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Jøb and Task Analysis of Florida Law Enforcement Officers

EXECUTIVE SUMMARY

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Preface

In the fall of 1979, Florida's Police Standards and Training Commission (PSTC) and the Florida Department of Law Enforcement (FDLE) undertook to conduct a statewide job and task analysis for entry level law enforcement officers. This project is the largest of its kind ever to be completed. Thousands of Florida officers completed the survey booklets, a significant percentage of them doing the work on their own time. Hundreds of other people made direct contributions to the design, organization, conduct, and analysis.

Projects of this magnitude cannot be completed successfully without the dedication and support of a large number of people from a variety of organizations and agencies. The Florida Department of Law Enforcement's Division of Standards and Training managed the program from its conceptualization to its completion and will retain the responsibility for the implementation of results. The Division also managed the competitively bid contract with Florida State University's Center for Educational Technology (CET).

A particular mention of the exhaustive work done by the project Advisory Committee is appropriate. They provided the guidance, insight, communication, and contacts necessary to bring CET's staff and the law enforcement community together. Advisory Committee members were:

Janet H. Blunt Orlando Police Department

Elaine Bryant
Division of Police Standards
and Training

Morrey E. Deen Ocala Police Department

Tom Depolis Tampa Police Academy

Lt. Dave Erricks Fraternal Order of Police

Donald E. Fish Police Benevolent Association

Bruce Wragg Daytona Beach Community College

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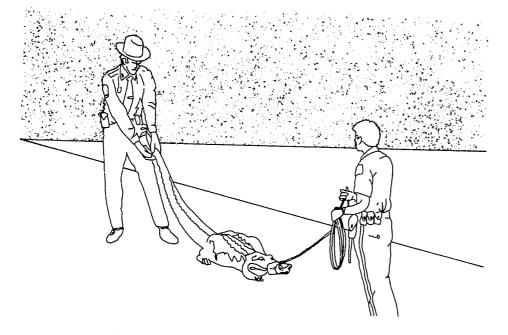
Berwin Williams Florida Sheriff's Association

*Former Member

The project was supported by means of a Law Enforcement Assistance Administration grant to the Florida Police Standards and Training Commission, with Mr. Price Foster the project director for the LEAA. Mr. G. Patrick Galfagher of the Division of Standards and Training was responsible for directing the project, and Mr. Daryl G. McLaughlin of the Division was the project manager. In the early stages, Neil C. Chamelin was project director and George Clements was project manager.

The FDLE is grateful to those state and local government representatives mentioned and to the entire Florida Law Enforcement community for their outstanding work in bringing the pro-

ject to a successful and timely completion.



Specific mention of the contributions made by members of the CET professional staff is in order.

Robert K. Branson was principal investigator.

Gail T. Rayner served as project director.

Ann M. Erdmann was responsible for data analysis and the CODAP programs.

Gerald O. Grow was manager of publications.

Aleta Jarrett provided essential adiministrative support.

Albert C. Oosterhof and Gary W. Peterson made substantial contributions to the professional work.

Bruce Frank and Mike Tucker of the CET Multi-Media Laboratory produced the artwork.

Graduate Research Assistants Gholamabbas Darabi, Michael Kormanicki, and Robert Riner performed important professional work.

The following Graduate Research Assistants (listed alphabetically) also contributed:

Penelope Fry, Joseph Larsen, Dewey Mueller, Boyd W. Nielsen, and Kent Noel.

Graduate Student Interns were:

Kathy Golas, Lt Gregory Shapley, CPT Ronald Tarr, and CPT Jerry Traynham.

Clerical Support was provided by:

Donna Barringer, Barbara Battin, Valerie Camblin, Ruth Cantor, Douglas Darlington, Susan Finney, and Mary Parsons.

The following members of Dr. Branson's graduate seminar on job analysis made important contributions to the development of the initial task lists:

LtC Tuiren Bratina, MAJ Patrick Cameron, Paul Cothran, CDR Hadyn Daw, Adrian Sandery, and Bruce Smith.

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Introduction

The Social Context

The past two decades have brought great change in management's approach to hiring, personnel administration, and training—change brought about through new laws, by landmark court decisions, and by executive orders which reflect society's concern that employment rights of citizens are basic. In attempting to respond to these new requirements, both private and public sectors have sought appropriate professional and technical approaches to meet their goals, and, at the same time, be legally and legislatively acceptable. Recognizing the tremendous opportunity that was available, the Florida Department of Law Enforcement undertook a cooperative venture with the Federal Law Enforcement Assistance Administration to conduct a statewide job and task analysis for law enforcement officers. This report describes that project, which represents a significant first step in employing a modern strategy to upgrade the hiring, management, and training of law enforcement officers in Florida.

The rationale for the project centers around three principal concerns:

- First, the approach taken must yield results that satisfy legal and legislative requirements.
- Second, there should be continuing and complete involvement of the law enforcement community.
- Third, the results should serve the broad interests of the law enforcement community by helping to improve personnel selection, administration, and training.



Impact on Law Enforcement

Because of the increasing complexity of law enforcement, it is even more important and difficult to identify the specific relevant tasks that should make up the jobs of law enforcement officers. Few professions have had to deal with the kinds of challenges which confront law enforcement officials. The passage of the various civil rights acts has impacted upon the entire criminal justice system. Society's attitudes toward law enforcement has not always been positive. The crime rate has been steadily, if not dramatically, increasing.

To be sure, the law enforcement profession has met, and will continue to meet, its critical societal responsibilities of enforcing the law, maintaining order, and providing service. However, to successfully discharge these responsibilities and meet all of the complex challenges it is facing, the profession must be able to hire and retain an adequate number of highly skilled officers. In the light of protecting the employment rights of all individuals, yet another challenge appears, that being to develop defensible, job-related and empirically based standards which will ensure that future officers will be skilled enough to do the job.

This latter challenge is an especially important one for the State of Florida, which has one of the highest population growth rates in the nation, and can probably expect a corresponding increase in the crime rate. Florida's situation is exacerbated by the general nationwide trend toward increased crime.

The Project

The Florida Police Standards and Training Commission has recognized the challenges and has asked the Department of Law Enforcement to take the steps necessary to ensure that the State would have a professional law enforcement capability that can meet its present and future needs.

Recognizing that the Commission's mandate would take several years to be fulfilled, the Department began implementing a long-range plan to establish new bases for recruiting, selecting, training, evaluating, and promoting the kind of professional law enforcement officers that Florida requires.

The first step in the plan called for the development of a data base from which criteria for selection and training could be derived. The data base had to be empirically established, so that the criteria derived from it would be job-related, validated, and in compliance with any legislation related to equal employment opportunity.

The Law Enforcement Assistance Administration awarded a grant to the Department for the purpose of accomplishing this first objective of their long-range plan. The Department subsequently solicited competitive bids to conduct the research and develop the data base, and in December of 1979 the Center for Educational Technology at Florida State University (CET) was awarded an 18 month contract to conduct the research and develop the primary data base.

The Department specified in the contract that a comprehensive occupational analysis was to be conducted on the officers in each unique type of law enforcement agency in the State—using the most efficient and effective means available. This requirement was the basis for a significant undertaking. No other State or Federal agency had attempted an occupational analysis on the scale of the Job and Task Analysis of Florida Law Enforcement Officers.

Overview of Occupational Analysis

Occupational analysis involves a variety of methods to collect data related directly to the work performed by all members of an occupation. The collection, preparation, analysis, and reporting of the data varies, depending on the method used. Each approach has its strengths and weaknesses, but all rely on collection of the information from the people who actually perform the work.

Because of new Air Force computer programs adapted for the civilian community by the University of Texas, CET elected to use the task inventory occupational survey technique to obtain the data which would then be analyzed using these "Comprehensive Occupational Data Analysis Programs" (CODAP). The task inventory approach permitted the efficient collection of jobrelated data from large numbers of law enforcement officers. Such a large sample would provide the personnel officers, trainers, and managers in the profession with a comprehensive and detailed data base. The task inventory constituted the major portion of a survey questionnaire entitled, "Occupational Survey Program: Florida Law Enforcement Officers." The power of CODAP lies in its ability to produce a variety of reports which can be formatted in any number of ways to meet the needs of the personnel officers, trainers, and managers.

Job and Task Analysis

Job and task analyses have been important tools for documenting job related occupational data and requirements. Usually, they are laborious and completely manual operations; consequently, they have not been applied to all occupational groups. However, since the Air Force programs have been available for use, there has been an increased civilian demand for job and task analyses.

While some of this demand has been stimulated by court intervention into the normal personnel management processes, the issue of the "job relatedness" of selection and training requirements has been maintained in the forefront of interest by economic causes as well. As personnel management costs increase and the wages paid to trainees continue to rise, there has been a continuing effort to find ways to streamline the personnel selection and training functions as a means of controlling costs. One way to accomplish that purpose is to eliminate unnecessary content from training programs.



Identifying the Population. At an early point in the project, CET, the Department, and the project's Statewide Advisory Committee identified the members of the State's law enforcement population who would be involved in the analysis. The plan developed at that time called for data to be collected on officers in all agencies at the municipal, county, and State levels. The following agencies were included in the study:

- 1. All Municipal Police Departments
- 2. All County Sheriff's Departments
- 3. Florida Highway Patrol
- 4. Bureau of Weights and Safety
- 5. Department of General Services, Division of Security
- State Attorney's Office
 Game and Fresh Water
- Fish Commission

 8. Division of Alcoholic
- Beverages and Tobacco
 9. Department of Law Enforcement

- 10. Division of Forestry
- 11. Department of Agriculture, Road Guard Inspection
- 12. Division of Animal Industry, Marks and Brands Unit
- 13. Airport Security
- 14. University Police Departments
- 15. Fire Marshal
- Division of Recreation and Parks
- 17. Marine Patrol
- 18. School District Authorities

Sworn law enforcement officers, primarily in the first pay grade, were randomly selected from every one of more than 420 agencies located throughout the State, and 74% of the agencies participated. In all, 8224 survey booklets were distributed and 6741, some 82%, were returned prior to the cut-off date.

Development of the Survey Booklet

The survey booklet was divided into six parts:

Part I: Background Section

Part II: Task Section

Part III: Equipment Section

Part IV: Special Requirements Section

Part V: Forms and Reports Section

Part VI: Personal Comments Section

Part I: Background Section

In occupational surveys, the data collected on background variables permits a variety of users to probe the findings with questions that are directly related to selection, training, and management of law enforcement personnel. In order to make comparisons on a statewide basis, for example, it is important to know the type, geographic location, and size of the agency. Racial and ethnic background are important from the viewpoint of equal employment opportunity legislation. Education, time in law enforcement, time in present position, and other factors relating to assignment and length of employment provide important data to managers.

In order to analyze, interpret, evaluate, and report the job task data, there must be a frame of reference to which the results can be related. Organizational identities and background variables provide a basis for the assembling the data into meaningful categories for conducting analyses, translation of those analyses into useful information, and assessment of that information's utility in making decisions. This frame-of-reference is constructed from the data collected on the questions in Part I of the survey. Items in Part I identified various aspects of the personal and professional characteristics of the officers who responded to the survey.

Now that the data base has been created, it is possible, for example, to compare large agencies to small ones, officers who have been on the job only a few months to more seasoned officers, day shift to night shift, heights, weights, ethnic background, sex, and any of the other variables to each other. These possible comparisons illustrate the benefits of having a large sample and the power of the CODAP methodology.

Advisory Committee Recommendations A Statewide Advisory Committee with participants from many different agencies was formed to advise the Department on goals, methods, and potential problems to be encountered in conducting the survey. The Advisory Committee was very helpful in the process of interpreting project objectives. Table 1 contains a list of the kinds of decisions that were deemed most important by the Advisory Committee. The entire project's objectives and methods were subsequently designed to collect data to support decisions based on these objectives. While many other kinds of objectives could have been chosen at the project's beginning, these were the ones actually selected.

Table 1. Approved Guidelines for Developing the Survey Data Base

Group 1: Selection Standards

a. To collect data from which job related entry level standards could be developed.

Group 2: Promotion Standards

a. To identify the tasks from which minimum skill levels required for advancement to the next levels

within the law enforcement community could be developed.

b. To develop specifications for a job related performance test which can verify whether or not an individual possesses the minimum skills required for career advancement.

Group 3: Training Programs

- a. To identify the task based knowledge, skills, and abilities for the basic recruit curriculum.
- **b.** To identify those tasks which are common to a significant portion of the law enforcement population.
- c. To identify those tasks which are currently being taught to all recruits but which are not being performed by all officers.
- d. To identify those tasks which are most difficult to learn.
- **e.**To identify those tasks which should receive special emphasis in the training program.

Group 4: Personnel Management

- a. To identify potential personnel selection criteria which could inadvertently place unqualified people in law enforcement jobs.
- **b.** To develop evaluation standards which are related to the most important tasks performed on the job.
- c. To identify any overlapping areas of State, county, or municipal responsibilities in which more effective and efficient use of resources might be implemented.
- d. To identify noncritical or infrequently performed tasks which could be assigned to lower level or less experienced personnel, and critical tasks which require assignment to skilled personnel.
- e. To identify important tasks not being performed by an adequate number of persons.
- f. To identify those officers who perform tasks which are dependent upon specific types of equipment.

In order to achieve these ultimate goals, it was necessary to organize the job and task analysis project to collect the maximum amount of data that would be supportive of subsequent efforts to achieve these goals. The specification of the ultimate purposes of the Committee provided the framework in which the current project could be conducted. However, all of the ultimate goals of the Committee were not intended to be achieved in the current project.

Preservation of Confidentiality. Based on many years of experience in the Air Force and in other areas, occupational

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analysts have concluded that requiring the participants to put their names, social security numbers, and duty telephones on the booklet worked best for data collection. Having the ability to locate the officer who completed the form enables the analyst to question missing and unusual responses.

The Advisory Committe, however, cautioned that if such data was requested from the officers there would have to be assurances that the data would remain confidential. Because of the preponderance of evidence and advice available to CET, we wanted to include personal identification as a part of the survey. A lot of effort was expended in developing a plan that would keep the responses confidential. Unfortunately, all personal identification items had to be abandoned, since, in the independent opinions of legal counsel consulted by the Department and Florida State University, confidentiality could not be reasonably assured under Florida statutes.

Part II: Task Section

Literature and Document Review

It is not possible to complete a project of this size and complexity without being able to stand on the shoulders of those who have gone before and who have willingly shared their results and findings. CET asked a number of agencies and individuals for documents, opinions, and assistance, and received substantial help from these agencies:

- California Commission on Peace Officer Standards and Training
- Illinois Department of Law Enforcement
- Michigan Law Enforcement Officers Training Council
- Minnesota Crime Control Planning Board
- New York State Long Range Police Training Program
- Texas Commission on Law Enforcement
- U.S. Air Force
- U.S. Army Military Police and Military Personnel Centers
- U.S. Bureau of Land Management
- Washington State Projection on Entry Level Police Selection and Test Validation

Information about law enforcement jobs in Florida was obtained from official job descriptions of the State, county, and

municipal agencies around Florida. These job descriptions contained general information on the kinds of training required to be hired, the kinds of experience, skills, and knowledge required, and a sample of the kinds of duties and tasks performed.

Law enforcement training institutions also furnished training literature. These documents provided information on the specialized jobs and tasks that were being performed around the State. Additional information on the kinds of equipment and forms being used was also obtained.

The task inventory was developed through the application of commonly used procedures. A task inventory is a complete description of a job as presented in as many task statements as are required to describe the entire job. The basic unit of analysis is the task statement.

- 1. A task statement is a statement of a highly specific action. The statement has a verb and object.
- 2. A task has a definite beginning and end.
- 3. Tasks are performed in relatively short periods of time, i.e., seconds, minutes, or hours, but rarely if ever days, weeks, months, or years.
- 4. Tasks must be observable.
- 5. A task must be measurable; that is, in the real world, a technically proficient individual can observe the performance of the task or the product produced by the task and be able to conclude that the task has or has not been properly performed.
- 6. Each task is independent of other actions.

The staff at the Center for Educational Technology developed the initial draft task lists for this project through conducting document analyses, observation of iaw enforcement officers on the job, extensive interviews with representatives of all agencies included in the survey, and by consultation and review with experts in the field. For any agency, a selected number of officers were interviewed successively to ask them in great detail exactly what they did on the job, what equipment they used, what forms they completed, and other questions intended to probe all duty areas in order to discover all parts of their jobs.

Interviews

Interviews were conducted primarily in the field with officers from the agencies that were to be surveyed. Every effort was made to collect data not only from all of the types of agencies but also from a representative sample of county and municipal police officers from various sizes of municipalities and counties

throughout the state. While the majority of the interviewees were from the first two pay grades, several supervisors were also interviewed. When the interview data were transformed into draft task lists, each list was then circulated to a larger number of officers in order to ensure that the final list fully described their jobs.

Job Observations

CET personnel made observations in many parts of the state of law enforcement officers performing their tasks during normal tours of duty. These observations provided an important emotional perspective that had not been obtained from the interviews and document analysis. After considerable analysis, technical editing, and consultation, CET combined the results of the literature review, interviews, and field observations, to produce a final task inventory containing 528 tasks derived from the jobs of all participating agencies. While some of the tasks represent highly technical work conducted by a limited number of officers, other tasks in the inventory are performed by virtually every officer in the state.

Part III: Equipment Section

Knowledge of the equipment used in the conduct of the job is important information to trainers, personnel officers, and managers alike. Equipment information can provide them with a basis for ensuring that:

- Training programs provide appropriate instruction on the use and maintainance of the equipment.
- Selection procedures do not admit those who cannot be trained to operate the equipment.
- Officers are not issued or asked to use equipment on which they have not been qualified.

The Department, the Advisory Committee, and the contractor set out to identify each piece of unique equipment owned by a law enforcement agency and used by officers on the job. In many instances, the same equipment performing the same function was known by different names in different agencies. When equipment names were in conflict, either generic names were used, or two or three names were listed on the same line.

Part IV: Special Requirements Section

Special requirements refer to those aspects of the job which are not tasks but may have a bearing on the performance of the tasks. Information from the special requirements section will amplify the task data, as well as aid in the interpretation of the data from the other sections of the survey. This data will also aid in identifying some basic differences and similarities among the eighteen agencies.

The Special Requirements Section lists nine different aspects of the job for the officers to consider. In the survey booklet, each aspect is called a "Group." There are a total of 184 possible responses to these nine groups. The groups are:

- Functions
- Areas Patrolled
- Type of Transportation used in Patrol
- · Special Operations
- Agency-Interagency Work
- Pre/Post Duty Activities
- Supervisory Duties
- Adjunct Activities
- Physical Activities

The basis for the development of this section was primarily drawn from the analysis of the interview data and from the literature review. Officers were asked to rate each of these groups, except adjunct activities and physical activities, in terms of the relative amount of time they spent performing them. For adjunct activities they were asked to specify the frequency of their performance, and for physical activities they were asked to indicate whether they performed the activity.

Each of the nine aspects covered in the special requirements section is described below:

Group 1—Functions. This group defines the occupation from the aspect of four broad functions: maintaining public order, providing public service, law enforcement, and writing reports. A fifth response allows for the officer to account for the amount of time spent on "all other" functions.

Data from this group can be used to establish some basic reference points from which task list data may be interpreted. For example, the data might indicate that officers spend a great deal of time providing public service, while the training cur-

riculum indicates that they receive little or no training in it. With data of this kind in hand, officials might well decide to shift the emphasis of the training program to include more public service functions. The tasks associated with that function could then be identified from the task list and used as the basis for designing further instruction.

Group 2—Areas Patrolled. Patrolling is a significant aspect of a line officer's job. Among the eighteen agencies surveyed, however, there are a number of possible patrol situations. This group of questions asks the officers to identify the types of areas they patrol (i.e., residential, rural, commercial, gulf or ocean, etc.) and to indicate the relative amount of time they spend in each area.

Data from this group can be matched with the agencies in a given geographic area to obtain a composite picture of the patrolling activities within and between agencies. This information could be useful in making assignments of personnel to the areas of greatest need. The actual time spent could be compared to crime statistics to be sure that the proper time and presence distribution is maintained.

Group 3—Type of Transportation used on Patrol. This group follows up the previous group by identifying how the patrol was accomplished (on foot, helicopter, boat, marked or unmarked vehicle, etc.) and how much time was spent using each.

Group 4—Special Operations. Special operations are those divisions, bureaus or special duties within the different law enforcement agencies which deal with unique aspects of law enforcement (i.e. vice, narcotics, SWAT, traffic, ranch and grove, etc.). Data from this group could aid personnel officers or managers in identifying staffing requirements. The data could also be compared against crime rate indices and used to arrive at decisions related to manpower allocation and utilization.

Group 5—Agency-interagency work. This group provides estimates of how much time was spent assisting other law enforcement agencies. The information can be very useful in deciding on the appropriate jurisdictions of different agencies.

Group 6—Pre/Post Duty Activities. This group identifies those check-in, check-out, administrative, and training activities that are a part of the job, but which are not clearly tasks. The information derived from this group should be useful to managers in deciding on the amount of time that should be spent on these activities.

Group 7—Supervisory Duties. This group provides estimates of the amount of time spent in supervisory duties, as well as the kinds of people supervised. Managers can find out whether those supervising should be supervising and if they are spending the scheduled amount of time supervising.

Group 8—Adjunct Activities. In this group, twenty-six different activities covering a broad range of duties and settings are presented to the officers to rate on a frequency of performance scale. The activities range from making presentations to a variety of audiences, through practicing with firearms, to interviewing and mediating. Data from this group will be especially useful in

analyzing those tasks associated with the general function of providing service, for this is an area which appears to receive little attention and yet is considered to be a vital function of the profession.

Group 9—Physical Activities. This final group seeks to collect data which could help to establish standards related to the physical abilities of law enforcement officers. This is an area which has undergone considerable investigation and as yet there are no clear cut and defensible guidelines for the implementation of physical standards. This group listed thirty-three possible responses related to the physical activities of lifting, carrying, dragging, pulling, or pushing objects or people of various weights (range 20 lbs. to over 130 lbs.), and climbing or running various heights or distances over various objects or terrain. The officers were asked to indicate only those activities they engaged in.

Part V: Forms and Reports Section

Rationale

Previous law enforcement surveys emphasized background, tasks, equipment, special requirements and personal comments. Few, if any, have explored the realm of forms and reports. However, during the extensive interviews with officers, observations, consultations with managers, and discussions with trainers, it soon became obvious that the accurate preparation of required reports is crucial to effective job performance. Comprehensive information on the forms and reports required should be equally valuable to personnel officers, managers and trainers.

Sources of Forms and Reports

Examples of the forms and reports used in law enforcement were solicited from many agencies, compared, and compiled. The resulting Forms and Reports Section contains 110 different forms and reports. In this section, officers were asked to indicate by checking in the the answer booklet whether they used each form or report.

Implications

Personnel officers could use the data from the Forms and Reports section of the survey to develop means for measuring the reading, writing, and interpreting skills of potential recruits. For example, reading aloud and writing skills are involved in completion of the Alcohol Influence Report. The officer must write the date, time, location, and name of the person involved, as well as describe the clothes the person is wearing. The officer must make several judgments about the person's attitude, eyes, and speech, and must select the proper discriptors for each. The officer must also administer several tests and record the results.

The Parking Lot Accident Report is an example of a report that requires officers to sketch an accident scene and to receive

the information both by observation and orally before recording it on the form.

Commonly available methods could be used to develop job related selection tests on reading, forms completion, and ability to follow instruction. Such tests could then be used as a part of a complete law enforcement selection strategy intended to improve the overall quality of personnel.

Part VI: Personal Comments Section

Occupational analysis is intended to be a dynamic process. The need for follow-up becomes evident after the initial data has been evaluated and decisions are made. Follow-up surveys should become standard operating procedure within an organization and should be conducted on an adequate sample about every two to three years. These follow-up surveys can reveal the impact new standards have made, or what effect new training programs have had, or how new management policies have affected work patterns.

In order to improve upon the entire occupational analysis process within an organization, there must be an opportunity for some evaluation of the existing procedures. In Part VI—Personal Comments Section of the current survey, there are five questions which ask the officers to supply information that would make future surveys better. Four of the questions ask them to list any missing tasks, equipment, special requirements, or forms. The fifth question asks them to identify any improvements that could be made to the format of the survey and the administration process. The information from this section is used to update and improve any of the six parts of the survey and to improve the way the survey looks and is administered.

This section also provides an opportunity for individual officers to make suggestions and recommendations about the work, their assignments, and other areas of importance to them.

Results

Data Description

The first section of the survey booklet requested information about the agency, location, background, experience, training, and personal characteristics of the officers. All of this data is collected in order to combine it at a later time with tasks performed, equipment used, or other items in the data base to get a better picture of law enforcement jobs and people. Highlights from the data analysis will be summarized here. The complete data analysis is contained in the Final Report.

Table 2 shows the age distribution of Florida Law Enforcement, and Table 3 indicates their length of service. It would be possible (but there isn't enough space here) to show the educational levels by the number of years in law enforcement. Combinations of variables like these can be made for almost any set of data collected in the survey.

Of those officers completing the survey:

- 83% were in rank 1 (patrolman), 6% in rank 2 (corporal) and 11% were sergeants and above.
- Some 6.5% said they could not swim.
- About 89% were male and 11% female.
- 13% were previously officers in another state.
- 12% received their first basic training in another state.
- 42% were on the day shift, 30% evening, 18% night, and 11% on relief or other.
- 3% were American Indian, 7% Black, 85% Caucasian, 5% Spanish surname.
- 24% had corrected vision when hired, and 27% now

Table 2.

Age Distribution for Law Enforcement Officers in Florida

Age Group	Percent of Officers in that Group
20 - 24	5
25 - 29	25
30 - 34	30
35 - 39	19
40 - 44	10
45 - 49	6
50 - 54	3
55 +	2
Total	100

Table 3.

Time in Law Enforcement, Agency, and Present Job
Results represent percent of officers responding.

Less than 1 year 1 year but less than 2 years 10 15 2 years but less than 6 years 27 29 33 6 years but less than 12 years 43 38 26 12 years but less than 18 year 11 9 18 years or more

Table 4 presents the physical demands and requirements. Some 41% reported running over rough terrain 100 yards or more and 48% said they climbed straight up on trucks or buildings.

Table 4. Percent of Officers Performing Selected Physical Activities

Percent

Performing

Lift objects weighing 70 pounds or over 48 Carry objects weighing over 70 pounds more than 10 feet 29 Drag or pull objects weighing over 70 pounds more than 10 feet 30 Carry or drag persons weighing over 130 pounds more than 10 feet 36 Push objects or vehicles weighing over 70 pounds more than 10 feet 60 Climb steep inclines (fences, walls, ditch banks) 4 feet to 8 feet 61 Run over rough terrain (with uneven surface) 100 yards or more 41 Climb straight up as on a truck or building 48

CODAP Reports

Examples of the kinds of results obtained in the total survey are presented below. These results are for the sample in the data base which is called "Total Florida Law Enforcement" which is a 5% proportional sample by agency of all law enforcement officers in Florida. The results are given mostly in percentages, either percentages of the total group who perform a task, or the percentage of time that they spend performing a task. These results are all special reports from the CODAP system.

In the survey, the officers answered 1069 questions about themselves and their jobs. These questions are organized into selected groupings for ease of data collection and analyses. Reports similar to these and many more can be produced for subsets of the total population. For example, these examples could have been selected from police alone, sheriffs alone, or from large metropolitan areas, or for any other group large enough to make the selected reports meaningful. However, for purposes of illustration and reporting of the Florida total statistics, these examples have been confined to the "Total Florida Law Enforcement" sample.

Job Description

In Table 5 is the abbreviated *job description* of a typical Florida law enforcement officer, based on the data from officers in all agencies and all parts of the state. This table was developed from one of the basic CODAP reports. There are five columns of numbers, each having a different title. The report in this table was printed out in the descending order of column 3, "Average percent time spent by all members."

The first column, "Percent of members performing," means that in the total sample, 93% of the officers indicated that they performed the third task: Make arrest. In column two, the officers who perform the task have indicated that they spend about 1.07% of their duty time on that task. Column three indicates that about 1% of all duty time for all law enforcement officers is spent making arrests. The column three number is lower because only 93% of the officers do it. In column four, each successive column three number is added to get the cumulative sum of times. Notice the number 5 in column 5 beside the cumulative percentage 5.02. The "Task sequence numbers" indicate that the first 5 tasks on the list account for 5.02% of duty time, and the first ten tasks account for 9.23%. Reading further down in those two columns, you see that by the time 23 tasks have been listed, about 22% of duty time has been accounted for. The complete analysis for all tasks is in the Final Report.

Job descriptions could be printed out for any named officer or group of officers (if they had been identified by name) that managers or personnel administrators wanted to have more information about. For example, a manager might want to compare the job descriptions of the day shift and night shift to see any differences in the complexity of the jobs. That comparison can be made with the existing data base, because the survey asked

Table 5. Excerpt from Job Description for Sample of Total Law Enforcement Officers in Florida

CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY AL AVERAGE PERCENT TIME SPENT BY ALL MEMBERS		***********		Т	ASK SEQ NO
RUN OR REQUEST TELETYPE CHECKS OF WANTS OR WARRANTS	94.25	1.16	1.09	1.09	
REQUEST RECORDS CHECKS (SUCH AS FIREARMS, STOLEN EQUIPMENT,	94.15	1.07	1.01	2.10	
MAKE ARREST	93.42	1.07	1.00	3.10	
ADVISE PERSONS OF RIGHTS (PER MIRANDA)	92.89	1.05	.98	4.08	
ISSUE CITATION OR WARNING	82.76	1.13	.94	5.02	5
INTERVIEW PERSONS (SUCH AS SUSPECTS, CITIZENS, OR IN-	02.70	1.10	.54	0.02	3
FORMANTS	86.31	1.08	.93	5.95	
CONDUCT TRAFFIC STOP	82.97	1.06	.88	6.83	
VERBALLY REPRIMAND OFFENDERS IN LIEU OF ARREST OR	02.01			0.00	
CITATION	82.86	.98	.81	7.64	
APPREHEND SUSPECTS (SUCH AS SMUGGLERS OR VIOLATERS)	86.83	.93	.81	8.45	
PROVIDE STREET OR HIGHWAY DIRECTIONS	85.68	.92	.79	9.23	10
SEPARATE OR COUNSEL PEOPLE INVOLVED IN DOMESTIC OR			•		
CIVIL DISPUTE	78.16	1.00	.78	10.01	

 ∞

what shift each officer was assigned to. Trainers or personnel officers might use the results of such a comparison to ensure that assignments to different shifts are made on the basis of certain experiences or qualifications.

Group Summary

Table 6 contains a second CODAP output which allows for the comparison of identified groups with each other. The Table 6 data covers all law enforcement officers in the state, compared by agency. The tasks are listed in the same order as they were listed in the survey booklet. In column 1, the percent of members performing the task is reported for the total 957 officer sample. Each additional column is coded to a specific agency. Reading from left to right for task number 1, Examine abandoned vehicles, 90% of the total law enforcement officers do it, while 99% of the Florida Highway Patrol perform it.

At the top of the table the number of people in each of the agencies represented is listed. There were 1951 responses from the sheriffs, 2465 from the police, and so on. Each of these groups may be compared separately to the law enforcement sample.

The purpose of the report is to allow managers to compare the work being done in their own departments with that being done elsewhere, in order to make adjustments in assignments, training, or selection where appropriate. While this group summary was computed on agencies compared to the total sample, it could be computed for any combination of groups available in the data base. For example, a manager might want to know whether there were any differences between the tasks performed, or the amount of time spent on them, for officers with different ages, education levels, or kinds of preservice training. Group summary reports can be done for any combination of groups or individual officers.

(SUCH AS SMUGGLERS OR VIOLATERS)
GHWAY DIRECTIONS
L PEOPLE INVOLVED IN DOMESTIC OR OFFENDERS IN LIEU OF SUSPECTS, CITIZENS, ARREST 9 5.95 6.83 4.08 5.02 .64 .09

Table 6. Excerpt from Group Summary of All Agencies, Part 1 of 2

Abbreviations used. (Number of members in this sample.)

POL AGR	 Total Law Enforcement (957) Total Sheriff Departments (1951) Total Police Departments (2465) Department of Agriculture (88) Game and Fresh Water Fish Commission (195) 	FHP = To	epartment of Transportation (44) ept of Law Enforcement (10) tal Highway Patrol (551) iversity Police (90)
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GAF = Game and Fresh Water Fish Commission (195)			UP	= Uni	versity F	Police (9	0) ′		
		Pe	rcent o	f Officer	s Perfo	ming Ta	ask, By	Agency	
TRUNCATED TASK DESCRIPTION	LE	SHF	POL	AGR	GAF	DOT	DLE	FHP	UP
EXAMINE ABANDONED VEHICLES	90	89	91	50	98	80	50	00	00
INVESTIGATE REQUESTS TO TOW AWAY VEHICLES OR VESSELS INFORM VEHICLE OWNERS OF LEGAL OBLIGATIONS OR PROCEDURES	80	79	84	6	57	27	0	99 92	93 87
	81	81	85	6	62	39	30	93	00
ARRANGE FOR REMOVAL OF VEHICLES (SUCH AS ABANDONED, RUN OR REQUEST TELETYPE CHECKS OF WANTS OR WAR-RANTS	85	84	87	28	72	50	70	98	88 87
REQUEST RECORDS CHECKS (SUCH AS FIREARMS, STOLEN EQUIPMENT,	94	96	95	43	98	82	100	98	94
ESTIMATE SPEED OF MOVING VEHICLES	94	94	95	47	97	73	80	0.0	07
INFORM PERSONS OF ACCIDENT	76	74	81	14	86	86	10	98	87
INFORM PERSONS OF ACCIDENT REPORTING PROCEDURES	78	72	84	24	72	41		97	89
EXPLAIN LEGAL OBLIGATIONS TO VEHICLE OPERATORS	80	78	84	40	81		0	98	92
ADMINISTER FIELD CHECK TO SUSPECTED INTOXICATED DRIVERS			Unit	40	01	86	0	96	92
ADMINISTER BREATHOLIZER TEST TO SUSPECTED INTOX- ICATED	73	71	79	5	63	52	10	95	72
ASSESS DRIVER'S ABILITY TO OPERATE VEHICLE (DUE TO AGE,	27	24	32	0	15	9	0	66	30
REQUEST READMINISTRATION OF DRIVER'S TEST	66	63	72	17	66	70	10	90	
BECORD SERIAL NUMBER IDENTIFIES TEST	33	24	37	1	13	9	10		67
RECORD SERIAL NUMBER, IDENTIFICATION MARKS, OR TAG	82	79	83	72	94	82	80	68	24
INSPECT VEHICLE OR VESSELS FOR CONFORMANCE WITH SAFETY			-	12	34	02	80	93	80
PUSH OR TOW VEHICLES OR VESSELS (SUCH AS DISABLED OR	56	48	57	3	94	100	0	93	67
EXTINGUISH VEHICLE OR VESSEL FIRES	77	71	80	35	90	73	0	94	84
TRANSPORT PERSONS (SUCH AS INJURED, DECEASED, OR LOST	50	48	48	36	58	70	10	87	80
2031	87	87	88	30	92	80	90	94	90

Table 6 Excerpt from Group Summary of All Agencies, Part 2 of 2.

Table 6. Excerpt from Group Summary of All Agencies, Part 2 of 2.

Abbreviations used. (Number of members in this sample.)

BEV = Division of Beverage (82) FMP = Marine Patrol (141) LGS = Legislative Security (15) FOR = Division of Forestry (15) FIR = Fire Marshall (8)	PRK STS SCH APS	 Park Rangers (30) State Attorney Offices (109) School Authorities (10) Airport Security (94)
---	--------------------------	---

	BEV	FMP	Pere LGS	cent of	Officers FIR	Perforn PRK	ning Tas STS	sk, By A SCH	gency APS
TRUNCATED TASK DESCRIPTION									
EXAMINE ABANDONED VEHICLES NVESTIGATE REQUESTS TO TOW AWAY VEHICLES OR	34	93	80	87	75	73	36	100	99
VESSELS	12	74	93	27	38	30	14	100	97
INFORM VEHICLE OWNERS OF LEGAL OBLIGATIONS OR PROCEDURES	13	60	73	20	63	37	32	100	94
ARRANGE FOR REMOVAL OF VEHICLES (SUCH AS ABANDONED, RUN OR REQUEST TELETYPE CHECKS OF WANTS OR	27	55	87	40	75	50	21	100	98
WARRANTS	73	94	73	100	88	63	94	100	98
REQUEST RECORDS CHECKS (SUCH AS FIREARMS, STOLEN EQUIPMENT,	82	89	73	87	88	57	80	100	99
ESTIMATE SPEED OF MOVING VEHICLES INFORM PERSONS OF ACCIDENT REPORTING OR INFOR-	13	60	40	27	25	40	17	20	81
MATION	12	73	73	47	38	27	13	80	93
EXPLAIN LEGAL OBLIGATIONS TO VEHICLE OPERATORS ADMINISTER FIELD CHECK TO SUSPECTED INTOXICATED	6	67	53	33	50	50	28	100	89
DRIVERS ADMINISTER BREATHOLIZER TEST TO SUSPECTED IN-	4	40	27	0	25	17	7	20	74
TOXICATED ASSESS DRIVER'S ABILITY TO OPERATE VEHICLE (DUE	2	6	13	0	13	7	2	0	18
TO AGE.	4	42	40	0	25	27	8	20	70
REQUEST READMINISTRATION OF DRIVER'S TEST RECORD SERIAL NUMBER, IDENTIFICATION MARKS, OR	1	3	20	0	25	3	2	0	20
TAG	63	79	53	93	75	70	44	80	77

Group Difference

Table 7 presents the results of a single CODAP group difference report. Group difference is designed to identify those tasks on which the two selected groups are most different. The group difference report selected for this example was prepared on officers who have college work compared to those who do not. It could be prepared on any two identified groups or individuals in the survey population selected on any basis, including, for example, age, sex, time in law enforcement, or rank.

The program is organized to present the tasks in the descending order of differences between column 1 and column 2. In Table 7, column 1 contains the responses from high school trained officers, and column 2 presents the data from college trained officers. The first task listed is the task in which there is the greatest difference in frequency of performance between the high school and college groups, and is performed more often by the high school group. About 31% of the high school group "Administers breatholizer test to suspected intoxicated drivers or pilots," while only 23% of the college group does. Column three presents the algebraic differences in descending order of those tasks performed more by the high school group than the college group.

Going now to the last task on the list, "Provide help to mentally disturbed citizens," the column three difference is -14%, which means that it is the task with the greatest difference in frequency of performance between the two groups, and is performed more often by the college trained officers, a difference of 14%. While only well informed managers and personnel administrators would know whether these two differences are *important* differences, the reports can highlight what those differences are.

Table 7. Excerpt from Group Difference Report Comparing High School and College Educated Law Enforcement Officers in Florida

RENCE, TOTHS MINUS TOTCL	MINUS TOTCL			22.68	7.69 .36	33.73 7.41 .31	7.01 .25	11.24 6.48 .12	15.38 6.43 .13	4.34	46.15 5.44 .38	14.09 8.68 5.41 .11	Table	44.09 52.27 -8.18 .27	70.02 -8.20 .53	-8.44 .27	44.97 -8.61 .20	13.86 22.49 -8.62 .07 .11	53.65 -8.65 .26	64.50 -8.82 .41	65.29 -10.06 .39	-11.01 .45	62.52 -11.39 .45		50.00 64.10 -14.10 .37 .43
AVERAGE PERCENT TIME BY ALL GROUP MEMBERS—DIFFERENCE, TOTHS MINUS TOTCL TOTCL AVERAGE PERCENT TIME BY ALL GROUP MEMBERS	 PERCENT MEMBERS PERFORMING—-DIFFERENCE, TOTHS MINUS TOTC	IOI NO PERCENI MEMBERO PERFORMING	TRUNCATED TASK DESCRIPTION	ADMINISTER BREATHOLIZER TEST TO SUSPECTED	PERFORM PREVENTIVE MAINTENANCE	PHOTOGRAPH SCENE OF INVESTIGATION	PERFORM EMERGENCY REPAIRS	MAKE IMPRINTS OF TIRE, ANIMAL, OR FOOT MARKS	DELIVER DEPARTMENTAL MAIL	SHAKEDOWN CELLS, CELL BLOCKS, OR TANKS	ISSUE PICK-UP OR WANTED NOTICES	PHOTOGRAPH LATENT FINGERPRINTS	Middle of Task List Deleted for This	CONSULT PROSECUTOR ON STATUS OF OUTSTANDING CHARGES	EXPLAIN RULES AND REGULATIONS	PLAN TACTICS FOR CONDUCTING INVESTIGATIONS	CONDUCT STRIP SEARCH	EVALUATE INSTRUCTORS	PARTICIPATE IN EXECUTION OF SEARCH WARRANTS	\sim	SEIZE OR CONFISCATE EVIDENCE	DETERMINE MODUS OPERANDI OF CRIME	MAINTAIN OWN FILE OF WARNINGS OR ARRESTS	CONFRONT OR MONITOR GROUPS	PROVIDE HELP TO MENTALLY DISTURBED CITIZENS

Equipment List

Table 8 is a summary of the most frequently used equipment. Equipment lists can be used to identify equipment distribution, or to plan training programs, and in many other ways. The equipment list could be combined with other data in the report to see, for example, whether there are differences in equipment usage between selected groups of officers or kinds of agencies.

There are 22 items of equipment that are used by 50% or more of the officers, and, of the total of 246 items of equipment, 200 of them are used by 25% or less of the officers.

Table 8. Equipment Useage for Total Law Enforcement Within Florida

EQUIPMENT FROM SURVEY BOOKLET	PERCENT OF MEMBERS USING
REVOLVER OR PISTOL PATROL CAR RADIO (MOUNTED)	90.6 86.6
HANDCUFFS, LEGIRONS, WAISTIRONS, THUMBCU OR FLEXCUFFS AUTOMOBILE (MARKED PATROL CAR) 2-WAY RADIO/WALKIE-TALKIE	84.2 80.9 79.4
PHOTOCOPIER (SUCH AS XEROX MACHINE) TYPEWRITER WEAPONS CLEANING KIT SHOTGUN VEHICULAR WARNING LIGHTS (BLUE LIGHTS)	78.1 77.2 75.6 74.1 70.8
SPOTLIGHT AUTOMOBILE (UNMARKED CAR) BASE STATION POLICE RADIO BATON (NIGHT STICK) BATTERY JUMPER CABLES	70.7 70.1 68.4 67.2 65.9
BINOCULARS FIRST AID SUPPLIES ELECTRIC SIREN BODY ARMOR (HIDDEN VEST, EXTERIOR VEST) ACCIDENT INVESTIGATION EQUIPMENT	63.4 62.9 60.9 59.1 53.6
MAPS (INCLUDES AERIAL AND TOPOGRAPICAL) CALCULATOR/ADDING MACHINES FIRE EXTINGUISHER-OR FIRE AGENTS PUBLIC ADDRESS SYSTEM TAPE RECORDER (CASSETTE)	52.4 52.0 47.6 45.5 42.5
TAPE MEASURE INSTANT PICTURE CAMERA (SUCH AS POLAROID) TELETYPE STORAGE FILE FLARES	41.4 41.0 40.9 40.6 40.4

Forms and Reports

Table 9 is a summary of the forms and reports section of the survey. The forms and reports summary is a listing of all of the identified forms and reports used by any officer in any agency. There are twenty reports that are used by 50% or more of the officers and 61 of the 110 forms and reports are used by less than 25% of the officers. The implications of the forms and reports section potentially affect managers, training officers, and personnel administrators. Implicit in any analysis of the forms, there are certainly requirements for reading, interpreting requirements, writing coherently, and filing promptly.

Table 9. Forms and Reports Useage for Total Law Enforcement Within Florida

	PERCENT
TITLE OF FORM FROM SURVEY BOOKLET (truncated)	OF MEMBERS USING
OFFENSE OR MULTI-PURPOSE REPORT OR	
SUPPLEMENT MIRANDA STATEMENT OR ADVICE OF RIGHTS	93.5 88.7
CITATIONS	81.5
STOLEN OR TOWED VEHICLE REPORT	79.9
PROPERTY RECEIPT OR CHAIN OF CUSTODY	79.7
VEHICLE OR VESSEL ACCIDENT REPORTS	66.8
DRIVER EXCHANGE OF INFORMATION (VEHICLE ACCIDEN)	
CRIMINAL RECORD CHECK REQUEST VEHICLE INVENTORY IMPOUNDED, STORAGE RECEIPT	65.5 65.4
DRIVER'S RECORD OR LICENSE STATUS CHECK REQUEST	63.8
ACTIVITY REPORTS OR WORKSHEETS	63.8
MISSING PERSON REPORT	63.1
FIELD INFORMATION CONTACT REPORT OR SUPPLEMENT	62.0 61.2
ARREST TICKET (STATE ATTORNEY INTAKE WORKSHEET) JUVENILE COMPLAINT, ARREST, OR REPORT FORM	61.0
PARKING VIOLATION OFFICIAL WARNINGS, SUCH AS TRAFFIC,	60.4
PUBLIC NUISANCE	56.8
HARASSING OR OBSCENE PHONE CALL INFORMATION	54.4
REFUSAL TO SUBMIT TO CHEMICAL TEST REQUEST FOR LAB ANALYSIS	52.6 52.4
TEGOLOT OTTENO THAT I TOTAL	J2.4
RESISTING OR OPPOSING ARREST	10.0
OR OFFICER'S ACTIONS REPORT CANCELLATION (WANTED PERSON OR VEHICLE)	49.8 48.6
NOTICE TO APPEAR (DEFENDANT), SUBPOENA	48.2

Special Requirements

In order to get many different views of law enforcement jobs, a number of other questions were asked and categorized under the general heading of special requirements. We asked officers to estimate the total amount of time spent in some general categories of work that cannot properly be defined as tasks. Figure 1 shows the relationship of the various categories of duty time, with some 25% of total duty time devoted to the preparation of reports.

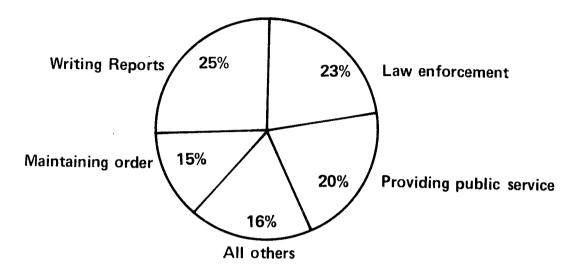


Figure 1. Percent of time spent in various duties.

Table 10 lists the kind of vehicle used on patrol. Some 9.8% of them, for example, reported that they patrol in a fixed wing aircraft.

Many officers reported being assigned to special operations or details. Table 11 indicates the relative amount of time they spend on these special operations.

Table 10. Types of Transportaton Used on Patrol	Used on	Patrol		
CUMULATIVE SUM OF AVERAGE PERCENT TIME SPENT BY ALL MEMBERS AVERAGE PERCENT TIME SPENT BY ALL MEMBERS	IT BY ALL	MEMBE	RS	*****
PERCENT OF MEMBERS PERFORMING	ORMING.	1	*****	
	***********		**********	* = = = + + = = = + = + + = + + + + + +
TRUNCATED TASK DESCRIPTION	**********	**********	0 # A } * O \$ # * * * *	**********
IN MARKED VEHICLE	79.41	49.02	38.93	38.93
IN UNMARKED VEHICLE	77.53	29.87	23.16	62.09
ON FOOT	59.25 60.71	26.73 18.61	15.84	77.92
ON MOTORCYCLE IN BOAT	12.75	20.67	2.64	91.85
ON PATROL WITH OTHER TYPE OF TRANSPORTA.	15.78	15.82	2.50	94.35
IN HELICOPTER	10.55 9.09	10.60 8.88	1.12	95.47
ON HORSEBACK IN FIXED WING AIRCRAFT	8.36 9.82	9.64 7.63	.81 .75	97.08 97.83

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ble 11. Excerpt from Special Operations for Total Law Enforcem

Potential Uses of Job and Task Analysis Data

Description of Status Quo

At its ultimate, a high-quality job and task analysis is an accurate description of the current activities taking place within an occupation at the time the analysis is conducted. The better the quality of the analysis, the more accurate the description of the status quo. Job and task analyses are not done for their own sake, they are done as a means to assist those responsible for changing and improving current operations. Three main areas of responsibility are supported in a task inventory-occupational survey approach to job analysis:

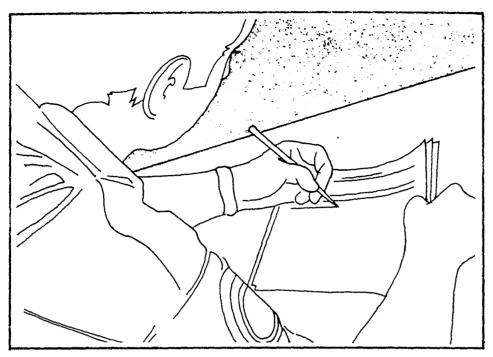
- Management
- Training
- Personnel administration.

Even though a job and task analysis is conducted in a fixed time period on a specified group of employees, the results of the Florida statewide job and task analysis are intended to be used as a significant first step in a continuing program of work by the Department and participating agencies. The project is a part of a continuing Department commitment to systematic improvement of management, training, and personnel administration. To realize the full value of the job and task analysis methodology, it will be necessary to survey other occupations, ranks, and specialties within the law enforcement community from time to time, and to repeat the initial survey periodically in order to track and respond to changes in the occupation—changes often brought about by new laws, policies, or requirements identified in the process of collecting earlier data.

Management Uses

There are many views of what management responsibilities are. However, in this report, it will be assumed that the primary role of manager is to allocate the physical, financial, and personnel resources of an organization to achieve a stated mission. To achieve a mission, the manager must gain control of these resources to ensure that results are compared to plans and that action is taken on any discrepancies.

By analyzing the results of the survey item by item and by combining information, the manager can get a much clearer picture of the actual jobs being performed by the personnel assigned. The number of possible combinations of items is—literally—astronomical, but some are more rational than others. In Figure 1, it can be seen that the total law enforcement community spends 25% of duty time doing reports and completing forms. One question that could be asked of the data is how similar to or different from the law enforcement community as a



whole one's own agency is. An equally important question might ask about the kinds of forms that are taking up the time. These questions, and many more, could be answered by special computer analyses of the existing data base.

It is also possible to use data from the original and subsequent surveys to track the implementation of changes in statutes or in organizational policy. It is possible that legislation could require officers to perform an additional specific function at the time of arresting a suspect much in the way that court decisions have mandated the Miranda card. Or, departmental policy may require the use of special equipment or protective clothing such as the body armor now required by some agencies. Initial and subsequent surveys could provide managers with information about the general effect of the policy change. The fundamental basis of the occupational survey approach is that if managers have significantly better information, they can make much better decisions.

From time to time, citizens' groups confront the law enforcement community with various charges of discrimination, inadequate protection, or other issues that arise in the changing context of society. When these charges are heard and changes are agreed to, managers can use occupational survey data to track the compliance with agreements reached in that political context. Publication of these data on a relatively regular basis can be interpreted as evidence of good faith, particularly in light of the quality of the data available to support the claim.

Training

For a variety of important reasons, there is now in the law enforcement profession a distinctly increased interest in both pre-service and in-service training. While the major part of this interest is motivated by attempts to find ways to prepare recruits better for initial jobs, other factors have also had an important impact. It is no longer possible to ignore the potential for civil liability suits charging that one or another facet of the training program was incomplete, inadequate, or incorrect.

Clearly, whether officers do what they are supposed to do on the job is the joint responsibility of the officers, their supervisors and managers. But, if they have not been trained to do what they are supposed to do, this lack can be perceived to be the responsibility of trainers and those who establish curricula for training. And, in recent years, this concern has come to mean that training should be defensibly job related and adequately tested.

For example, if it could be shown that first year officers spend an important amount of their time in performing tasks for which they had not been trained, it is reasonable to believe that if they, or the public, were harmed while performing those tasks, legal liability would be possible, perhaps likely. The potential for liability could be increased if it could also be shown that officers were given training instead on tasks or functions that were not a

part of a first year officer's job.

The primary benefit of job and task analysis data to trainers is to get highly detailed data on the actual job situation. From that information, it is possible to make informed and systematic trade-offs in the training curriculum. But why can't individual trainers who have many years of law enforcement experience use their own judgment about what is important in the training program? Of course they can! But, no trainer has experienced all of law enforcement; consequently, of necessity, the perception of what is required is limited to the individual's own experience. If that experience is narrow, the training curriculum will likely reflect that limitation. More importantly, if trainers are required to provide testimony based on their own limited experience, others can certainly provide conflicting testimony.

Personnel Administration

Occupational survey data bears a direct relation to three areas of immediate interest to personnel administration:

- Selection
- Performance appraisal
- Job classification.

There is a considerable literature available on the legalities and technicalities inherent in developing selection tests and procedures. Little is to be gained by rehashing those issues here. However, it is important to note that the methodology employed to obtain the data in this study was designed to identify in considerable detail exactly what officers do on the job. No other procedures are currently known that provide a better base from

which to develop the job related aspects of officer selection tests and procedures. There are other issues in selection which are not covered by the questions raised in job and task analysis. These are related to psychological screening and background investigations and must be addressed from other points of view.

From Table 4 in the results section, it can be seen that officers from the survey were required to exert considerable physical effort (running, climbing, dragging) in the normal conduct of their jobs, with some 48% of officers having to lift 70 or more pounds. Such information must be taken into account in the total personnel acquisition program. *Some* of the physical strength and agility capabilities can be trained if agencies choose to do that. Some physical strength requirements probably cannot be trained in any reasonable period of time, and some perhaps not all. However, applicants would likely differ considerably in their potential for developing suitable physical strength and agility solely from training.

All job and task analysis data implications for officer selection are based on the assumption that there are considerably more applicants than available positions. If there are not more applicants than positions, the personnel administrator is confronted with a seemingly insurmountable difficulty. Some opportunities to overcome this difficulty may also be found in the data available from the survey. These will be treated in the section of job classification and design.

Job Classification and Design

Two files in the data base contain information about the percent of officers who actually perform any listed task, and the percentage of their time devoted to performance of that task. Further, the equipment list and other activity data may provide information that could give leads to possible job redesign.

From Table 4 it is noted that 48% of officers actually lift 70 or more pounds. It could be possible that the item required to lift is a specific piece of equipment, a fact that can be obtained from the equipment list. Having discovered that the lifting is confined to specific pieces of equipment, it is reasonable to believe that the task could be revised to provide for two people to lift it, or it could be replaced with lighter weight or modular equipment.

The data base from the job and task analysis can provide considerable evidence of the relationship between job requirements and training programs. See, for example, Table 9 which lists the forms that are required to be completed by 50% or more of the officers. Some of these forms require a moderate degree of English fluency. What should be the relationship between job requirements in the basic skills and the selection and training programs? Again, it most likely depends on the relationship between positions available and the size of the applicant pool. However, tests for selection or for progress in training could be based on the forms-related tasks with a reasonable degree of confidence that they were job related.

Performance Appraisal

There has been strong pressure developing to move from performance appraisals based on personality characteristics such as "initiative," "cooperativeness," and other ill-defined and difficult to measure constructs to a more performance-based jobrelated approach. In fact, many labor contracts now call for appraisals to be done only on the *duties assigned* rather than the duties available.

A significant benefit of the CODAP methodology is the ability to obtain a *complete job description* on any defined group of officers (e.g. night shift, time in service, women) in terms of the number of tasks they perform or the amount of time spent in performing any task or group of tasks. From these detailed job descriptions, it is then possible to prepare performance appraisals which are based only on the duties that were assigned at the time of the survey.

Standards

Existing standards that have been used to screen applicants have been based on the intuitions of experienced managers about the important characteristics officers should have. In Florida, officers must be U. S. Citizens, high school graduates, be of a minimum age, receive a physical examination, and be of good character. However, the job-relatedness of these standards has not been empirically demonstrated. Standards that have not been validated by the using agency may be considered arbitrary by the courts and declared invalid.

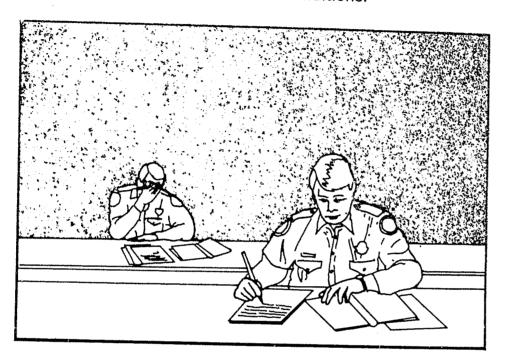
Analysis of the data base established in the job and task analysis project can provide the basis for developing empirically validated job related standards which would be far more likely to meet legislative and court requirements. While it is not possible to guarantee *in advance* that any attribute or characteristic would serve as the basis for a standard, it is possible to make intelligent guesses about good potential standards.

Initial analysis of the data indicates that there are several basic skill components to the job, including reading, writing, interpreting data, and preparing accurate forms and reports. Psychomotor and dexterity factors could well be required for the operation of equipment known to be used by a significant fraction of officers. Physical strength and agility factors may be important based on the kinds of physical activities engaged in by large numbers of officers, such as running, climbing, lifting, and others.

To develop statewide standards, candidate factors would have to be subjected to a series of straightforward validity studies that would establish the relationship of the factor to all agencies in the state. Two considerations are important. The first is the *job relatedness* of the factor to be considered, and the second is the *accuracy* with which the factor can be measured. It

must be possible to show that officers who pass a particular test can perform on the job, and that those who do not pass the test cannot perform on the job. Further, the method of measurement must treat all applicants fairly.

The job and task analysis project has established the critical basis upon which statewide standards can be developed and defended. In addition, it has established the basis that could be used by local agencies to implement standards which are peculiar to local requirements and conditions.



Conclusions

The project was intended to identify job content common to all law enforcement officers in Florida in order to provide a basis for developing selection, training, and other personnel management procedures. To achieve that end, we collected highly specific job data from more than six thousand officers and then analyzed the data to identify those areas of greatest similarity for all officers. These areas of similarity were spread across job tasks, forms and reports, equipment usage, and other special requirements.

It is now possible to use the data base to begin the development of statewide selection tests, to define the data needs for promotion standards, and to analyze training programs in detail to ensure that they are totally consistent with job requirements. Each or all of these future efforts can also be carried out by local agencies who wish to develop their own selection, training, promotion, and other procedures based on this survey.

Contract Products

As a means of satisfying the intent of the contract, CET prepared reports, data summaries, analyses, computer tapes, instruction and procedures manuals for final delivery. Some of these are in the form of reports, some are computer printouts, and others are on the computer tapes. The following is a brief description of each of the separate items.

Final Report

The Final Report is a complete summary of the project, including rationale, organization, history, complete results, and a discussion of the potential uses of the results by the law enforcement community. There are data summaries, citations of relevant literature, and discussions of the merits of the particular approach taken. A detailed description of the development of the survey booklet is also presented.

Executive Summary

This Executive Summary is a brief synopsis of the Final Report, the results, and the implications of the results for the law enforcement community, both at the state and local levels. It is intended for an audience interested in the broader implications of the project rather than in the specific details of the data and procedures.

Manual for Developing Job Performance Measures

This manual describes an approach that can be taken by law enforcement agencies to develop task-based tests for the evaluation of officers on the job. The purpose behind a job performance measure is to identify those elements of task performance which would be taken as evidence by the law enforcement agency that officers could perform the task. Because the manual describes a procedure for obtaining and measuring specific job behaviors, it is thought to be totally consistent with the validity requirements of the Equal Employment Opportunity Commission guidelines.

Data Users' Guide

Because so much of the required output from this contract is in the form of statistical analyses of occupational survey data presented, of necessity, in lengthy computer printouts, it was decided that a data users' guide would enable a larger number of people to study the data. The data users' guide describes each of the statistical reports and shows how to extract specific data from them. The first page of each report is used as an example and all of the headings, sources, and locations of the data are shown.

Survey Update Manual

The Occupational Survey Booklet: Florida Law Enforcement was printed in 1980. At the date of printing, the booklet was completely up-to-date and described the officers' jobs well. However, laws, procedures, equipment, and populations change, and as society changes so does law enforcement. Consequently, it is necessary to conduct additional surveys from time to time to ensure that the data base is kept current. The manual describes the recommended procedure to be followed in order to keep the data base current.

Task Summary Sheets

Once the job description report is available for any agency or combined group of agencies, the next step is that of conducting the task analysis on tasks selected from the job description. Usually these are tasks which large percentages of officers perform, or they are highly consequential to the job, or have other features which make them candidates for complete analysis. Task Summary Sheets are completed forms in which the task is broken down into elements, the conditions and standards of performance are listed, and all reference manuals and specific instructions are recorded. Task Summary Sheets are used by trainers to design training, by managers to verify correct procedures, and by personnel administrators to develop selection items.

Computer Tapes

In addition to the printed reports listed above, computer tapes have been delivered containing all of the raw data files, job descriptions for all agencies, group summary reports for selected agencies, and examples of certain special reports.

Continuing Services Available from Florida State University

The Center for Educational Technology at Florida State University will continue to offer contract, consulting, data analysis, and training services to the Florida law enforcement community. Individual agencies may make specific arrangements to obtain more detailed information about their officers. Because the data in these reports is based on a sample of all agencies, some organizations may want to obtain a complete survey on all of their officers, in order to examine local approaches to selection, training, and management, or to include additional job classifications in their data base.

Managing the Data Base

The CET obligation to the Department was specified in the contract under which this work was done. That contract was completed in May of 1981. However, there is still a large amount of data in the computer which could be of considerable interest to individual users in looking at specific members of their departments, or in making comparisons of their departments with others. Services to provide additional computer analyses and interperetations will continue to be available to individual agencies.

Training

Beginning in 1981, CET will offer training programs to agency personnel who are interested in doing further work with the occupational survey data. These training programs will cover:

- Job and task analysis
- Survey interpretations
- Interpretation and analysis of the various CODAP programs
- Developing tests from the results.

The workshops will highlight the interpretation of existing data summaries, and will provide participants with enough information to ask for more detailed and specific analyses in areas that impact their agencies.

For a schedule of these workshops, contact:

The Center for Professional Development and Public Service Hecht House Florida State University Tallahassee, FL 32306. (904) 644-3801.



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