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Workforce Development for Big-City Law Enforcement Agencies

Nelson Lim, Carl F. Matthies, Kirsten M. Keller

Commanders, chiefs, and other leaders in the nation’s largest law enforcement agencies must be able to call on the capabilities of their workforces to respond to emergencies, gather intelligence, investigate criminal activities, and promote safety at any time and in any situation. However, the readiness of any police workforce, especially major metropolitan departments with thousands of officers, requires careful and consistent workforce development. Specifically, the capabilities of individuals within the workforce must be managed so that skills and knowledge are recognized, appropriately utilized, and fostered.

Military Workforce Development Practices Can Be Applied to Police Forces

Since 1998, the RAND Corporation has assisted U.S. Air Force programs with devising workforce development systems to align personnel better for current and future force requirements. Although police departments differ from the military in numerous ways, law enforcement agencies, similar to the military, do not have the luxury of immediately hiring outsiders or temporary workers to fill capability or leadership gaps. Instead, both forces rely on personnel systems that progressively develop staff so that the right people are ready to perform the jobs for which they are best suited. They also must be able to ensure that individuals are receiving applicable experience that will qualify them for higher-ranking jobs in the future. Although the degree of specialization found in the Air Force exceeds even that of the largest police departments, modern urban law enforcement does encompass a wide variety of responsibilities and assignments. The workforce is clearly the most important asset for both the military and the police, and effective workforce development to meet current and future demands is among the most challenging tasks their leaders face.

The framework from RAND’s Air Force workforce development system may be helpful to police authorities committed to developing a workforce that matches current demand and is equipped for any potential future challenges. The system has its drawbacks and is probably a more rigorous method than small to mid-sized law enforcement agencies require. However, the basic ideas behind this process may be of value to law enforcement agencies of all sizes. This paper presents the conceptual framework for RAND’s workforce development system, its major steps, and its strengths and limitations in a context familiar to law enforcement leaders.

Conceptual Framework

The goal of a successful workforce development system is to ensure that there is a pool of individuals with the necessary knowledge, skills, experiences, and training to meet current and future workforce needs. As Figure 1 illustrates, RAND’s analytical

Figure 1
The Interrelationship of Demand for Personnel and Supply of Personnel

Effective organizational performance

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approach to workforce development involves strategically examining the skills and experiences needed for each position within the workforce (demand) and then examining the extent to which individuals in these positions possess the required skills and experiences (supply). Based on the match between demand and supply, it is then possible to identify key gaps in current workforce development processes and work toward addressing these gaps and improving overall organizational performance. Below, we describe each of the major steps in this process in greater detail.

**Step 1: Workforce Demand Analysis Assesses What Requirements Are Needed**

There are three tasks involved in workforce demand analysis. RAND’s recommended method utilizes a job analysis approach, which seeks to identify the backgrounds needed (i.e., demand) by the positions within an organization.

**Task 1. Identify background skills and experience needed:** Workforce demand analysis starts by convening an expert panel of organizational leadership to list all the performance-relevant skills and experience demanded by each position within the organization as prerequisites at the point of assignment. In specifying these demands, the expert panel should consider all types of skills and experience, various educational qualifications, and training courses. For example, the panel might determine that any commander of the department’s training division must understand the department’s continuing education programming, have experience with the academy curriculum, and know modern principles of adult education from day one. After completing this first task, the organization should have a comprehensive picture of the knowledge, skills, abilities, and other attributes demanded of its workforce.

**Task 2. Consolidate background skills and experience:** This task involves sorting assigned knowledge, skills, abilities, and other attributes into aggregate demand categories. These categories are

- operational experience
- functional experience
- specialty experience
- command experience
- organizational experience
- training
- education
- languages
- rank.

Operational experience is experience in the basic duties of law enforcement—namely, responding to calls for service, issuing citations, writing reports, and apprehending criminals. Functional experience refers to the specific assignments a candidate has had within the agency, whether operational (e.g., vice squad in Precinct A) or administrative (e.g., investigating complaints against officers) in nature. Specialty experience refers to particular responsibilities or projects a candidate may have had within a given assignment (e.g., overseeing implementation of consent decree provisions as the head of the Professional Standards Bureau). Command experience refers to leadership experience in operations. Organizational experience refers to experience gained through involvement in other law enforcement-related organizations, including such professional groups as the National Organization of Black Law Enforcement Executives. The training, education, languages, and rank categories are self-evident.

**Task 3. Classify the importance of aggregate demands:** The final task of demand analysis is for the panel members to assign individual judgments regarding which backgrounds are critical, which are important, and which are useful for performance of the job. Backgrounds rated critical are absolutely essential. Without them, the officer would be incapable of performing the job. Backgrounds rated important are helpful but not essential, as the officer would still be able to perform the job effectively without them but will find it more challenging. Backgrounds rated useful are desirable but not necessary. Without them, the officer will still be able to perform the job effectively and might encounter only occasional difficulty.

For example, job raters may determine that for commanders or other high-ranking positions, operational experience in patrolling high-crime precincts and supervisory experience are critical, functional experience in investigating officer misconduct allegations and serving as adjutant to a commander are important, and education in public administration and training in leadership may be considered useful.

**Step 2: Workforce Supply Analysis Assesses What the Workforce Brings to the Table**

The second step in the process, workforce supply analysis, requires that an expert panel examines the present workforce and assesses what background and experience the agency’s workforce supplies. This step supports the requirements of the “supply” side of Figure 1.

**Task 1. Examine personnel records:** Personnel records should be assessed to take an inventory of each officer’s career history, including his or her back-
ground and experience prior to joining the agency. Positions, assignments, and training since joining should also be taken into account. Clearly, more detailed personnel records will yield a more accurate inventory for each officer.

Task 2. Determine which skills and what experience are acquired in each position: Here, the senior leadership panel determines what background and experience individuals acquire from each position, according to the same aggregate categories used in classifying demand requirements, and estimates how long an individual would have to serve in a given position to acquire such experience. For example, the panel would decide which functional, organizational, and other types of experience would be gained by an individual serving as a precinct commander for a given length of time.

Task 3. Determine supply: The goal of this task is to estimate the aggregate supply of skills and experience of the current body of personnel in the organization. Each individual’s personnel history is matched with the skills and experience acquired in each assignment he or she has held.

The table illustrates the background skills and experience of a hypothetical deputy chief. Included are examples of operational experience, functional experience, specialty experience, command experience, organizational experience, training, education, and languages. A resume like this would be compared with the demand analysis for an assistant chief of police to determine whether this deputy chief has the appropriate background and experience to be a viable candidate for the position of assistant chief.

While demand analysis identifies the requisite background and experience for each job in the agency, workforce supply analysis determines what particular skill sets are acquired in the performance of each job in the agency and how many people the agency currently has on staff with each particular skill set. Analysis of both supply and demand helps identify shortcomings in personnel development through gap analysis.

Step 3: Gap Analysis Identifies Personnel Shortcomings

The third step in the RAND workforce development process is to compare the qualifications that officers supply with the qualifications that agency jobs demand. The skills and experience supplied by each individual are compared with the skills and experience demanded by the positions that those individuals currently fill. Comparing the supply and demand to verify that officers at every level in the chain of command have acquired the skills and experience necessary to fill these positions will uncover potential problems in organizational effectiveness caused by shortcomings in personnel development.

Figure 2 graphically represents the concept of gap analysis for two hypothetical positions in an agency. Position A’s candidate pool possesses more skills and experience than Position B’s candidate pool. This analysis reveals the need for additional training and development in order to fill the gap between supply and demand.

### Hypothetical Supply of Skills and Experience for a Deputy Chief

<table>
<thead>
<tr>
<th>Experience</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>Precincts A, B, C, D, E, and F; Internal Affairs Bureau; Training Bureau; Media Relations Section; Emergency Operations Division; and Detective Bureau</td>
</tr>
<tr>
<td>Functional</td>
<td>Hispanic media liaison; Internal Affairs investigator; commanding officer, Staff Research Section, Narcotics Field Enforcement; Training Bureau lieutenant; and Precincts D and E Emergency Operations commander</td>
</tr>
<tr>
<td>Specialty</td>
<td>Implemented new professional standards, provided detective training in kinesic interview techniques, and served as commanding officer for largest operational area of the city by population</td>
</tr>
<tr>
<td>Organizational</td>
<td>Department of Homeland Security Advisory Council and Department of Justice policing consultant</td>
</tr>
<tr>
<td>Training</td>
<td>Supervisory Leadership Institute, West Point Leadership Program, FBI National Academy, and Senior Management Institute for Police</td>
</tr>
<tr>
<td>Education</td>
<td>B.A. in administration of justice and master’s degree in public policy and administration</td>
</tr>
<tr>
<td>Languages</td>
<td>English and Spanish</td>
</tr>
</tbody>
</table>

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1 We use the term candidate pool to refer to members of the workforce who are available for promotion or placement into a particular position.
experience than required, while position B’s candidate pool has a deficit of skills and experience. As individuals slated to fill position A supply more skills and experience than the position demands, they would be prepared to serve in position A sooner if they had spent less time acquiring irrelevant skills and experience. On the other hand, individuals slated to fill position B need either more time in their current positions or a broader range of skills and experience, as their current skill and experience set does not completely fulfill the requirements of position B. Both situations could be improved to better meet job requirements, though in practice the situation shown for position A may be unavoidable because of limited opportunities for promotion, particularly in smaller agencies.

Figure 3 illustrates three specific supply and demand disparities that gap analysis might reveal. Position A depicts the situation in which the candidate pool is essentially overqualified, supplying all of the background and experience demanded but also background and experience that is not demanded. Position B depicts a candidate pool that is under-qualified, supplying relevant but insufficient background and experience. Position C illustrates another undesirable situation—a candidate pool with mismatched qualifications, supplying a wealth of background and experience that differs from what the job demands.

Flow analysis can illustrate how well a virtual inventory of officers could fulfill job requirements and other objectives given ideal career paths. Generally, a surplus of background and experience is not a problem. However, the applicant pool for position A could have been promoted sooner or spent more time gaining background and experience in the actual areas the job demands, whereas the applicant pools for position B and position C suffer from the opposite problem, having spent too much time acquiring too little of the background and experience demanded for the position. Note that Figure 3 considers all background and experience in aggregate, but in practice the agency would want to evaluate gaps in each separate category of background experience (i.e., functional experience, operational experience, organizational experience, and the like).

Step 4: Flow Analysis Identifies Optimal Career Paths for Succession Planning and Leadership Development

The final step in the workforce development process is to reduce or eliminate capability gaps and identify optimal career paths for succession planning and leadership development through flow analysis. Flow analysis uses mathematical modeling (such as linear programming) to maximize a sum of scores representing how well the qualifications of those in a virtual, ideally developed officer inventory meet the developmental requirements of the positions they fill. In other words, flow analysis can illustrate how well a virtual inventory of officers could fulfill job requirements and other objectives given ideal career paths optimizing the sequence of developmental jobs, subject to various organizational policy preferences and constraints, such as expected retention and promotion patterns. After different assumptions about the force are made, flow analysis thus allows...
for succession planning by allocating workers into jobs to maintain a viable candidate pool for all positions. Flow analysis also differs from previous models for police workforce allocation, which have focused primarily on the sheer quantity of staff, but like those models it is not readily applicable to small agencies.

As part of effective succession planning, flow analysis can also help streamline leadership development, mapping out the most efficient paths for gaining the essential prerequisite leadership background and experience. Once defined, agencies would have a blueprint to shape the profile of their leaders. Some agencies, for example, may concentrate on improving diversity by ensuring that women and minorities acquire the background and experience needed to qualify for leadership positions. Other agencies might use the workforce development system to formalize the background and experience required for leadership positions within the organization.

Figure 4 conceptualizes how these two tracks might look for a given agency. In the first few years on the force, all officers gain general background and experience in operational law enforcement. Afterward, an individual on the leadership path would start advancing through the ranks, gaining a wide variety of specialized experience and background necessary to qualify for the top leadership positions, which require a broad, generalized knowledge of the entire organization’s workings. An individual seeking a more specialized role in the agency, such as a cybercrime detective, proceeds along a much straighter path, corresponding to a narrower range of background and experience, which builds the more focused depth necessary to qualify for such a position.

**Strengths and Limitations of RAND’s Methodology for Law Enforcement Agencies**

As the above description shows, RAND’s workforce development methodology provides a parsimonious approach for assessing the ability of current workforce practices to provide a pool of qualified workers to fill positions. It also provides a method for optimizing career paths to help succession planning and leadership development within an agency. Furthermore, when circumstances warrant, this approach can be adapted to identify critical experience under various proposed realignments, such as an agency’s...
movement toward a community-policing paradigm. Equally, the analysis can be geared toward identifying jobs that do not provide useful experience for any career path in the agency and which might be better suited for civilians. Finally, RAND’s approach also provides transparency about the criteria for promotion to various positions and optimal career paths for developing leaders, which can be beneficial from a worker perspective.

However, it is also important to acknowledge that there are some limitations to RAND’s methodology for law enforcement agencies. For example, the RAND workforce development system’s transparency is something of a double-edged sword. On the one hand, if the department has very specific criteria that do not give any group an advantage over another, being transparent about those criteria could prevent the lawsuits that have given rise to job analysis in the first place. On the other hand, ideally, an organization wants its employees to take assignments for reasons other than future promotion prospects. The system could lead to careerism if the pathway to success is too well defined and readily known by personnel in the organization. As such, certain positions might become difficult to fill with qualified personnel if everyone is solely concerned with how their current job affects advancement prospects. More troubling still, in reality, promotions involve a war of attrition. Conspicuous mistakes can torpedo careers, which might lead to the unintended consequence of rewarding minimal effort and no mistakes over greater effort with occasional mistakes.

Utilizing the workforce development method has another potential drawback. In seeking to best fill positions, senior leadership may have a tendency to overgeneralize, giving too much weight to one candidate who holds a particularly in-demand skill but performed poorly or was generally a toxic force in his or her previous jobs. Conversely, leaders may conclude consciously or unconsciously that the best qualities for a given job are the ones they themselves possess; as a result, they might overlook the actual codified job requirements when seeking to fill certain positions.

Another potentially problematic assumption inherent in the methodology is the notion that everyone will acquire the same skills, or the same degree of skill, from a given job. As has been seen in RAND’s Air Force studies, having the opportunity to acquire skills and experience in a new job does not guarantee that an officer will actually acquire them. Thus, the analysis of supply of experience and skills is accurate only to the extent that all officers occupying a given position acquire the same set of skills and experience.

**Conclusion**

No system is flawless, but the RAND workforce development system provides a simple, quantitative approach to developing a workforce that matches current demand and is equipped for any potential future challenges. Like the military, law enforcement agencies cannot rely on outside sources to obtain qualified personnel to fill positions. Instead, they must rely on personnel systems that progressively develop staff so that the right people are ready to perform the jobs for which they are best suited. Thus, a workforce development system such as the RAND approach described in this paper could prove extremely useful to large law enforcement agencies.
Bibliography


About This Paper

The readiness of any police workforce requires careful and consistent personnel development. Specifically, the individual talent within the workforce must be managed in such a way that the skills and knowledge needed to provide effective law enforcement are recognized, appropriately utilized, and fostered. This occasional paper provides an overview of a RAND methodology for creating an effective workforce development system to better align personnel with current and future force requirements. The paper presents a conceptual framework, its major steps, and its strengths and limitations in a law enforcement context.

This research is part of the Issues in Policing series funded by the RAND Center on Quality Policing Research Consortium, which consists of law enforcement agencies, including police departments in Chicago, Dallas, Houston, Los Angeles, Miami-Dade, and Philadelphia and the Los Angeles County Sheriff's Department. The Ahmanson Foundation, the California Community Foundation, the Communities Foundation of Texas, the Houston Police Foundation, the Los Angeles Police Foundation, the Philadelphia Police Foundation, and The Ralph M. Parsons Foundation also support the research consortium.

This paper should be of particular interest to law enforcement agency leaders and human resources managers interested in having a more strategic focus for the workforce development of their staff.

Other published RAND work regarding the workforce development system described in this paper include the following:

- Improving the Development and Utilization of Air Force Space and Missile Officers, Georges Vernez, S. Craig Moore, Steven Martino, and Jeffrey Yuen (MG-382-AF, 2006).
- Integrated Planning for the Air Force Senior Leader Workforce: Background and Methods, Albert A. Robbert, Steve Drezner, John E. Boon Jr., Lawrence M. Hanser, S. Craig Moore, Lynn M. Scott, and Herbert J. Shukiar (TR-175-AF, 2004).

The RAND Center on Quality Policing

This research was conducted in the RAND Center on Quality Policing within the Safety and Justice Program of RAND Infrastructure, Safety, and Environment (ISE). The center's mission is to help guide the efforts of police agencies to improve the efficiency, effectiveness, and fairness of their operations. The center's research and analysis focus on force planning (e.g., recruitment, retention, and training), performance measurement, cost-effective best practices, and use of technology, as well as issues in police-community relations.

The mission of ISE is to improve the development, operation, use, and protection of society's essential physical assets and natural resources and to enhance the related social assets of safety and security of individuals in transit and in their workplaces and communities. Safety and Justice Program research addresses all aspects of public safety and the criminal justice system—including violence, policing, corrections, justice administration, substance abuse, and public integrity.

Questions or comments about this paper should be sent to the lead author, Nelson Lim (nelson_lim@rand.org). Information about the Safety and Justice Program is available online (http://www.rand.org/ise/safety), as is information about the Center on Quality Policing (http://cqp.rand.org). Inquiries about research projects should be sent to the following address:

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