

Public Safety Dispatcher Job Analysis

Executive Summary



THE COMMISSION
ON PEACE OFFICER STANDARDS AND TRAINING

STATE OF CALIFORNIA

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CALIFORNIA COMMISSION ON PEACE OFFICER STANDARDS AND TRAINING

PUBLIC SAFETY DISPATCHER
JOB ANALYSIS

Executive Summary

John Weiner
Sr. Personnel Selection Consultant

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1601 Alhambra Boulevard
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PREFACE

This report summarized the methodology and results of a statewide job analysis of the public safety dispatcher occupation. As a result of the job analysis, the duties performed by dispatchers throughout California have been identified, as have the knowledges, skills, abilities and traits that are important for successful performance of dispatcher work. The resulting information will serve as a foundation for the further development of job-related selection procedures and training curricula for California's public safety dispatchers.


KENNETH J. O'BRIEN
Executive Director

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EXECUTIVE SUMMARY

Public safety dispatchers play a vital role in the law enforcement/public safety system. Dispatchers are usually the first point of public contact in receiving calls regarding crimes, traffic incidents, medical emergencies, safety hazards, and miscellaneous requests for service. They are responsible for facilitating an appropriate and timely field unit response, monitoring field activity, and providing information that is often times critical to the safety of both citizens and public safety field personnel.

In 1989, the Commission on Peace Officer Standards and Training (POST) established entry-level selection and training standards for public safety dispatchers pursuant to penal code section 13510(c). The standards were established by an ad hoc committee with the proviso that a job analysis be conducted to serve as a basis for the further development of training curricula and selection procedures.

A statewide job analysis was completed and important dispatcher duties and worker requirements were identified. A series of workshops and statewide surveys were conducted involving several hundred dispatchers and supervisors representing over 160 agencies, including police departments, sheriffs' departments, and regional communication centers.

The job analysis was completed in three major components. Major findings of each component of the study are summarized below.

Major Findings

Component 1. Job Task Analysis

A substantial domain of work was found to apply to dispatchers statewide. The majority of work elements listed in a Job Task Survey were identified as important and performed by a majority of dispatchers; i.e., "core" work elements. Relatively little of the work was found to apply only to dispatchers employed by certain types or sizes of agencies. The tasks identified as not applicable to dispatchers statewide were mostly related to auxiliary functions such as evidence handling, custody, and recordkeeping.

Highlights of the job task analysis results are presented below.

Tasks

- A total of 121 "core" tasks were identified, representing eight (8) major job activity areas.¹ On average, 85% of the dispatchers surveyed reported performing the identified "core" tasks, while 86% of supervisors rated the tasks as "part of the job" for dispatchers in their agencies.
- The majority of the "core" tasks are performed at least daily by most dispatchers, reflecting the repetitive nature of the work. The most frequently performed tasks involve:

Querying data bases and providing information to field units; classifying and summarizing incidents; determining dispatch priority and appropriate personnel, resources and referral agencies; dispatching patrol officers to calls for service; maintaining field communications; monitoring status of field units and incidents; handling calls from the public and obtaining complaint-dispatching information.
- Supervisors rated the "core" tasks as "very important" on average. The tasks rated by supervisors as most critical for their dispatchers to perform competently involve:

Receiving and handling 9-1-1 calls; obtaining and evaluating complaint information; determining dispatch priority and appropriate personnel and resources; dispatching field units; directing and coordinating response of multiple field units; monitoring status of field units and incidents; maintaining radio communications with field units; and providing training to new dispatchers.
- All "core" tasks and complaints/incidents were identified by supervisors as appropriate to be addressed in entry-level dispatcher training. A combination of basic (classroom) training and on-the-job training (OJT) was recommended for most tasks (n=87). The remaining tasks were rated as suitable for OJT only.

¹The job activity areas include:

1. Screening Complaints and Obtaining Information
2. Providing Information to the Public and Other Agencies
3. Monitoring Field Units and Emergency Systems
4. Dispatching Personnel and Resources
5. Providing Information to Field Units
6. Reporting and Recordkeeping
7. Facility Operations
8. Training

- A large number of "core" tasks (n=95) were identified as requiring continuous professional training (CPT) for tenured dispatchers. In most instances, supervisors indicated that such training is best handled by local agencies in bulletins or brief meetings.
- The identified "core" tasks were found to apply consistently to dispatchers employed by various agency subgroups, including small, medium and large agencies; police, sheriffs' and independent regional communication centers; and agencies that use computer-assisted dispatch (CAD) equipment, as well as non-CAD agencies. Only 12 "core" tasks did not meet the "core" criteria for all agency subgroups.²

Complaints/Incidents

- A total of 223 complaints, incidents and requests for service were identified as "core." On average, 83% of incumbents reported handling the "core" complaints/incidents and 93% of supervisors rated these items as "part of the job" for dispatchers in their agencies.
- Supervisors rated the "core" complaints/incidents as between "important" and "very important" on average. The following complaints/incidents were rated by supervisors as most critical for dispatchers in their agencies to handle competently:
 - Officer needs help-emergency, felony vehicle stop, hostage situation, missing officer, barricaded suspect, attempted murder, sniper, homicide, bombing, vehicle pursuit, and person with gun.
- The "core" complaints/incidents that dispatchers reportedly encounter most frequently involve vehicle stops, disturbances, and alarms.
- Dispatchers reported active involvement in handling the vast majority of the "core" complaints/incidents. That is, they most often reported obtaining full complaint information **and** dispatching or notifying field units. Very few complaints/incidents were reported to be most often handled by simply referring or transferring the caller.

²The decision criteria for identifying "core" work elements required that certain rating values be met within at least 2 of the 3 agency size subgroups (small, medium, large), within 2 of the 3 agency type subgroups (police, sheriffs', independent communication centers), and within both CAD and non-CAD subgroups, as well as the total sample (all surveys combined, without respect to size or type of agency or CAD use/non-use).

- Dispatchers estimated that of all the complaints/incidents they handle, the largest percentage involve non-emergency calls for law enforcement service (39% of all calls handled, on average). Emergency calls for law enforcement service were estimated to account for 24% of all complaints/incidents handled, on average.
- All "core" complaints/incidents were rated as suitable for entry-level dispatcher training. Nearly all such items (n=200) were rated as appropriate to be addressed in both basic training and OJT. The remaining complaints/incidents (n=23) were rated as suitable for OJT only.
- A large number of "core" complaints/incidents (n=180) were identified as requiring CPT for tenured dispatchers, although few were identified as requiring formal classroom training.
- The "core" complaints/incidents were found to apply to dispatchers within each of the agency size, type, and CAD/non-CAD subgroups in nearly all instances (only 7 items did not satisfy the "core" criteria for all subgroups).

Equipment and Systems

- 35 equipment items and telecommunication systems were reported to be used by a majority of dispatchers.
- Examples of the more frequently used equipment and systems include: 9-1-1 telephone equipment, radio console and controls, computer terminal and keyboard, DMV (Department of Motor Vehicles) system, and CLETS (California Law Enforcement Telecommunication System).

Resource Materials

- 28 types of written documents were reported to be used by a majority of dispatchers.
- Some of the more frequently used resources include: directories, street maps and lists, and teletype messages. The majority of dispatchers reportedly refer to various legal codes in performing their job duties, including the following:

Penal code, Vehicle code, Health and Safety code, Welfare and Institutions code, Business and Professions code, city ordinances and municipal code.

Referral/Mutual Aid Agencies

- The majority of dispatchers reported having contact with 39 different agencies in the course of performing their job duties.
- The most frequently contacted agencies include: Police department, alarm company, fire department, towing service, highway patrol, emergency medical service, and sheriff's department.
- A relatively large percentage (26%) of referral/mutual aid agencies were found to apply only to certain subgroups of dispatchers.

Field Communications

- The majority of dispatchers reported interacting with 26 different field personnel/units in performing their duties.
- The most frequently contacted field personnel include: Patrol officer, fire department personnel, traffic enforcement officer, ambulance/ emergency medical unit, and community service officer.
- The majority of dispatchers reported that they routinely interact with more than 15 field units during a shift and have communicated with a maximum of more than 30 field personnel/units at one time (i.e., while handling one incident or set of simultaneous incidents).

Component 2. Analysis of Job Requirements

Overall, the requirements for successful performance of dispatcher duties were found to be similar throughout the state. A common set of requisite knowledges, skills, abilities and traits (KSATs) was identified, as outlined below.

Knowledges

- A total of 132 knowledge items were identified by dispatch supervisors statewide as "core" requirements for successful performance of dispatcher duties and appropriate to be addressed in entry-level dispatcher training. The knowledges fall within the following ten general subject matter areas:

1. Work Environment and Conduct
2. Communication Center Operations
3. Legal Principles and Codes
4. Complaint-Taking
5. Dissemination of Information
6. Radio Dispatching
7. Law Enforcement Information Systems
8. Public Safety-Related Agencies
9. Communication Center Equipment and Resources
10. Training Methods

- The knowledges rated as most critical for successful dispatcher performance generally concern:

Complaint/request priorities, potentially dangerous situations, important and appropriate complaint information to be obtained, questioning techniques, communications with mentally unstable callers, and considerations for broadcasting sensitive information.

- Nearly all "core" knowledges (n=130) were rated by a majority of supervisors as appropriate to be addressed in both basic training and OJT.
- The vast majority of the "core" knowledges (n=122) were identified as requiring CPT for tenured dispatchers to maintain job proficiency. Supervisors indicated that such training is generally best handled through informal training provided by local agencies in bulletins or brief meetings.

Skills

- A total of 63 skills were identified by supervisors statewide as "core" requirements for successful performance of dispatcher duties and appropriate for entry-level dispatcher training.³ The skills fall within nine general areas:

- | | |
|----------------------------|-----------------------------|
| 1. Vocal Skills | 6. Dispatching Skills |
| 2. Listening Skills | 7. Telecommunication Skills |
| 3. Recordkeeping Skills | 8. Interpersonal Skills |
| 4. Reading Skills | 9. Administrative Skills |
| 5. Complaint-Taking Skills | |

³"Skill" was defined as "a competency to apply techniques and knowledge in the performance of specific tasks, developed through practice and experience."

- The skills rated as most critical for successful dispatcher performance were found to be generally concerned with the handling of multiple simultaneous events and radio traffic.
- All identified "core" skills, except one, were rated by a majority of dispatch supervisors as appropriate to be addressed in both basic training and OJT for entry-level dispatchers.
- Three-quarters of the "core" skills (n=48) were rated by a majority of supervisors as requiring CPT for tenured dispatchers. All such training was identified as best handled informally by local agencies.

Abilities

- A total of 22 general abilities taken from the research literature on human performance assessment were identified by supervisors statewide as both important for successful performance of dispatcher duties and necessary before hire for entry-level candidates.⁴
- The identified "core entry-level" abilities are encompassed by the following general areas:
 - **Cognitive** abilities (Verbal, Reasoning, Memory, Perceptual)
 - **Psycho-motor** abilities (Manual Dexterity and Speed)
 - **Sensory-motor** abilities (Speech, Hearing, Vision)
- Verbal and Perceptual cognitive abilities, and Speech and Hearing sensory-motor abilities were rated highest in importance among the abilities. **Oral Comprehension** and **Expression** abilities were rated as critical to successful dispatcher performance. **Written Comprehension, Speech Clarity, Speech Hearing, General Hearing, Auditory Attention and Time Sharing** abilities were also rated relatively high in importance (very important, bordering on critical).
- Fourteen (14) additional cognitive, psycho-motor, and sensory-motor abilities were rated as very important and necessary before hire.

⁴"Ability" was defined as "a general, underlying capacity enabling (or limiting) the performance of a wide variety of tasks."

Traits

- A total of 14 traits, based largely upon research literature pertaining to personality trait assessment, were identified by supervisors statewide as very important for successful performance of dispatcher duties.⁵ All were rated by a majority of supervisors as necessary for entry-level dispatcher candidates to possess before hire.
- **Tolerance of Stress** was rated by supervisors as the most critical trait for successful dispatcher performance. This trait was defined as follows:

"Performs job duties effectively under adverse conditions (e.g., working under time pressure with high visibility and serious consequence of error, in crisis situations, tragedies, and emergencies, handling simultaneous incidents, and working with frequent interruption); "bounces back" from negative situations; performs duties under extreme pressure without delay."
- **Integrity, Dependability, and Emotional Control** were also rated relatively high in importance, followed by **Tolerance of Unpleasant Work Environment, Adaptability, Teamwork, Maturity, Productivity, Positive Attitude, Assertiveness, Social Concern, Motivation, and Interpersonal Sensitivity.**

Component 3. KSAT Linkage Analysis

Linkage Ratings

In general, the "core" KSATs are pervasive in their relationships with dispatcher duties. Each KSAT was linked to an average of over 30 work elements and all KSATs were identified as essential for successful performance of at least one "core" element of dispatcher work. The number of linkages per KSAT was found to be significantly correlated with the mean importance ratings obtained in Component 2 ($r = .38$, $p < .01$), suggesting that the number of linkages is reflective of the importance of a KSAT.

Knowledges. While most of the knowledges were identified as important for a large number of work elements, the following were the most extensively related to dispatcher job duties.

⁵The term "trait" was defined as "a behavioral characteristic, attribute, or enduring pattern of behavior reflected by the manner in which people act under various conditions and circumstances."

Knowledge of: appropriate types and numbers of personnel to send to various complaints and requests for service; appropriate information to obtain and other important considerations for taking complaints and requests; appropriate types and order of information to provide when dispatching field units; important considerations for prioritizing and providing information to field units; what constitutes a crime; and responsibilities and functions of the communication center.

Skills. The majority of skills were linked extensively with the various work elements. The following skills were the most widely related to dispatcher job duties in terms of numbers of linkages.

Skill in: maintaining vocal composure under adverse or stressful conditions; reading and understanding policy and procedure manuals and memoranda; listening while at the same time performing various tasks; talking while at the same time operating dispatching equipment; and projecting one's voice clearly and audibly, with appropriate tone, phrasing, diction and rate of speed.

Abilities. The abilities are general by nature and, accordingly, were linked quite extensively with the various dispatcher job tasks (the average number of linkages was over 40 and ranged from 15 to 80). **Oral Comprehension, Oral Expression and Speech Clarity** abilities were linked to the largest numbers of tasks. These results are consistent with the overall importance ratings obtained in Component 2, where the same abilities were rated by supervisors as most critical for overall success in performing dispatcher duties.

Traits. The traits, even more so than the abilities, were linked to a wide range of dispatcher job tasks. On average, each trait was linked to over 80 tasks -- approximately two-thirds of the tasks. These results demonstrate the belief of SMEs that the traits are essential for successful performance in most aspects of dispatcher work.

Level of Knowledge/Skill

Knowledge Level. With regard to level of knowledge appropriate for development in basic training, the majority of knowledges (61%) were identified as best suited for the most fundamental level of development. That is, knowledge sufficient to identify or define terminology, facts, methods, etc. Approximately one-third of the

knowledges were identified as suitable for a moderate level of development in basic training; i.e., knowledge sufficient to explain, summarize, translate or interpret information when presented. Very few knowledges (n=5) were identified as appropriate for a high level of development; i.e., sufficient to correctly apply appropriate principles, procedures, techniques, etc., to new and difficult situations.

Skill Level. For more than half of the skills (57%), the most fundamental level of development was identified as appropriate for basic training. That is, a basic proficiency enabling performance in the most routine and simple situations. The remaining skills were identified as best suited for a moderate level of development in basic training, sufficient for competent performance in a fairly wide range of situations.

Methodology

Component 1. Job Task Analysis

Study Population

The study population included full-time public safety dispatchers employed by a police department, sheriff's department, or regional communication center, who spend a majority of the time providing complaint-taking and/or dispatching related services for law enforcement. The population was comprised of 4,434 full-time law enforcement dispatchers who were employed by 362 agencies and supervised by 877 communication supervisors.⁶

Job Task Survey

Two Job Task Survey instruments were developed. An **Incumbent Form** was developed to obtain dispatchers' descriptions of their own work, in terms of the frequency with which they perform various tasks, handle various complaints/incidents, use equipment, telecommunication systems and resource materials, and have contact with various agencies and field personnel. The survey also called for dispatchers to describe their typical level of involvement in handling various complaints/incidents and in working with various agencies.

A **Supervisor Form** was developed to obtain supervisors' descriptions of the work of dispatchers that they oversee, including tasks performed and complaints/incidents handled. The survey called for supervisors to rate these items with respect to (a) importance of competent dispatcher performance, (b) when entry-level training should be

⁶A census was taken of all local dispatching agencies (police, sheriffs' and regional communication centers). Approximately 80% of the agencies responded to the census.

provided (classroom vs. OJT), if any, and (c) the need for continuous professional training (CPT), i.e., "refresher training," for tenured dispatchers to maintain job proficiency.

Survey Administration

A representative sample of dispatchers and supervisors was selected to complete the Job Task Survey. Local agency coordinators administered the surveys to selected participants according to instructions from POST. The survey was completed by a total of 639 dispatchers representing 160 agencies, and 258 supervisors representing 145 agencies.

Analysis

"Core" Work Elements. The primary aim of the analysis was to identify the "core" elements of dispatcher work. That is, tasks and complaints/incidents that are important and performed by dispatchers statewide; equipment/systems and resource materials that are commonly used; and referral/mutual aid agencies and field personnel that dispatchers commonly interact with, in performing their duties. The criteria for identifying "core" tasks and complaints/incidents were as follows:

-
1. (a) **At least 50% of incumbents perform (rated higher than "0 - Not Performed" on frequency scale) OR (b) At least 50% of supervisors rated as part of the job for dispatchers in their agencies (rated higher than "0 - Unimportant" on importance scale);**

AND

2. **Mean importance rating of at least "Of some importance" (2.0), based on the those supervisors that indicated that the task or complaint/incident is part of the job for dispatchers in their agencies.**
-

The above criteria were to be met for the total survey sample (all respondents combined), as well as within the following subgroups: (a) **Agency Type:** at least 2 of 3 agency types (police, sheriffs', regional communication centers); (b) **Agency Size:** at least 2 of 3 agency size subgroups (small, less than 10 dispatchers; medium, 10 to 29 dispatchers; and large, 30 or more dispatchers); and (c) **CAD Use:** both CAD and non-CAD agencies. Also, to ensure that the identified "core" work elements apply to less experienced dispatchers, the following criterion was required to be met: (d) **Tenure:** if performed by at least 50% of those dispatchers with more than 3 years of experience, then must also be performed by at least 25% of those dispatchers with less than 3 years of experience.

"Core" equipment and systems, resource materials, referral and mutual aid agencies, and field personnel were identified based upon a criterion of "at least 50% of incumbents" indicating that they have used the equipment, contacted the agency, etc. The criterion was to be met overall and within the above agency and tenure subgroups.

Training Requirements. The "core" tasks and complaints/incidents were further analyzed to identify items that are suitable for basic training or OJT for entry-level dispatchers, or require CPT for tenured dispatchers. Such items were identified using a criterion of "at least 50% of supervisors" rating the item as appropriate for such training. The criterion was to be met for the total sample of supervisors and within the various agency size, type and CAD subgroups.

Tasks and complaints/incidents that require **full development during basic training** prior to any job assignment were identified as those for which at least 50% of supervisors indicated full development is required. Tasks and complaints/incidents that require **formal CPT**, i.e., formal classroom instruction and assessment of dispatcher performance, were identified using a criterion of 50% of supervisors rating the item as requiring formal training.

Component 2. Analysis of Job Requirements

Job Requirements Survey

A survey instrument was developed containing a list of various KSATs expected to be necessary for successful performance of the "core" work of public safety dispatchers identified in Component 1. The survey called for supervisors to rate the KSATs with respect to importance for overall successful job performance for dispatchers that they supervise. In addition, the knowledges and skills were rated with respect to training requirements, including: (a) when entry-level training should be provided (classroom versus OJT), if any, and (b) the need for CPT for tenured dispatchers to maintain job proficiency. The abilities and traits were rated with respect to necessity before hire for entry-level dispatcher candidates.

Survey Administration

A representative sample of supervisors was selected to complete the Survey of Job Requirements. The surveys were administered in the same manner as in Component 1 and were completed by a total of 267 supervisors representing 155 agencies.

Analysis

Knowledge and Skill Ratings. The analysis of knowledge and skill requirements ratings was directed at identifying the statewide "core" items that are appropriate to be addressed in basic training or OJT for entry-level dispatchers, or CPT for tenured dispatchers. To this end, the decision rules developed in Component 1 were applied. The same criteria were also applied to identify knowledges and skills that are suitable for full development in basic training, as well as those items that require formal CPT.

Ability and Trait Ratings. The aim of the analysis of the ability and trait requirements ratings was to identify the most important items for successful entry-level dispatcher performance to guide future selection test development and validation research. The criteria for identifying "core" abilities and traits were more stringent than those employed for knowledges and skills (a mean importance rating of 3.0 was required). The rationale behind this difference owes to the focus on abilities and traits as potential assessment dimensions for entry-level selection. Selection procedures must necessarily assess the most critical aspects of job performance, while training traditionally encompasses all aspects of the job, including routine job duties.

The "core" abilities and traits were further analyzed to identify those that entry-level dispatcher candidates are expected to bring with them to the job. Abilities and traits that were rated by at least 50% of supervisors as necessary for entry-level dispatcher candidates to possess before hire were deemed entry-level requirements.

Component 3. KSAT Linkage Analysis

Subject matter experts (SMEs) reviewed each KSAT in conjunction with the "core" work elements to identify each work element for which the KSAT is important for successful performance. A total of 54 SMEs participated. They were selected to represent the population of dispatchers in the state with respect to agency type, size and CAD use/non-use.⁷ The SMEs were provided training with regard to what constitutes an "important" KSAT and then proceeded to independently record their judgments using a Linkage Rating Form. In determining whether a KSAT is important, SMEs applied the following criterion:

"The KSAT plays a significant role in the performance of the task (complaint/incident, etc.) and is essential for successful performance. Without the KSAT, successful performance of the task (complaint/incident, etc.) would be impossible, resulting in unsatisfactory job performance."

⁷The SMEs were divided into subgroups for purposes of completing the linkage review. On average, each KSAT-work element combination was reviewed by 17 SMEs.

A KSAT was considered to be important for a work element if 50% or more SMEs made the same linkage.

In addition to the Linkage Ratings, SMEs rated each knowledge and skill with respect to the "Level of Knowledge/Skill" that is most appropriate for entry-level dispatchers to develop in basic training, prior to any OJT. The knowledge/skill levels ranged from a low level, such as simple recall of facts or proficiency sufficient to respond correctly in the most basic and routine situations, up to a high level, sufficient to apply knowledge or perform correctly in difficult, complex and new situations. The modal knowledge/ skill level rating was taken to represent the extent to which each knowledge or skill should be developed in basic training.

Summary and Conclusions

Job Task Analysis

A statewide "core" dispatcher job was identified which encompasses important aspects of the work performed by the majority of dispatchers employed by police departments, sheriffs' departments and regional communication centers of various sizes, both CAD and non-CAD. Relatively little of the work domain was identified as applicable only to certain subgroups of dispatchers. These results suggest that it is reasonable to identify statewide job requirements (KSATs) for dispatchers.

The job tasks, complaints/incidents, equipment, etc., identified in Component 1 provided a sound basis for identifying requisite KSATs. This information should also prove useful for other personnel functions, such as the development of local agency job descriptions (e.g., for recruitment or job classification) and performance appraisal instruments (e.g., assessment for purposes of probationary evaluation, promotion, determining training needs, and test validation research).

Analysis of Job Requirements

The requirements for successful performance of dispatcher work were found to be similar statewide. An expansive common set of requisite KSATs was identified, while very few "group-specific" items were identified. These results suggest a high degree of uniformity among agencies with respect to fundamental worker requirements, thus, supporting the application of statewide standards for dispatcher training and selection.

Training. The "core" knowledges and skills constitute a broad subject matter base that has implications for entry-level training (basic and OJT) and CPT for tenured dispatchers. All "core" knowledges and skills were identified as appropriate to be addressed in entry-level training. Nearly all were rated as suitable for both basic training and OJT, suggesting that the role of basic training, as viewed by supervisors, should be preparatory for subsequent OJT ("field training") of entry-level dispatchers.

The vast majority of knowledges and skills were also identified as requiring CPT for tenured dispatchers. While supervisors indicated that such training is generally best handled by local agencies through brief meetings and bulletins (rather than formal classroom training), one knowledge and several work elements were identified as requiring **formal** training.

Selection. A total of 22 cognitive, psycho-motor and sensory-motor abilities were identified as important and necessary for entry-level candidates to possess before hire. **Oral Comprehension** and **Expression**, which are cognitive-verbal abilities, were rated as critical for successful performance. Additional cognitive abilities rated relatively high in importance include Written Comprehension and Time Sharing. Speech and Hearing sensory-motor abilities were also rated relatively high in importance.

Among the 14 traits identified as important and necessary before hire, **Tolerance of Stress** was rated most important, followed by Integrity, Dependability, Emotional Control, Tolerance of Unpleasant Work Environment, Adaptability, Teamwork, Maturity, Productivity, Positive Attitude, Assertiveness, Social Concern, Motivation, and Interpersonal Sensitivity.

The above abilities and traits provide a basis for the development of entry-level dispatcher selection tests and procedures. These abilities and traits represent important assessment dimensions, providing content specifications for test instruments and other procedures that may be adopted or developed to assess the aptitudes of entry-level candidates.

KSAT Linkage Analysis

The KSATs were found to be important for the successful performance of a wide range of dispatcher duties. These results are important from several standpoints. First, the job-relatedness of the KSATs is further demonstrated, in that, each KSAT has been identified by job experts as essential for the successful performance of at least one, and typically many "core" elements of dispatcher work. Thus, training curricula addressing the knowledges and skills identified in the job analysis may be developed with confidence that the subject matter is relevant to important aspects of dispatcher work. Similarly, a foundation is provided for the development and empirical validation of entry-level selection procedures which assess job content-related abilities and traits.

Second, the nature of the KSATs has been defined with respect to the context in which each is applied in performing dispatcher work. Thus, in developing training curricula, the various knowledges and skills may be reviewed in conjunction with their associated tasks, complaints/incidents, etc., to identify specific applications of the

knowledge/skill to be taught. Likewise, in developing selection procedures, the abilities and traits may be viewed along with their associated tasks in order to ensure that test items are couched in job-related language and situations.

Third, the relative importance of the KSATs is evidenced by the number of linkages with various dispatcher duties. The number of linkages, taken into consideration with the importance ratings obtained in Component 2, provide a reasonable index of the overall importance of each KSAT. Such information is useful for both the development of training (e.g., setting priorities and the scope of information to be covered) and selection procedures (e.g., weighting selection dimensions). The "level" ratings provide a basis for determining the extent to which each knowledge and skill should be developed in basic training.

APPENDIX

Contents of Technical Reports

Comprehensive technical reports are available from POST for each component of the job analysis. The reports list the various elements of dispatcher work and requisite KSATs and provide a detailed account of the procedures, survey instruments and rating scales, sample characteristics, analyses and results. Statistical information (e.g., mean frequency and importance ratings) and KSAT-work element linkages are also included. The contents of each technical report are listed on the following pages.

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