable/anticipated needs

LEVEL 2 (COMPREHENSIVE STEWARDSHIP):

- Coordinated and organized
- Developed written directive system
- Well trained, professional staff
- Reasonable balance of proactive and reactive services
- Good customer satisfaction
- Reasonable budgets based on historical data and reasonable/ anticipated needs

²Operational Guidelines for Educational Facilities: Custodial, Grounds, and Maintenance. Alan S. Bigger, Editor-in-Chief (APPA, 2011).

LEVEL 3 (MANAGED CARE):

- Coordinated and organized primarily around reactive services
- Adequate but not fully developed written directive system
- Basically trained, professional staff
- More focused on reactive services; proactive services as resources allow
- Decent customer satisfaction, with some struggles
- Strained budgets

LEVEL 4 (REACTIVE SERVICES):

- Coordinated and organized solely on reactive services
- Poorly developed and implemented written directive system
- Minimally trained staff
- Focused on reactive services
- Poor customer satisfaction in some areas
- Limiting budgets

LEVEL 5 (RESPONSE ONLY):

- Reactive services only
- Lacking written directive system
- Inadequately trained staff
- Poor customer satisfaction
- Inadequate budgets

2. CALL VOLUME

Public safety staffing numbers are influenced, in part, by activity level. To account for this influence, we established this factor that makes assumptions about the amount of time and attention an average call for service may require. The call volume factor does not take into account officer initiated activities, but instead focuses on calls coming into the public safety organization by the greater campus community. They may include reported crime; service needs; lost and found; etc. Based on our professional experiences as campus public safety administrators and the significant number of staffing assessments we've conducted for institutions throughout the United States and Canada, we assume that a public safety officer would be out of service (e.g., unavailable for other calls) for approximately 30 minutes (travel time, activity, clearance back into service) on a reasonable call for service. This time frame may be adjusted for a particular university or college by data provided by the campus public safety agency.

3. NUMBER OF FUNDAMENTALLY DIFFERENT TYPES OF BUILDINGS

Different types of buildings have different safety and security needs, so the greater the diversity of buildings on a campus the greater the impact on the public safety organization. This isn't to say that the sheer number of buildings itself won't create challenges, but this is accounted for in a different factor (see below). Numerous buildings of varying functions (e.g., research, academic, administrative and residential), each with specific demands, can pull or push the public safety organization into many different requirements, regardless of the size of the institution. This

factor does not discriminate between on-campus and off-campus buildings and spaces, as long as they fall under the purview of the public safety organization's span of control.

4. TOTAL CAMPUS AREA

The size of the campus has a profound impact on the public safety services of the institution. Moving through acres of corridors and across miles of roads takes time, and therefore affects response.

5. CAMPUS MISSION

A variable often missing from consideration of staffing is the mission of an institution, which has an impact on its usage, community draw, and level of complexity for public safety services. We may expect, for example, seminaries and theological institutions to have a subdued overall activity level beyond the focus of its needs; size; and nature of its population. On the other extreme, community colleges are often open, busy, and vulnerable to a host of safety and security issues given the size of the population and other factors.

SHIFT ACTIVITY ANALYSIS

Four factors are used to create a comprehensive view of current shift activity and to project the number of patrol staff required to meet the need as calculated by the workload analysis.

1. STAFFING FORMULA

This formula takes into account the number of hours required for public safety coverage by including the number of hours in a year for one position less the lost time element (e.g., the allotted vacation time, sick time available, compensatory time off, holiday time, and training and development needs). If we assume that there are 8,736 hours in a given year (24 hours X 7 days/week X 52 weeks), then a 40-hour work week equates to 2,080 hours/year less 360 hours of time away from work (e.g., leave, vacation, medical, etc). This leaves 1,720 hours of time available from one public safety officer (sworn or non-sworn). Dividing the number of hours of available time/person (1,720) into the total number of hours required of coverage (8,736 and absent other mitigating factors to be discussed next), we arrive at a staffing factor of 5.08. This figure translates into the following: to have a 1 person equivalent available 24/7 in the on-campus schedule requires 5.08 people in the staffing roster.

2. CALL FOR SERVICE ANALYSIS

For the purposes of this analysis and based on experience and national discussions, we assume that the average time on a call for service is 30 minutes; this number is adjusted based on the data from a particular campus public safety agency. This number does not include officer initiated activities. We use campus public safety department records to determine averages of calls per shift; and time spent on calls for services, writing reports, and traveling to and from calls.

3. BUILDING SECURITY ACTIVITIES

The watch-guard services of a campus public safety organization require public safety officers to tend to the physical security needs of the buildings and spaces on campus. Locking, unlocking and conducting building checks requires significant time allocation during a shift, and varies between shifts and the extent of the deployment of security technology (e.g., access control, perimeter alarms, security cameras). Day and evening shifts may require fewer building checks, while midnights more, and depending on the type of building (academic, research, administrative, residential).

4. PROACTIVE/DIRECTED PATROL ACTIVITIES

This calculation factors in the amount of time assigned per shift to duties that are not reactive in nature. These are officer-initiated activities, crime prevention efforts, and general community policing activities.

PROJECTED STAFFING NUMBERS

By combining the Space Analysis with the Shift Activity Analysis through the MHA Bi-Dimensional Staffing Formula™, we can calculate current and projected public safety staffing needs for the desired level of public safety as indicated by the PSM. We can also determine the appropriate mix of sworn law enforcement, non-sworn security, and outsourced security guards. In short, we are able to map the size and complexity of the physical plant against the call volume of public safety demands to arrive at a well thought out staffing strategy. These calculations may be further refined through consideration of additional factors (such as technology that can decrease time spent on various activities) as necessary.

ABOUT US

Margolis Healy is a professional services firm specializing in campus safety, security, and regulatory compliance for higher education and K-12. We provide our clients with a variety of specialized services that include, but are not limited to, campus safety and security assessments, Title IX and Clery Act assessments; emergency management risk and hazard assessments; emergency preparedness and crisis response systems and exercises; implementation of lethal and less-than-lethal force options; litigation consultation; and special investigations/independent reviews. Our team of professionals brings a diverse set of skills and expertise to client institutions ranging from large public universities to private institutions, community colleges and K-12 private and public school districts.

Dr. Gary J. Margolis and Mr. Steven J. Healy founded Margolis Healy in January 2008 when they merged their practices, Margolis & Associates, LLC and Strategic Security Consulting, LLC, into Margolis Healy & Associates, LLC. With more than fifteen years each of providing consulting services to clients in the education, public and private sectors, their combined experience quickly earned Margolis Healy recognition as one of the leading professional services firms for safety and security needs in North America.

The Margolis Healy team has personally managed or been intimately involved with numerous high profile higher education cases. These cases include Clery Act and Title IX compliance issues at institutions such as Penn State or critical incidents on college campuses ranging from violent crimes at universities such as Virginia Tech to natural disasters (including the 9/11 tragedy and its impact on the schools in NYC). We have first-hand experience in strategic security planning, crisis response and recovery planning and campus public safety management at institutions of higher education. Dr. Margolis was contracted to review the Federal Emergency Management Department's Incident Action Guides to assure their relevancy to the higher education environment. Shortly after the tragic mass shooting incident at Virginia Tech in 2007, the U.S. Department of Education Office of Safe and Drug-Free Schools asked Mr. Healy to participate in the development of the first ever emergency management guide for higher education. That document, Action Guide for Emergency Management at Institutions of Higher Education, is considered an essential playbook for campuses developing or refining their emergency management programs. In addition, Mr. Healy and Dr. Margolis are the lead authors of the International Association of Campus Law Enforcement Administrator's Blueprint for Safer Campuses: An Overview of the Virginia Tech Tragedy and Implications for Campus Safety. This document, unveiled at a press conference sponsored by the Woodrow Wilson School of Public and International Affairs at Princeton University, is a roadmap for campus safety and security. Margolis Healy also manages competitive grants from the U.S. Department of Justice (Community Oriented Policing Services Office and Bureau of Justice Assistance) on topics ranging from behavioral threat assessment to crime prevention and study abroad safety.

Mr. Healy and Dr. Margolis have worked tirelessly to assemble the best and brightest in the campus safety and security, and regulatory compliance fields in order to provide Margolis Healy clients with outstanding service. The high-level of professionalism and breadth of experience each member of the Margolis Healy team has is second to none and allows us to provide each of our clients, no matter how difficult or challenging their case may be, with personalized attention and, most importantly, high-quality work.

Dr. Gary J. Margolis

Dr. Gary J. Margolis is a managing partner and co-founder of Margolis Healy with more than 20 years of distinguished experience in public safety and over a decade in higher education. Under his leadership as Chief of Police at the University of Vermont from 1998 - 2009, UVM Police Services became a three-time internationally accredited police agency through the Commission on Accreditation for Law Enforcement Agencies (CALEA). He has also served as a police executive, police academy administrator, police officer and deputy sheriff.

A highly-respected and sought after consultant, speaker, educator, and trainer, Dr. Margolis addresses a variety of K-12 and higher education safety and security issues including crises response and communications; security technology application; emergency response and recovery planning; and preventing sexual and gender violence on campuses. He is often called upon by the US Departments of Justice, Education and Homeland Security as a campus security expert and has testified before the United States Senate Committee on the Judiciary. Shortly after the 9/11 tragedies, Dr. Margolis was appointed by former Vermont Governor James Douglas to serve on the Governor's Homeland Security Advisory Committee.

Dr. Margolis traveled to Israel as an invited guest of the Israeli Government and Jewish Institute for National Security Affairs (JINSA) to study terrorism and share his expertise with the Israel National Police and Israel Defense Forces. He has led or been involved in several national and international initiatives for the International Association of Chiefs of Police (IACP) and the International Association of Campus Law Enforcement Administrators (IACLEA).

Dr. Margolis is on the Board of Commissioners for the Commission on Accreditation for Law Enforcement Agencies (CALEA). He was recently appointed a Director of BeSafe Technologies, and is a Past General Chair of the University & College Section of the International Association of Chiefs of Police, the oldest and largest police association in the world, and a former member of the association's executive committee. He is a founding faculty member of the IACP National Law Enforcement Leadership Institute on Violence Against Women sponsored by the US Department of Justice, Office on Violence Against Women.

Dr. Margolis has been a featured presenter for the National Association of College and University Attorneys (NACUA); the National Association of College and University Business Officers (NACUBO); the National Association of College Auxiliary Services (NACAS); The National Association of Student Personnel Administrators (NASPA); and the Association of College Personnel Administrators (ACPA). His work has been featured in American Council of Education (ACE), Police Chief magazine, the Campus Law Enforcement Journal magazine, and Campus Safety Magazine. He has appeared in the New York Times and various nationally recognized media outlets, including National Public Radio.

Dr. Margolis holds a Research Associate Professor appointment in the University of Vermont College of Education and Social Services, and held an adjunct professor appointment at Norwich University for many years. He has taught leadership and policy studies for masters and doctoral students in UVM's Educational Leadership & Policy Studies Program, and organizational development and policy administration for master's students in Norwich University's Masters of Justice Administration program.

Dr. Margolis has a Masters Degree in Education and a Doctorate in Educational Leadership and Policy Studies from the University of Vermont. He is a graduate of the Harvard University, Kennedy School of Government Executive Education Program.

Steven J. Healy

Steven J. Healy was the Director of Public Safety at Princeton University from 2003 through 2009. He is a Past President of the International Association of Campus Law Enforcement Administrators (IACLEA), and twelve year member of its Government Relations Committee. As President of IACLEA, Steven contributed significantly to the national dialogue about campus safety and security in the aftermath of the tragic rampage-shooting incident at Virginia Tech in April 2007.

He has appeared on numerous news programs and talk shows including CNN with Lou Dobbs, ABC Nightly News, CBS, the Fox Network, MSNBC, and National Public Radio. He testified before the Senate Committee on Homeland Security and Governmental Affairs on the topic of “Security on America’s Campuses.” In May 2007, he was invited to testify before the House of Representatives Committee on Education and Labor on the topic of “Best Practices for Keeping America’s Campuses Safe.”

Mr. Healy was named one of the “Top 25 Most Influential People in the Security Industry” by Security Magazine. In December 2007, he completed his term as the chairperson of the National Center for Campus Public Safety Advisory Board. In February 2008, he was a featured presenter in a Plenary Session at the ACE Annual Meeting, addressing issues of “Campus Security, Response and Recovery in a New Era.”

Prior to Princeton, Mr. Healy was the Chief of Police at Wellesley College in Wellesley, MA, and served as Director of Operations for the Department of Public Safety at Syracuse University. Mr. Healy is a 1984 graduate of the United States Air Force Academy and spent 10 years on active duty with the United States Air Force as a Security Police Officer. He is a frequent speaker at national conferences and seminars on issues related to campus safety and security and serves as a subject-matter expert for the U.S. Departments of Education, Homeland Security, and Justice. He is IACLEA’s representative to the NACUBO “National Campus Safety and Security Project” and to EDUCAUSE’s “The IT Role in Campus Safety” project.

In addition to numerous webinars and presentations for national, state and local professional associations, Mr. Healy has been a featured speaker and panelist on campus safety and security for a number of leading higher education associations including the American Council on Education (ACE), National Association of College and University Business Officers (NACUBO), and the American College Personnel Association (ACPA).