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# **LEAA Police Equipment Survey of 1972, Volume V**

## **Handguns and Handgun Ammunition**



**Law Enforcement  
Equipment  
Technology**

**U.S. DEPARTMENT OF  
COMMERCE  
National Bureau of  
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# LEAA Police Equipment Survey of 1972, Volume V

## Handguns and Handgun Ammunition

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## FOREWORD

The Law Enforcement Standards Laboratory (LESL) of the National Bureau of Standards (NBS) furnishes technical support to the National Institute of Law Enforcement and Criminal Justice (NILECJ) program to strengthen law enforcement and criminal justice in the United States. LESL's function is to conduct research that will assist law enforcement and criminal justice agencies in the selection and procurement of quality equipment.

LESL is: (1) Subjecting existing equipment to laboratory testing and evaluation and (2) conducting research leading to the development of several series of documents, including national voluntary equipment standards, user guidelines, state-of-the-art surveys and other reports.

This document is a law enforcement equipment report developed by LESL under the sponsorship of NILECJ. Additional reports as well as other documents are being issued under the LESL program in the areas of protective equipment, communications equipment, security systems, weapons, emergency equipment, investigative aids, vehicles, and clothing.

Technical comments and suggestions concerning the subject matter of this report are invited from all interested parties. Comments should be addressed to the Law Enforcement Standards Laboratory, National Bureau of Standards, Washington, D.C. 20234.

Jacob J. Diamond, *Chief*  
Law Enforcement Standards  
Laboratory

## **EXECUTIVE SUMMARY**

### **I. SUMMARY OF BACKGROUND AND METHODOLOGY**

#### **A. Background**

° Law Enforcement Standards Laboratory (LESL) was established in 1971 under the sponsorship of the NILECJ Advanced Technology Division (ATD).

° NILECJ asked the Behavioral Sciences Group of the National Bureau of Standards to develop and carry out a procedure to get information from the users of law enforcement equipment.

° "User" information would aid NILECJ in setting priorities for LESL programs and would provide some detailed information in support of the research to develop standards and guidelines.

° In addition, gathering information from the users would help to make police agencies aware of LESL and ATD.

° A nationwide mail sample survey was selected as the best procedure to collect user information.

° An Equipment Priorities Questionnaire (EPQ) and six Detailed Questionnaires (DQs) were developed and administered. A separate report was prepared for each of these seven questionnaires.

#### **B. Design of Questionnaires**

° Questionnaires were developed in conjunction with NILECJ, LESL, and cooperating police departments. Questionnaires were pretested at various times with approximately 45 police departments.

° The EPQ was designed to provide information about priority needs for standards for various types of equipment.

° In addition, the EPQ asked for data about numbers of full- and part-time officers, activities performed in the department, budget, size of jurisdiction, etc.

° The six DQs (Alarms, Security and Surveillance Equipment; Communications Equipment and Supplies; Handguns and Handgun Ammunition; Sirens and Emergency Warning Lights; Body Armor and Confiscated Weapons; and Patrol Cars) were each developed separately.

° The DQs asked about kinds and quantities of equipment in use, problems with existing equipment, suggestions for improving equipment, needs for standards related to the equipment, etc. Although entitled Detailed Questionnaires, these questionnaires were designed to give an overview of the use of specific items of equipment.

#### **C. Sample**

° The population sampled was made up of all police departments listed in a computerized file compiled and maintained by the LEAA Statistical Service.

° Courts, correctional institutions, forensic labs, special police agencies, etc., were excluded.

° The sample was stratified by LEAA geographic region (10 regions) and by department type (7 department types: state police; county police and sheriffs; city departments with 1-9 officers; city departments with 10-49 officers; city departments with 50 or more officers, excluding the 50 largest cities; the 50 largest U.S. cities by population; and township departments).

- Overall, approximately 10 percent of the 12,836 departments in the population were selected as respondents (see table 1.2-2).

- The Equipment Priorities Questionnaire was sent to every sample department (1,386). Each Detailed Questionnaire was sent to all states, to all of the 50 largest cities, and to a randomly selected subsample of the main sample (about 530 departments received each DQ).

- Thus, states and the 50 largest cities were asked to fill in all 7 questionnaires. Each of the remaining 1,286 departments was asked to fill in the EPQ and 2 of the DQs.

- The sample for the Handguns DQ consisted of 528 departments (see table 1.2-3).

#### **D. Questionnaire Administration**

- Stringent control of administration was required.

- Introductory letters were sent to heads of departments asking cooperation.

- On June 1, 1972, questionnaire packages were mailed.

- In July 1972, follow-up by self-return post card was begun.

- In August 1972, follow-up by telephone was begun. Departments which had not returned questionnaires were called. Also, calls were made to clear up ambiguities in the returned questionnaires. About 1,300 calls were made. About 70 percent of the sample departments were called at least once.

- Each questionnaire was edited and coded by a specialized team to ensure consistency; it was then keypunched and tabulated.

- Completed questionnaires were accepted for tabulation through January 7, 1973.

#### **E. Rates of Return**

- Eighty-three percent of the 1,386 departments returned usable EPQs.

- Eighty-four percent of the 528 departments returned usable Handguns DQs.

- Between 81 and 85 percent of the other DQ subsamples returned usable questionnaires.

- Highest rates of return (over 90%) were from states and the 50 largest cities.

- Lowest rates of return (less than 75%) were from counties and townships.

#### **F. Characteristics of Departments Responding to the EPQ**

- The activities most commonly carried out by the respondents were: serving traffic and criminal warrants (88%, traffic safety and traffic control (87%), and intradepartmental communications (87%).

- All of the responding 50 largest cities said they provided inhouse training and criminal investigations. This compared to 68 percent and 86 percent, respectively, of all responding departments.

- Only 13 percent of all respondents had crime laboratories. Seventy-three percent of the 50 largest cities and 55 percent of the states had crime laboratories.

- About three-fifths of the departments in all department types were providing emergency aid and rescue, ranging from 60 percent of the cities with 50 or more officers to 67 percent of the counties.

- Overall, the reported equipment budgets represented somewhat over 10 percent of the total budgets reported.

- Among department types, there was a wide range of total equipment expenditures, from a mean of about \$10,000 for cities with 1-9 officers to a mean of almost \$2.7 million for the 50 largest cities.

- One of the 50 largest cities reported an equipment budget of \$40 million.

- Overall, the 50 largest cities reported a mean of 2,491 full-time sworn officers. However, one of the 50 largest cities had 27 percent of all the full-time officers reported by that department type and another had about 12 percent.

## **G. Presentation of Data**

° Data in this report are presented in two forms: text tables and full tables (app. B). Text tables do not always present a complete breakdown of the data.

° All tables (text and full) present the data in unweighted form (i.e., numbers and percentages of the responding departments from the sample for this questionnaire, not figures that have been weighted to expand the data to the total population of police departments in the U.S.).

° The sample selected for this questionnaire was not proportional to the total population of police departments. If decisions are to be made which require estimates of population figures, the appropriate extrapolation must be performed. (See app. B.)

## **II. SUMMARY OF RESULTS**

### **A. On Duty Use of Handguns**

° Ninety-four percent of the responding departments reported at least one officer using a .38 caliber handgun on duty.

° Eighty-percent of the officers in those departments were using .38s.

° States (59%), townships (56%) and counties (55%) reported the lowest percentages of officers using .38s on duty, while the 50 largest cities (88%) and cities 50+ (81%) reported the highest percentages.

° Responding states (36%), townships (36%), and counties (40%) had the highest percentages of officers using .357 Magnum handguns on duty, while the 50 largest cities (9%) and cities 50+ (16%) had the lowest percentages.

° The .45 caliber and the 9mm were each being used by only 1 percent of the officers in the responding departments.

° The 445 responding departments reported 179,891 officers carrying handguns.

° Estimates of the total population of on duty handguns in the U.S. showed 70 percent of all officers using .38s and 25 percent using .357s.

### **B. Most Used and Second Most Used On Duty Handguns**

° Departments were asked a series of questions about the handgun they had more of in their department than any other (most used handgun), and the same questions about the handgun caliber they had next most of in their department (second most used handgun).

° Forty-two percent of the responding departments reported using only one caliber of handgun.

° The answers about most used handguns represented about 91 percent of all the handguns reported.

° Ninety-nine percent of the handguns that were most used or second most used were either .38s or .357s (82% and 17% respectively).

° When the .38 caliber was listed as most used handgun, the .357 was the most likely caliber to be listed as second most used handgun, and vice versa.

° Only 8 of the 445 responding departments said that some caliber other than .38 or .357 was used by more of their officers on duty than any other.

° Almost all (99%) of the reported on duty handguns were revolvers.

° Ninety-seven percent of the responding departments were using only handguns produced by one or both of two manufacturers.

° Of all reported most used and second most used handguns, 80 percent had barrels 3-5 inches long.

° States reported a higher percentage of handguns with barrels longer than 5 inches (29%) than did any other department type.

## **C. Ammunition Used with Most Used and Second Most Used Handguns**

° About half of the responding departments were using lead bullets in their most used handguns, 24 percent used hollowpoint and 15 percent used jacketed.

° About two-thirds of the departments were using only one bullet type for their most used handguns, and about half of these were using lead bullets exclusively. Thirteen percent were using hollowpoint exclusively.

° Seventy-three percent of the responding departments were using ammunition with bullet weights of 151-160 grains, and few departments were using ammunition with bullet weights higher than this.

° Fifty-nine percent of the responding departments were using only one brand of ammunition with their most used handguns.

° Almost 3/4 of the departments that were using only one brand of ammunition were using ammunition made by one of two manufacturers (50% and 22%, respectively).

## **D. Off Duty Use of Handguns**

° Only 78 percent of the responding departments answered the question concerning off duty use of handguns. This is not a good measure of the proportion of departments that use handguns off duty.

° Fifty-one percent of state departments did not answer the question on off duty use of handguns. Seventy-five percent or more of all other department types did give data about off duty handgun use.

° Of the 110,534 officers reported to be carrying off duty handguns, 86 percent were carrying .38s, 6 percent were carrying .357s, and 4 percent were carrying 9mm. This compares to 80 percent, 17 percent, and 1 percent respectively, of the 179,891 officers reported carrying on duty handguns.

° Of the 345 departments that reported off duty handgun use, 96 percent reported at least one officer using a .38 off duty; 29 percent reported .357 use; 30 percent reported 9mm use; 21 percent reported .45 use; 22 percent reported .32 use; and 23 percent reported .25 Automatic use. (Only two calibers of handguns were represented in more than 20% of the departments for on duty use.)

## **E. Problems With Handguns**

° More than half of the responding departments had either had no problems with their handguns in the last 5 years (37%) or left this question blank (18%).

° Seventy-two percent of states and 72 percent of the 50 largest cities cited at least one handgun problem compared to 46 percent of all responding departments.

° The two most frequently mentioned problems were those associated with the cylinder and those associated with the hammer or firing pin.

## **F. Problems with Handgun Ammunition**

° Only about one-fourth of the responding departments described a problem with handgun ammunition.

° A much higher percentage of the 50 largest cities (61%) listed a problem than any other department type.

° None of the 27 township departments and only 7 departments in cities with 1-9 officers listed an ammunition problem.

° Problems cited by one-fourth or more of the departments citing difficulties were: power/penetration too low (30%), knockdown power insufficient (27%), and primer (25%).

# **LEAA POLICE EQUIPMENT SURVEY OF 1972**

## **Volume V: Handguns and Handgun Ammunition**

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The report outlines the methodology of and summarizes a portion of the data from the LEAA Police Equipment Survey of 1972. One of a series of 7 reports resulting from this nationwide mail survey of a stratified random sample of police departments, the present report summarizes the answers of 445 police departments concerning their officers' use of handguns and handgun ammunition: On-duty and off-duty use, types and calibers in use, and problems encountered. The data are presented by all responding departments and by seven department types.

Key words: Ammunition; handguns; police; police equipment; standards.

### **1. INTRODUCTION**

#### **1.1. Project Background**

During the past several years, law enforcement agencies in the United States have become more aware of the importance of equipment in the performance of their duties. Much of their equipment had originally been designed for other uses and had to be modified. Other equipment items had to be used as given. No standards existed against which equipment performance could be measured nor were any standard test methods or procedures available. It has been difficult for agencies to compare the performance of equipment items. Recognizing this problem, the Law Enforcement Assistance Administration (LEAA) of the Department of Justice began a concentrated program in 1971, toward the improvement of law enforcement equipment.

As the first step in its program, LEAA in cooperation with the Department of Commerce established a Law Enforcement Standards Laboratory (LESL) at the National Bureau of Standards (NBS). The broad goal of LESL is to develop performance standards which can be promulgated by LEAA as voluntary aids for the selection of equipment by law enforcement agencies. Additionally, LESL is developing standard test methods and procedures, so that the relative performance of similar items may be evaluated by departments themselves.

In order to provide equipment user information for the program, the National Institute of Law Enforcement and Criminal Justice (NILECJ) of LEAA in 1971 asked the Behavioral Sciences Group of the Technical Analysis Division at NBS to gather information from the users of law enforcement equipment about their specialized equipment needs and problems. Although face-to-face interviews with a large sample of representatives from law enforcement agencies would have been desirable, time and manpower constraints led to the development of a nationwide mail sample survey having two general objectives: (1) To assist NILECJ in the establishment of priorities for LESL's standards development activities; and (2) to obtain detailed information about certain broad equipment categories in support of the research to develop standards and guidelines in these areas.

This report fulfills part of the second general objective. The associated survey questionnaire (see app. A) will be referred to as the Handguns and Handgun Ammunition Detailed Questionnaire (DQ). The remainder of the second objective is accomplished in the reports of the other five DQs: Alarms, Security and Surveillance Systems; Communications Equipment and Supplies; Sirens and Emergency Warning

Lights; Body Armor and Confiscated Weapons; and Patrol Cars. The first objective (above) is accomplished in the report on the Equipment Priorities Questionnaire (EPQ).<sup>1</sup>

## 1.2. Sample Design

Although the objective of ATD is to serve all types of law enforcement agencies, this particular study was purposefully limited to police departments as the largest single group of law enforcement agencies with identifiable equipment needs. No attempt was made to survey correctional institutions, courts, forensic laboratories, or special police agencies such as park police, harbor patrols, or university police. The computerized directory of approximately 14,000 police agencies, compiled and maintained by LEAA's Statistics Division, provided the population from which the sample was drawn. Care was taken to exclude the double listings that existed for some agencies. (Details of the selection process are given in app. B of the Equipment Priorities Questionnaire.)

The final list of 12,842 departments was cross-stratified by LEAA geographic region and department type by the mutual agreement of NBS and NILECJ. The assignment of states to regions and the seven department types chosen for study are shown in table 1.2-1.

The breakdown of the population of police departments by cross-strata is exhibited in table 1.2-2. As can be seen from the table, there were no townships in regions 4, 6, 7, 8, 9, and 10. Almost 63 percent of the departments were city police, 43 percent having 1-9 full-time officers. County departments comprised about 24 percent of the population. By region, the smallest (region 10) contained only 3.4 percent of the police departments, while region 5, the largest, had 2.25 percent. The variation in the number of departments in a cell (region/department type combination) was even greater than that across the strata, i.e., the number of departments in each cell ranged from 0 to 1470.

The considerations discussed in the previous paragraph led to the sampling plan discussed briefly below. All of the state departments and the fifth largest city departments were included in the sample and were asked to complete all 6 DQs, i.e., they were sent the entire package of 7 questionnaires. For the remaining cells the variation in cell size presented a problem: If the same fraction of the entire population was to be selected from the members of each cell, a constant sampling fraction small enough to make the total sample manageable would yield too few sample units in small cells. To solve this problem, a fixed sample of 30 police departments/cell was chosen, wherever possible, resulting in a different sampling fraction for each cell. A fixed sample size of 30 departments/cell was chosen to facilitate the equitable distribution of the 6 DQs. This plan resulted in sending the Handguns DQ to 528 departments.

The departments were selected randomly within each cell, from the total cell population, each department (other than the states and 50 largest cities) receiving 2 DQs. Thus, in cells having 30 sample units, the Handguns DQ was mailed to 10 departments; cells having fewer sample units were allocated proportionally fewer Handguns DQs. Table 1.2-3 presents the total sample for the Handguns DQ by region and department type.

Once the sample was selected, each sample unit was assigned a unique seven-digit identification number, coding region, type, and questionnaire assignment.

---

<sup>1</sup> LEAA Police Equipment Survey of 1972, Vol. I: The Need for Standards—Priorities for Police Equipment.

TABLE 1.2-1. *Stratification categories*

Department types	LEAA geographic regions
State police	1 = Conn., Maine, Mass., N.H., R.I., Vt.
County police and sheriffs	2 = N.J., N.Y.
City with 1-9 officers	3 = Del., Md., Pa., Va., W. Va., D.C.
City with 10-49 officers	4 = Ala., Fla., Ga., Ky., Miss., N.C., S.C., Tenn.
City with 50 or more officers <sup>1</sup>	5 = Ill., Ind., Mich., Ohio, Wis., Minn.
The 50 largest U.S. cities <sup>2</sup>	6 = Ark., La., N. Mex., Okla., Tex.
Township departments	7 = Iowa, Kans., Mo., Nebr.
	8 = Colo., Mont., N. Dak., S. Dak., Utah, Wyo.
	9 = Ariz., Calif., Nev., Hawaii
	10 = Alaska, Idaho, Oreg., Wash.

<sup>1</sup> Does not include the 50 largest cities.<sup>2</sup> By population, U.S. 1970 census.TABLE 1.2-2. *Number of police departments by region and type*

Department type	LEAA region										Total
	1	2	3	4	5	6	7	8	9	10	
State	6	2	5	8	6	5	4	6	4	4	50 <sup>1</sup>
County	66	84	257	764	536	506	413	288	103	120	3,137
City (1-9 officers)	27	348	713	979	1,470	703	611	283	135	217	5,486
City (10-49 officers)	40	237	166	344	508	230	142	71	168	79	1,985
City (50+ officers)	60	64	36	83	119	46	23	19	87	17	554
50 largest cities	1	4	5	8	10	8	3	1	8	2	50
Township	629	349	362	-	234	-	-	-	-	-	1,574
Total	829	1,088	1,544	2,186	2,883	1,498	1,196	668	505	439	12,836

<sup>1</sup> Questionnaires were actually sent to 56 state police departments since there were 6 state departments which listed 2 police agencies without reference to a common central agency. However, only one set of questionnaires was accepted from each of these six states as described in vol. 1, app. B, p. B-2.

TABLE 1.2-3. *Number of departments selected to receive the Detailed Questionnaire: Handguns by region and department type*

Department type	LEAA geographic region										Total
	1	2	3	4	5	6	7	8	9	10	
State <sup>1</sup>	6	2	5	8	6	5	4	6	4	4	50
County	10	10	10	10	10	10	10	10	10	10	100
City (1-9 officers)	9	10	10	10	10	10	10	10	10	10	99
City (10-49 officers)	10	10	10	10	10	10	10	10	10	10	100
City (50+ officers)	10	10	10	10	10	10	8	6	10	5	89
50 largest cities	1	4	5	8	10	8	3	1	8	2	50
Townships <sup>2</sup>	10	10	10	-	10	-	-	-	-	-	40
Total	56	56	60	56	66	53	45	43	52	41	528

<sup>1</sup> Questionnaires were actually sent to 56 state police departments since there were 6 state departments which listed 2 police agencies without reference to a common central agency. However, only one set of questionnaires was accepted from each of these six states.

<sup>2</sup> Township departments exist only in regions 1, 2, 3, and 5.

### 1.3. Questionnaire Administration

From the beginning of the project, it was evident that stringent control would be required in administering the questionnaires to ensure a high rate of response. Computer-stored daily status records were input via a teletypewriter for each sample department. In general, the following procedure was used:

(1) Each department in the sample was mailed a letter, signed by the director of NILECJ, addressed to the head of the department. This letter introduced the survey and requested cooperation.

(2) About 1 week later, the questionnaire packages were mailed.

(3) Departments not returning the questionnaire within a month were identified by the computer and were sent a self-return post card requesting information as to the status of the questionnaires. Departments not receiving the questionnaire package were sent another; those not returning the post card were placed on a list for telephone follow-up.

(4) About a month and a half later, departments with which no contact had been made were called by telephone.

(5) Returned questionnaires were reviewed for completeness and either coded for keypunching or filed for telephone callback to supply missing data or to resolve ambiguities.

Considerable effort was expended to ensure a high rate of response, and this effort was rewarded with an 84 percent response for the Handguns DQ, and between 80 and 85 percent for each of the other questionnaires. In the course of the survey more than 70 percent of the sample departments were contacted at least once by telephone. More than 1,300 phone calls were made by the survey team.

The distribution of respondents (departments which returned usable Handguns DQs) is exhibited in table 1.3-1. The highest percentages of response were from the states and larger cities (89-94%), while counties and townships had the poorest response rates (under 75%).

TABLE 1.3-1. *Number of departments returning acceptable  
Detailed Questionnaires: Handguns and handgun ammunition*

Department type	LEAA geographic region										Total	Percent total sample
	1	2	3	4	5	6	7	8	9	10		
State <sup>1</sup>	6	2	5	8	6	5	3	6	3	3	47	94
County	5	7	6	8	8	5	8	9	10	7	73	73
City (1-9 officers)	7	10	7	9	9	7	9	8	9	9	84	85
City (10-49 officers)	9	8	7	9	10	8	9	10	10	9	89	89
City (50+ officers)	9	8	10	9	8	10	7	5	8	5	79	89
50 largest cities	1	3	4	7	8	8	3	1	8	2	45	90
Townships <sup>2</sup>	7	9	7	-	4	-	-	-	-	-	27	68
Total	44	47	46	50	53	43	39	39	48	35	444	84
Percent total sample	79	84	77	89	80	81	87	91	92	85	84	

<sup>1</sup> Questionnaires were actually sent to 56 state police departments since there were 6 state departments which listed 2 police agencies without reference to a common central agency. However, only one set of questionnaires was accepted from each of these six states.

<sup>2</sup> Township departments exist only in regions 1, 2, 3, and 5.

## **1.4. Development and Design of the Handguns DQ**

The survey plan and questionnaire design (of all seven questionnaires) evolved over a 12-month period. During this time, the survey team consulted at length with NILECJ equipment experts, LESL program managers, and equipment manufacturers. In addition, the officers and administrators of about 45 police departments served as consultants and/or as respondents for pretests of various versions of the questionnaires.

The Handguns DQ, in its final form, is reproduced in appendix A. This DQ asked respondents to identify the kinds of handguns being used by officers in the department both on duty and off duty; to fully describe the handgun used by more of their officers than any other and the handgun used by the next greatest number of officers; to provide data on the types of ammunition being used and to discuss problems with handguns and ammunition. The questionnaire was limited to general topics because: (1) It was not possible, considering the scope of the present survey, to explore in a detailed manner specific information about all types of weapons being used in the department; and (2) it was felt that the general data gathered in the present effort would provide important direction for research in the development of standards, the main objective of the survey.

## **1.5. Characteristics of Subsample Groups**

The EPQ of the LEAA Police Equipment Survey requested data from each department about population served, physical size of jurisdiction served, type of jurisdiction, number of full- and part-time officers, approximate total, equipment, and personnel budgets during 1971, and activities handled by the department.

Table 1.5-1 presents a partial tabulation, by department type, of the responses to a checklist of 30 typical police activities by the respondents to the EPQ. (The EPQ respondents include, but are not limited to, the respondents to the Handguns DQ. See sec. 1.2.) The activities most frequently checked by all departments were: (1) serve traffic and criminal warrants (88%), (2) traffic safety and traffic control (87%), and (3) communications for own department (87%). The activity with the most consistent level across all department types was that of emergency aid and rescue, ranging from 60 percent (cities with 50+ officers) to 67 percent (counties).

Higher percentages of state and 50 largest city departments than of other departments were handling certain of the 30 activities. For example, all of the 50 largest city departments responding, and 98 percent of the responding state departments said that their departments provided police training for their own department. These compare to 68 percent for all responding departments. All of the responding 50 largest cities said that they handled criminal investigation in their own departments. This compares to 86 percent of all responding departments. Although only 13 percent of the departments overall had crime laboratories, 73 percent of the 50 largest cities and 55 percent of the states reported having them.

Counties appeared to be the only department type with significant responsibilities for custody and detention for more than 1 week. Seventy-eight percent of these departments had custody/detention up to 1 year, as compared with 22 percent of all responding departments.

Tables 1.5-2 and 1.5-3 present summaries of descriptive data by department type and LEAA region, respectively. As can be seen from the column for "annual equipment budget" (table 1.5-2), there was a wide range of expenditures among different department types, from a mean of about \$10,000 for responding cities (1-9) to almost \$2.7 million for the 50 largest cities. Overall, equipment budgets represented somewhat over 10 percent of the annual total budgets.

The mean number of part-time officers was based on those respondents having part-time officers in their departments. Of the 45 responding from the 50 largest cities, only 6 had part-time officers, including 1 city which had nearly 6,000. Thus, the mean

TABLE 1.5-1. *Activities handled by at least one-third of the departments by department type, and percent of total departments having each activity*

Description of activity	State	County	City (1-9)	City (10-49) (in %)	City (50+)	50 largest	Town- ship	Total
Serve traffic and criminal warrants	70	89	84	89	94	87	93	88
Traffic safety and traffic control	92	56	94	96	96	98	94	87
Communications for own department	94	86	76	95	94	96	70	87
Criminal investigation	66	86	71	95	97	100	79	86
Police training for own department	98	55	48	77	87	100	42	68
Custody/detention—less than 1 day	-	79	51	73	72	80	43	65
Breath-alcohol test	89	46	47	72	83	91	49	64
Emergency aid and rescue	62	67	62	63	60	67	62	63
Public building protection	-	40	63	60	58	44	68	54
Service function	-	-	48	55	60	60	42	48
Animal control (dogcatcher)	-	-	58	63	42	-	37	44
Highway patrol	96	38	48	36	-	-	88	43
Maintenance of police buildings	51	36	34	41	48	47		40
Custody/detention—1 week or less	-	73		36	46	49		38
Communications for other agency	66	56		40	-	-		36
Serve civil process	-	88			-	-		32
Police training for other agency	77	-			42	84		24
Custody/detention—up to 1 year	-	78			-	-		22
Underwater recovery	34	42			-	42		19
Bomb disposal	45				-	82		17
Polygraph	62				36	90		17
Vehicle inspection	55					-		17
Crime laboratory	55					73		13
Narcotics laboratory analysis	43					62		11
Harbor patrol	-					-		7
Lab analysis for blood alcohol	34					53		7
Other	-							6
Coroner	-							5
Test for driver's license	34							3
Custody/detention—more than 1 year								3

TABLE 1.5-2. *Descriptive data by department type (means)*

Department type	Area (mi <sup>2</sup> )	Population	Number of full-time officers	Number of part-time officers	Annual total budget	Annual equipment budget	Annual personnel budget
50 largest	187	851,342	2,491	1,115	\$43,268,865	\$2,669,920	\$34,712,818
State	62,580	3,936,410	889	18	16,377,358	2,304,339	12,020,572
County	1,518	130,254	60	25	1,089,919	58,539	859,984
City (50+)	31	83,334	132	26	1,733,340	173,099	1,407,177
City (10-49)	12	15,849	22	9	257,927	24,362	206,187
Township	28	13,228	14	8	175,654	20,854	141,675
City (1-9)	9	5,038	8	5	82,381	9,764	60,061

TABLE 1.5-3. *Descriptive data by LEAA region (means)*

LEAA region	Area (mi <sup>2</sup> )	Population	Number of full-time officers	Number of part-time officers	Annual total budget	Annual equipment budget	Annual personnel budget
1	750	158,112	96	18	\$1,360,155	\$135,130	\$ 979,911
2	648	240,781	365	97	7,148,315	148,172	5,265,546
3	1,096	245,733	216	7	3,412,567	435,153	2,879,293
4	3,691	340,996	151	11	2,318,382	248,600	1,767,292
5	2,652	448,174	288	8	4,916,607	431,478	3,879,374
6	5,738	271,386	160	17	2,193,823	160,363	1,709,910
7	2,379	112,094	84	9	1,220,385	121,001	983,696
8	6,346	83,023	54	9	728,549	77,081	568,463
9	4,218	372,094	281	46	5,743,553	728,801	4,528,692
10	3,580	104,877	69	9	1,253,894	82,198	1,011,604

value of 1,115 for this department type is somewhat misleading. It should be noted that the category part-time officers included officers described as auxiliary, special agent, traffic supervisor, posse, and cadet. All of these classifications were counted in the part-time category since it has different meanings for different departments.

Variations in these descriptive averages by LEAA region (table 1.5-3) were considerably smaller than variations by department type. Regions 1 and 8 had smaller budgets than the others, primarily because each contained only 1 of the 50 largest cities.

## 2. QUESTION BY QUESTION DISCUSSION

### 2.1. Advice to the Reader

In reading section 2, certain points should be kept in mind:

(1) This report is not an evaluation of any of the equipment described or discussed within it. It is a presentation of information and opinions of a stratified random sample of police departments given in response to a specific set of questions. It does not, in any way, reflect objective testing of any equipment by the National Bureau of Standards.

(2) The report reflects only what police departments were willing and able to say in response to a specific set of questions. In most cases, no attempt was made to verify the accuracy of the information given or the level of sophistication of the respondent.

(3) Each discussion begins with the presentation of the question that appeared in the questionnaire, and in most cases the choices supplied, if any, set off in bold face type. However, the reader is cautioned to become familiar with the questionnaire sent to sample departments (see app. A) and to evaluate the data in terms of the exact questions asked.

(4) The text tables that appear in section 2 are almost never the complete tables that were tabulated for that question. Data categories for text tables may have been collapsed from the full table, or certain categories of interest may have been singled out for fuller discussion. Appendix B contains the complete tables from which the text tables were extracted. Text tables have been numbered after the question number (e.g., the text tables for Question 6A would be numbered 6A-1, 6A-2, etc.). The tables in appendix B are also numbered after the question number, in the same manner. In some cases, tables that appear in appendix B will not have been discussed at all in the text.

(5) Data in the text of this report are usually presented by nearest whole percent of the group under consideration. In appendix B, the data are usually presented by number of respondents and percent. Because of statistical limitations imposed by the

sample sizes used in this study, the reader is cautioned to be wary of assigning importance to percentage differences of less than 5 percent when percentages are based on the total number of respondents, and to percentage differences of less than 10 percent when percentages are based on one of the subsample groups (e.g., a particular department type or region). No statistical tests of significance are reported.

(6) Data were always tabulated by each of the choices supplied, if any, in the questionnaire. Any "other" choices written in by the respondents were also tabulated and/or recorded verbatim. In most cases, the numbers of respondents giving a specific "other" response do not reflect the numbers of respondents who would have marked that choice if it had been one of those provided. Therefore, in most cases, this report lists or gives examples of "other" responses, but does not present numbers or percents of departments giving that response. For those questions for which choices were not provided in the questionnaire, coding categories were developed after approximately one-fourth of the questionnaires had been returned.

(7) The following convention has been adopted in the report to designate the four city department types:

City with 1-9 officers=city (1-9)

City with 10-49 officers=city (10-49)

City with 50 or more officers=city (50+)<sup>2</sup>

The 50 largest cities=50 largest<sup>3</sup>

In table headings this same convention has been used.

(8) Questions which asked departments to identify manufacturers of their equipment were asked in this manner only to make the question clearer; not to evaluate a manufacturer's product.

(9) In an attempt to make this report more readable, the main topics of the questionnaire have been reordered in the report; the discussion of the findings does not follow the order of the questions. To find the discussion of a particular question quickly, consult the Contents or the List of Tables.

(10) When the subsample groups are discussed (e.g., "counties said..." or "cities (1-9) said...") the reference is to the responding departments from one of the sample strata. It is particularly important to note that when the text or tables refer to "all departments" or "all responding departments," the reference is to all responding departments from the sample described in section 1.2. This sample was not proportional to the total population of police departments, and although it is possible to do so, the data in this report have not been weighted to allow direct extrapolation to the total population. (See app. B, p. B-1.)

## **2.2. Discussion**

### **2.2.1. Characteristics of Respondents**

#### **a. Rank/Title of Respondent**

All of the questionnaires in the LEAA Police Equipment Survey were mailed to the chief or highest official of the department with a request that the questionnaires be directed to the person or persons within the department who were felt to be best qualified to answer the questions.

The handguns questionnaire was usually filled in by the chief/unit head in townships and smaller city departments, and by an armorer or ballisticsian in the states

<sup>2</sup>Excluding the 50 largest U.S. cities.

<sup>3</sup>By population, 1970 U.S. Census.

and 50 largest cities. In cities (50+), the primary respondents were not concentrated into any single category. (See table i.)

Questionnaires from counties were most often filled in by the sheriff (49%) or deputy sheriff (16%).

## b. Number of Years of Law Enforcement Experience of Respondent

In general, the questionnaire was filled in by experienced officers. Although about two-thirds of the respondents had more than 10 years of law enforcement experience, there were variations among department types: More than 85 percent of respondents in the 50 largest cities and states had more than 10 years of experience, while half or less of the respondents in townships, cities (1-9), and counties had this much experience. (See table ii.)

TABLE i. *Rank of primary respondent for handguns questionnaire, by department type*

Rank/title	Department type (in %)					
	City (1-9)	City (10-49)	City (50+)	50 largest	State	Township
Chief	74	45	13	4	0	67
Gun specialist	1	6	22	54	34	0
Lieutenant	4	13	15	13	11	0
Sergeant	7	11	9	9	13	15

NOTE: Excluding counties.

TABLE ii. *Number of years of law enforcement experience of respondents to the handguns DQ, by department type*

Department type	Number of years of experience			
	More than 5 years	More than 10 years	More than 20 years	More than 25 years
State	97	86	39	26
City (50+)	93	74	39	19
50 largest	92	88	40	20
City (10-49)	90	71	24	11
Township	86	53	23	19
City (1-9)	83	52	15	9
County	73	43	13	5
All departments	88	66	26	14

## 2.2.2. On Duty Use of Handguns

**1. How many of the officers in your department use, on duty, handguns of each of the following calibers? (Either as their primary or their "back-up" weapon.)**

*Number of Officers*

*Calibers*

**.32 Automatic**

**.38 Special**

**9mm Luger**

**.357 Magnum**

**.45 Automatic**

**Other (specify)**

Both the percentages of departments in each department type reporting use of each caliber of handgun on duty, and the percentages of all officers in each department type using each caliber of handgun on duty were determined. Comparisons of these measures showed some striking contrasts. For example, while 95 percent of the responding county departments said that some of their officers were using .38 Special handguns, only 55 percent of all responding county officers were using .38s. Similarly, while 15 percent of the 50 largest cities reported using .45 caliber handguns, only 2 percent of the officers in that department type were reported to be using .45s. (See table 1-1.)

Almost all responding departments (94%) had some officers using the .38 Special handgun on duty, and 80 percent of the officers in the responding departments were using .38s on duty. Although slightly more than half of the responding departments (56%) reported having some officers using the .357 Magnum, this gun was used by only 17 percent of their officers.

State police, townships, and counties reported relatively fewer officers using the .38 Special handgun (55-50% of officers) and relatively more officers using the .357 (36-40% of officers) than did city department types.

The .45 and the 9mm were each being used by only 1 percent of officers in the responding departments, and by no more than 4 percent of the officers in any department type.

In answer to Question 1, the 445 responding departments reported a total of 179,891 officers carrying handguns on duty. Four-fifths of those officers were carrying .38 Special handguns, 17 percent were carrying .357s, 1 percent were carrying .45s, 1 percent were carrying 9mm handguns, and less than 1 percent were carrying handguns of any other caliber. (See table 1-2.)

It is probable that the relative proportions of .38s and .357s reported in Question 1 (80% and 17%, respectively) were partially attributable to the sample design: All states and all of the 50 largest cities were included in the sample, but only portions of the other 5 department types were sampled.

Using these reported numbers, divided by the numbers of respondents, department type averages, per caliber, were computed. These averages were multiplied by the number of departments in each department type in the population<sup>4</sup> to produce the estimates of the total number of handguns of each caliber in use shown in table 1-3.

According to the estimates in table 1-3, .38 caliber handguns represented about 70 percent of the total on duty handguns while .357s represented about 25 percent of the total. This moderate shift in the relative proportions of .38s and .357s was mainly a result of the extrapolation of data from county departments. County departments reported 55 percent of their officers carrying .38s and 40 percent carrying .357s, and counties make up almost one-fourth of the U.S. police department population.

<sup>4</sup>See table 1-2-2.

TABLE 1-1. Percentages<sup>1</sup> of departments having at least one officer using a handgun of the specified caliber; and percentages of all officers in a particular department type using handguns of these calibers on duty

Department type	Caliber							
	.38 Special		.357 Magnum		.45		9mm	
	Officers	Depts.	Officers	Depts.	Officers	Depts.	Officers	Depts.
50 largest	88	100	9	41	2	15	1	13
City (50+)	81	97	16	52	1	14	2	22
City (1-9)	70	93	23	51	2	8	3	5
City (10-49)	68	94	26	57	2	12	2	15
State	59	87	36	66	*	6	4	15
Township	56	85	36	74	1	7	4	26
County	55	95	40	59	1	11	3	10
All Departments	80	94	17	56	1	10	1	14

<sup>1</sup> Percentages add to more than 100 percent.

\*Less than 1 percent.

TABLE 1-2. Numbers of officers in responding departments carrying .38, .357, .45, 9mm, and other calibers of handguns on duty, by department type

Department type	Caliber				
	.38	.357	.45	9mm	Other
50 largest	106,540	11,111	2,365	250	513
State	25,451	15,288	84	1,785	183
City (50+)	8,409	1,620	125	171	112
County	1,639	1,194	30	82	15
City (10-49)	1,293	498	42	40	23
City (1-9)	534	176	26	17	9
Township	149	97	2	11	7
All departments	144,015	29,984	2,674	2,356	862
Percent of total	80	17	1	1	<1

TABLE 1-3. Estimated numbers of officers carrying various calibers of handguns in U.S. police departments on duty, by department type

Department type	Caliber				
	.38	.357	.45	9mm	Other
50 largest	115,804	12,077	2,571	272	558
State	27,075	16,264	89	1,899	195
City (50+)	58,969	11,360	877	1,199	785
County	70,432	51,309	1,289	3,514	645
City (10-49)	28,838	11,107	937	892	513
City (1-9)	34,875	11,494	1,698	1,110	588
Township	8,686	5,655	117	641	408
All departments	334,679	119,266	7,578	9,537	3,692
Percent of total	71	25	1	2	1

Estimated total number in U.S.=484,752

### 2.2.3. Characteristics of Handguns Used On Duty

Respondents were asked a series of questions about the handgun that was used on duty by more of their officers than any other (most used handgun, Questions 2-2E), and then these same questions were asked about the handgun used on duty by the second greatest number of officers (second most used handgun, Questions 3-3E). The questions were asked in this way so that the data could always be referenced to a particular caliber of handgun.

Fifty-eight percent of the responding departments were using more than one caliber of handgun on duty. The 50 largest city departments had the smallest percentage of departments (48%) using more than one caliber of handgun on duty and townships had the highest percentage (70%). (See table 2A/3A-1.)

**2. and 3. Select from the list in Question 1 the handgun that is "used, on duty, by more of your officers than any other."/"second most often used by your officers." Completely Fill In the Questions Below for that Handgun.<sup>5</sup>**

**2A. & 3A. Caliber Type.**

**2B. & 3B. How many are revolvers?**

**How many are automatics?**

**2C. & 3C. List below each different model of this "most used"/"second most used" handgun now used in your department. (Identify Each Different Model by Both Manufacturer and Model Name or Model Number)**

**2D. & 3D. Barrel Lengths :**

**How many have barrels of less than 3 inches?**

**How many have barrels of 3-5 inches?**

**How many have barrels of more than 5 inches?**

**2E. & 3E. Ammunition :**

**In the table below, list each type of ammunition that your officers use with this "most used"/"second most used" handgun. (Fill in the Table Below for Each Type of Ammunition Used)**

**Bullet Type**

**Bullet Weight (in grains)**

**Manufacturer**

TABLE 2A/3A-1. Percentages of departments with officers using more than one caliber of handgun on duty, by department type

Department type	Percent of responding departments
Township	70
State	64
City (50+)	62
County	60
City (10-49)	58
City (1-9)	51
50 largest	48
All departments	58

<sup>5</sup>See app. A, pp. A-3 to A-5, for actual question presentation.

### 2.2.3.1. Caliber

#### 2A. & 3A. Caliber Type

(For most used and second most used handgun)

Ninety-nine percent of the handguns<sup>6</sup> reported in Questions 2 and 3 were either .38 Special (82%) or .357 Magnum (17%). Only 8 of the 445 departments (2%) said that a caliber other than .38 or .357 was used by more of their officers than any other; 4 cited the 9mm as most used and 4 cited the .45 caliber as most used. (See table 2A/3A-2.)

Given these findings, it is not surprising that when the .38 Special was listed as most used handgun, the .357 Magnum was most likely to be listed as the second most used handgun, and vice versa. States reported the highest percentage of departments in which the .357 was used by more officers than any other caliber; 45 percent of states said the .357 was most used. The 50 largest cities reported the highest percentage of departments (89%) in which the .38 was used by more officers than any other caliber. (See table 2A/3A-3.)

<sup>6</sup>The total numbers of handguns reported in Questions 2 and 3 were slightly greater than the numbers of officers carrying handguns reported in Question 1 (180,256 and 179,891, respectively). In addition, there were a few "third," "fourth," etc., "most used handguns" that should not have been reported in Questions 2 and 3. Both of these errors combined, however, represented less than 1 percent of all the handguns in the responding departments.

TABLE 2A/3A-2. Percentages of handguns cited as most used or second most used, by caliber

Caliber	Percent of handguns reported in Questions 2 and 3 [n=180,256]
.38 Special	82
.387 Magnum	17
9mm	1
.45	1
.22	*
.32	*
.44 Magnum	*
.25	*

\*Less than 1 percent.

TABLE 2A/3A-3. Caliber of most used and second most used handgun, by department type<sup>1</sup>

Department type	Most used handgun in department (in % of departments)		Second most used handgun in department (in % of departments)	
	.38 Special [n=445]	.357 Magnum [n=445]	.38 Special [n=259]	.357 Magnum [n=259]
50 largest	89	11	23	64
City (50+)	80	19	29	51
City (1-9)	76	20	33	53
County	74	25	32	57
City (10-49)	71	27	38	50
Township	67	33	21	47
State	53	45	53	33
All departments	74	24	34	51

<sup>1</sup>Most used handgun percentages were based on all respondents. Second most used handgun percentages were based on the 259 respondents listing a second handgun.

Half of the reporting 328 departments in which there were more .38s in use on duty than any other caliber were using the .38 exclusively for on duty service (reported no second most used handgun). Only 17 percent of the departments in which the .357 was reported as the most used on duty gun were using the .357 exclusively. (See table 2A/3A-4.)

The remainder of the discussion of Questions 2-2E and 3-3E will focus on the data for most used handgun (Questions 2-2E), since these data represent over 90 percent of the handguns reported. Only in cases in which differences appear will the data for second most used handgun (Questions 3-3E) be discussed, even though data for second most used handguns will be presented in the text tables. Full tables for all questions appear in appendix B.

TABLE 2A/3A-4. *Of those departments citing the .38 and the .357 and their most used handguns, the percentages listing .38, .357, another caliber, or no second most used handgun*

Most used	Percent listing second most used as:			Using most used handgun exclusively
	.38	.357	Other	
.38 [n=328]	--	40	10	50
.357 [n=109]	77	--	7	17

### 2.2.3.2. Revolvers/Automatics

#### 2B. and 3B. How many are revolvers?

##### How many are automatics?

##### (For most used and second most used handgun)

Since the vast majority of reported handguns were either .38 caliber or .357 caliber, it follows that almost all (99%) of the reported handguns were revolvers (only 11 .38 caliber automatics were reported, and no .357 caliber automatics were reported). Within every department type, 95 percent or more of the most used handguns were revolvers. For those most used handguns which were automatics, only 9mm, .45, and .38 were cited. For second most used, .32, .22, and .25 automatics were also cited. (See table 2B/3B.)

TABLE 2B/3B. *Percentages of most used handguns and second most used handguns which were revolvers, by department type*

Department type	Most used handguns		Second most used handguns	
	Total number reported	Percent of revolvers	Total number reported	Percent of revolvers
50 largest	111,928	100	7,398	100
State	38,618	96	6,087	98
City (50+)	9,346	99	1,168	94
County	2,338	100	523	99
City (10-49)	1,532	98	307	93
City (1-9)	563	95	142	92
Township	213	100	43	77
All departments	164,588	99	15,668	98

### 2.2.3.3. Model/Manufacturer

**2C. and 3C. List below each different model of this "most used"/"second most used" handgun now used in your department. (Identify Each Different Model by Both Manufacturer and Model Name or Model Number)**

*Manufacturer*

*Model/model number*

Almost all of the most used handguns reported by the responding departments were produced by Colt and Smith & Wesson. Although it was not possible to determine what percentages of handguns in use were made by various manufacturers, the data show that 97 percent of the departments listed one or both of these manufacturers, and did not list any other manufacturer for their most used handgun. At least 92 percent of the departments in every department type were using those two manufacturers exclusively for their most used handguns. (See table 2C-1.)

A great number of different models were represented among departments' most used handguns. About two-fifths of all responding departments and 67 percent of the 50 largest cities had some of one model made by Smith & Wesson represented among their most used guns. The four models with the highest percentages of departmental representation were all made by this manufacturer. The .357 model with greatest representation was also made by them.

TABLE 2C-1. *Percentages of responding departments using handguns of specified manufacturers as their most used caliber handgun, by department type*

Manufacturer	Department type							
	All departments	50 largest	State	City (50+)	City (10-49)	City (1-9)	County	Township
Smith & Wesson	91	100	96	95	88	88	85	85
Colt	50	57	45	61	49	39	47	56
Other	3	0	2	1	8	1	5	4

### 2.2.3.4. Barrel Length

**2D. and 3D. Barrel Lengths:**

**How many have barrels of less than 3 inches?**

**How many have barrels of 3-5 inches?**

**How many have barrels of more than 5 inches?**

**(For most used and second most used handgun)**

Overall, 80 percent of the 180,256 handguns reported in Questions 2D and 3D (data for most used and second most used combined) had barrels of 7.6-12.7 cm (3-5 in), 10 percent were less than 7.6 cm (3 in), and 10 percent more than 12.7 cm (5 in). Within the seven department types, about the same proportion of handguns had 7.6-12.7 cm (3-5 in) barrels, with one exception: A smaller proportion of the handguns reported by state departments (61%) had barrels 7.6-12.7 cm (3-5 in) long, and states reported a much higher percentage (29%) of handguns with barrels more than 12.7 cm (5 in) long. (See table 2D/3D-1.)

TABLE 2D/3D-1. *Percentages of most used and second most used handguns with barrels of various lengths, by department type*

Department type	Barrel length		
	7.6-12.7 cm (3-5 in)	Less than 7.6 cm (3 in)	More than 12.7 cm (5 in)
50 largest [n=119,326]	87	9	4
City (1-9) [n=755]	86	9	5
City (10-49) [n=1839]	82	10	8
Township [n=256]	78	16	5
City (50+) [n=10,514]	77	17	5
County [n=2816]	77	17	5
State [n=44,705]	61	10	29
All departments [n=180,256]	80	10	10

TABLE 2D. *Percentages of most used caliber handguns of various calibers with barrels of specified length (164,588 handguns, Question 2A)*

Reported barrel length	Caliber of handgun			
	.38 [n=144,104]	.357 [n=18,652]	9mm [n=1,788]	.45 [n=44]
Less than 7.6 cm (3 in)	10	2	0	0
7.6-12.7 cm (3-5 in)	80	89	100	91
More than 12.7 cm (5 in)	10	9	0	9

Data from Question 2D (most used handgun, n=164,598, 91% of total) showed differences in barrel lengths among the various calibers of handguns. The proportions of .38 caliber handguns of each length closely parallel the proportions of all handguns taken together. In contrast, 100 percent of the 9mm handguns reported had 7.6-12.7 cm (3-5 in) barrels, 91 percent of the .45s had barrels of this length, and 89 percent of the .357s had barrels of this length. (See table 2D.)

Two calibers of handguns with greatest representation (.38 and .357) were examined in greater detail. Table 2A/3A-4 showed that, in general, one of these two calibers would be used by more officers in a department than any other caliber, and that the other would be used by the next greatest number of officers. Of the .38s that were listed as most used handguns, 80 percent had barrels of 7.6-12.7 cm (3-5 in). Of the .38s that were listed as second most used handguns, more than half (53%) had barrels of less than 7.6 cm (3 in). Roughly these same proportions were found in all department types except states (most used .38s) and cities with 1-9 officers (second most used .38s). For exact numbers, see appendix B.

Of the .357 handguns cited as most used, 89 percent had barrels of medium length. Approximately this same percentage was found in six of the seven department types for the .357s that were listed as second most used handguns. However, the overall percentages for second most used .357s were greatly affected by state departments: 64 percent of the .357 second most used handguns in states had barrels of more than 12 7 cm. (See table 2D/3D-2.)

TABLE 2D/3D-2. Percentages of .38 and .357 caliber handguns with barrels of each specified length, when they were most used and second most used handguns

Reported barrel length	Caliber			
	.38		.357	
	Most used [n=144,104]	Second most [n=3,943]	Most used [n=18,652]	Second most [n=11,381]
Less than 7.6 cm (3 in)	10	53	2	2
7.6-12.7 cm (3-5 in)	80	45	89	73
More than 12.7 cm (5 in)	10	2	9	26

#### 2.2.4. Characteristics of Ammunition Used

**2E. and 3E. Ammunition:** In the table below, list each type of ammunition that your officers use with this “most used”/“second most used” handgun. (Fill in the Table Below for Each Type of Ammunition Used)

*Bullet type*      *Bullet weight*      *Manufacturer*  
(in grains)

(For most used and second most used handgun)

##### 2.2.4.1. Bullet Type

Almost half (49%) of the responding departments were using lead bullets in their most used handguns. About one-fourth were using hollowpoint, and 15 percent were using jacketed ammunition. (See table 2E/3E-1.)

About two-thirds of the respondents reported using bullets of only one type in their most used handgun. About half of these departments said they used lead bullets exclusively. Thirteen percent reported using hollowpoint exclusively. (See table 2E/3E-2.)

##### 2.2.4.2. Bullet Weight

About three-fourths of the responding departments reported using ammunition with bullet weights of 9.8-10.4 g (151-160 grains), and very few departments were using ammunition with bullet weights greater than this. About 17 percent were using ammunition with bullet weights of 6.5-7.1 g (101-110 grains), and 12 percent with weights of 9.1-9.7 g (141-150 grains). (See table 2E/3E-3.)

##### 2.2.4.3. Ammunition Manufacturer

About half of the 445 responding departments (53%) were using at least some Remington-Peters ammunition with their most used handgun. About a third (34%) were using Winchester-Western ammunition, and 17 percent were using Super Vel ammunition. (See table 2E/3E-4.)

More than half (n=263, 59%) of the responding departments reported using only one brand of ammunition with their most used handguns. Fifty percent of these departments said they were using Remington-Peters exclusively. About one-fourth (22%) reported using Winchester-Western exclusively. Less than 10 percent were using any other brand exclusively.

TABLE 2E/3E-1. Percentages<sup>1</sup> of departments using each specified bullet type in their most used and second most used handgun

Bullet type	Most used handgun [n=445]	Second most used [n=259]
Lead	49	43
Hollowpoint	24	27
Jacketed	15	15
Soft point	10	11
Wadcutter	6	3
Semiwadcutter	3	2
Metal piercing	2	*
Unusable information	16	14
No answer	1	2

<sup>1</sup>Percentages add to more than 100 percent since multiple answers were allowed.

\*Less than 1 percent.

TABLE 2E/3E-2.<sup>1</sup> Of the departments using only one type of bullet for their most used and second most used handguns, percentages using specified bullet type

Bullet type	Most used handgun [n=292]	Second most used [n=138]
Lead	49	41
Hollowpoint	13	18
Soft point	6	5
Jacketed	4	4
Ball	4	2
Lubaloy	3	4
Wadcutter	2	1
Semiwadcutter	1	1
Metal piercing	1	4
Frangible	0	1
Other	1	4
Unusable information	14	12

<sup>1</sup>This table was compiled by special tabulation and does not appear in app. B.

TABLE 2E/3E-3. Percentages<sup>1</sup> of departments using ammunition for their most used and second most used handguns with specified bullet weights

Reported bullet weight Grains	Grams	Most used handgun [n=445]	Second most used [n=259]
151-160	9.8-10.4	73	57
101-110	6.5- 7.1	17	17
141-150	9.1- 9.7	12	10
121-130	7.8- 8.4	7	9
191-200	12.4-13.0	6	5

<sup>1</sup>Percentages add to more than 100 percent since multiple answers were allowed.

NOTE: Percentages of departments in all other categories were 5 percent or less.

TABLE 2E/3E-4. Percentages<sup>1</sup> of departments using ammunition made by each specified manufacturer with their most used and second most used handgun

Manufacturer	Most used handgun [n=445]	Second most used [n=259]
Remington-Peters	53	49
Winchester-Western	34	31
Super Vel	17	20
Smith & Wesson	11	7

<sup>1</sup> Percentages add to more than 100 percent since multiple answers were allowed.  
NOTE: Percentages of departments using each other brand were 5 percent or less.

TABLE 2E/3E-5. Of the departments using only one brand of ammunition with their most used and second most used handgun, percentages using each specified brand of ammunition

Manufacturer	Most used handgun [n=263]	Second most used [n=109]
Remington-Peters	50	42
Winchester-Western	22	26
Smith & Wesson	9	4
Super Vel	9	14

NOTE: Percentages of departments using each other brand were less than 10 percent.

Of the 109 departments (42% of the 259 reporting a second handgun) reporting use of only one manufacturer's ammunition for their second most used handgun, 42 percent reported using Remington-Peters, 26 percent Winchester-Western, and 14 percent Super Vel. (See table 2E/3E-5.)

## 2.2.5. Off Duty Use of Handguns

**4. How about off duty: About how many of the officers in your department use handguns of each of the following calibers when they are off duty?**

*Officers*

*Caliber*

**.22 LR**

**.25 Automatic**

**.32 Automatic**

**.38 Special**

**9 mm Luger**

**.357 Magnum**

**.45 Automatic**

**Other (specify)**

**Other (specify)**

Only 78 percent of the 445 departments which provided data about their officers' use of handguns on duty (Question 1) answered this question. Their answers accounted for 62 percent of the 179,091 officers carrying handguns on duty reported in Question 1.

\* Some of the 100 departments which did not report off duty use of handguns made such comments as: "off duty officers use weapons of their choice," and "no off duty officers." Therefore, these data cannot be taken as a measure of proportion of officers that carry weapons off duty. The data can be used, however, to indicate the proportions of various calibers of handguns used off duty as compared with those used on duty.

About one-fourth of the departments not reporting off duty weapons were state departments: 51 percent of the states gave no answer. About 75 percent or more of the departments in all other department types did answer Question 4. (See table 4.)

The 345 departments which reported off duty handgun use were using .38 caliber handguns in about the same proportion as was reported for on duty use in Question 1: 94 percent of all responding departments had at least one officer using the .38 on duty, and 96 percent of the 345 departments describing off duty handguns had at least one .38 in use off duty. In addition, about the same proportions of officers were using the .38 on duty and off duty: 80 percent and 86 percent, respectively.

There was one major difference between on duty and off duty handgun use: Only four different calibers of handguns were reported to be in use on duty by 10 percent or more of the responding departments; but eight different calibers were reported to be in use off duty by 10 percent or more of the departments that reported off duty use. As with on duty use, however, the percentages of officers using each of these different calibers were small; the majority of officers used the .38 on duty and off duty. (See table 4/1.)

TABLE 4. *Percentages of departments in each department type which did not report officers' use of handguns off duty*

Department type	Percent of departments "none"/"no answer"
State	51
City (1-9)	26
50 largest	22
Township	22
City (50+)	18
City (10-49)	15
County	15
All departments	22

TABLE 4/1. Percentages of officers and percentages of departments<sup>1</sup>  
using specified calibers of handguns on duty and off duty

Caliber	Percent of departments		Percent of officers	
	On duty [n=445]	Off duty [n=345]	On duty [n=179,891]	Off duty [n=110,534]
.38 Special	94	96	80	86
.357 Magnum	56	29	17	6
9 mm Luger	14	30	1	4
.45 Automatic	10	21	1	2
.32 Automatic	3	22	*	1
.25 Automatic	3	23	*	1
.22	3	15	*	1
.44	2	1	*	*
.380	2	10	*	*
.41	2	*	*	*
.32 Revolver	1	1	*	*
.45 Revolver	0	1	0	*
Other	*	*	*	*

<sup>1</sup> Percentages of departments add to more than 100 percent since there could be more than one caliber of handgun in each department.

\*Less than 1 percent.

## 2.2.6. Problems with Handguns

**5. When you think of all the handguns that have been used by any of your officers in the last 5 years; which of these guns have had, or have caused problems of one kind or another?**

**Be sure to think of handguns that were once used but are not now used, as well as handguns that are now used. In the spaces provided below tell us about the handgun and the "problem."**

*Case number 1*

**Caliber**

**Revolver or Automatic**

**Manufacturer**

**Model**

**Barrel Length**

**What was the problem?**

*Case number 2*

**(etc.)**

*Case number 3*

**(etc.)**

More than half (55%) of the responding departments either said they had had no problems with their handguns in the last 5 years or left the question blank. There were striking differences among the seven department types, however. Almost three-fourths of the states and 50 largest cities cited one or more problems, but only about one-fourth of the counties and cities (1-9) described problems. (See table 5-1.)

Among the 203 departments that described at least one problem, those problems associated with the cylinder were mentioned most frequently (35%). The hammer/firing pin was reported to have been involved in the handgun problems of about one-fifth of the departments mentioning problems. (See table 5-2.)

TABLE 5-1. *Percentages of departments in each department type listing at least one handgun problem*

Department type	Percent of department types citing one or more problems
State	72
50 largest	72
City (50+)	53
City (10-49)	47
Township	41
County	29
City (1-9)	24
All departments	45

TABLE 5-2. *Of the 203 departments which listed at least one problem, percentages<sup>1</sup> citing specified problem*

Problem	Percent of departments [n=203]
Cylinder	35
Hammer/firing pin	21
Misfires	15
Trigger	11
Age, wear and tear	11
Abuse by personnel	10
Accidental discharge	10
Main springs	9
Problems on double or single action	9
Ammunition problems	8
Problems with finish (bluing)	8
Jamming	8
Shaving lead	8
Timing problems	8
Problems with reliability/defective manufacturing	7
Head space problems	6
Barrel problems	5
Ejector rod problems	4
Feeding problems	4
Other	24

<sup>1</sup> Percentages add to more than 100 percent since departments could describe more than one problem.

Each of the problem descriptions, categorized by manufacturer, was recorded verbatim along with the caliber, manufacturer/model, barrel length, and type of handgun. No cross tabulations were made with these identifying factors, however, because the various calibers, manufacturers, etc., were disproportionately represented among the departments. Cross tabulations with these identifiers would have reflected this departmental representation rather than problems associated with a particular model, caliber, barrel length, etc..

*Examples of Cylinder Problems Mentioned Were :*

Shaved lead, cylinder had excess play.

Cylinder would not rotate when hammer was cocked.

Weapon bought new and used approximately 3 months.

After carrying this gun in a holster for several years, the rotating mechanism wears so much that the bullets do not line up with the barrel, causing a spray of lead to fly out of the side of the chamber.

*Examples of Hammer/Firing Pin Problems Mentioned Were :*

Crystallized hammers, weak main spring, crystallized firing pin.

Firing pin spring too weak.

Hammer springs of marginal strength and would not fire primers at all times.

## **2.2.7. Problems Associated with Handgun Ammunition**

**6. How about handgun ammunition: Have your officers found any problems with any handgun ammunition that they have used in the last 5 years?**

**Again, be sure to think of handgun ammunition that was once used but is not now used, as well as ammunition that is now used. In the spaces below tell us about the ammunition and the "problem."**

*Case number 1*

**Caliber**

**Cartridge**

**Bullet Type**

**Bullet Weight**

**Manufacturer**

**What was the problem:**

*Case number 2*

**(etc.)**

*Case number 3*

**(etc.)**

A smaller percentage of the responding departments reported problems with handgun ammunition (26%) than reported problems with handguns (45%). A much higher percentage of the 50 largest cities (61%) reported ammunition problems than any other department type. None of the 27 township departments and only 7 of the 84 city (1-9) departments listed an ammunition problem. (See table 6-1.)

Among the 117 departments that described an ammunition problem, 3 problems were cited by more than one-fourth of the departments: power/penetration too low (30%); knockdown power insufficient (27%); and primer (25%). A wide variety of other problems was also mentioned. (See table 6-2.)

A cross tabulation was performed for those departments which said they used reloaded ammunition for either their most used or their second most used handgun (Questions 2E and 3E). Of these 52 departments, 56 percent cited ammunition problems as compared to 26 percent of all the responding departments. (It is likely that more departments were using reloaded ammunition than reported that fact in either Question 2E or 3E.)

TABLE 6-1. *Percentages of departments in each department type reporting at least one problem with handgun ammunition*

Department type	Percent of department type
50 largest	61
State	45
City (50+)	43
County	18
City (10-49)	16
City (1-9)	8
Township	0
All departments	26

TABLE 6-2. *Of the 117 departments citing at least one problem with handgun ammunition, percentages<sup>1</sup> citing each specified problem*

Problem	Percent of departments [n=117]
Power/penetration too low	30
Knockdown power insufficient	27
Primer	25
Case, cartridge	21
Wrong amount of powder	17
Gun failure	15
Penetration too great	9
Accuracy poor	5
Leading, fouling	5
Ricochet	5
Smoking excessive	3
Variability of energy rates	3
Powder/miscellaneous problems	3
Other	14

<sup>1</sup> Percentages add to more than 100 percent since multiple answers were allowed.

As with handgun problems, each ammunition problem was recorded verbatim along with the identifiers listed in Question 6. Again, the disproportionate representation of certain calibers, cartridge types, manufacturers, etc., precluded cross tabulation of these identifiers.

*Examples of Power/Penetration Too Low Were:*

Lack of penetration.

Would not penetrate windshields; as a result an officer was almost run over by a felon.

Lack of penetration on autos and ricocheting.

*Examples of Knockdown Power Insufficient Were:*

Poor stopping power.

Bullet would go through person but would not stop or immediately disable them.

The street officers frequently complain that this bullet fails to have adequate "knock-down" power desirable in a face to face shootout. Penetration is great, but cavitation is poor on this type bullet.

*Examples of Primer Problems Were:*

Dead primer, unknown cause of defect.

Arrived from the manufacturer with blown primers.

Bad primers.



Table 2-1

2. SELECT FROM THE LIST IN QUESTION 1 THE HANDGUN THAT IS USED, ON DUTY, BY MORE OF YOUR OFFICERS THAN ANY OTHER.

MOST USED HANDGUN: 2.A. CALIBER TYPE

CALIBER

	ALL DEPARTMENT TYPES	STATE			COUNTY			DEPARTMENT TYPE						FIFTY LARGEST CITIES			TOWNSHIP		
		NO.		%	NO.		%	CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		NO.		%	NO.		%
.38	328	74	25	53	54	74	64	76	63	71	63	80	41	89	18	67			
9 MM	4	1	1	2	0	0	1	1	1	1	1	1	0	0	0	0			
.357 MAGNUM	109	24	21	45	18	25	17	20	24	27	15	19	5	11	9	33			
.45	4	1	0	0	1	1	2	2	1	1	0	0	0	0	0	0			
TOTAL	445	100	47	100	73	100	84	99	89	100	79	100	46	100	27	100			

Table 2-2

2. AVERAGE NUMBER OF OFFICERS USING AS THEIR PRIMARY ON-DUTY WEAPON HANDGUNS OF SPECIFIED CALIBERS.

CALIBER

	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
		MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM
.38 SPECIAL	427.02	936.44	26.81	7.66	18.29	127.40	2570.76	7.44														
9 MM	32000	93	1	84	5	22	255	1														
		3875	394	6	48	592	32000	21														
.357 MAGNUM	447.00	1700.00	.00	6.00	18.00	64.00	.00	.00														
	6	1700	0	6	18	64	0	0														
	1700	1700	0	6	18	64	0	0														
.45 AUTOMATIC	170.44	541.33	48.22	5.35	14.33	62.60	978.60	8.33														
	1	106	2	1	5	6	213	1														
	1950	1950	353	18	30	150	1927	26														
.45 AUTOMATIC	11.00	.00	3.00	11.50	18.00	.00	.00	.00														
	3	0	3	3	18	0	0	0														
	20	0	3	20	18	0	0	0														
OTHER	.00	.00	.00	.00	.00	.00	.00	.00														
	0	0	0	0	0	0	0	0														
	0	0	0	0	0	0	0	0														

Table 2 B-1

GUN TYPE		2.B. HOW MANY (MOST USED HANDGUNS) ARE REVOLVERS? HOW MANY (MOST USED HANDGUNS) ARE AUTOMATICS? (NUMBER OF GUNS)													
		ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE						TOWNSHIP	
								CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
REVOLVERS		162748	99	36918	96	584	95	1496	98	9282	99	111928	100	213	100
AUTOMATICS		1840	1	1700	4	29	5	36	2	64	1	0	0	0	0
TOTAL		164588	100	38618	100	613	100	1532	100	9346	100	111928	100	213	100

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Table 2 B-2

GUN TYPE		(NUMBER OF DEPARTMENTS)																	
		2.B. HOW MANY (MOST USED HANDGUNS) ARE REVOLVERS?						HOW MANY (MOST USED HANDGUNS) ARE AUTOMATICS?											
		ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				TOWNSHIP							
		NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%	FIFTY LARGEST CITIES	NO.	%
REVOLVERS		438	98	46	98	73	100	81	96	87	98	78	99	46	100	27	100	0	0
AUTOMATICS		10	2	1	2	3	4	3	4	2	2	1	1	0	0	0	0	0	0
TOTAL		448	100	47	100	76	104	84	100	89	100	79	100	46	100	27	100	0	0

## APPENDIX A

NBS-886  
May 1972

OMB 41-F72030  
Approval Expires June 30, 1973

U.S. Department of Commerce  
National Bureau of Standards

DETAILED QUESTIONNAIRE: HANDGUNS AND  
HANDGUN AMMUNITION

### POLICE EQUIPMENT SURVEY

#### Sponsored By:

National Institute of Law Enforcement and Criminal Justice  
Law Enforcement Assistance Administration  
U.S. Department of Justice

#### Directed and Conducted By:

Behavioral Sciences Group  
National Bureau of Standards  
Washington, D.C. 20234  
Phone: 301-921-3558

NOTE: This questionnaire is included in this document as a supplement to the discussion in the text. It has no other intended use.

INTRODUCTION: Police officers in several departments have told us informally about their problems in selecting and using handguns. They have told of the danger to their officers from poor handguns and handgun ammunition. In order to make it easier for law enforcement departments to select and buy handguns and handgun ammunition to meet their particular needs, the Law Enforcement Standards Laboratory will be writing voluntary performance standards for these items of equipment.

PURPOSE OF THIS QUESTIONNAIRE: The purpose of this "detailed" questionnaire is to get answers from YOU, the user, about the handguns and handgun ammunition you are now using, and the problems you find in using them. Your answers will be used to determine what kinds of testing need to be done, and what sorts of problems must be solved. We must find out what YOUR needs are.

GENERAL INSTRUCTIONS:

1. Fill in the questionnaire completely. Even if you do not have all the information you need "at your fingertips," please make your best effort to supply every answer AS ACCURATELY AS POSSIBLE.
2. Answer all questions for YOUR OWN DEPARTMENT. Do not attempt to supply information that might exist in some other department.
3. The results of this questionnaire will be compiled by computer. It is very important that you follow directions and answer every question legibly and in the boxes and spaces provided.
4. No individual department will be identified in the report of this survey; the results will be published in tabulated form.
5. Additional instructions for filling in your answers appear after some questions. Follow the directions given.
6. Please PRINT all answers and comments CLEARLY.
7. When this questionnaire has been completely filled in; place it, with the other questionnaires sent to your department, in the stamped, addressed envelope supplied. Return all of them to:  
Technology Building, Room A110  
National Bureau of Standards  
Washington, D.C. 20234
8. If you have any questions, write to the above address or call collect:  
E. Bunten, or P. Klaus  
Phone: 301-921-3558
9. Remember that it is only by getting YOUR answers to these questions that it will be possible to begin solving the problems that police have with handguns and handgun ammunition.

PART I: ON DUTY USE OF HANDGUNS AND HANDGUN AMMUNITION.

1. How many of the officers in your department use, on duty, handguns of each of the following calibers? (Either as their primary or their "back-up" weapon.)

NUMBER OF  
OFFICERS      CALIBER

(10-14) \*\*\* \_\_\_\_\_ .32 Automatic  
(15-19) \_\_\_\_\_ .38 Special  
(20-24) \_\_\_\_\_ 9 mm Luger  
(25-29) \_\_\_\_\_ .357 Magnum  
(30-34) \_\_\_\_\_ .45 Automatic  
(35-39) \_\_\_\_\_ Other (Specify) \_\_\_\_\_  
                                 \_\_\_\_\_ Other (Specify) \_\_\_\_\_

2. Select from the list in Question 1 the handgun that is used, on duty, by more of your officers than any other. COMPLETELY FILL IN THE QUESTIONS BELOW FOR THAT HANDGUN.

MOST USED HANDGUN

(40-42) 2A. Caliber Type. \_\_\_\_\_  
(43-47) 2B. How many are revolvers? \_\_\_\_\_  
(48-52)      How many are automatics? \_\_\_\_\_

- 2C. List below each different model of this "most used" handgun now used in your department. (IDENTIFY EACH DIFFERENT MODEL BY BOTH MANUFACTURER AND MODEL NAME OR MODEL NUMBER)

	<u>MANUFACTURER</u>	<u>MODEL/MODEL NUMBER</u>
(53-56)	a. _____	_____
(57-60)	b. _____	_____
(61-64)	c. _____	_____
(65-68)	d. _____	_____
(69-72)	e. _____	_____
(73-76)	f. _____	_____
(77-80)	g. _____	_____
(10-13)		

\*\*\* Numbers in parentheses are for computer use only.

2D. Barrel Lengths:

- (14-18) How many have barrels of less than 3 inches? \_\_\_\_\_
- (19-23) How many have barrels of 3-5 inches? \_\_\_\_\_
- (24-28) How many have barrels of more than 5 inches? \_\_\_\_\_

2E. Ammunition: In the table below, list each type of ammunition that your officers use with this "most used" handgun. (FILL IN THE TABLE BELOW FOR EACH TYPE OF AMMUNITION USED)

	<u>BULLET TYPE</u>	<u>BULLET WEIGHT</u> (IN GRAINS)	<u>MANUFACTURER</u>
(29-35)	_____	_____	_____
(36-42)	_____	_____	_____
(43-49)	_____	_____	_____
(50-56)	_____	_____	_____
(57-63)	_____	_____	_____
(64-70)	_____	_____	_____
(71-77)	_____	_____	_____
(78-14)	_____	_____	_____

3. Go back to the list in Question 1 and pick out the handgun that is second most often used by your officers. COMPLETELY FILL IN THE QUESTIONS BELOW FOR THAT HANDGUN.

SECOND MOST USED HANDGUN:

(15-17) 3A. Caliber Type: \_\_\_\_\_

(18-22) 3B. How many are revolvers? \_\_\_\_\_

(23-27) How many are automatics? \_\_\_\_\_

- 3C. List below each different model of this "second most used" handgun now used in your department. (IDENTIFY EACH DIFFERENT MODEL BY BOTH MANUFACTURER AND MODEL NAME OR MODEL NUMBER)

	<u>MANUFACTURER</u>	<u>MODEL/MODEL NUMBER</u>
(28-31)	a. _____	_____
(32-35)	b. _____	_____
(36-39)	c. _____	_____
(40-43)	d. _____	_____
(44-47)	e. _____	_____
(48-51)	f. _____	_____

- 3D. Barrel Lengths:

(52-56) How many have barrels of less than 3 inches? \_\_\_\_\_

(57-61) How many have barrels of 3-5 inches? \_\_\_\_\_

(62-66) How many have barrels of more than 5 inches? \_\_\_\_\_

- 3E. Ammunition: In the table below, list each type of ammunition that your officers use with this "second most used" handgun. (FILL IN THE TABLE BELOW FOR EACH TYPE OF AMMUNITION USED)

	<u>BULLET TYPE</u>	<u>BULLET WEIGHT</u> (IN GRAINS)	<u>MANUFACTURER</u>
(67-73)	_____	_____	_____
(74-80)	_____	_____	_____
(10-16)	_____	_____	_____
(17-23)	_____	_____	_____

PART II: OFF DUTY USE OF HANDGUNS.

4. How about off duty: about how many of the officers in your department use handguns of each of the following calibers when they are off duty?

	<u>NUMBER OF OFFICERS</u>	<u>CALIBER</u>
(24-28)	_____	.22 LR
(29-33)	_____	.25 Automatic
(34-38)	_____	.32 Automatic
(39-43)	_____	.38 Special
(44-48)	_____	9 mm Luger
(49-53)	_____	.357 Magnum
(54-58)	_____	.45 Automatic
(59-63)	_____	Other (Specify) _____
		_____
		_____
		Other (Specify) _____
		_____
		_____

PART III: PROBLEMS OF HANDGUNS

5. When you think of all the handguns that have been used by any of your officers in the last 5 years; which of these guns have had, or have caused problems of one kind or another?

Be sure to think of handguns that were once used but are not now used, as well as handguns that are now used. IN THE SPACES PROVIDED BELOW TELL US ABOUT THE HANDGUN AND THE "PROBLEM".

(64)

\*\*\*\*\*

CASE NUMBER 1

(65-67) Caliber \_\_\_\_\_

(68) Revolver or Automatic \_\_\_\_\_

(69-70) Manufacturer \_\_\_\_\_

(71-72) Model \_\_\_\_\_

(73) Barrel Length \_\_\_\_\_

(74-75) What was the problem? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\*\*\*\*\*

CASE NUMBER 2

(76-78) Caliber \_\_\_\_\_  
(79) Revolver or Automatic \_\_\_\_\_  
(10-11) Manufacturer \_\_\_\_\_  
(12-13) Model \_\_\_\_\_  
(14) Barrel Length \_\_\_\_\_  
(15-16) What was the problem? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

CASE NUMBER 3

(17-19) Caliber \_\_\_\_\_  
(20) Revolver or Automatic \_\_\_\_\_  
(21-22) Manufacturer \_\_\_\_\_  
(23-24) Model \_\_\_\_\_  
(25) Barrel Length \_\_\_\_\_  
(26-27) What was the problem? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

PART IV: PROBLEMS ASSOCIATED WITH HANDGUN AMMUNITION

6. How about handgun ammunition: Have your officers found any problems with any handgun ammunition that they have used in the last 5 years?

Again, be sure to think of handgun ammunition that was once used but is not now used, as well as ammunition that is now used. IN THE SPACES BELOW TELL US ABOUT THE AMMUNITION AND THE "PROBLEM".

(28)

\*\*\*\*\*

CASE NUMBER 1

(29-31) Caliber \_\_\_\_\_

(32-33) Cartridge \_\_\_\_\_

(34-35) Bullet Type \_\_\_\_\_

(36-38) Bullet Weight \_\_\_\_\_

(39-40) Manufacturer \_\_\_\_\_

(41-42) What was the problem? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

CASE NUMBER 2

(43-45) Caliber \_\_\_\_\_

(46-47) Cartridge \_\_\_\_\_

(48-49) Bullet Type \_\_\_\_\_

(50-52) Bullet Weight \_\_\_\_\_

(53-54) Manufacturer \_\_\_\_\_

(55-56) What was the problem? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

CASE NUMBER 3

(57-59) Caliber \_\_\_\_\_

(60-61) Cartridge \_\_\_\_\_

(62-63) Bullet Type \_\_\_\_\_

(64-66) Bullet Weight \_\_\_\_\_

(67-68) Manufacturer \_\_\_\_\_

(69-70) What was the problem? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*

IDENTIFYING INFORMATION: (All identifying information will be kept confidential)

Name of Department: \_\_\_\_\_

Address: \_\_\_\_\_

Name of person who answered this questionnaire:

\_\_\_\_\_

Title: \_\_\_\_\_ Rank: \_\_\_\_\_

No. of years experience in law enforcement: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Others who helped: 1. \_\_\_\_\_

Name

Title: \_\_\_\_\_ Rank: \_\_\_\_\_

No. of years experience in law enforcement: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

2. \_\_\_\_\_

Name

Title: \_\_\_\_\_ Rank: \_\_\_\_\_

No. of years experience in law enforcement: \_\_\_\_\_

Telephone Number: \_\_\_\_\_



## **APPENDIX B**

### **Data Tables**

#### **B.1. Advice to the Reader**

(a) The data presented in the following tables resulted from the responses of a stratified random sample (see sec. 1.2) of police departments in response to a specific set of questions (see app. A). These data do not, in any way, reflect objective testing of any of the equipment by the National Bureau of Standards. The reader is cautioned to become familiar with the questionnaire and to evaluate the data in terms of the exact questions asked.

(b) Tables have been numbered after the question number (e.g., the tables for Question 6A would be numbered 6A-1, 6A-2, etc.). The data are usually presented by number of respondents and nearest whole percentage. Because of the statistical limitations imposed by the sample sizes used in this study, the reader is cautioned to be wary of assigning importance to percentage differences of less than 5 percent when percentages are based on all respondents, and to percentage differences of less than 10 percent when percentages are based on one of the subsample groups (e.g., a particular department type or region). No statistical tests of significance are reported.

(c) These tables are based on the responding departments from the specific sample selected for this questionnaire. This sample was not proportional to the total population of police departments, and although it is possible to do so, the data in these tables have not been weighted to allow direct extrapolation to the total population.

(d) In order to extrapolate to the total population from the respondent data presented in this report, use the following procedure: For each department type, multiply the percentage of respondents of a particular department type giving the answer of interest (see B.2 Data Tables, app. B) by the total number of departments of that department type in the population (see table 1.2-2, sec. 1.2); add those seven subtotals; and divide the total by the total number of police departments in the population (table 1.2-2). The quotient of this division will be an estimate of the percentage of all U.S. police departments that would choose the answer of interest.

#### **B.2. Data Tables**

Table i-1

## RANK OF PERSON WHO FILLED IN QUESTIONNAIRE

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	%	NO.	%	NO.	%
CHIEF	133	30	0	0	1	1	62	74	40	45	10	13	2	4
CAPTAIN	36	8	9	19	1	1	0	0	7	8	18	23	1	2
COMMISSIONER	2	0	0	0	0	0	2	2	0	0	0	0	0	0
COLONEL	3	1	2	4	0	0	1	1	0	0	0	0	0	0
ACTING CHIEF	2	0	0	0	0	0	0	0	2	2	0	0	0	0
ASSISTANT CHIEF	8	2	1	2	0	0	1	1	2	2	3	4	0	0
MAJOR	5	1	2	4	1	1	0	0	0	0	0	0	2	4
LIEUTENANT	41	9	5	11	3	4	3	4	12	13	12	15	6	13
CORPORAL	2	0	0	0	0	0	0	0	0	0	1	1	0	0
DEPUTY SHERIFF	13	3	0	0	12	16	0	0	0	0	0	0	1	4
INSPECTOR	3	1	1	2	0	0	0	0	1	1	0	0	0	0
SHERIFF	36	8	0	0	36	49	0	0	0	0	0	0	0	0
SERGEANT	41	9	6	13	4	5	6	7	10	11	7	9	4	9
PATROLMAN	20	4	1	2	0	0	4	5	4	4	5	6	4	9
OTHER TITLE	22	5	4	9	1	1	4	5	6	7	5	6	2	4
UNDERSHERIFF	7	2	0	0	7	10	0	0	0	0	0	0	0	0
SPECIALIST	71	16	16	34	7	10	1	1	5	6	17	22	25	54
TOTAL	445	99	47	100	73	98	84	100	89	99	79	100	46	99
													27	101

Table i-2

## YEARS OF EXPERIENCE OF PERSON WHO FILLED IN QUESTIONNAIRE

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	%	NO.	%	NO.	%
2 OR LESS	11	2	0	0	4	5	6	7	0	0	0	0	0	0
3-5 YEARS	37	8	0	0	12	16	8	10	7	8	3	4	4	15
6-10 YEARS	96	22	5	11	22	30	26	31	17	19	15	19	9	33
11-15 YEARS	87	20	4	9	14	19	19	23	22	25	13	16	11	24
16-20 YEARS	88	20	18	38	8	11	12	14	20	22	15	19	11	24
21-25 YEARS	55	12	6	13	6	8	5	6	12	13	16	20	9	20
26-30 YEARS	37	8	7	15	3	4	4	5	4	4	9	11	6	13
31 OR MORE	25	6	5	11	1	1	3	4	6	7	6	8	3	7
NO ANSWER	9	2	2	4	3	4	1	1	1	1	2	3	0	0
TOTAL	445	100	47	101	73	98	84	101	89	99	79	100	46	101
													27	101

Table 1-1

1. HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE, ON DUTY, HANDGUNS OF EACH OF THE FOLLOWING CALIBERS?(EITHER AS THEIR PRIMARY OR THEIR BACKUP WEAPON.)-- Numbers represent numbers of officers carrying handgun of specified caliber.

## CALIBER

	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
.32 AUTOMATIC	159	0			2	0		0	0		6	0		9	0		136	0		3	1	
.38 SPECIAL	144015	80			1639	55		534	70		1293	68		8409	81		106540	88		149	56	
9 MM	2356	1			82	3		17	2		40	2		171	2		250	0		11	4	
.357 MAGNUM	29984	17			1194	40		176	23		498	26		1620	16		11111	9		97	36	
.45 AUTOMATIC	2674	1			30	1		26	3		42	2		125	1		2365	2		2	1	
.22	138	0			3	0		4	1		8	0		2	0		15	0		1	0	
.25	67	0			24	0		3	0		3	0		19	0		15	0		2	1	
.32 REVOLVER	32	0			1	0		0	0		0	0		5	0		26	0		0	0	
.380	103	0			0	0		1	0		4	0		28	0		29	0		1	0	
.41	135	0			5	0		1	0		1	0		1	0		126	0		0	0	
.44	224	0			5	0		0	0		1	0		48	0		166	0		0	0	
OTHER	4	0			1	0		0	0		0	0		0	0		0	0		0	0	
<b>TOTAL</b>	<b>179891</b>	<b>99</b>			<b>2960</b>	<b>99</b>		<b>762</b>	<b>99</b>		<b>1896</b>	<b>98</b>		<b>10437</b>	<b>100</b>		<b>120779</b>	<b>99</b>		<b>266</b>	<b>99</b>	

Table 1-2

1. HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE, ON DUTY, HANDGUNS OF EACH OF THE FOLLOWING CALIBERS?(EITHER AS THEIR PRIMARY OR THEIR BACKUP WEAPON.)-- Numbers represent numbers of departments with at least one officer carrying handgun of specified caliber.

## CALIBER

	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
.32 AUTOMATIC	14	3			2	3		0	0		2	2		4	5		3	7		2	7	
.38 SPECIAL	418	94			41	87		78	93		84	94		77	97		46	100		23	85	
9 MM	64	14			7	15		7	8		13	15		17	22		6	13		7	26	
.357 MAGNUM	249	56			31	66		43	51		51	57		42	53		19	41		20	74	
.45 AUTOMATIC	46	10			3	6		4	5		11	12		11	14		7	15		2	7	
.22	12	3			4	9		1	1		3	3		1	1		1	2		1	4	
.25	14	3			3	6		1	1		2	2		5	6		1	2		1	4	
.32 REVOLVER	4	1			0	0		0	0		0	0		1	1		2	4		0	0	
.380	9	2			1	2		1	1		2	2		2	3		2	4		1	4	
.41	8	2			1	2		1	1		1	1		1	1		3	7		0	0	
.44	10	2			1	2		0	0		1	1		3	4		3	7		0	0	
OTHER	2	0			1	2		0	0		0	0		0	0		0	0		0	0	
<b>TOTAL</b>	<b>850</b>	<b>190</b>			<b>94</b>	<b>199</b>		<b>136</b>	<b>161</b>		<b>170</b>	<b>189</b>		<b>164</b>	<b>207</b>		<b>93</b>	<b>202</b>		<b>57</b>	<b>211</b>	

Table 1-3

AVERAGE NUMBER OF OFFICERS USING, ON DUTY, HANDGUNS OF SPECIFIED CALIBERS AS  
PRIMARY OR BACKUP WEAPON.

## CALIBER

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE			FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)		
.32 AUTOMATIC	11.36	3.00	1.00	.00	3.00	2.25	45.33	1.50
	MINIMUM	3	1	0	1	1	6	1
	MAXIMUM	3	1	0	5	4	120	2
.38 SPECIAL	34.53	620.76	23.75	6.85	15.39	109.21	2316.09	6.48
	MINIMUM	24	1	1	1	5	128	1
	MAXIMUM	3875	394	84	48	592	32000	21
9 MM	36.81	255.00	11.71	2.43	3.08	10.06	41.67	1.57
	MINIMUM	3	1	1	1	1	4	1
	MAXIMUM	1700	73	6	18	64	101	5
.357 MAGNUM	120.42	493.16	27.77	4.09	9.76	38.57	584.79	4.85
	MINIMUM	5	1	1	1	2	30	1
	MAXIMUM	2500	353	37	30	155	3000	26
.45 AUTOMATIC	58.13	28.00	3.75	6.50	3.82	11.36	337.86	1.00
	MINIMUM	4	1	1	1	1	2	1
	MAXIMUM	50	9	20	18	36	2000	1
OTHER	11.92	16.36	1.86	2.25	1.89	7.92	31.42	1.33
	MINIMUM	1	1	1	1	1	6	1
	MAXIMUM	99	3	4	6	45	99	2

- Table 2 B-3

2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - REVOLVERS (NUMBER OF GUNS)

CALIBER	ALL DEPARTMENT TYPES	STATE	COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP					
			NO.	%	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)									
.38	144093	89	25475	69	1456	63	493	84	1154	77	8343	90	107035	96	137	64
	18652	11	11443	31	868	37	91	16	342	23	939	10	4893	4	76	36
	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
.357																
.45																
TOTAL	162748	100	36918	100	2327	100	584	100	1496	100	9282	100	111928	100	213	100

Table 2 B-4

2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - REVOLVERS (NUMBER OF DEPARTMENTS)

CALIBER	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (11-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
.38 .357 MAGNUM .45	328	75	25	54	54	74	64	79	63	72	63	81	41	89	18	67
	109	25	21	46	18	25	17	21	24	28	15	19	5	11	9	33
	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
TOTAL	438	100	46	100	73	100	81	100	87	100	78	100	46	100	27	100

Table 2 B-5

## 2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - AUTOMATICS (NUMBER OF GUNS)

CALIBER	ALL DEPARTMENT TYPES	DEPARTMENT TYPE													
		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
.38 9 MM .45	11	1	0	0	11	100	0	0	0	0	0	0	0	0	0
	1788	97	1700	100	0	0	6	21	18	50	64	100	0	0	0
	41	2	0	0	0	0	23	79	18	50	0	0	0	0	0
TOTAL	1840	100	1700	100	11	100	29	100	36	100	64	100	0	0	0

B-8

Table 2 B-6

## 2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - AUTOMATICS (NUMBER OF DEPARTMENTS)

CALIBER	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP		
		NO.	%	NO.	%	CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		NO.	%	NO.	%	
						NO.	%	NO.	%	NO.	%					NO.
.38 9 MM .45	3	30	0	0	3	100	0	0	0	0	0	0	0	0	0	
	4	40	1	100	0	0	1	33	1	50	1	100	0	0	0	0
	3	30	0	0	0	0	2	67	1	50	0	0	0	0	0	0
TOTAL	10	100	1	100	3	100	3	100	2	100	1	100	0	0	0	0

Table 2 C-1

## 2.C. LIST BELOW EACH DIFFERENT MODEL OF THIS MOST USED HANDGUN NOW USED IN YOUR DEPARTMENT. (NUMBER OF DEPARTMENTS)

## MANUFACTURER

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
1	221	21	45	34	47	33	39		44	49		26	57	15	56
2	403	45	96	62	85	74	88		78	88		46	100	23	85
5	2	0	0	1	1	0	0		1	1		0	0	0	0
7	1	0	0	0	0	0	0		1	1		0	0	0	0
13	8	0	0	2	3	0	0		4	4		1	2	0	0
14	3	0	0	0	0	1	1		1	1		0	0	1	4
15	1	0	0	1	1	0	0		0	0		0	0	0	0
OTHER	1	0	0	0	0	0	0		1	1		0	0	0	0
TOTAL	640	66	141	100	137	108	128		130	145		73	159	39	145

Table 2 D-1

2.D. BARREL LENGTHS:(FOR YOUR MOST USED HANDGUN) HOW MANY HAVE BARRELS OF THE (NUMBER OF GUNS)  
FOLLOWING LENGTHS?

## BARREL LENGTH

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP		
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%	NO.	%
LESS THAN 3 INCHES	15067	9	3242	8	337	14	53	9	114	7	1563	17	9732	9	26	12	
3-5 INCHES	133364	81	24941	65	1887	81	529	86	1308	85	7239	77	97285	87	175	82	
MORE THAN 5 INCHES	16062	10	10435	27	114	5	31	5	110	7	449	5	4911	4	12	6	
NO ANSWER	95	0	0	0	0	0	0	0	0	0	95	1	0	0	0	0	
TOTAL	164598	100	38618	100	2338	100	613	100	1532	99	9346	100	111928	100	213	100	

Table 2 D-2

2.D. BARREL LENGTHS:(FOR YOUR MOST USED HANDGUN) HOW MANY HAVE BARRELS OF THE (NUMBER OF DEPARTMENTS)  
FOLLOWING LENGTHS?

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE						CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%	NO.	%	
LESS THAN 3 INCHES	212	48	16	34	44	60	21	25	29	33	58	73	32	70	12	44	
3-5 INCHES	412	93	41	87	60	82	80	95	85	96	76	96	46	100	24	89	
MORE THAN 5 INCHES	87	20	8	17	17	23	12	14	18	20	20	25	9	20	3	11	
NO ANSWER	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	
TOTAL	712	161	65	138	121	165	113	134	132	149	155	195	87	190	39	144	

Table 2A 2D-1

COMPARISON BETWEEN MOST USED HANDGUN CALIBER AND BARREL LENGTH (NUMBER OF GUNS)

BARREL LENGTH	TOTAL		.38		9 MM		.357		.45	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	15067	9	14651	10	0	0	416	2	0	0
3-5 INCHES	133364	81	114904	80	1788	100	16632	89	40	91
MORE THAN 5 INCHES	16062	10	14454	10	0	0	1604	9	4	9
NO ANSWER	95	0	95	0	0	0	0	0	0	0

Table 2A 2D-2

COMPARISON BETWEEN MOST USED HANDGUN CALIBER AND BARREL LENGTH (NUMBER OF DEPARTMENTS)

BARREL LENGTH	TOTAL		.38		9 MM		.357		.45	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	212	30	191	35	0	0	21	13	0	0
3-5 INCHES	412	58	299	55	4	100	106	68	3	60
MORE THAN 5 INCHES	87	12	55	10	0	0	30	19	2	40
NO ANSWER	1	0	1	0	0	0	0	0	0	0

Table 2 D-3

## BARREL LENGTHS WHEN MOST USED HANDGUN IS A .38 CALIBER

(NUMBER OF GUNS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP					
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	NO.			%				
LESS THAN 3 INCHES	14651	10	3231	13	296	20	48	10	111	10	1534	18	9408	9	23	17
	114904	80	12599	49	1075	73	418	85	976	85	6320	76	93412	87	104	76
	14454	10	9645	38	96	7	27	5	67	6	394	5	4215	4	10	7
MORE THAN 5 INCHES																
NO ANSWER	95	0	0	0	0	0	0	0	0	0	95	1	0	0	0	0
TOTAL	144104	100	25475	100	1467	100	493	100	1154	101	8343	100	107035	100	137	100

Table 2 D-4

## BARREL LENGTHS WHEN MOST USED HANDGUN IS A .38 CALIBER

(NUMBER OF DEPARTMENTS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP		
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%	NO.	%
LESS THAN 3 INCHES 3-5 INCHES MORE THAN 5 INCHES NO ANSWER	191	58	15	60	40	74	16	25	28	44	53	84	29	71	10	56
	299	91	20	80	41	76	62	97	60	95	60	95	41	100	15	83
	55	17	6	24	8	15	10	16	9	14	13	21	7	17	2	11
	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0
TOTAL	546	166	41	164	89	165	88	138	97	153	127	202	77	188	27	150

Table 2 D-5

BARREL LENGTHS WHEN MOST USED HANDGUN IS A .357 CALIBER (NUMBER OF GUNS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE	COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	416	2	11	0	41	5	3	1	29	3	324	7	3	4
3-5 INCHES	16632	89	10642	93	810	93	296	87	855	91	3873	79	71	93
MORE THAN 5 INCHES	1604	9	790	7	17	2	43	13	55	6	696	14	2	3
TOTAL	18652	100	11443	100	868	100	342	101	939	100	4893	100	76	100

Table 2 D-6

BARREL LENGTHS WHEN MOST USED HANDGUN IS A .357 CALIBER (NUMBER OF DEPARTMENTS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE	COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	21	19	1	5	4	22	1	4	5	33	3	60	2	22
3-5 INCHES	106	97	20	95	18	100	23	96	15	100	5	100	9	100
MORE THAN 5 INCHES	30	28	2	10	8	44	9	37	7	47	2	40	1	11
TOTAL	157	144	23	110	30	166	33	137	27	180	10	200	12	133

Table 2 E-1

2.E. AMMUNITION: LIST EACH TYPE OF AMMUNITION THAT YOUR OFFICERS USE WITH THIS (NUMBER OF DEPARTMENTS)  
MOST USED HANDGUN.

## BULLET TYPE

ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LEAD	217	49	22	47	33	45	44	52	32	36	42	53	28	61
JACKETED	66	15	8	17	6	8	13	15	20	22	10	13	7	15
HOLLOWPOINT	105	24	8	17	14	19	11	13	25	28	29	37	15	33
WAD CUTTER	28	6	6	13	4	5	3	4	5	6	4	5	6	13
SEMI WADCUTTER	14	3	1	2	3	4	0	0	1	1	3	4	4	9
SOFT POINT	45	10	9	19	8	11	4	5	9	10	8	10	6	13
METAL PIERCING	8	2	2	4	0	0	1	1	3	3	2	3	0	0
UNUSABLE INFO	73	16	3	6	17	23	16	19	16	18	12	15	2	4
UNKNOWN	1	0	0	0	1	1	0	0	0	0	0	0	0	0
NO ANSWER	5	1	0	0	2	3	2	2	1	1	0	0	0	0
TOTAL	562	126	59	125	88	119	94	111	112	125	110	140	68	148
													31	114

Table 2 E-2

LIST EACH BULLET WEIGHT, IN GRAINS, THAT YOUR OFFICERS USE WITH THIS MOST USED (NUMBER OF DEPARTMENTS)  
HANDGUN.

## BULLET WEIGHT (IN GRAINS)

ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 91	1	0	0	0	0	0	1	1	0	0	0	0	0	0
91-100	3	1	1	2	0	0	1	1	1	1	0	0	0	0
101-110	75	17	7	15	8	11	8	10	18	20	22	28	10	22
111-120	2	0	0	0	1	1	1	1	0	0	0	0	0	0
121-130	33	7	3	6	6	8	1	1	6	7	8	10	9	20
131-140	4	1	0	0	2	3	0	0	0	0	1	1	1	2
141-150	55	12	8	17	7	10	10	12	13	15	8	10	4	9
151-160	327	73	37	79	52	71	58	69	61	69	59	75	39	85
161-170	3	1	0	0	0	0	1	1	0	0	0	0	0	0
171-180	2	0	1	2	0	0	0	0	0	0	1	1	0	0
181-190	3	1	0	0	0	0	1	1	2	2	0	0	0	0
191-200	25	6	1	2	4	5	7	8	3	3	7	9	3	7
GREATER THAN 210	6	1	0	0	1	1	2	2	1	1	0	0	2	4
NO ANSWER/DONT KNOW	19	4	1	2	8	11	4	5	4	4	2	3	0	0
TOTAL	558	124	59	125	89	121	95	112	109	122	108	137	68	149
													30	111

Table 2 E-3

LIST EACH MANUFACTURER OF AMMUNITION THAT YOUR OFFICERS USE WITH THIS MOST USED  
HANDGUN. (NUMBER OF DEPARTMENTS)

## MANUFACTURER

	ALL DEPARTMENT TYPES			STATE			COUNTY			DEPARTMENT TYPE						FIFTY LARGEST CITIES			TOWNSHIP				
	NO.	%		NO.	%		NO.	%		CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	NO.	%		NO.	%		NO.	%			
2	19	4		5	11		2	3		3	4		2	2		2	3		4	9		1	4
5	10	2		0	0		1	1		1	1		3	3		3	4		1	2		1	4
8	237	53		29	62		35	48		45	54		40	45		43	54		28	61		17	63
10	47	11		3	6		10	14		7	8		7	8		11	14		7	15		2	7
11	10	2		1	2		1	1		1	1		3	3		0	0		4	9		0	0
12	76	17		7	15		10	14		9	11		17	19		23	29		8	17		2	7
13	10	2		2	4		2	3		0	0		1	1		4	5		1	2		0	0
16	152	34		19	40		21	29		25	30		33	37		28	35		17	37		9	33
18	14	3		1	2		4	5		1	1		2	2		4	5		1	2		1	4
19	10	2		3	6		2	3		0	0		3	3		2	3		0	0		0	0
ANY, ALL	3	1		0	0		1	1		0	0		1	1		1	1		0	0		0	0
MULTIPLE MANUFACTURERS	6	1		1	2		0	0		0	0		2	2		1	1		2	4		0	0
UNKNOWN	5	1		0	0		3	4		0	0		1	1		0	0		0	0		1	4
OTHER	6	1		0	0		0	0		1	1		0	0		1	1		4	9		0	0
NO ANSWER	9	2		0	0		2	3		3	4		3	3		0	0		1	2		0	0
TOTAL	614	136		71	150		94	129		96	115		118	130		123	155		78	169		34	126

Table 3-1

3. GO BACK TO QUESTION 1 AND PICK OUT THE HANDGUN THAT IS SECOND MOST OFTEN USED BY YOUR OFFICERS.

SECOND MOST USED HANDGUN: 3.A. CALIBER TYPE

CALIBER

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				NUMBER OF DEPARTMENTS			
							CITY (1-9 OFFICERS)	%	NO.	CITY (10-49 OFFICERS)	%	CITY (50 OR MORE OFFICERS)	%	TOWNSHIP
.32	7	3	0	0	2	5	0	0	0	0	0	2	9	1 5
.38	87	34	16	53	14	32	14	33	20	38	14	29	5 23	4 21
9 MM	17	7	1	3	1	2	4	9	3	6	4	8	0 0	4 21
.357 MAGNUM	132	51	10	33	25	57	23	53	26	50	25	51	14 64	9 47
.45	5	2	0	0	2	5	0	0	1	2	2	4	0 0	0 0
.22	5	2	1	3	0	0	1	2	1	2	0	0	1 5	1 5
.25	4	2	1	3	0	0	1	2	1	2	1	2	0 0	0 0
.380	1	0	1	3	0	0	0	0	0	0	0	0	0 0	0 0
.44	1	0	0	0	0	0	0	0	0	0	1	2	0 0	0 0
TOTAL	259	101	30	98	44	101	43	99	52	100	49	100	22 101	19 99

Table 3-2

3. AVERAGE NUMBER OF OFFICERS ASSOCIATED WITH SECOND MOST USED ON DUTY HANDGUNS,  
FOR SPECIFIED CALIBERS

CALIBER	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE			CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (10-49 OFFICERS)			
.32 AUTOMATIC	MEAN	.00	1.00	.00	.00		3.00	13.00	2.00
	MINIMUM	0	1	0	0		1	6	2
	MAXIMUM	0	1	0	0		5	20	2
.38 SPECIAL	MEAN	127.50	13.36	3.14	6.90		27.36	227.80	2.75
	MINIMUM	24	1	1	1		5	128	1
	MAXIMUM	296	98	10	20		51	400	6
9 MM	MEAN	30.00	2.00	2.25	3.00		5.75	.00	2.00
	MINIMUM	30	2	2	2		1	0	1
	MAXIMUM	30	2	3	4		15	0	5
.357 MAGNUM	MEAN	392.00	13.04	3.52	5.81		26.60	444.14	2.11
	MINIMUM	5	1	1	1		3	30	1
	MAXIMUM	2500	119	37	20		155	3000	5
.45 AUTOMATIC	MEAN	.00	3.00	.00	4.00		18.50	.00	.00
	MINIMUM	0	2	0	4		2	0	0
	MAXIMUM	0	4	0	4		35	0	0
OTHER	MEAN	32.33	.00	3.50	4.00		26.00	15.00	1.00
	MINIMUM	9	0	3	2		7	15	1
	MAXIMUM	48	0	4	6		45	15	1

Table 3 B-1

3.B. HOW MANY (SECOND MOST USED HANDGUNS) ARE REVOLVERS?  
HOW MANY (SECOND MOST USED HANDGUNS) ARE AUTOMATICS?

(NUMBER OF GUNS)

## GUN TYPE

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE						FIFTY LARGEST CITIES	TOWNSHIP					
				CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)								
				NO.	%	NO.	%	NO.	%			NO.	%			
REVOLVERS	15410	98	5960	98	517	99	130	92	286	93	1101	94	7383	100	33	77
	258	2	127	2	6	1	12	8	21	7	67	6	15	0	10	23
TOTAL	15668	100	6087	100	523	100	142	100	307	100	1168	100	7398	100	43	100

Table 3 B-2

3.B. HOW MANY (SECOND MOST USED HANDGUNS) ARE REVOLVERS?  
HOW MANY (SECOND MOST USED HANDGUNS) ARE AUTOMATICS?

(NUMBER OF DEPARTMENTS)

## GUN TYPE

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES	TOWNSHIP			
		NO.	%	CITY (11-9 OFFICERS)	%	CITY (10-49 OFFICERS)	%	CITY (50 OR MORE OFFICERS)	%	NO.	%					
REVOLVERS	229	88	26	87	42	95	38	88	46	88	42	86	21	95	14	74
	31	12	4	13	3	7	5	12	6	12	7	14	1	5	5	26
TOTAL	260	100	30	100	45	102	43	100	52	100	49	100	22	100	19	100

Table 3 B-3

## 3.B. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - REVOLVERS (NUMBER OF GUNS)

## CALIBER

	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (11-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
.32	34	0		0	2	0		0	0		0	0		6	1		26	0		0	0	
.38	3943	26		2040	34		187	45	35		136	48		383	35		1139	15		13	39	
.357 MAGNUM	11381	74		3920	66		326	81	62		150	52		667	61		6218	84		19	58	
.45	2	0		0	2	0		0	0		0	0		0	0		0	0		0	0	
.22	5	0		0	0		0	4	3		0	0		0	0		0	0		1	3	
.44	45	0		0	0		0	0	0		0	0		45	4		0	0		0	0	
TOTAL	15410	100		5960	100		517	130	100		286	100		1101	101		7383	99		33	100	

Table 3 B-4

## 3.B. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - REVOLVERS (NUMBER OF DEPARTMENTS)

## CALIBER

CALIBER	ALL DEPARTMENT TYPES	STATE			COUNTY			DEPARTMENT TYPE						FIFTY LARGEST CITIES			TOWNSHIP		
		NO.		%	NO.		%	CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		NO.		%	NO.		%
.32	6	3	0	2	5	0	0	0	0	0	0	0	2	5	2	10	0	0	0
.38	87	38	16	62	14	33	14	37	20	43	14	33	5	24	4	29	4	29	
.357 MAGNUM	132	58	10	38	25	60	23	61	26	57	25	60	14	67	9	64	9	64	
.45	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
.22	2	1	0	0	0	0	1	3	0	0	0	0	0	0	1	7	1	7	
.44	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	
TOTAL	229	100	26	100	42	100	38	101	46	100	42	100	21	101	14	100	14	100	

Table 3 B-5

## 3.B. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - AUTOMATICS (NUMBER OF GUNS)

## CALIBER

ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
	NO.	%	NO.	%	CITY (11-9 OFFICERS)	CITY (10-49 OFFICERS)			
.32	2	1	0	0	0	0	0	0	2
9 MM	81	31	30	24	9	43	23	0	8
.45	45	17	0	0	0	19	37	0	0
.22	69	27	48	38	0	6	29	15	0
.25	21	8	9	7	3	25	7	0	0
.380	40	16	40	31	0	0	0	0	0
TOTAL	258	100	127	100	12	100	67	15	10

Table 3 B-6

## 3.B. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - AUTOMATICS (NUMBER OF DEPARTMENTS)

## CALIBER

ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
	NO.	%	NO.	%	CITY (11-9 OFFICERS)	CITY (10-49 OFFICERS)			
.32	1	3	0	0	0	0	0	0	1
9 MM	17	55	1	25	4	80	4	0	4
.45	5	16	0	0	0	0	2	0	0
.22	3	10	1	25	0	0	0	1	0
.25	4	13	1	25	1	20	1	0	0
.380	1	3	1	25	0	0	0	0	0
TOTAL	31	100	4	100	5	100	7	1	5

Table 3 C

3.C. LIST BELOW EACH DIFFERENT MODEL OF THIS SECOND MOST USED HANDGUN NOW USED (NUMBER OF DEPARTMENTS)  
IN YOUR DEPARTMENT.

## MANUFACTURER

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
1	121	47	13	43	21	48	16	37		24	46		16	73	6	32
2	202	78	23	77	34	77	29	67		43	83		22	100	11	58
4	6	2	0	0	1	2	0	0		1	2		0	0	2	11
5	1	0	0	0	0	0	0	0		1	2		0	0	0	0
8	1	0	1	3	0	0	0	0		0	0		0	0	0	0
13	7	3	0	0	4	9	2	5		0	0		0	0	1	5
14	1	0	0	0	1	2	0	0		0	0		0	0	0	0
OTHER	4	2	1	3	0	0	0	0		0	0		0	0	2	11
UNKNOWN	3	1	0	0	1	2	0	0		1	2		0	0	0	0
TOTAL	346	133	38	126	62	140	47	109		70	135		38	173	22	117

Table 3 D-1

3.D. BARREL LENGTHS: FOR YOUR SECOND MOST USED HANDGUN, HOW MANY HAVE BARRELS OF THE FOLLOWING LENGTHS? (NUMBER OF GUNS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)	CITY (10-49 OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	2372	15	1150	19	17	12		69	22	235	20
3-5 INCHES	10258	65	2421	40	118	83		197	64	863	74
MORE THAN 5 INCHES	3009	19	2516	41	4	3		31	10	54	5
NO ANSWER	29	0	0	0	0	0		10	3	16	1
TOTAL	15668	99	6087	100	142	100		307	99	1168	100
										7398	100
										729	10
										6308	85
										361	5
										0	0
										0	0
										43	100

Table 3 D-2

3.D. BARREL LENGTHS: FOR YOUR SECOND MOST USED HANDGUN, HOW MANY HAVE BARRELS OF THE FOLLOWING LENGTHS? (NUMBER OF DEPARTMENTS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)	CITY (10-49 OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	86	33	18	60	8	19		12	23	16	33
3-5 INCHES	200	77	16	53	33	77		41	79	43	88
MORE THAN 5 INCHES	51	20	2	7	3	7		12	23	9	41
NO ANSWER	4	2	0	0	2	5		1	2	0	0
TOTAL	341	132	36	120	46	108		66	127	72	147
										38	172
										10	45
										19	86
										9	41
										0	0
										22	117

Table 3 D-3

BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A .38 CALIBER (NUMBER OF GUNS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE			COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		CITY (50 OR MORE OFFICERS)		CITY (10-49 OFFICERS)		TOWNSHIP	
		NO.	%		NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	2097	53		1046	51		13	29		61	45		654	57	191	50			12	92
3-5 INCHES	1759	45		994	49		32	71		48	35		462	41	156	41			1	8
MORE THAN 5 INCHES	77	2		0	0		0	0		17	12		23	2	36	9			0	0
NO ANSWER	10	0		0	0		0	0		10	7		0	0	0	0			0	0
TOTAL	3943	100		2040	100		45	100		136	99		1139	100	383	100			13	100

Table 3 D-4

BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A .38 CALIBER (NUMBER OF DEPARTMENTS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES	STATE			COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		CITY (50 OR MORE OFFICERS)		CITY (10-49 OFFICERS)		TOWNSHIP	
		NO.	%		NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	55	63		11	69		6	43		10	50		5	100	10	71			3	75
3-5 INCHES	56	64		8	50		11	79		11	55		3	60	11	79			1	25
MORE THAN 5 INCHES	13	15		0	0		1	7		6	30		2	40	4	29			0	0
NO ANSWER	1	1		0	0		0	0		1	5		0	0	0	0			0	0
TOTAL	125	143		19	119		17	122		28	140		10	200	25	179			4	100

Table 3 D-5

BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A .357 CALIBER (NUMBER OF GUNS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES			STATE		COUNTY		DEPARTMENT TYPE				CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	171	2		47	1	36	11	1	1	0	0	0	0	36	5	50	1	1	5
3-5 INCHES	8262	73		1357	35	253	78	73	90	136	91	18	9	597	90	5830	94	16	84
MORE THAN 5 INCHES	2929	26		2516	64	37	11	4	5	14	9	16	2	338	5	338	5	2	11
NO ANSWER	19	0		0	0	0	0	3	4	0	0	0	0	16	2	0	0	0	0
TOTAL	11381	101		3920	100	326	100	81	100	150	100	667	100	6218	100	6218	100	19	100

Table 3 D-6

BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A .357 CALIBER (NUMBER OF DEPARTMENTS)

## BARREL LENGTH

	ALL DEPARTMENT TYPES			STATE		COUNTY		DEPARTMENT TYPE				CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 3 INCHES	20	15		5	50	6	24	1	4	0	0	0	0	4	16	3	21	1	11
3-5 INCHES	116	88		6	60	20	80	17	74	26	100	24	96	24	96	14	100	9	100
MORE THAN 5 INCHES	36	27		2	20	8	32	3	13	6	23	8	32	8	32	7	50	2	22
NO ANSWER	3	2		0	0	0	0	2	9	0	0	0	0	1	4	0	0	0	0
TOTAL	175	132		13	130	34	136	25	100	32	123	37	148	24	171	24	171	12	133

## 3.E. AMMUNITION: LIST EACH TYPE OF AMMUNITION THAT YOUR OFFICERS USE WITH THIS (NUMBER OF DEPARTMENTS)

SECOND MOST USED HANDGUN

## BULLET TYPE

	ALL DEPARTMENT TYPES			STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
	NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
LEAD	112	43		14	47		17	39		18	42		18	35		21	43		16	73		8	42	
JACKETED	39	15		5	17		4	9		4	9		12	23		10	20		2	9		2	11	
HOLLOWPOINT	69	27		6	20		9	20		12	28		19	37		15	31		6	27		2	11	
WAD CUTTER	8	3		2	7		2	5		0	0		2	4		1	2		1	5		0	0	
SEMI WADCUTTER	6	2		1	3		2	5		0	0		1	2		1	2		0	0		1	5	
SOFT POINT	28	11		5	17		8	18		2	5		5	10		5	10		3	14		0	0	
METAL PIERCING	1	0		0	0		0	0		0	0		1	2		0	0		0	0		0	0	
FRANGIBLE	1	0		0	0		0	0		0	0		0	0		1	2		0	0		0	0	
UNUSABLE INFO	36	14		4	13		7	16		7	16		6	12		6	12		0	0		6	32	
ANY, ALL	1	0		0	0		0	0		1	2		0	0		0	0		0	0		0	0	
UNKNOWN	2	1		1	3		0	0		0	0		1	2		0	0		0	0		0	0	
NO ANSWER	6	2		0	0		2	5		1	2		1	2		2	4		0	0		0	0	
TOTAL	309	118		38	127		51	117		45	104		66	129		62	126		28	128		19	101	

Table 3 E-2

## LIST EACH BULLET WEIGHT, IN GRAINS, THAT YOUR OFFICERS USE WITH THIS SECOND MOST USED HANDGUN (NUMBER OF DEPARTMENTS)

## BULLET WEIGHT (IN GRAINS)

	ALL DEPARTMENT TYPES			STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
	NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
LESS THAN 91	8	3		1	3		0	0		2	5		3	6		2	4		0	0		0	0	
91-100	7	3		1	3		0	0		0	0		1	2		2	4		2	9		1	5	
101-110	43	17		6	20		4	9		4	9		13	25		10	20		4	18		2	11	
111-120	4	2		1	3		1	2		0	0		1	2		1	2		0	0		0	0	
121-130	23	9		2	7		5	11		1	2		4	8		5	10		4	18		2	11	
131-140	3	1		1	3		1	2		0	0		0	0		0	0		1	5		0	0	
141-150	25	10		5	17		5	11		1	2		8	15		4	8		0	0		2	11	
151-160	148	57		20	67		25	57		24	56		27	52		27	55		15	68		10	53	
171-180	1	0		0	0		0	0		0	0		1	2		0	0		0	0		0	0	
181-190	2	1		0	0		0	0		0	0		1	2		0	0		0	0		1	5	
191-200	12	5		0	0		2	5		5	12		2	4		3	6		0	0		0	0	
GREATER THAN 210	5	2		0	0		1	2		1	2		0	0		2	4		1	5		0	0	
NO ANSWER/DONT KNOW	19	7		2	7		5	11		5	12		3	6		3	6		0	0		1	5	
TOTAL	300	117		39	130		49	110		43	100		64	124		59	119		27	123		19	101	

Table 3 E-3

LIST EACH MANUFACTURER OF AMMUNITION THAT YOUR OFFICERS USE WITH THIS SECOND (NUMBER OF DEPARTMENTS)

MOST USED HANDGUN

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
2	6	1	3	1	2	1	2	4	2	4	0	1	5	0	0
3	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0
5	5	0	0	0	0	0	0	0	2	4	1	1	5	1	5
8	126	18	60	21	48	20	47	19	37	25	51	13	59	10	53
10	18	0	0	5	11	2	5	5	10	5	10	0	0	1	5
11	6	1	3	1	2	1	2	2	4	0	0	1	5	0	0
12	51	6	20	6	14	7	16	13	25	12	24	5	23	2	11
13	3	0	0	2	5	0	0	0	0	1	2	0	0	0	0
16	80	13	43	8	18	12	28	17	33	17	35	9	41	4	21
18	8	2	7	3	7	0	0	0	0	3	6	0	0	0	0
19	6	2	7	3	7	1	2	0	0	0	0	0	0	0	0
ANY, ALL	2	0	0	1	2	1	2	0	0	0	0	0	0	0	0
MULTIPLE MANUFACTURERS	4	0	0	0	0	0	0	2	4	0	0	2	9	0	0
UNKNOWN	5	1	3	0	0	0	0	2	4	1	2	0	0	1	5
OTHER	3	0	0	0	0	0	0	1	2	1	2	1	5	0	0
NO ANSWER	6	0	0	1	2	1	2	1	2	2	4	1	5	0	0
TOTAL	330	44	146	53	120	46	106	66	129	68	138	34	157	19	100

Table 2A, 3A  
COMPARISON BETWEEN MOST USED HANDGUN AND SECOND MOST USED HANDGUN BY CALIBER. (NUMBER OF DEPARTMENTS)

CALIBER

WHEN MOST USED IN:	SECOND MOST USED IS:	ALL DEPARTMENT TYPES	DEPARTMENT TYPE										TOWNSHIP	
			STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES					NO.	%
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	NO.	%
38	32 AUTO.	7	2	0	0	0	0	0	0	2	3	2	5	6
	NONE	163	50	11	44	37	58	29	46	24	59	5	28	
	9 MM	13	4	1	4	2	3	3	5	4	6	0	11	
	357 MAG.	132	40	10	40	23	36	26	41	14	34	9	50	
	45 AUTO.	2	1	0	0	0	0	1	2	0	0	0	0	
	OTHER	11	3	3	12	2	3	2	3	1	2	1	6	
TOTAL		328	100	25	100	64	100	63	100	41	100	18	101	
9 MM	38	1	25	0	0	0	0	0	0	1	100	0	0	
	NONE	3	75	1	100	1	100	0	0	0	0	0	0	
TOTAL		4	100	1	100	1	100	1	100	1	100	0	0	
357 MAG.	38	84	77	16	76	13	76	20	83	13	87	5	100	44
	9 MM	4	4	0	0	2	12	0	0	0	0	0	22	
	NONE	18	17	5	24	2	12	3	12	1	7	0	0	
	45 AUTO.	3	3	0	0	0	0	1	4	1	7	0	0	
		109	101	21	100	17	100	24	99	15	101	5	100	99
45 AUTO.	38	2	50	0	0	1	50	0	0	0	0	0	0	
	NONE	2	50	0	0	1	50	1	100	0	0	0	0	
TOTAL		4	100	0	0	2	100	1	100	0	0	0	0	

4. HOW ABOUT OFF DUTY: ABOUT HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE  
HANDGUNS OF EACH OF THE FOLLOWING CALIBERS WHEN THEY ARE OFF DUTY? (NUMBER OF OFFICERS)

## CALIBER

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)			
	NO.	%	NO.	%	NO.	%	NO.	%	NO.
.22 LR	870	1	275	2	37	3	68	1	4
.25 AUTOMATIC	1041	1	133	1	30	2	167	2	21
.32 AUTOMATIC	739	1	75	0	36	3	176	3	10
.38 SPECIAL	94942	86	12492	74	938	75	5615	81	127
9 MM LUGER	4435	4	1854	11	218	8	73456	89	8
.357 MAGNUM	6188	6	1956	12	109	4	2040	2	4
.45 AUTOMATIC	1682	2	35	0	59	5	3763	5	4
.32 REVOLVER	17	0	0	0	50	4	1351	2	1
.380	414	0	40	0	1	0	8	0	0
.41	6	0	0	0	33	3	124	0	3
.44	34	0	0	0	0	0	5	0	0
.45 REVOLVER	165	0	30	0	0	0	0	0	0
OTHER	1	0	0	0	0	0	90	0	0
TOTAL	110534	101	16890	100	2741	99	373	99	179
					1254	101	6898	99	100

Table 4-2

4. HOW ABOUT OFF DUTY: ABOUT HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE  
HANDGUNS OF EACH OF THE FOLLOWING CALIBERS WHEN THEY ARE OFF DUTY? (NUMBER OF DEPARTMENTS)

## CALIBER

	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)			
	NO.	%	NO.	%	NO.	%	NO.	%	NO.
.22 LR	53	12	4	9	13	15	9	11	3
.25 AUTOMATIC	81	18	4	9	15	17	21	27	10
.32 AUTOMATIC	76	17	1	2	20	22	17	22	5
.38 SPECIAL	332	75	19	40	75	84	64	81	14
9 MM LUGER	103	23	10	21	23	26	32	41	21
.357 MAGNUM	101	23	9	19	18	20	29	37	3
.45 AUTOMATIC	74	17	3	6	17	19	20	25	17
.32 REVOLVER	5	1	0	0	1	1	2	3	2
.380	35	8	1	2	10	11	6	13	0
.41	2	0	0	0	0	0	1	1	0
.44	3	1	1	2	0	0	1	2	0
.45 REVOLVER	3	1	0	0	0	0	1	1	0
OTHER	1	0	0	0	0	0	1	2	0
NONE/NO ANSWER	100	22	24	51	11	15	14	18	0
TOTAL	969	218	76	161	142	194	127	152	6
					205	230	221	281	22
							143	310	55
							203		203

Table 2A/4-1

COMPARISON BETWEEN MOST USED HANDGUN AND OFF-DUTY HANDGUNS, BY CALIBER. (NUMBER OF OFFICERS)

## CALIBER

WHEN ON DUTY IS:	OFF DUTY IS:	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	NO.	NO.	%	NO.	%	NO.	%
38	22 LR	9934	4	2190	10	711	11	13	2	183	9	956	6	5851	3	30	8
	25 AUTO	10546	5	1403	6	745	12	33	6	187	9	1693	10	6384	4	101	28
	32 AUTO	10770	5	341	2	648	10	79	15	182	9	1501	9	7979	4	40	11
	38	109375	48	11503	51	1365	22	296	56	887	43	5940	37	89259	49	125	34
	9 MM	27605	12	2041	9	623	10	24	5	220	11	2381	15	22295	12	21	6
	357 MAG	31120	14	2941	13	774	12	26	5	198	10	1755	11	25410	14	16	4
	45 AUTO	21623	9	0	0	798	13	6	1	155	7	770	5	19890	11	4	1
	OTHER	7821	3	2190	10	615	10	52	10	69	3	1264	8	3602	2	29	8
	TOTAL	228794	100	22609	101	6279	100	529	100	2081	101	16260	101	180670	99	366	100
9 MM	38	64	3	0	0	0	0	0	0	0	0	64	20	0	0	0	0
	9 MM	1788	87	1700	100	0	0	6	100	18	100	64	20	0	0	0	0
	357 MAG	64	3	0	0	0	0	0	0	0	0	64	20	0	0	0	0
	45 AUTO	64	3	0	0	0	0	0	0	0	0	64	20	0	0	0	0
	OTHER	64	3	0	0	0	0	0	0	0	0	64	20	0	0	0	0
TOTAL		2044	99	1700	100	0	0	6	100	18	100	320	100	0	0	0	0
357 MAG	22 LR	3993	8	869	5	353	9	5	2	65	5	90	3	2611	11	0	0
	25 AUTO	4054	8	600	3	527	14	8	4	94	8	201	7	2611	11	13	12
	32 AUTO	3529	7	0	0	532	14	8	4	161	14	206	7	2611	11	11	10
	38	12295	24	5965	35	800	21	80	37	332	28	840	28	4232	17	46	41
	9 MM	6992	14	3303	19	396	10	26	12	179	15	452	15	2611	11	25	22
	357 MAG	9683	19	4259	25	487	13	50	23	93	8	560	18	4232	17	2	2
	45 AUTO	7554	15	2286	13	397	10	30	14	133	11	460	15	4232	17	16	14
	OTHER	2332	5	0	0	353	9	8	4	130	11	220	7	1621	7	0	0
	TOTAL	50432	100	17282	100	3845	100	215	100	1187	100	3029	100	24761	102	113	101
45 AUTO	22 LR	18	13	0	0	0	0	0	0	18	17	0	0	0	0	0	0
	25 AUTO	3	2	0	0	0	0	3	10	0	0	0	0	0	0	0	0
	32 AUTO	21	15	0	0	0	0	3	10	18	17	0	0	0	0	0	0
	38	41	30	0	0	0	0	23	79	18	17	0	0	0	0	0	0
	357 MAG	18	13	0	0	0	0	0	0	18	17	0	0	0	0	0	0
	45 AUTO	18	13	0	0	0	0	0	0	18	17	0	0	0	0	0	0
	OTHER	18	13	0	0	0	0	0	0	18	17	0	0	0	0	0	0
TOTAL		137	99	0	0	0	0	29	99	108	102	0	0	0	0	0	0

Table 2A/4-2

## COMPARISON BETWEEN MOST USED HANDGUN AND OFF-DUTY HANDGUNS, BY CALIBER. (NUMBER OF DEPARTMENTS)

## CALIBER

WHEN ON DUTY IS:	OFF DUTY IS:	ALL DEPARTMENT TYPES	DEPARTMENT TYPE															
			STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP			
			NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%		
38			40	6	2	5	6	6	3	3	9	7	8	5	9	8	3	8
	22 LR		60	9	3	8	7	7	5	6	9	7	18	11	10	9	8	21
	25 AUTO		51	8	1	3	6	6	7	8	8	6	14	8	11	9	4	10
	32 AUTO		245	36	9	24	46	44	42	48	51	41	50	30	32	27	15	38
	38		66	10	4	11	8	8	4	5	12	10	23	14	14	12	1	3
	9 MM		61	9	2	5	12	11	3	3	11	9	18	11	13	11	2	5
	357 MAG		44	6	0	0	9	9	1	1	9	7	13	8	11	9	1	3
	45 AUTO		33	5	2	5	4	4	3	3	3	2	11	7	8	7	2	5
	OTHER		78	12	15	39	7	7	19	22	12	10	13	8	9	8	3	8
	NONE OR BLANK																	
TOTAL			678	101	38	100	105	102	87	99	124	99	168	102	117	100	39	101
9 MM																		
	38		1	12	0	0	0	0	0	0	0	0	1	20	0	0	0	0
	9 MM		4	50	1	100	0	0	1	100	1	100	1	20	0	0	0	0
	357 MAG		1	12	0	0	0	0	0	0	0	0	1	20	0	0	0	0
	45 AUTO		1	12	0	0	0	0	0	0	0	0	1	20	0	0	0	0
	OTHER		1	12	0	0	0	0	0	0	0	0	1	20	0	0	0	0
TOTAL			8	98	1	100	0	0	1	100	1	100	5	100	0	0	0	0
357 MAG																		
	22 LR		12	4	2	5	1	3	2	6	3	4	1	2	3	12	0	0
	25 AUTO		20	7	1	3	3	8	2	6	6	8	3	6	3	12	2	12
	32 AUTO		23	8	0	0	3	8	2	6	3	6	3	6	3	12	1	6
	38		83	31	10	27	14	39	13	37	11	15	13	27	4	15	6	37
	9 MM		33	12	5	14	3	8	2	6	23	31	8	17	3	12	2	12
	357 MAG		38	14	7	19	4	11	6	17	10	14	10	21	4	15	1	6
	45 AUTO		28	10	3	8	4	11	3	9	7	9	6	12	4	15	1	6
	OTHER		14	5	0	0	1	3	2	6	7	9	3	6	1	4	0	0
	NONE OR BLANK		21	8	9	24	3	8	3	9	1	1	1	2	1	4	3	19
TOTAL			272	99	37	100	36	99	35	102	74	99	48	99	26	101	16	98
45 AUTO																		
	22 LR		1	9	0	0	0	0	0	0	1	17	0	0	0	0	0	0
	25 AUTO		1	9	0	0	0	0	1	25	0	0	0	0	0	0	0	0
	32 AUTO		2	18	0	0	0	0	1	25	1	17	0	0	0	0	0	0
	38		3	27	0	0	0	0	2	50	1	17	0	0	0	0	0	0
	9 MM		1	9	0	0	0	0	0	0	1	17	0	0	0	0	0	0
	357 MAG		1	9	0	0	0	0	0	0	1	17	0	0	0	0	0	0
	45 AUTO		1	9	0	0	0	0	0	0	1	17	0	0	0	0	0	0
	OTHER		1	9	0	0	0	0	0	0	1	17	0	0	0	0	0	0
	NONE OR BLANK		1	9	0	0	0	1	0	0	0	0	0	0	0	0	0	0
TOTAL			11	99	0	0	0	1	4	100	6	102	0	0	0	0	0	0

Table 5-1

5. WHEN YOU THINK OF ALL THE HANDGUNS THAT HAVE BEEN USED BY YOUR OFFICERS  
IN THE LAST 5 YEARS, WHICH OF THESE GUNS HAVE HAD, OR HAVE CAUSED PROBLEMS?

## RESPONSE

	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP	
							CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)					
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
CITED PROBLEM	203	46	34	72	21	29	20	24	42	47	42	53	33	72	11	41
	163	37	8	17	33	45	49	58	26	29	25	32	9	20	13	48
	79	18	5	11	19	26	15	18	21	24	12	15	4	9	3	11
TOTAL	445	101	47	100	73	100	84	100	89	100	79	100	46	101	27	100

Table 5-2

5. WHEN YOU THINK OF ALL THE HANDGUNS THAT HAVE BEEN USED BY YOUR OFFICERS  
IN THE LAST 5 YEARS; WHICH OF THESE GUNS HAVE HAD, OR HAVE CAUSED PROBLEMS?  
PROBLEM (NUMBER OF DEPARTMENTS)

	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		CITY (10-49 OFFICERS)		CITY (5 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
EJECTOR ROD PROBS.	10	5		2	6	2	10	0	0	1	2	0	0	5	15	0	0	0	0
ABUSE BY PERSONNEL	20	10		1	3	2	14	0	0	4	10	2	5	10	30	0	0	0	0
ACCIDENTAL DISCHARGE	20	10		1	3	3	14	0	0	5	12	6	14	4	12	1	9	1	9
ACCURACY POOR	4	2		0	0	0	0	0	0	1	2	1	2	0	0	2	18	1	9
AGE; WEAR & TEAR	22	11		5	14	1	5	1	5	7	17	5	12	3	9	1	9	1	9
PROBS. CAUSED BY AMMO.	16	8		1	3	2	10	0	0	10	24	3	7	0	0	0	0	0	0
BARREL PROBS.	11	5		2	6	1	5	1	5	6	14	0	0	0	0	1	9	1	9
CYLINDER PROBS.	71	35		13	39	8	38	7	35	17	40	17	40	10	30	4	36	4	36
DEFECTIVE MFG; RELIABILITY	15	7		2	6	1	5	1	5	5	12	1	2	4	12	1	9	1	9
DOUBLE/SINGLE ACTION PROB.	18	9		2	6	1	5	0	0	2	5	1	2	1	3	1	9	1	9
EXTRACTOR ROD PROBS.	6	3		2	6	1	5	0	0	0	0	0	0	2	6	0	0	0	0
FEEDING PROBS.	9	4		2	6	2	10	1	5	1	2	1	2	0	0	2	18	2	18
FINISH (BLUING) PROBS.	17	8		5	15	0	0	2	10	1	2	1	2	9	27	0	0	0	0
GRIP PROBS.	2	1		1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAD SPACE PROBS.	15	7		13	39	1	5	0	0	0	0	0	0	1	3	0	0	0	0
HAMMER/FIRING PIN PROBS.	42	21		4	12	7	33	4	20	12	28	7	16	8	24	0	0	0	0
JAMMING	16	8		1	3	3	14	1	5	6	14	3	7	2	6	0	0	0	0
LEAD SHAVING	16	8		5	15	2	10	3	15	5	12	5	12	0	0	0	0	0	0
MISFIRES	31	15		3	9	6	29	2	10	12	28	7	17	5	15	2	18	2	18
SAFETY PROBS.	4	2		1	3	0	0	0	0	2	5	2	5	0	0	0	0	1	9
SIGHT PROBS.	10	5		4	12	1	5	1	5	3	7	0	0	1	3	0	0	0	0
STOPPING POWER INSUFFICIENT	8	4		1	3	0	0	0	0	2	5	2	5	3	9	0	0	0	0
TRIGGER PROBS.	23	11		8	24	5	24	2	10	3	7	3	7	3	9	0	0	0	0
OTHER	32	16		5	15	2	10	2	10	6	14	6	14	9	27	3	27	3	27
MAIN SPRING PROBS.	18	9		6	18	0	0	0	0	1	2	2	5	5	15	0	0	0	0
TIMING OFF	16	8		6	18	0	0	2	10	2	5	2	5	6	18	0	0	0	0
SEAR PROBS.	8	4		0	0	1	5	3	15	3	7	3	7	1	3	0	0	0	0
MULTIPLE PROBS.	26			7		1		1		8		1		8		0		0	
TOTAL	507	236		103	288	54	256	34	165	77	178	119	264	101	276	19	171		

Table 6-1

6. HOW ABOUT HANDGUN AMMUNITION: HAVE YOUR OFFICERS FOUND ANY PROBLEMS WITH ANY HANDGUN AMMUNITION THAT THEY HAVE USED IN THE LAST 5 YEARS?

RESPONSE

	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP			
		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		
CITED PROBLEM	117	26		21	45		13	18		7	8		14	16		34	43		28	61		0	0
NO PROBLEM	215	48		20	43		38	52		58	69		45	51		27	34		12	26		15	56
NO ANSWER	113	25		6	13		22	30		19	23		30	34		18	23		6	13		12	44
TOTAL	445	99		47	101		73	100		84	100		89	101		79	100		46	100		27	100

Table 6-2

6. HOW ABOUT HANDGUN AMMUNITION: HAVE YOUR OFFICERS FOUND ANY PROBLEMS WITH ANY HANDGUN AMMUNITION THAT THEY HAVE USED IN THE LAST 5 YEARS?

PROBLEM

	ALL DEPARTMENT TYPES			STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
	NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
POWDER, MISC PROBS.	4	3		0	0		1	8		0	0		0	0		2	6		1	4		0	0	
ACCURACY POOR	6	5		2	10		0	0		0	0		0	0		1	3		3	11		0	0	
CASE CARTRIDGE PROBS.	25	21		5	24		2	15		1	14		3	21		8	24		6	21		0	0	
GUN FAILURE	17	15		1	5		2	15		0	0		3	21		5	15		6	21		0	0	
LEADING, FOULING	6	5		1	5		3	23		0	0		0	0		0	0		2	7		0	0	
MISFIRES	30	26		5	24		6	46		2	29		3	21		9	26		5	18		0	0	
PRIMER PROBS.	29	25		4	19		6	46		0	0		1	7		11	32		7	25		0	0	
POWER, PENETRATION LOW	35	30		6	29		0	0		5	71		1	7		5	15		18	64		0	0	
POWDER, WRONG AMT	21	18		3	14		3	23		1	14		4	29		5	15		5	18		0	0	
RELOAD PROBLEMS	8	7		2	10		2	15		1	14		2	14		1	3		0	0		0	0	
RICOCHET	8	7		1	5		0	0		1	14		1	7		0	0		4	14		0	0	
SMOKING EXCESSIVE	3	3		1	5		1	8		0	0		1	7		0	0		0	0		0	0	
VARIABILITY OF ENERGY RATES	4	3		0	0		3	23		0	0		1	7		0	0		0	0		0	0	
PENETRATION TOO GREAT	11	10		3	14		0	0		0	0		2	14		3	9		2	7		0	0	
OTHER	14	12		5	24		1	8		0	0		1	7		3	9		3	11		0	0	
KNOCKDOWN POWER LOW	32	27		5	24		0	0		3	43		3	21		6	18		14	50		0	0	
MULTIPLE PROBS.	5			0	0		0	0		0	0		0	0		1	3		4			0	0	
TOTAL	263	217		44	212		30	230		14	199		26	183		60	178		71	253		0	0	

Table 6-3

## COMPARISON BETWEEN CALIBER OF AMMUNITION AND PROBLEMS OF AMMUNITION CITED (NUMBER OF DEPARTMENTS)

## PROBLEMS

	TOTAL NO.	%	.38 NO.	%	.357 NO.	%	9 MM NO.	%	.45 NO.	%	.22 NO.	%	.25 NO.	%	.41 NO.	%	ANY, ALL NO.	%	NO ANSWER NO.	%
POWDER, MISC PROBS.	3	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ACCURACY POOR	6	2	3	2	1	3	0	0	0	0	0	0	0	0	1	50	1	9	0	
CASE CARTRIDGE PROBS.	24	10	14	8	3	9	1	25	2	33	1	100	0	0	1	50	2	18	0	
GUN FAILURE	17	7	13	7	2	6	1	25	1	17	0	0	0	0	0	0	0	0	0	
LEADING, FOULING	6	2	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MISFIRES	30	12	20	11	6	18	0	0	0	0	0	0	0	0	0	0	3	27	1	
PRIMER PROBS.	27	11	18	10	6	18	0	0	0	0	0	0	1	100	0	0	2	18	0	
POWER, PENETRATION LOW	37	14	34	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
POWDER, WRONG AMT	20	8	14	8	3	9	0	0	1	17	0	0	0	0	0	0	2	18	0	
RELOAD PROBLEMS	8	3	4	2	3	9	0	0	0	0	0	0	0	0	0	0	1	9	0	
RICOCHET	6	2	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SMOKING EXCESSIVE	3	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
VARIABILITY OF ENERGY RATES	4	2	2	1	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
PENETRATION TOO GREAT	10	4	9	5	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTHER	12	5	5	3	3	9	2	50	2	33	0	0	0	0	0	0	0	0	0	
KNOCKDOWN POWER LOW	30	12	27	15	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	
MULTIPLE PROBS.	5	2	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 6-4

## COMPARISON OF AMMUNITION PROBLEMS AND AMMUNITION MANUFACTURERS CITED (NUMBER OF DEPARTMENTS)

PROBLEMS	TOTAL NO.	%	1 NO.	%	2 NO.	%	3 NO.	%	4 NO.	%	5 NO.	%	6 NO.	%	7 NO.	%	8 NO.	%	9 NO.	%
POWDER, MISC PROBS.	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ACCURACY POOR	6	2	0	0	0	0	0	0	0	0	1	9	0	0	0	0	1	6	0	
CASE CARTRIDGE PROBS.	24	10	0	0	0	0	0	0	0	0	1	9	0	0	6	24	2	12	0	
GUN FAILURE	17	7	0	0	0	0	0	0	0	0	1	9	0	0	1	4	0	0	0	
LEADING, FOULING	6	2	1	100	0	0	0	0	1	33	0	0	0	0	1	4	1	6	0	
MISFIRES	30	12	0	0	0	0	0	0	0	0	3	27	0	0	0	0	3	19	0	
PRIMER PROBS.	27	11	0	0	0	0	0	0	1	33	3	27	0	0	1	4	0	0	0	
POWER, PENETRATION LOW	34	14	0	0	1	33	0	0	0	0	0	0	2	40	4	16	2	12	0	
POWDER, WRONG AMT	20	8	0	0	0	0	0	0	0	0	2	18	0	0	1	4	1	6	0	
RELOAD PROBLEMS	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RICOCHET	6	2	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	
SMOKING EXCESSIVE	3	1	0	0	1	33	0	0	1	33	0	0	0	0	1	4	0	0	0	
VARIABILITY OF ENERGY RATES	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PENETRATION TOO GREAT	10	4	0	0	0	0	0	0	0	0	0	0	1	20	3	12	1	6	0	
OTHER	12	5	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	6	0	
KNOCKDOWN POWER LOW	30	12	0	0	1	33	0	0	0	0	0	0	2	40	4	16	2	12	0	
MULTIPLE PROBS.	5	2	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	

Table 6-5

## COMPARISON OF AMMUNITION PROBLEMS AND AMMUNITION MANUFACTURERS CITED (CONT.)

PROBLEMS	10 NO.	%	11 NO.	%	12 NO.	%	13 NO.	%	14 NO.	%	15 NO.	%	16 NO.	%	17 NO.	%	18 NO.	%	19 NO.	%
POWDER, MISC PROBS.	0	0	0	0	0	0	0	0	0	0	0	0	1	12	0	0	1	5	0	0
ACCURACY POOR	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CASE CARTRIDGE PROBS.	0	0	0	0	10	16	0	0	0	0	0	0	0	0	0	0	0	0	3	12
GUN FAILURE	0	0	0	0	12	19	0	0	0	0	1	6	0	0	0	0	2	10	0	0
LEADING, FOULING	0	0	0	0	0	0	0	0	0	0	1	6	0	0	1	20	0	0	0	0
MISFIRES	1	50	1	100	7	11	0	0	2	15	0	0	0	0	1	20	4	20	5	20
PRIMER PROBS.	1	50	0	0	4	6	1	100	2	15	1	6	1	12	1	20	4	20	6	24
POWER, PENETRATION LOW	0	0	0	0	4	6	0	0	3	23	6	33	2	25	1	20	1	5	0	0
POWDER, WRONG AMT	0	0	0	0	9	15	0	0	0	0	0	0	0	0	0	0	1	5	5	20
RELOAD PROBLEMS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20	4	16
RICOCHET	0	0	0	0	0	0	0	0	1	8	2	11	0	0	0	0	0	0	0	0
SMOKING EXCESSIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABILITY OF ENERGY RATES	0	0	0	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENETRATION TOO GREAT	0	0	0	0	2	3	0	0	1	8	2	11	0	0	0	0	0	0	0	0
OTHER	0	0	0	0	1	2	0	0	1	8	0	0	2	25	1	20	2	10	1	4
KNOCKDOWN POWER LOW	0	0	0	0	5	8	0	0	3	23	4	22	2	25	0	0	0	0	0	0
MULTIPLE PROBS.	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	1	5	1	4



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