# NBS Special <br> Publication 480-5 <br> LEAA Police <br> Equipment <br> Survey of 1972, <br> Volume V <br> Handguns and <br> Handgun <br> Ammunition 



Law Enforcement Equipment Technology

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards


## ACKNOWLEDGMENTS

We are grateful to the 445 police departments throughout the United States who contributed their time and knowledge to make this report possible. Special thanks go to the police departments whose officers and administrators helped the survey team during the developmental and testing phases of the work. In addition we thank Jacob J. Diamond, Chief of the Law Enforcement Standards Laboratory of the National Bureau of Standards (NBS), and Nicholas J . Calvano of the Measurement Engineering Division of NBS for expert advice concerning handguns and ammunition. The support and assistance of Lester D. Shubin, NILECJ, project monitor and consultant, is also gratefully acknowledged.

We thank the following members of the Technical Analysis Division who provided support: Wiliam L. O'Neal for his help in computerizing the sample selection and for helping to design and program the interactive recordkeeping system; Jenny L. Eldreth and P. Clare Peiser for helping maintain the computerized recordkeeping system; Sandra $J$. Mumford for supervising the coding/editing of the questionnaires; JuneR. Cornog for her advice, support, and help with initial interviews; Gail B. Hare for conducting pretest interviews; Diane R. Beall for typing the questionnaires; Suellen Halpin, Mary L. Friend, and Dwight F. Doxey for mexing follow-up telephone calls; Lorraine S. Freeman for her administrative support; Karen Jackson, Cassandra Streeter, and Janice Davis for their help with questionnaire coding and recordkeeping; and Mary Hawkins and Jo Copeland for typing the report. Michael R. Vogt receives special thanks for his help in carrying out the computerized edit and tabulation of the data. We also gratefully acknowledge the help of Robert J. Cunitz in editing and reviewing the report. The development of this report was sponsored by the NILECJ Office of Research Programs, Geoffrey M. Alpsn,. Director; Advanced Technology Division, Joseph T. Kochanski, Director.

NBS Special Publication 480-5

## LEAA Police <br> Equipment <br> Survey of 1972, Volume V Handiguns and Handgun Ammunition

## by

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NCJRS JUL 271977
prepared by
Law Enforcement Standerds Laboratory
Center for Consumer Product Technology
National Bureau of Standards
Washington, D.C. 20234
prepared for
National Institute of Law
Enforcement and Criminal Justice
Law Enforcement Assistance Administration
U.S. Department of Justice

Washington, D. C. 20531

U.S. DEPARTMENT OF COMMERCE, Juanita M, Kreps, Secretary Dr. Sidney Harman, Under Secretary

## Library of Cougress Cataloging in Publication Data

Law Enforcement Standards Laboratory.
LEAA police equipment survey of 1972.
(NBS special publication ; 480-1-480-7)
"CODEN: XNBSAV."
CONTENTS: v. 1. Ku, R., Bunten, E., Klaus, P. The need for standards, priorities for police equipment.-y. 2. Mumford, S. et al. Communications equipment and supplies.-v. 3. Klaus, P. and Bunten, E. Sirens and emergency warning lights. [etc.]

1. Police-Equipment and supplies-Collected works. 1. National Institute of Law Enforcement and Criminal Justice. II. Title. III. Series: United States. National Bureau of Standards. Special publication ; 480-1-480-7,
QC100.U57 no. $480-1$ - $480-7$ [HV7936.E7] 602'.1s [363.2'028]
74-28442

National Bureau of Standards<br>Special Publication 480-5<br>Nat. Bur. Stand. (U.S.), Spec. Publ. 480-5, 83 pages<br>CODEN:XNBSAV

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON:
For sale by the Superintendent of Documents,
U.S. Government Printing Office, Washington, D.C. 204G2
(Order by SD Catalog No. C13.10:480-5). Stock No. 003-003-01747-7 Price $\$ 2.20$
(Add 25 percent additional for other than U.S. mailing).

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## FOREWORE

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<br>Law Enforcement Standards<br>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).
${ }^{\circ}$ 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.
${ }^{\circ}$ 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

${ }^{0}$ 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.
${ }^{\circ}$ 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.
${ }^{\circ}$ 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.
${ }^{\circ}$ 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 departinents with $1-9$ officers; city departments with $10-49$ officers; city departments with 50 or more officers, excluding the 50 largegt 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 $D Q$ ).
- 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

$\circ$ 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.
${ }^{\circ}$ Each questionnaire was edited and coded by a specialized team to ensure consistency; it was then keypunched and tabulated.
${ }^{\circ}$ 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.
${ }^{\circ}$ Between 81 and 85 percent of the other $D Q$ subsamples returned usable questionnaires.
${ }^{4}$ 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 tolal 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

${ }^{\circ}$ 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.)


## 11. 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 1 sing .38 s.
- States ( $59 \%$ ), townships ( $56 \%$ ) and counties ( $55 \%$ ) reported the lowest percentages of officers using .38 s 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 9 mm 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 .38 s and 25 percent using .357 s .


## 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 (raost used handgun), and the same questions about the handgun caliber they had next most of in their department (second nost used handgun).
${ }^{\circ}$ 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 38 s or .357 s ( $82 \%$ 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. Ammurition Used with Most Used and Second Most Used Handguns

- About half of the responding departnents were using lead bullets in their most used handguns, 24 percent used hollowpoint and 15 percent used jacketed.
- About iwo-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 hasdguns.
- 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.
- Fiftyone 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 38 s , 6 percent were carrying .357 s , and 4 percent were carrying 9 mm . 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 9 mm 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 problerns 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.
${ }^{\circ}$ 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 Hondgun Ammunition 

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#### Abstract

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; handgans; 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 similer items may be evaluated by departments themselves.

In order to provide equipment user information for the prograr, thes National Institute of Law Enforcement and Criminal Justice (NILECJ) of LEAA in 471 asked the Behavioral Sciences Group of the Technical Analysis Division at NBS to gather information from the users of law enforcement equipinent 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 referzed 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). ${ }^{1}$

### 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 atitmpt 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 departnents 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 questiomaires. For the remaining cells the variation in cell size presented a problem: If the same fraction of the entire population was to he 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 sol this problem, a fixed sample of 30 police departments/cell was chosen, Wherever pesible, resulting in a different sampling fraction for each cell. A fixed sample sige ot 30 departments/cell was chosen to tacilitate 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 DOs. 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.

[^0]| 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' | $5=$ Ill, Ind, Mich., Ohio, Wis., Minn, |
| The 50 largest U.S. cities ${ }^{2}$ | $6=$ 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. |

Table 1.2-2. Number of police departments by region and type

| Department type | LEAA region |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total |
| State | 6 | 2 | 5 | 8 | 6 | 5 | 4 | 6 | 4 | 4 | $50^{1}$ |
| 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 ( $10-49$ sificers) | 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 |

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 aceepted fom each of these six states as described in vol, 1 , app, B, $p, B-2$.

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

| Department type | LEAA geographic region |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total |
| State ${ }^{1}$ | 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 | 10 | 10 | 10 | - | 10 | - | $\because$ | - | . | - | 40 |
| Total | 56 | 56 | 60 | 56 | 66 | 53 | 45 | 43 | 52 | 41 | 528 |

[^1]
### 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 anbiguities.

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

|  | LEAA geographic region |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Department type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total | Percent total sample |
| State ${ }^{1}$ | 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 efficers) | 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 | - | 79 | 89 |
| 50 largest cities | 1 | 3 | 4 | 7 | 8 | 8 | 3 | 1 | 8 | 2 | 45 | 90 |
| Townships ${ }^{2}$ | 7 | 9 | 7 | - | 4 | - | - | - | - | . | 27 | 68 |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |  |

[^2]
### 1.4. Development and Design of the Handguns $D Q$

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 percert (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 | $\begin{aligned} & \text { City } \\ & (1-9) \end{aligned}$ | $\begin{gathered} \text { City } \\ (10.49) \\ \text { (in \%) } \end{gathered}$ | $\begin{aligned} & \text { City } \\ & (50+) \end{aligned}$ | $\begin{gathered} 50 \\ \text { Jargest } \end{gathered}$ | Township | 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 (dogeatcher) | - | - | 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 |  |  |  | $\bullet$ |  | 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 | $\begin{gathered} \text { Area } \\ \left(\mathrm{mi}^{2}\right) \end{gathered}$ | 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 |


| LEAA region | Area <br> $\left(\mathrm{mi}^{2}\right)$ | Population | Number of <br> full-time <br> officers | Number of <br> part-time <br> officers | Annual total <br> budget | Annual <br> equipment <br> budget | Annual <br> personnel <br> 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 parttime 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 $l$ 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 $(50+)^{2}$
The 50 largest cities $=50$ largest ${ }^{3}$
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 ballistician in the states

[^3]and 50 laggest 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 depaty stieriff ( $16 \%$ ).

## 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 respondert for handguns questionnaire, by depariment type

| Rank/title | Department type (in \%) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { City } \\ & (1-9) \end{aligned}$ | $\begin{gathered} \text { City } \\ (10-49) \end{gathered}$ | City $(50 \div)$ | $\begin{gathered} 50 \\ \text { largest } \end{gathered}$ | 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.

| 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
9 mm 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 .38 s . 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 . 45 s . (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 haif 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 9 mm 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 .357 s , 1 percent were carrying $.45 \mathrm{~s}, 1$ percent were carrying 9 mm 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 .38 s and .357 s 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 ${ }^{4}$ 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 .357 s represented about 25 percent of the total. This moderate shift in the relative proportions of .38 s and .357 s was mainly a result of the extrapolation of data from county departments. County departments reported 55 percent of their officers carrying .38 s and 40 percent carrying .357 s , and counties make up almost one-fourth of the U.S. police department population.

[^4]Table 1-1. Percentages ${ }^{1}$ 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 |  | 9 mm |  |
|  | 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 |

'Pereentages add to more than 100 percent.
-Less than 1 percent.

Table 1-2. Numbers of officers in responding depariments carrying $.38, .357, .45,9 \mathrm{~mm}$, and other calibers of handguns on duty, by department type

|  | Caliber |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  |  |  |  |  |  |  |
| Department type | .38 | .357 | .45 | 9 mm | 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 | 195 | 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 | $<1$ |  |

Tabl.f 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 | 9 mm | 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 $3-3 E$ ). The questions swere 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 2ג1/3A-1.)
2. and 3. Select from the lisi 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. ${ }^{5}$

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

| 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 |

[^5]
### 2.2.3.1. Caliber

## 2A. \& 3A. Caliber Type <br> (For most used and second most used handgun)

Ninety-nine percent of the handguns ${ }^{6}$ 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 9 mm 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.)

[^6]| TABLE 2A/3A-2. Percentages of handguns cited as <br> most used or second most used, by caliber |  |
| :---: | :---: |
| Caliber | Percent of <br> handguns reported <br> in Questions 2 and 3 <br> [ $\mathrm{n}=180,256]$ |
| .38 Special | 82 |
| .387 Magnum | 17 |
| 9 mm | 1 |
| .45 | 1 |
| .22 |  |

TABL.E 2A/3A-3. Caliber of most used und second most used handgun, by department type:

| Department type | Most used handgun in department (in \% of departments) |  | Second most used handgun in department (in \% of departments) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} .38 \text { Special } \\ {[\mathrm{n}=445]} \end{gathered}$ | . 357 Magnum $[n=445]$ | $\begin{gathered} 38 \text { Special } \\ {[\mathrm{n}=259]} \end{gathered}$ | 357 Magnum [ $\mathrm{n}=259$ ] |
| 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 |

[^7]Half of the reporting 328 departments in which there were more .38 s 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 cluty 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 $B$.
TAB1.5 2A/3A-4. Of those deparments citing the . 38 and the
. 357 and their most used handguns, the percentages listing
$38, .357$, another caliber, or no second most used handgun

### 2.2.3.2. Revolvers/Automatics

## 2B. and 3B. How many are revolvers? <br> How many are automatics? <br> (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 $9 \mathrm{~mm}, .45$, and .38 were cited. For second most used, .32, .22, and .25 automatics were also cited. (See table $2 \mathrm{~B} / 3 \mathrm{~B}$.)

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

|  | Most used handguns <br> Total number <br> reported | Percent of <br> revolvers | Second most used handguns <br> Total number <br> reported | Percent of <br> revolvers |
| :--- | :---: | :---: | :---: | :---: |
| Department type |  |  |  |  |
| j0 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-l.)

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.

Tinlef, 2C-1, Percentages of responding departments usíng handguns of specified manufacturers as their most used caliber handgun, by department pype

| Manufacturer | Department type |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All departments | $\begin{gathered} 50 \\ \text { largest } \end{gathered}$ | State | $\begin{aligned} & \text { City } \\ & (50+) \end{aligned}$ | $\begin{gathered} \text { City } \\ (10.49) \end{gathered}$ | $\begin{aligned} & \text { City } \\ & (1-9) \end{aligned}$ | 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 | I | 8 | 1 | 5 | 4 |

### 2.2.3.4. Barrel Length

2D. and 3D. Barrel Lengths:
How many have barecels of less than 3 inches?
How many have barrels of $3-5$ inches?
How many have barreis 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 $7.6-12.7 \mathrm{~cm}(3.5 \mathrm{in})$, 10 percent were less than $7.6 \mathrm{~cm}(3 \mathrm{in})$, and 10 percent more than $12.7 \mathrm{~cm}(5 \mathrm{in})$. Within the seven department types, about the same proportion of handguns had $7.6-12.7 \mathrm{~cm}(3-$ 5 in) barrels, with one exception: A smaller proportion of the handguns reported by state departments ( $61 \%$ ) had barrels $7.6-12.7 \mathrm{~cm}$ ( $3-5 \mathrm{in}$ ) long, and states reported a much higher percentage ( $29 \%$ ) of handgun's with barrels more than $12.7 \mathrm{~cm}(5 \mathrm{in})$ 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

|  |  | Barrel length |  |
| :--- | :---: | :---: | :---: |
|  |  | Less than | More than |
| Department type | $7.6-12.7 \mathrm{~cm}$ <br> $(3-5 \mathrm{in})$ | 7.6 cm <br> $(3 \mathrm{in})$ | 12.7 cm <br> $(5 \mathrm{in})$ |
|  |  |  |  |
| 50 | 87 | 4 |  |
| City $(1-9)[\mathrm{n}=755]$ | 86 | 9 | 5 |
| City $(10-49)[\mathrm{n}=1839]$ | 82 | 10 | 8 |
| Township $[\mathrm{n}=256]$ | 78 | 16 | 5 |
| City $(50+)[\mathrm{n}=10,514]$ | 77 | 17 | 5 |
| County $[\mathrm{n}=2816]$ | 77 | 17 | 5 |
| State $[\mathrm{n}=44,705]$ | 61 | 10 | 29 |
| All departments $[\mathrm{n}=180,256]$ | 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 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} .38 \\ {[n=144,104]} \end{gathered}$ | $[\mathrm{n}=18,652]$ | $\begin{gathered} 9 \mathrm{~mm} \\ {[\mathrm{n}=1,788]} \end{gathered}$ | $\begin{gathered} .45 \\ {[\mathrm{n}=44]} \end{gathered}$ |
| Less than 7.6 cm (3 in) | 10 | 2 | 0 | 0 |
| $7.6-12.7 \mathrm{~cm}(3.5 \mathrm{in})$ | 80 | 89 | 100 | 91 |
| More than 12.7 cm ( 5 in ) | 10 | 9 | 0 |  |

Data from Question 20 (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 9 mm handguns reported had $7.6-12.7 \mathrm{~cm}$ $(3-5 \mathrm{in})$ barrels, 91 percent of the .45 s 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 .38 s that were listed as most used handguns, 80 percent had barrels of $7.6-12.7 \mathrm{~cm}(3-5 \mathrm{in})$. Of the .38 s that were listed as second most used handguns, more than half ( $53 \%$ ) had barrels of less than $7.6 \mathrm{~cm}(3 \mathrm{in})$. 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 .357 s that were listed as second most used handguns. However, the overall percentages for second most used .357 s 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

|  |  |  |  | Caliber |
| :--- | :---: | :---: | :---: | :---: |
| Reported barrel length |  |  |  |  |

### 2.2.4. Characseristics of Ammunition Used

## 2E. and 3 E . 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) <br> Bullet type Bullet weight Manufacturer <br> (in grains) <br> (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 $2 \mathrm{E} / 3 \mathrm{E}-1$.)

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 $9.8-10.4 \mathrm{~g}$ ( $151-160$ grains), and very few departments were using ammunition with bullet weights greater than this. About 17 percent were using ammunition with bullet weights of $6.5-7.1 \mathrm{~g}$ (101-110 grains), and 12 percent with weights of $9.1-9.7 \mathrm{~g}$ ( $141-150$ 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 ( $\mathrm{n}=263,59 \%$ ) 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 of departments using each specified bullet type in their most used and second most used handgun

| Bullet type | Most used handgun <br> $[\mathrm{n}=445]$ | Second most used <br> $[\mathrm{n}=259]$ |
| :--- | :---: | :---: |
| 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 |

1 Percentages add to more than 100 percent since multiple answers were allowed. * Less than l percent.

Table 2E/3E-2. ${ }^{\prime}$ 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 <br> $[\mathrm{n}=292]$ | Second most used <br> $[\mathrm{n}=138]$ |
| :--- | :---: | :---: |
| Lead | 49 | 41 |
| Hollowpoint | 13 | 18 |
| Soit point | 6 | 5 |
| Jacketed | 4 | 4 |
| Ball | 4 | 2 |
| Lubaloy | 3 | 4 |
| Wadcutter | 2 | 1 |
| Semiwadcutter | 1 | 1 |
| Metal pierving | 1 | 4 |
| Frangible | 0 | 1 |
| Other | 14 | 4 |
| Unusable information |  | 12 |

${ }^{\text {I }}$ This table was compiled by special tabulation and does not appear in app. 8 .

Table 2E/3E-3. Percentages' of departments using ammunition for their most used and second most used handguns with specified bullet weights

| Reported bullet weight <br> Grains | Grams | Most used handgun <br> $[\mathrm{n}=445]$ | Second most used <br> $[\mathrm{n}=259]$ |
| :---: | :---: | :---: | :---: |
| $151-160$ | $9.8-10.4$ | 73 |  |
| $101-110$ | $6.5-7.1$ | 17 | 17 |
| $141-150$ | $9.1 \cdot 9.7$ | 12 | 10 |
| $121-130$ | $7.8-8.4$ | 7 | 9 |
| $191-200$ | $12.4-13.0$ | 6 | 5 |

[^8]| Table 2E/3E-4. Percentages ${ }^{\prime}$ of departments using ammunition <br> made by each specified manufacturer with their most used and <br>  <br>  <br>  <br>  <br>  <br>  <br> second most used handgun |
| :--- |

${ }^{1}$ Percentages add to more than 100 percent since multiple answers were allowed. NOTE; Percentages of departrnents 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 hanalgun, percentages using each specified brand of ammunition

| Manufacturer <br>  <br>  <br>  <br> [n=263] | Most used handgun <br> Second most used <br> $[n=109]$ |  |
| :--- | :---: | :---: |
| 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 Reinington-Peters, 26 percent Winchester-Western, and 14 percent Super Vel. (See table 2E/3E-5.)

### 2.2.5. Off Duty Use of Handguns



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 ble 4/l.)

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 |
| :--- |
| City (1-9) |
| 50 largest |
| Township |
| City (50+) |
| City (10-49) |
| County |
| All departments |

Table 4/1. Percentages of officers and percentages of departments ${ }^{\prime}$ using specified calibers of handguns on duty and off duty

| Caliber | Percent <br> On duty [ $n=445$ ] | artments <br> Off duty $[\mathrm{n}=345]$ | $\begin{gathered} \text { Percent } \\ \text { On duty } \\ {[\mathrm{n}=179,891]} \end{gathered}$ | officers 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 | $i$ | 0 | * |
| Other | * | * | * | * |

${ }^{1}$ Percentages of departments add to more than 100 percent since there couit be more than one caliber of handgun in each department.
-Less than I 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/firingpin 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 depariments in each department type listing at least one handgun problem

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

TAble 5-2. Of the 203 departments which listed at least one problem, percentages' citing specified problem
$\left.\begin{array}{l|}\hline \text { Problem } \\ \\ \hline \text { Cylinder } \\ \text { Hammer/firing pin } \\ \text { Misfires } \\ \text { Trigger } \\ \text { Agepartments } \\ \text { [n=203] }\end{array}\right\}$
${ }^{1}$ 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.

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 2 E or 3 E .)

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

| Department type | Percent of <br> 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' citing each specified problem

| Problem | Percent of <br> departments <br> $[\mathrm{n}=117]$ |
| :--- | ---: |
| 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 | 3 |
| Smoking excessive | 3 |
| Variability of energy rates | 3 |
| Powder/miscellaneous problems | 14 |
| Other |  |

${ }^{1}$ Percentages add to more than 100 percent since multiple answers ware 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 frequeatly 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.

## APPENDIX A

NBS-886<br>May 1972

OMB 41-F72030
Approval Expires June 30, 1973
U.S. Department of Commerce National Bureau of Standards

## DETAILED QUESTIONNAIRE: HANDGUNS AND <br> HANDGUN AMMUNITITON

POLICE EQUIPMENT SURVEY

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Sponsored By:
National Institute of Law Enforcement and Criminal Justice
Law Enforcement Assistance Administration
U.S. Depariment 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.

INIRODUCTION: 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 vor, 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 Allo
National Bureau of Standards
Washington, D.C. 20234
8. If you have any questions, write to the above address ox 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.

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

NTMBER OS
OFEICERS CALIBER

| $(10-14)^{* * *}$ | .32 Automatic |
| :--- | :--- |
| $(15-19)$ | .38 Special |
| $(20-24)$ | 9 mu Luger |
| $(25-29)$ | .357 Magnum |

(30-34) $\quad .45$ Automatic
(35-39) Other (Specify) $\qquad$
$\qquad$
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? $\qquad$
(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)

MANUFACTURER MODEL/MODEL NUMBER


2D. Barrel Lengths:
(14-18) How many have barrels of less than 3 inches? $\qquad$
(19-23) How many have barrels of 3-5 inches? $\qquad$
(24-28) How many have barrels of more than 5 inches?
25. Ammunition: In the table below, list each type of ammuition that your officers use with this "most used" handgun. (FILI IN THE TABLE BELOW FOR EACH TYPE OF AMMUNITTON USED)

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? $\qquad$
(23-27) How many are automatics? $\qquad$
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)

MANUFACTURER MODEL/MODEL NUMBER

| $(28-31)$ | a. |
| :--- | :--- |
| $(32-35)$ | b. |
| $(36-39)$ | c. |
| $(44-43)$ | a. |
| $(48-51)$ | e. |
|  | f. |

3D. Barrel Lengths:
How many have barrels of less than 3 inches? $\qquad$
How many have barrels of $3-5$ inches?
How many have barrels of more than 5 inches? $\qquad$
3E. Ammunifion: 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)
BULLET TYPE $\quad \frac{\text { BULLET WEIGHT }}{\text { (IN GRAINS) }}$
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?

|  | CALIBER |
| :---: | :---: |
| (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) |

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 chink of handguns that were once used but are not now used, as well as handguns that are now used. IN THE SPACES PROVIDED EELOW TELL US ABOUT THE HANDGUN AND THE "PROBLEM".
(64)

CASE NUMBER 1
(65-67) Caliber $\qquad$
(68) Revolver or Automatic $\qquad$
(69-70) Manufacturer $\qquad$
(71-72) Model $\qquad$
(73) Barrel Length $\qquad$
(74-75) What was the problem? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
******************t***

CASE NUMBER 3
(76-78) Caliber $\qquad$
(79) Revolver or Automatic $\qquad$
(10-11) Manufacturer $\qquad$
(12-1.3) Model $\qquad$
(14) Barrel Length $\qquad$
(15-16) What was the problem? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

CASE NUMBER 3
(17-19) Caliber $\qquad$
(20) Revolver or Automatic $\qquad$
(21-22) Manufacturer $\qquad$
(23-24) Model $\qquad$
(25) Barrel length $\qquad$
(26-27) What was the problem? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
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 3
(29-31) Caliber $\qquad$
(32-33) Cartridge $\qquad$
(34-35) Bullet Type $\qquad$
(36-38) Bullet weight $\qquad$
(39-40) Manufacturer $\qquad$
(41-42) What was the problem? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

CASE NUMBER 2
(43-45) Caliber $\qquad$
(46-47) Cartridge $\qquad$
(48-49) Bullet Type $\qquad$
(50-52) Bullet Weight $\qquad$
(53-54) Manufacturer $\qquad$
(55-56) What was the problem?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
***********

## CASE NUMBER 3

(57-59) Caliber $\qquad$
(60-61) Cartridge $\qquad$
(62-63) Bullet Type $\qquad$
(64-66) Bullet Weight $\qquad$
(67-68) Manufacturer $\qquad$
(69-70) What was the problem? $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

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

Name of Department: $\qquad$
Address: $\qquad$
Name of person who answered this questionnaire:

Title:
Rank :
No. of years experience in law enforcement: $\qquad$
Telephone Number: $\qquad$
Others who helped: 1. $\qquad$
$\qquad$
No. of years experience in law enforcement: $\qquad$
Telephone Number: $\qquad$
2. $\qquad$
Ticle: Rank:

No. of years experience in law enforcement: $\qquad$
Telephone Number: $\qquad$

## A.PPENDIX 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-2
YEARS OF EXPERIENCE OF PERSON WHO FILLED IN QUESTIONNAIRE

|  | $\begin{gathered} \text { ALL } \\ \text { OEPARTMENT } \\ \text { TYPES } \end{gathered}$ |  | State |  | COUNTY |  | $\begin{gathered} \text { CITY } \\ \text { (1-9 } \\ \text { OFFICERS) } \end{gathered}$ |  | $\begin{gathered} \text { CITY } \\ (10-49 \\ \text { OFFICERS) } \end{gathered}$ |  | $\begin{aligned} & \text { CITY } \\ & \text { (50 OR MORE } \\ & \text { OFFICERS) } \end{aligned}$ |  | FIFTY Gargest CITIES |  | TOWNSHIP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NO. | \% | NO. | \% | No. | * | NO. | * | NO. | * | NO. | * | No. | * | NO. | \% |
| 2 OR LESS |  | 2 | 0 | 0 | 4 | 5 | 6 | 7 | 0 | 0 |  | 0 |  |  |  |  |
| $3-5$ YEARS | 37 | 8 | 0 | 0 | 12 | 16 | 8 | 10 | 7 | 8 | 3 | 0 | 3 | 2 | 0 | 0 |
| 6-10 YEARS | 96 | 22 | 5 | 11 | 22 | 30 | 26 | 10 | 17 | -889 | 3 15 | 19 | 3 | 7 | 9 | 15 |
| 11-15 YEARS | 87 | 20 | 4 | 9 | 14 | 19 | 19 | 23 | 22 | 19 | 15 | 16 | ${ }^{2} 1$ | 24 | 9 | 33 |
| 16-20 YEARS | 88 | 20 | 18 | 38 | 8 | 11 | 12 | 14 | 20 | 22 | 15 | 19 | 11 | 24 | 4 | 15 |
| 21-25 YEARS | 55 | 12 | 6 | 13 | 6 | 8 | 5 | 6 | 12 | 13 | 16 | 20 | 9 | 24 | 1 | 15 4 |
| 26-30 YEARS | 37 | 8 |  | 15 | 3 | 4 | 4 | 5 | 1 | 4 | 9 | 11 | 6 | 13 | 4 | 15 |
| 31 OR MORE | 25 | 6 |  | 11 | 1 | 1 | 3 | 4 | 6 | 7 | 6 | 6 | 3 | 7 | 1 | 15 |
| NO ANSWER | 9 | 2 |  | 4 | 3 | 4 | 1 | 1 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | 0 |
| TOTAL | 445 | 00 |  |  | 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.)-- Aintbers represent rumbers of officers carrying handgun CALIBER of specified caliber.

DEPARTMENT TYPE

$\underset{\infty}{\infty}$
Table 1-2

1. HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE, ON OUTY: HANDGUNS OF EACH OF

THE FOLLOWING CALIBERS? (EITHER AS THEIR PRIMARY OR THEIR BACKUP WEAPON.)-- Numbers represent numbers of departments with at least one
CALIBER



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

MOST USED HANDGUN: 2.A. CALIBER TYPE
CALIBER
DEPARTMENT TYPE


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

|  |  |  |  | DEPARTM | TYPE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ALL DEPARTMENT TYPES | STATE | COUNTY | $\begin{gathered} \text { CITY } \\ (1-9 \\ \text { OFFICERS }) \end{gathered}$ | $\begin{gathered} \text { CITY } \\ \text { (10-49 } \\ \text { OFFICERS) } \end{gathered}$ | CITY <br> (50 OR MORE OFFICERS) | $\begin{aligned} & \text { FIFTY } \\ & \text { LARGEST } \\ & \text { CITIES } \end{aligned}$ | TOWNSHIP |
| . 38 SPECIAL |  |  |  |  |  |  |  |  |
| MEAN | 427.02 | 936.44 | 26.81 | 7.66 | 18.29 | 127.40 | 2570.76 | 7.44 |
| MINIMUM | 1 | 93 | 1 | 1 | 5 | 22 | 255 | 1 |
| MAXIMUM | 32000 | 3875 | 394 | 84 | 48 | 592 | 32000 | 21. |
| O MM |  |  |  |  |  |  |  |  |
| MEAN | 447.00 | 1700.00 | . 00 | 6.00 | 18.00 | 64.00 | .00 | .00 |
| MINIMUM | 6 | 1700 | 0 | 6 | 18 | 64 | 0 | 0 |
| MAXIMUM | 1700 | 1700 | 0 | 6 | 18 | 64 | 0 | 0 |
| - 357 MAGNUM |  |  |  |  |  |  |  |  |
| MEAN | 170.44 | 541.33 | 48.22 | 5.35 | 14.33 | 62.60 | 978.60 | 8.33 |
| MINIMUM | 1 | 106 | 2 | 1 | 5 | 6 | 213 | 1. |
| MAXIMUM | 1950 | 1950 | 353 | 18 | 30 | 150 | 1927 | 26 |
| - 45 AUTOMATIC |  |  |  |  |  |  |  |  |
| MEAN | 11.00 | .00 | 3.00 | 11.50 | 18.00 | . 00 | .00 | . 00 |
| MINIMUM | 3 | 0 | 3 | 3 | 18 | 0 | 0 | 0 |
| MAXIMUM | 20 | 0 | 3 | 20 | 18 | 0 | 0 | 0 |
| OTHER |  |  |  |  |  |  |  |  |
| MEAN | 00 | .00 | 000 | .00 | .00 | .00 | . 00 | . 00 |
| MINIMUM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MAXIMUM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

2.B. HOW MANY (MOST USED HANDGUNS ARE REVOLVERS? HOW MANY(MOST USED HANDGUNS) ARE AUTOMATICS? (NUMBER OF GUNS)

GUN TYPE

"

Table 2 B-2
2.B. HOW MANY(MOST USEO HANDGUNS) ARE REVOLVERS? HOW MANY(MOST USED HANDGUNS) ARE AUTOMATICS? (NIMBER OF DERARIMENTS) GUN TYPE

|  |  |  |  | DEPARTME | TYPE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ALL DEPARTMENT TYPES | STATE | COUNTY | $\begin{gathered} \text { CITY } \\ (1-9 \\ \text { OFFICERS) } \end{gathered}$ | $\begin{gathered} \text { CITY } \\ \text { (10-49 } \\ \text { OFFICERS) } \end{gathered}$ | (50 OR MORE OFFICERS) | FIFTY <br> LARGEST CITIES | TOWNSHIP |
|  | NO. * | NO. * | NO, \% | NO. \% | NO, \% | NO. : \% | NO. \% | NO. $\quad \mathrm{m}$ |
| REVOLVERS | 438.98 | 4698 | 73100 | 8196 | 87.98 | 7899 | 46100 | 27100 |
| AUTOMATICS | 10 2 | 12 | $3 \quad 4$ | 3.4 | 22 | 11 | $0 \quad 0$ |  |
| TOTAL | 448100 | 47100 | 76104 | 84100 | 89100 | 79100 | 46100 | 27100 |

```
-Table 2 B-3
```

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

CALİBER

$\underset{\sim}{4}$

Table 2 B-4
2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - REVOLVERS (NLMBER OF DEPARTMENTS)

CALIBER

|  | $\begin{gathered} \text { ALL } \\ \text { DEPARTMENT } \\ \text { TYPES } \end{gathered}$ | STATE | COUNTY | $\begin{gathered} \text { CITY } \\ \text { (1-9 } \\ \text { OFFICERS }) \end{gathered}$ | $\begin{gathered} \text { cITY } \\ \text { (10-49 } \\ \text { OFFICERS) } \end{gathered}$ | $\begin{aligned} & \text { CITY } \\ & \text { (50 OR MORE } \\ & \text { OFFICERS) } \end{aligned}$ | FIFTY Largest CITIES | TOWNSHIP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NO. \% | No. * | No. \% | NO. \% | NO. * | No. $\%$ | NO. \% | No. $\quad$ \% |
| . 38 | 32875 | 25.54 | 5474 | $64 \quad 79$ | $63 \quad 72$ | 63.81 | 41 B9 | 18.67 |
| . 357 MAGNUM | 10925 | 2146 | 1825 | 17 21 | 2428 | 1519 | 511 | 933 |
| . 45 - | 10 | 0 0 | 11 | 0 0 | 00 | 00 | 0 0 | 0 0 |
| TOTAL | 438100 | 46100 | 73100 | 81100 | 87100 | 78100 | 46100 | 27100 |

Table 2 B-5
2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - AUTOMATICS (NIMBER OF GUNS)

CALIBER

| DEPARTMENT TYPE |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL DEPARTMENT TYPES | STATE | COUNTY | $\begin{gathered} \text { CITY } \\ \text { (1-9 } \\ \text { OFFICERS) } \end{gathered}$ | $\begin{gathered} \text { CITY } \\ (10-49 \\ \text { OFFICERS) } \end{gathered}$ | CITY $(50$ OR MORE OFFICERS) | $\begin{aligned} & \text { FIFT } \\ & \text { LARGE } \\ & \text { CITI } \end{aligned}$ |  | TOWNS |  |
| NO. \% | NO. \% | NO. \% | MO. \% | NO. $\quad$ \% | NO. \% | NO. | \% | No. | \% |
| $11 \quad 1$ | 0 0 | 11100 | 00 | 0 0 | 00 | 0 | 0 | 0 | 0 |
| 178897 | 1700100 | $0 \quad 0$ | 621 | 18.50 | 64100 | 0 | 0 | 0 | 0 |
| 412 | $0 \quad 0$ | $0 \quad 0$ | $23 \quad 79$ | 1850 | 00 | 0 | 0 | 0 | $\dagger$ |
| 1840100 | 1700100 | 11100 | 29100 | 36100 | 64100 | 0 | 0 | 0 | 0 |

Table 2 B-6
2.B. CALIBER BREAKDOWN OF ALL MOST USED GUNS - AUTOMATICS (NMBER OF DEPARTMENTS)

CALIBER


Table $2 \mathrm{C}-1$
2.C. LIST BELOW EACH OIFFERENT MODEL OF THIS MOST USED HANDGUN NOW USED IN YOUR (NLMBER OF DEPARTMENTS) DEPARTMENT.

MANUFACTURER


Table 2 D-1
2.D. BARREL LENGTHS: (FOP YOUR MOST USED HANDGUN) HOW MANY HAVE BARRELS OF THE (NUMBER OF GUNS) FOLLOWING LENGTHS?

## BARREL LENGTH

|  | ALL DEPARTMENT TYPES |  | state |  | COUNTY |  | $\begin{aligned} & \text { cITY } \\ & \text { (1-9 } \end{aligned}$ |  | $\begin{gathered} \text { CITY } \\ \text { (10-49 } \\ \text { FFICERS) } \end{gathered}$ |  | CITY (50 OR MORE OFFICERS) |  | FIFTY <br> LARGEST <br> cities |  | TOWNSHIP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NO. | \% | NO. | \% | No. | \% | NO. | \% | NO. | \% | No. | \% | 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 |  |
| NO ANSWER | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 95 | 1 | - | 0 | 0 |  |
| TOTAL | 164588 | 100 | 38618 | 100 | 23.38 | 00 | 613 | 100 | 1532 | 99 | 9346 | 100 | 111928 | 100 | 213 | 100 |

$\stackrel{0}{1}$
LESS THAN 3 TNCHES 3-5 INCHES MORE THAN 5 INCHES NO ANSWER
TOTAL

|  | $\begin{aligned} & \text { ALL } \\ & \text { DEPARTMENT } \\ & \text { TYPES } \end{aligned}$ |  | state |  | COUNTY |  | $\begin{gathered} \text { cITY } \\ (1-9 \\ \text { OFICERS) } \end{gathered}$ |  | $\begin{gathered} \text { CITY } \\ \text { (10-49 } \\ \text { OFFICERS) } \end{gathered}$ |  | CITY <br> (50 OR MORE OFFICERS) |  | FIFTY <br> LARGEST <br> CITIES |  | TOWNSHIP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \% | NO. | \% | No. | \% | NO. | \% | NO. | \% | NO. | \% | No. | * | NO. \% |
| LESS THAN 3 INCHES | 15067 | 9 | 3242 | 8 | 337 | 14 | 53 | 9 | 114 | 7 | 1563 | 17 | 9732 | 9 | 2612 |
| 3-5 INCHES | 133364 | 81 | 24941 | 65 | 1887 | $8 i$ | 529 | 86 | 1308 | 85 | 7239 | 77 | 97285 | 87 | $175 \quad 82$ |
| MORE THAN 5 Inches | 16062 | 10 | 10435 | 27 | 114 | 5 | 31 | 5 | 110 | 7 | 449 | 5 | 4911 | 4 | 126 |
| NO ANSWER | 95 | - | 0 | 0 | [ | 0 | . | 0 | 0 | 0 | 95 | 1 | 0. | 0 | 0 0 |
| total | 164588 | 100 | 38618 | 100 | 23.58 | 100 | 613 | 100 | 1532 | 99 | 9346 | 100 | 111928 | 100 | 213100 |

## DEPARTMENT TYPE

Table 2 D-2
2.D. BARREL LENGTHS:(FOR YOUR MOST USED HANDGUN) HOW MANY HAVE BARRELS OF THE (NMMBER OF DEPARTMENTS) FOLLOWING LENGTHS?
bARREL LENGTH

|  | DEPARTMENT TYPE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { ALL } \\ \text { OEPARTMENT } \end{gathered}$ TYPES |  | State |  | COUNTY |  | $\begin{gathered} \text { CITY } \\ \text { (I-9 } \\ \text { OFFICERS) } \end{gathered}$ |  | $\begin{gathered} \text { CITY } \\ \text { (10~40 } \\ \text { OFFICERS) } \end{gathered}$ |  | $\begin{aligned} & \text { CITY } \\ & \text { (50 OR MORE } \\ & \text { OFFICERS) } \end{aligned}$ |  | $\begin{aligned} & \text { FIFTY } \\ & \text { LARGEST } \\ & \text { CITIES } \end{aligned}$ |  | TOWNSHIP |  |
|  | No. | \% | NO. | \% | No. | \% | NO. | \% | NO. | * | NO. | \% | No. | * | No. | \% |
| LESS THAN 3 INCHES |  | 48 |  |  |  |  |  |  | 29 | 33 | 58 | 73 |  |  | 12 |  |
| 3-5 INCHES | 412 | 93 | 41 | 87 | 60 | 82 | 80 |  | 85 | 96 | 76 | 96 |  |  | 24 | 89 |
| MORE THAN 5 INCHES | 87 | 20 | 8 | 17 | 17 | 23 | 12 |  | 18 | 20 | 20 | 25 | 9 | 20 | 3 |  |
| NO ANSWER | 1 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 1 | 1 | 0 | 0 | 0 |  |
| TOTAL | 712 | 161 |  | 138 | 121 | 165 | 113 | 134 | 132 |  | 155 | 195 | 87 | 190 | 39 | 144 |

Table 2A 2D-1
COMPARISON BETWEEN MOST USED HANOGUN CALIBER AND BARREL LENGTH (NMMBER OF GINS)

BARREL LENGTH

LESS THAN 3 INCHES
$3-5$ INCHES
MORE THAN 5 INCHES
NO ANSWER


ت

Table 2A 2D-2
CCMPARISON BETWEEN MOST USED HANDGUN CALIBER AND BARREL LENGTH (MMBER OF DEPARTMENTS)

| \% | $\begin{aligned} & \text { TOTAL } \\ & \text { NO. } \end{aligned}$ |  | $\text { No. } \quad \%$ |  | NO. | \% | NO. | \% | .45 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| LESS THAN 3 INCHES | 212 | 30 | 191 | 35 | 0 | 0 | 21 | 13 | 0 | 0 |
| 3-5 INCHES | 412 | 58 | 299 | 55 |  | 800 | 106 | 68 | 3 | 60 |
| MORE THAN 5 Inches | 87 | 12 | 55 | 10 | 0 | 0 | 30. | 19 | 2 | 40 |
| NO ATESWER | 1 | 0 | 1 | 0 | 0 | 0 | 0 | O | 0 | 0 |

```
Table 2 D-3
BARREL LENGTHS WHEN MOST USED HANDGUN IS A . 38 CALIBER (NUMBER OF GUNS)
BARREL LENGTH
```


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

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Table 2 D-5
BARREL LENGTHS WHEN MOST USED HANDGUN IS A . 357 CALIBER (NUMBER OF GUNS)
BARREL LENGTH
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { ALL } \\
& \text { DEPARTMENT } \\
& \text { TYPES }
\end{aligned}
\]} & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
(10-49 \\
\text { OFFICERS })
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (50 OR MORE } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{FIFTY LARGEST CITIES} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & No. & \% & NO. & \% & No. & \% & No. & \% & NO. & \% & No. & \% & No. & \% & No. & \% \\
\hline LESS THAN 3 INCHES & 416 & 2 & 11 & 0 & 41 & 5 & 5 & 5 & 3 & 1. & 29 & 3 & 324 & 7 & 3 & 4 \\
\hline 3-5 INCHES & 16632 & 89 & 10642 & 93 & 810 & & 85 & 93 & & & 855 & 91 & 3873 & 79 & 71 & \\
\hline MORE THAN 5 INCHES & 1604 & 9 & 790 & 7 & & 2 & 1 & 1 & & 13 & 55 & 6 & 696 & 14 & , & \\
\hline TOTAL & 18652 & 100 & 11443 & 100 & 868 & 100 & 91 & 99 & 342 & 101 & 939 & 100 & 4893 & 100 & & 100 \\
\hline
\end{tabular}

\section*{\(\stackrel{\square}{1}\)}

Table 2 D-6
BARREL LENGTHS WHEN MOST USED HANDGUN IS A . 357 CALIBER (MUMBER OF DEPARTMENTS)

BARREL LENGTH
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & ALL DEPARTMENT TYPES & STATE & COUNTY & \[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\] & \[
\begin{array}{r}
\text { CITY } \\
\text { OFFIC } \\
\text { OFFICE }
\end{array}
\] & & CITY (50 OR MORE OFFICERS) & \begin{tabular}{l}
FIFTY \\
LARGEST CITIES
\end{tabular} & TOWVSHIP \\
\hline & NO. \% & No. \% & No. \% & NO. \% & No. & \% & No. \% & No. \% & NO. \% \\
\hline LESS THAN 3 INCHES & \(21 \quad 19\) & 15 & 4.22 & 529 & 1 & 4 & 5.33 & 360 & 222 \\
\hline 3-5 INCHES & 10697 & 20.95 & 18100 & 1694 & 23 & 96 & 15100 & 5100 & 9100 \\
\hline MORE THAN 5 INCHES & \(30 \quad 28\) & 210 & 844 & 16 & 9 & 37 & 747 & 2.40 & \\
\hline TOTAL & 157144 & 23110 & 30166 & 22129 & 33 & 137 & 27180 & 10200 & 12133 \\
\hline
\end{tabular}

Table 2 E-1
2.E. AMMUNITION: LIST EACH TYPE OF AMMUNITYON THAT YOUR OFFICERS USE WITH THIS (NUMBER OF DEPARTMENTS) MOST USED HANDGUN.

BULLET TYPE

\(\underset{1}{1}\)
Table 2 E-2
LIST EACH BULLET WEIGHT, in GRains, that Your officers use with this most used (number of depariments) handgun.

BULLET WEIGHT (IN GRAINS)

LESS THAN 91
91-100
101-110
\(111-120\)
121-130
131-140
141-150
151-160
161-170
\(171 \backsim 180\)
181-190
191-200
GREATER THAN 210
GREATER THAN 210
NO ANSWER/DONT KNO
TOTAL
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\] & STATE & COUNTY & \[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS }
\end{gathered}
\] & \[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\] & \begin{tabular}{l}
CITY \\
(50 OR MORE OFFICERS)
\end{tabular} & \[
\begin{gathered}
\text { FIFI } \\
\text { LARGE } \\
\text { CIT }
\end{gathered}
\] & & TOWNSHIP \\
\hline & NO. \% & NO. \% & NO. \% & NO. \% & NO. \% & NO. \% & NO. & \% & NO. \% \\
\hline ESS THAN 91 & 10 & \(0 \quad 0\) & \(0 \quad 0\) & 11 & \(0 \quad 0\) & 0 0 & 0 & 0 & \(0 \quad 0\) \\
\hline 1-100 & 31 & 12 & \(0 \quad 0\) & 11 & 12 & \(0 \quad 0\) & 0 & 0 & \(0 \quad 0\) \\
\hline 01-110 & \(75 \quad 17\) & 715 & 811 & 810 & 1820 & 22.28 & 10 & 22 & 27 \\
\hline 11-120 & 20 & 00 & 11 & 11 & \(0 \quad 0\) & \(0 \quad 0\) & 0 & 0 & 00 \\
\hline 21-130 & \(33: 7\) & 36 & 6 B & 1.1 & \(6 \quad 7\) & B 10 & 9 & 20 & 0 0 \\
\hline 31-140 & \(4 \quad 1\) & 0 0 & 23 & 0 0 & 00 & 1. & 1 & 2 & 00 \\
\hline 41-150 & 5512 & 817 & 710 & \(10 \quad 12\) & 1315 & 810 & 4 & 9 & 519 \\
\hline 51-160 & 32773 & \(37 \quad 79\) & 52.71 & 58.69 & 6169 & 5975 & 39 & 85 & 2178 \\
\hline 61-170 & 31 & 00 & \(0 \quad 0\) & 11 & 00 & 00 & 0 & 0 & 27 \\
\hline \(71 \sim 180\) & 20 & 12 & \(0 \quad 0\) & 0 - 0 & 0 0 & 11 & 0 & 0 & 0 0 \\
\hline 81-190 & 31 & 0 0 & \(0 \quad 0\) & 11 & 22 & 0 0 & 0 & 0 & \(0 \quad 0\) \\
\hline 91-200 & 25.6 & 12 & 45 & 78 & -3 3 & 79 & 3 & 7 & 0 0 \\
\hline REATER THAN 210 & \(6 \quad 1\) & 0 0 & 11 & \(2 \quad 2\) & 12 & \(0 \quad 0\) & 2 & 4 & \(0 \quad 0\) \\
\hline O ANSWER/DONT KNOW & 194 & 12 & 811 & 45 & 44 & 23 & 0 & 0 & \(0 \quad 0\) \\
\hline OTAL & 558124 & 59125 & 89121 & 95112 & 109122 & 108137 & 68 & 149 & 30111 \\
\hline
\end{tabular}

\section*{DEPARTMENT TYPE}

Table \(2 \mathrm{E}-3\)

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


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
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\] & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{CITY} & \[
\begin{array}{r}
\text { CIT } \\
\text { (10-1 } \\
\text { OFFIC }
\end{array}
\] & \[
9
\] & \[
\begin{gathered}
\text { CITY } \\
\text { (SO OR } \\
\text { OFFICE }
\end{gathered}
\] & MORE (8) & FIF
LARGE
CIT & & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & NO. * & NO. & \% & NO. & \% & NO. & \% & NO. & 8 & NO. & \% & NO. & * & No. & \% \\
\hline . 32 & 73 & 0 & 0 & 2 & 5 & 0 & 0 & 0 & 0 & 2 & 4 & 2 & 9 & 1 & 5 \\
\hline . 38 & 8734 & 16 & 53 & 14 & 32 & 14 & 33 & 20 & 38 & 14 & 29 & 5 & 23 & 4 & 21 \\
\hline 9 MM & 177 & 1 & 3 & 1 & 2 & 4 & 9 & 3 & 6 & 4 & 8 & 0 & 0 & 4 & 21 \\
\hline . 357 MAGNUM & 13251 & 10. & 33 & 25 & 57 & 23 & 53 & 26 & 50 & 25 & 51 & 14 & 64 & 9 & 47 \\
\hline .45 & 5.2 & 0 & 0 & 2 & 5 & 0 & 0 & 1 & 2 & 2 & 4 & 0 & 0 & 0 & 0 \\
\hline . 22 & 5.2 & 1 & 3 & 0 & 0 & 1 & 2 & 1 & 2 & 0 & 0 & 1 & 5 & 1 & 5 \\
\hline . 25 & 4.2 & 1 & 3 & 0 & 0 & 1 & 2 & 1 & 2 & 1 & 2 & 0 & 0 & 0 & 0 \\
\hline . 380 & 10 & 1 & 3 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline . 44 & 10 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 2 & 0 & 0 & 0 & 0 \\
\hline TOTAL & 259101 & 30 & 98 & 44 & 101 & 43 & 99 & 52 & 100 & 49 & 100 & 22 & 101 & 19 & 99 \\
\hline
\end{tabular}

Table 3-2
3. AVERAGE NUMBER OF OFFICERS ASSOCIATED WITH SECOND MOST USED ON DUTY HANDGUNS? FOR SPECIFIED CALIBERS -



\section*{\(\stackrel{\oplus}{\underset{\infty}{1}}\)}

Trable 3 B-2
3.8. HOW MANY(SECOND MOST USED HANDGUNS) ARE REVOLVERS? HOW MANY (SECOND MOST JSED HANDGUNS) ARE REVOLVERS? (NUMBER OF DEPARTMENTS)
gUN TYPE
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & ALL DEPARTMENT TYPES & State & COUNTY & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (50 OR MORE } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{FIFTY
LARGEST
CITIES} & TOWNSHIP \\
\hline & NO. \% & NO. \% & NO. \% & NO. & \% & No. & \% & NO. & \% & NO. & \% & NO. \\
\hline REVOLVERS & 22988 & \(26 \quad 87\) & 42.95 & 38 & 83 & 46 & 88 & 42 & 86 & 21 & 95 & 14.74 \\
\hline AUTOMATICS & \(31 \quad 12\) & \(4 \quad 13\) & \(3 \quad 7\) & 5 & 12 & 6 & 12 & 7 & 14 & 1 & 5 & 526 \\
\hline TOTAL & 260100 & 30100 & 45102 & 43 & 100 & 52 & 100 & & 100 & & 100 & 19100 \\
\hline
\end{tabular}

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

CALIBER
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} &  & NT & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} & \[
\begin{array}{r}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICE }
\end{array}
\] & & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \[
\begin{array}{r}
C I T \\
150 \text { OR } \\
\text { OFFIC }
\end{array}
\] & \[
\begin{aligned}
& \text { MORE } \\
& \text { RS })
\end{aligned}
\] & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { FIFTY } \\
& \text { LARGEST } \\
& \text { CITIES }
\end{aligned}
\]} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% \\
\hline . 32 & 34 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 & 0 & 6 & 1 & 26 & 0 & 0 & 0 \\
\hline . 38 & 3943 & 26 & 2040 & 34 & 187 & 36 & 45 & 35 & 136 & 48 & 383 & 35 & 1139 & 15 & 13 & 39 \\
\hline . 357 NAGGNUM & 11381 & 74 & 3920 & 66 & 326 & 63 & 81 & 62 & 150 & 52 & 667 & 61 & 6218 & 84 & 19 & 58 \\
\hline .45 & 2 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 & & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline - 22 & 5 & & 0 & & 0 & 0 & 4 & & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 3 \\
\hline . 44 & 45 & 0 & 0 & & 0 & 0 & 0 & & 0 & 0 & 45 & 4 & 0 & 0 & 0 & 0 \\
\hline TOTAL & 15410 & 100 & 5960 & 100 & 517 & 99 & 130 & 100 & 286 & 100 & 1101 & 101 & 7383 & 99 & 33 & 100 \\
\hline
\end{tabular}
\(\stackrel{1}{6}\)

Table \(3 \mathrm{~B}-4\)
3.3. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - REVOLVERS (NMBER OF DEPARTMENTS)

CALIBER
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\] & STATE & COUNTY & \[
\begin{gathered}
\text { CITY } \\
\text { OFFICERS }
\end{gathered}
\] & \[
\begin{gathered}
\text { CITY } \\
(10-49 \\
\text { OFFICERS) }
\end{gathered}
\] & \begin{tabular}{l}
CITY \\
(50 OR MORE OFFICERS)
\end{tabular} & \[
\begin{aligned}
& \text { FIFTY } \\
& \text { LARGEST } \\
& \text { CITIES }
\end{aligned}
\] & - TOWNSHIP \\
\hline & NO. * & NO. \% & NO. * & NO. \% & NO. \% & NO. \% & NO. \% & NO. \% \\
\hline . 32 & 6.3 & 00 & 25 & 0 0 & \(0 \quad 0\) & 25 & \(\begin{array}{ll}2 & 10\end{array}\) & \(\begin{array}{rr}0 & 0 \\ 4 & 29\end{array}\) \\
\hline . 38 & 8738 & 1662 & 1433 & \(14 \quad 37\) & \(20 \quad 43\) & 1433 & 5.24 & 429 \\
\hline . 357 MAGNUM & 13258 & 1038 & 2560 & \(23: 61\) & \(26 \quad 57\) & 2560 & 1467 & 964 \\
\hline -45 & 10 & 00 & 12 & 0 0 & \(0 \quad 0\) & \(0 \quad 0\) & 00 & \(0 \therefore 9\) \\
\hline - 22 & 21 & \(0 \quad 0\) & \(0 \quad 0\) & 13 & \(0 \quad 0\) & \(0 \quad 0\) & \(0 \quad 0\) & 17 \\
\hline . 44 & 10 & \(0 \quad 0\) & \(0 \quad 0\) & 0 : 0 & 0 0 & 12 & 00 & 0 0 \\
\hline TOTAL & 229100 & 26100 & 42.100 & 38101 & 46100 & 42100 & 21.101 & 14100 \\
\hline
\end{tabular}

Table 3 B-5
3.B. CALIBER BKEAKDOWN OF ALL SECOND MOST USED GUNS - AUTOMATICS (NUMBER OF GUNS)

CALIBER


\section*{W}

\section*{Table 3 B-6}
3.B. CALIBER BREAKDOWN OF ALL SECOND MOST USED GUNS - AUTOMATICS CALIBER
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & ALL DEPARTMENT TYPES & STATE & COUNTY & \[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\] & \[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\] & \begin{tabular}{l}
CITY \\
(50 OR MORE OFFICERS)
\end{tabular} & FIFTY LARGEST CITIES & TOWNSHIP \\
\hline & No. \% & No. \% & NO. * & NO. \% & NO. \% & NO. \% & NC. \% & No. * \\
\hline .32 & 1.3 & \(0 \quad 0\) & 0 0 & 0 0 & \(0 \quad 0\) & 0 & 00 & 120 \\
\hline 9 MM & 17.55 & 125 & 133 & 4.80 & \(3 \quad 50\) & 4.57 & 00 & 480 \\
\hline .45 & 516 & 00 & 267 & 00 & 1.17 & 229 & \(0 \quad 0\) & 00 \\
\hline . 22 & 310 & 125 & 00 & 00 & \(1 \begin{array}{ll}1 & 17\end{array}\) & 0 & 1100 & 0 - \\
\hline . 25 & 413 & 125 & \(0 \quad 0\) & 120 & 117 & 114 & \(0 \quad 0\) & 0 0 \\
\hline . 380 & 13 & 125 & 00 & 0 0 & 00 & 00 & 00 & \(0 \quad 0\) \\
\hline total & 31100 & 4100 & 3100 & 5100 & 6101 & 7100 & 1100 & 5100 \\
\hline
\end{tabular}

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
\begin{tabular}{l}
1 \\
\multirow{2}{*}{}
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{2}{|l|}{ALL DEPARTMENT TYFES} \\
\hline & NO. & \% \\
\hline 1 & 121 & 47 \\
\hline 2 & 202 & 78 \\
\hline 4 & 6 & 2 \\
\hline 5 & 1 & 0 \\
\hline 8 & 1 & 0 \\
\hline 13 & 7 & 3 \\
\hline 14 & 1 & 0 \\
\hline OTHER & 4 & 2 \\
\hline UNKNOWN. & 3 & 1 \\
\hline TOTAL & 346 & 133 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} \\
\hline NO. & \% & NO. & \% \\
\hline 13 & 43 & 21 & 48 \\
\hline 23 & 77 & 34 & 77 \\
\hline 0 & 0 & 1 & 2 \\
\hline 0 & 0 & 0 & 0 \\
\hline 1 & 3 & 0 & 0 \\
\hline 0 & 0 & 4 & 9 \\
\hline 0 & 0 & 1 & 2 \\
\hline 1 & 3 & 0 & 0 \\
\hline 0 & 0 & 1 & 2 \\
\hline & 126 & 62 & 140 \\
\hline
\end{tabular}
\begin{tabular}{cccc} 
DEPARTMENT TYPE & \\
CITY & CITY & \\
(I-9 & (IO-49 & CITY \\
OFFICERS) & OFFICERS) & OFFIMORE \\
OFFICERS)
\end{tabular}
\begin{tabular}{|c|c|}
\hline FIFT LARGE CIT & \[
\begin{aligned}
& Y \\
& E T \\
& E S
\end{aligned}
\] \\
\hline NO. & \% \\
\hline 16 & 73 \\
\hline 22 & 100 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline
\end{tabular}

TOWNSHIP


Table \(3 \mathrm{D}-3\)
BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A 38 CALIBER (NIMBER OF GUNS)

BARREL LENGTH
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{2}{|l|}{ALL DEPARTMENT TYPES} & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { CITY } \\
& \text { O OR MORE } \\
& \text { OFFICERS) }
\end{aligned}
\]} & \multicolumn{2}{|l|}{FIFTY LARGEST CITIES} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline , & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & * \\
\hline LESS THAN 3 INCHES & 2097 & 53 & 1046 & 51 & 120 & 64 & 13 & 29 & 61 & 45 & 191 & 50 & 654 & 57 & 12 & 92 \\
\hline 3-5 INCHES & 1759 & 45 & 994 & 49 & 66 & 35 & 32 & 71 & 48 & 35 & 156 & 41 & 462 & 41 & 1 & \\
\hline MORE THAN 5 INCHES & 77 & 2 & 0 & 0 & 1 & 1 & 0 & 0 & 17 & 12 & 36 & 9 & 23 & 2 & 0 & 0 \\
\hline NO ANSWER & 10 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 10 & 7 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline TOTAL & 3943 & 100 & 2040 & 100 & 187 & 100 & 45 & 100 & 136 & 99 & 383 & 100 & 1139 & 100 & 13 & 100 \\
\hline
\end{tabular}

W

Table 3 D-4
GARREL LENGTHS WHEN SECOND MOST USEO HANDGUN IS A . 38 CALIBER (NIMBER OF DEPARTMENTS)

BARREL LENGTH
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\] & STATE & COUNTY & \[
\begin{gathered}
\text { CITY } \\
\text { (I-9 } \\
\text { OFFICERS) }
\end{gathered}
\] & \[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\] & \begin{tabular}{l}
CITY \\
(50 OR MORE OFFICERS)
\end{tabular} &  & & TOWNSHIP \\
\hline & NO. \% & NO. \% & NO. \% & NO. \% & NO. \% & NO. \% & NO. & * & NO. \% \\
\hline LESS THAN 3 INCHES & 55.63 & 11.69 & 1071 & 643 & \(10 \quad 50\) & 10.71 & 5 & 100 & 375 \\
\hline 3-5 INCHES & 56.64 & 850 & 1179 & 1179 & 1155 & 1179 & 3 & 60 & 125 \\
\hline MORE THAN 5 INCHES & 1315 & \(0 \quad 0\) & 17 & \(0 \quad 0\) & 630 & 429 & 2 & 40 & 0.0 \\
\hline NO ANSWER & 11 & \(0 \quad 0\) & \(0 \times 0\) & 00 & 15 & 0 0 & 0 & 0 & 0 0 \\
\hline TOTAL & 125143 & 19119 & 22157 & 17122 & 28140 & 25179 & & 200 & 4100 \\
\hline
\end{tabular}

\section*{CONTINUED}

\section*{\(10 F 2\)}

Table 3 D-5
BARREL LENGTHS WHEN SECOND MOST USED HANDGUN IS A . 357 CALIBER (NUMBER OF GUNS)

BARREL LENGTH

\(72-9\)

Table 3 D-6
barrel lengths when second most used handgun is a . 357 caliber
(NUMBER OF DEPARTMENTS)

BARREL LENGTH


Table 3 E-1
3. E. AMMUNITION: LIST EACH TYPE OF AMMUNITION THAT YOUR DFFICERS USE WITH THIS (NUMBER OF DEPARTMENTS) SECOND MOST USED HANDGUN

\section*{BULLET TYPE}


Table 3 E-2

\section*{IIST EACH BULLET WEIGHT, IN GRAINS. THAT YOUR OFFICERS USE WITH THIS SECOND MOST USED HANDGUN}

BULLET WEIGHT (IN GRAINS)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\] & STA & & COUN & & CIT
OFFIC & RS) & \[
\begin{array}{r}
\text { CITY } \\
\text { SIO-4 } \\
\text { OFFICE }
\end{array}
\] & & \[
\begin{gathered}
\mathrm{CITY} \\
150 \text { OR } \\
\text { OFFICE }
\end{gathered}
\] & \[
\begin{aligned}
& \text { MORE } \\
& \text { RSS) }
\end{aligned}
\] & \[
\begin{array}{r}
\text { FIFI } \\
\text {-ARGE } \\
\text { CITI }
\end{array}
\] & & TOWNSH & \\
\hline & NO. \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & No. & \% \\
\hline LESS THAN 91 & 8 8 3 & 1 & 3 & 0 & 0 & 2 & 5 & 3 & 6 & 2 & 4 & 0 & 0 & 0 & 0 \\
\hline 91-100 & \(7 \quad 3\) & 1 & 3 & 0 & 0 & 0 & 0 & 1 & 2 & 2 & 4 & 2 & 9 & 1 & 5 \\
\hline 101-110 & 43.17 & 6 & 20 & 4 & 9 & 4 & 9 & 13 & 25 & 10 & 20 & 4 & 18 & 2 & 11 \\
\hline 111-120 & 42 & 1 & 3 & 1 & 2 & 0 & 0 & 1 & 2 & 1 & 2 & 0 & 0 & 0 & 0 \\
\hline 121-130 & 239 & 2 & 7 & 5 & 11 & 1 & 2 & 4 & 8 & 5 & 10 & 4 & 18 & 2 & 11 \\
\hline 131-140 & 31 & 1 & 3 & 1 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 5 & 0 & 0 \\
\hline 141-150 & 25.10 & 5 & 17 & 5 & 11 & 1 & 2 & 8 & 15 & 4 & 8 & 0 & 0 & 2 & 11 \\
\hline 151-160 & 14857 & 20 & 67 & 25 & 57 & 24 & 56 & 27 & 52 & 27 & 55 & 15 & 68 & 10 & 53 \\
\hline 171-180 & 10 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 2 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline 181-190 & 21 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 2 & 0 & 0 & 0 & 0 & 1 & 5 \\
\hline 191-200 & 125 & 0 & 0 & 2 & 5 & 5 & 12 & 2 & 4 & 3 & 6 & 0 & 0 & 0 & 0 \\
\hline GREATER THAN 210 & 52 & 0 & & 1 & 2 & 1 & 2 & 0 & 0 & 2 & 4 & 1 & 5 & 0 & 0 \\
\hline NO ANSWER/DONT KNOW & 197 & 2 & 7 & 5 & 11 & 5 & 12 & 3 & 6 & 3 & 6 & 0 & 0 & 1 & \\
\hline TOTAL & 300117 & 39 & 130 & 49 & 110 & 43 & 100 & 64 & 24 & 59 & 119 & 27 & 123 & 19 & 101 \\
\hline
\end{tabular}

Table 3 E-3
LIST EACH MANUFACTURER OF AMMUNITION THAT YOUR OFFICERS USE WITH THIS SECOND (NUMBER OF DEPARIMENTS) MOST USED HANDGUN

MANU:ACTURER


Table 2A, 3A CDMPARISON BETWEEN MOST USED HANDGUN AND SECOND MOST USED HANDGUN BY CALIBER.

\section*{(NUMBER OF DEPARTMENTS)}

CALIBER


Table 4-1
4. HOW ABOUT OFF DUTY: ABOUT HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE (NUMBER OF OFFICERS) HANDGUNS OF EACH OF THE FOLOWING CALIBERS WHEN THEY ARE OFF DUTY?

CALIBER
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} & \multicolumn{16}{|c|}{DEPARTMENT TYPE} \\
\hline & \multicolumn{2}{|l|}{ALL DEPARTMENT TYPES} & \multicolumn{2}{|l|}{State} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
(I-9 \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \[
\begin{aligned}
& C I T Y \\
& (50 \mathrm{OR} \\
& \text { OFFICE }
\end{aligned}
\] & \[
\begin{aligned}
& \text { MORE } \\
& \text { RSS) }
\end{aligned}
\] & \multicolumn{2}{|l|}{FIFTV LARGEST CITIES} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & No. & \% & NO. & * & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% \\
\hline -22 LR & 870 & 1 & 275 & 2 & 91 & 3 & 8 & 2 & 37 & 3 & 68 & 1 & 387 & 0 & 4 & 2 \\
\hline - 25 AUTOMATIC & 1041 & 1 & 133 & 1 & 65 & 2 & 11 & 3 & 30 & 2 & 167 & 2 & 614 & 1 & 21 & 12 \\
\hline - 32 AUTOMATIC & 739 & 1 & 75 & 0 & 66 & 2 & 15 & 4 & 36 & 3 & 176 & 3 & 361 & 0 & 10 & 6 \\
\hline -38 SPECIAL & 94942 & 86 & 12492 & 74 & 2017 & 74 & 297 & 80 & 938 & 75 & 5615 & 81 & 73456 & 89 & 127 & 71 \\
\hline 9 MM LUGER & 4435 & 4 & 1854 & 11 & 218 & 8 & 13 & 3 & 70 & 6 & 232 & 3 & 2040 & 2 & 8 & 4 \\
\hline -357 MAGNUM & 6188 & 6 & 1956 & 12 & 109 & 4 & 20 & 5 & 59 & 5 & 277 & 4 & 3763 & 5 & 4 & 2 \\
\hline -45 AUTOMATIC & 1682 & 2 & 35 & 0 & 92 & 3 & 4 & 1 & 50 & 4 & 148 & 2 & 1351 & 2 & 2 & 1 \\
\hline . 32 REVOLVER & 17 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 7 & 0 & 8 & 0 & 0 & 0 \\
\hline - 380 & 414 & 0 & 40 & 0 & 55 & 2 & 3 & 1. & 33 & 3 & 155 & 2 & 124 & 0 & 3 & 2 \\
\hline . 41 & 6 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 5 & 0 & 0 & 0 \\
\hline . 44 & 34 & 0 & 30 & 0 & 3 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
\hline . 45 REVOLVER & 165 & 0 & 0 & 0 & 25 & 1 & 0 & 0 & 0 & 0 & 50 & 1 & 90 & 0 & 0 & 0 \\
\hline OTHER & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline TOTAL & 110534 & 101 & 16890 & 100 & 2741 & 99 & 373 & 99 & 1254 & 101 & 6898 & 99 & 82199 & 99 & 179 & 100 \\
\hline
\end{tabular}

Table 4-2
4. HON ABOUT OFF DUTY: ABOUT HOW MANY OF THE OFFICERS IN YOUR DEPARTMENT USE (NUMBER OF DEPARTMENTS) HANDGUNS OF EACH OF THE FOLOWING CALIEERS WHEN THEY ARE OFF DUTY?

CALIBER
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} & \multicolumn{16}{|c|}{DEPARTMENT TYPE} \\
\hline & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\]} & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (I-9 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \[
\begin{gathered}
\text { CITY } \\
\text { C } 50 \text { OR } \\
\text { OFFICE }
\end{gathered}
\] & MORE RS) & \multicolumn{2}{|l|}{FIFTY LARGEST} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & NO. & \% & NO. & \% & NO. & \% & No. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% \\
\hline - 22 LR & 53 & 12 & 4 & 9 & 7 & 10 & 5 & 6 & 13 & 15 & 9 & 11 & 12 & 26 & 3 & 11 \\
\hline - 25 AUTOMATIC & 81 & 18 & 4 & 9 & 10 & 14 & 8 & 10 & 15 & 17 & 21 & 27 & 13 & 28 & 10 & 37 \\
\hline -32 AUTOMATIC & 76 & 17 & 1 & 2 & 9 & 12 & 10 & 12 & 20 & 22 & 17 & 22 & 14 & 30 & 5 & 19 \\
\hline - 38 SPECIAL & 332 & 75 & 19 & 40 & 60 & 82 & 57. & 68 & 75 & 84 & 64 & 81 & 36 & 78 & 21 & 78 \\
\hline 9 MM LUGER & 103 & 23 & 10 & 21 & 11 & 15 & 7 & 8 & 23 & 26 & 32 & 41 & 17 & 37 & 3 & 11 \\
\hline . 357 MAGNUM & 101 & 23 & 9 & 19 & 16 & 22 & 9 & 11 & 18 & 20 & 29 & 37 & 17 & 37 & 3 & 11 \\
\hline - 45 AUTOMATIC & 74 & 17 & 3 & 6 & 13 & 18 & 4 & 5 & 17 & 19 & 20 & 25 & 15 & 33 & 2 & 7 \\
\hline . 32 REVOLVER & 5 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 2 & 3 & 1 & 2 & 0 & 0 \\
\hline . 380 & 35 & 8 & 1 & 2 & 3 & 4 & 3 & 4 & 10 & 11 & 10 & 13 & 6 & 13 & 2 & 7 \\
\hline . 41 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 2 & 0 & 0 \\
\hline .44 & 3 & 1 & 1 & 2 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 \\
\hline . 45 REVOLVER & 3 & 1 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 2 & 0 & 0 \\
\hline OTHER & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline NONE/NO ANSWER & 100 & 22 & 24 & 51 & 11 & 15 & 22 & 26 & 13 & 15 & 14 & 18 & 10 & 22 & 6 & 22 \\
\hline TOTAL & 969 & 218 & 76 & 161 & 142 & 194 & 227 & 152 & 205 & 230 & 221 & 281 & 143 & 310 & 55 & 203 \\
\hline
\end{tabular}

Table 2A/4-1
COMPARISON BETWEEN MOST USED HANDGUN AND OFF-DUTY HANDGUNS, BY CALIBER.
(nuMBER OF OFFICERS)

CALIBER


Table 2A/4-2
COMPARISON BETWEEN MOST USED HANDGUN ANO OFF-DUTY HANDGUNS, BY CALIGER. (NIMBER OF DEPARTMENTS)
CALIBER


Table 5-1
5. WHEN YOU THINK OF ALL THE HANDGUNS THAT HAVE BEEN USED BY YOUR OFFICERS (NUMBERS OF DEPARTMENTS) IN THE LAST 5 YEARS: WHICH OF THESE GUNS HAVE HAD, OR HAVE CAUSED PROBLEMS?

\section*{RESPONSE}
\(\underset{\sim}{1}\)
\(\omega\)
\(\omega\)
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\[
\begin{gathered}
\text { ALL } \\
\text { DEPARTMENT } \\
\text { TYPES }
\end{gathered}
\]}} \\
\hline & \\
\hline No. & \% \\
\hline 203 & 46 \\
\hline 163 & 37 \\
\hline 79 & \\
\hline 445 & \\
\hline
\end{tabular}
\begin{tabular}{rr} 
STATE \\
NO. & \(\%\) \\
34 & 72 \\
8 & 17 \\
5 & 11 \\
47 & 100
\end{tabular}
COUNTY
NO. \(\%\)
21
33
19
19
73
73
100

\begin{tabular}{c} 
CITY \\
(50 OR MORE \\
OFFICERS) \\
NO. \\
42 \\
42 \\
25 \\
12 \\
\hline 12 \\
79 \\
\hline 9
\end{tabular}
FIFTY
LARGEST
CITIES
NO,
3
33
9
420
4

TOWNSHIP

CITED PROBLEM
NO PROBLEM
NO ANSWER
TOTAL
CITED PRRELEM
NO PROBLEM
NO ANSWER
TOTAL

\section*{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
DEPARTMENT TYPE

EJECTOR ROD PROBS.
ABUSE BY PERSONNEL
ACCIDENTAL DISCHARGE
ACCURACY POOR
AGE: WEAR \& TEAR.
PROBS. CAUSED BY AMMO.
BARREL PROBS.
CYLINOER PROBS.
DEFECTIVE MFG; RELIABILITY DOUBLE/SINGLE ACTION.PROB. EXTRAGTOR ROO PROBS.
FEEDING PROBS
FINISH (BLUING) PROBS
GRIP PROBS
HEAD SPACE PROBS.
HAMMER/FIRING PIN PROBS.
JAMMING
LEAD SHAVING
MISFIRES
SAFETY PROBS.
SIGHT PROBS.
STOPPING POWER INSUFFICIENT
TRIGGER PROBS
OTHER
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{ALL DEPARTMENT TYPES} & \multicolumn{2}{|l|}{STATE} & \multicolumn{2}{|l|}{COUNTY} \\
\hline No. & \% & NO. & * & NO. & \% \\
\hline 10 & 5 & 2 & 6 & 2 & 10 \\
\hline 20 & 10 & 1 & 3 & 2 & 1.4 \\
\hline 20 & 10 & 1 & 3 & 3 & 14 \\
\hline 4 & 2 & 0 & 0 & 0 & 0 \\
\hline 22 & 11 & 5 & 14 & 1 & 5 \\
\hline 16 & 8 & 1 & 3 & 2 & 10 \\
\hline 11 & 5 & 2 & 6 & 1 & 5 \\
\hline 71 & 35 & 13 & 39 & 8 & 38 \\
\hline 15 & 7 & 2 & 6 & 1 & 5 \\
\hline 18 & 9 & 2 & 6 & 1 & 5 \\
\hline 6 & 3 & 2 & 6 & 1 & 5 \\
\hline 9 & 4 & 2 & 6 & 2 & 10 \\
\hline 17 & 8 & 5 & 15 & 0 & 0 \\
\hline 2 & 1 & 1 & 3 & 0 & 0 \\
\hline 15 & 7 & 13 & 39 & 1 & 5 \\
\hline 42 & 21 & 4 & 12 & 7 & 33 \\
\hline 16 & 8 & 1. & 3 & 3 & 14 \\
\hline 16 & 8 & 5 & 15 & 2 & 10 \\
\hline 31 & 15 & 3 & 9 & 6 & 29 \\
\hline 4 & 2 & 1 & 3 & 0 & 0 \\
\hline 10 & 5 & 4 & 12 & 1 & 5 \\
\hline 8 & 4 & 1 & 3 & 0 & 0 \\
\hline 23 & 11 & 8 & 24 & 5 & 24 \\
\hline 32 & 16 & 5 & 15 & 2 & 10 \\
\hline 18 & 9 & 6 & 18 & 0 & 0 \\
\hline 16 & 8 & 6 & 18 & 0 & 0 \\
\hline 8 & 4 & 0 & 0 & 1 & 5 \\
\hline 26 & & 7 & & 1 & \\
\hline 507 & 236 & 103 & 288 & 54 & 256 \\
\hline
\end{tabular}
\begin{tabular}{rr} 
CITY \\
(I-9 \\
OFFICERS) \\
NO & \(\%\) \\
0 & 0 \\
0 & 0 \\
0 & 0 \\
0 & 0 \\
1 & 5 \\
0 & 0 \\
1 & 5 \\
7 & 35 \\
1 & 5 \\
0 & 0 \\
0 & 0 \\
1 & 5 \\
2 & 10 \\
0 & 0 \\
0 & 0 \\
4 & 20 \\
1 & 5 \\
3 & 15 \\
2 & 10 \\
0 & 0 \\
1 & 5 \\
0 & 0 \\
2 & 10 \\
2 & 10 \\
0 & 0 \\
2 & 10 \\
3 & 15 \\
1 & \\
34 & 165 \\
& \\
\hline
\end{tabular}
\begin{tabular}{rr} 
CITY \\
(10-49 \\
OFFICERS) \\
NO. & x \\
0 & 0 \\
2 & 5 \\
6 & 14 \\
1 & 2 \\
5 & 12 \\
3 & 7 \\
0 & 0 \\
17 & 40 \\
1 & 2 \\
2 & 5 \\
0 & 0 \\
1 & 2 \\
1 & 2 \\
0 & 0 \\
0 & 0 \\
7 & 16 \\
3 & 7 \\
5 & 12 \\
5 & 12 \\
2 & 5 \\
0 & 0 \\
2 & 5 \\
3 & 7 \\
6 & 14 \\
1 & 2 \\
0 & 0 \\
3 & 7 \\
1 & \\
77 & 178 \\
& \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{CITY} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{(50 OR MORE OFFICERS)}} \\
\hline & \\
\hline NO. & * \\
\hline 1 & 2 \\
\hline 4 & 10 \\
\hline 5 & 12 \\
\hline 1 & 2 \\
\hline 7 & 17 \\
\hline 10 & 24 \\
\hline 6 & 14 \\
\hline 12 & 28 \\
\hline 5 & 12 \\
\hline 11 & 26 \\
\hline 1 & 2 \\
\hline 1 & 2 \\
\hline 0 & 0 \\
\hline 1 & 2 \\
\hline 0 & 0 \\
\hline 12 & 28 \\
\hline 6 & 14 \\
\hline 1 & 2 \\
\hline 7 & 17 \\
\hline 0 & 0 \\
\hline 3 & 7 \\
\hline 2 & 5 \\
\hline 2 & 5 \\
\hline 6 & 14 \\
\hline 5 & 12 \\
\hline 2 & 5 \\
\hline 0 & 0 \\
\hline 8 & \\
\hline 119 & 264 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline FIF
LARGE CIT & \\
\hline NO. & \% \\
\hline 5 & 15 \\
\hline 10 & 30 \\
\hline 4 & 12 \\
\hline 0 & 0 \\
\hline 3 & 9 \\
\hline 0 & 0 \\
\hline 0 & 0 \\
\hline 10 & 30 \\
\hline 4 & 12 \\
\hline 1 & 3 \\
\hline 2 & 6 \\
\hline 0 & 0 \\
\hline 9 & 27 \\
\hline 0 & 0 \\
\hline 1 & 3 \\
\hline 8 & 24 \\
\hline 2 & 6 \\
\hline 0 & 0 \\
\hline 5 & 15 \\
\hline 0 & 0 \\
\hline 1 & 3 \\
\hline 3 & 9 \\
\hline 3 & 9 \\
\hline 9 & 27 \\
\hline 5 & 15 \\
\hline 6 & 18 \\
\hline 1 & 3 \\
\hline 8 & \\
\hline
\end{tabular}

TOWNSHIP

TIMING OFF
SEAR PROBS.
MULTIPLE PROBS.
TOTAL

Table 6-1
6. HOW ABOUT HANDGUN AMMUNITION: HAVE YOUR OFFICERS FOUND ANY PROBLEMS WITH ANY (NMBER OF DEPARTNENES) HANDGUN AMMUNITION THAT THEY HAVE USED IN THE LAST 5 YEARS?

RESPONSE
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { ALL } \\
& \text { DEPARTMENT } \\
& \text { TYPES }
\end{aligned}
\]} & \multicolumn{2}{|l|}{state} & \multicolumn{2}{|l|}{COUNTY} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (1-9 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\[
\begin{gathered}
\text { CITY } \\
\text { (10-49 } \\
\text { OFFICERS) }
\end{gathered}
\]} & \multicolumn{2}{|l|}{\begin{tabular}{l}
CITY \\
(50 OR MORE OFFICERS)
\end{tabular}} & \multicolumn{2}{|l|}{\[
\begin{aligned}
& \text { FIFTY } \\
& \text { LARGEST } \\
& \text { CITIES }
\end{aligned}
\]} & \multicolumn{2}{|l|}{TOWNSHIP} \\
\hline & NO. & \% & NO. & * & NO. & \% & NO. & \% & NO. & \% & NO. & \% & No. & \% & No. & \% \\
\hline CITED PROBLEM & 117 & 26 & 21 & & 13 & 18 & 7 & 8 & 14 & 16 & 34 & 43 & 28 & 61 & 0 & 0 \\
\hline NO PROBLEM & 215 & 48 & 20 & 43 & 38 & 52 & 58 & 69 & 45 & 51 & 27 & 34 & 12 & 26 & 15 & 56 \\
\hline NO ANSTER & 113 & 25 & 6 & & 22 & 30 & 19 & 23 & 30 & 34 & 18 & 23 & 6 & 13 & 12 & 44 \\
\hline TOTAL & 445 & 99 & 47 & 101 & 73 & 100 & 84 & 100 & 89 & 101 & 79 & 100 & 46 & 100 & 27 & 100 \\
\hline
\end{tabular}

Table 6-2
6. HOW ABOUT HANDGUN AMMUNITION: HAVE YOUR OFFICERS FOUND ANY PROBLEMS WITH ANY (NUMBER OF DEPARTMENIS) HANDGUN AMMUNITION THAT THEY HAVE USED IN THE LAST 5 YEARS?

PROBLEM
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & & & & & & DEPA & itME & TYPE & & & & & & & \\
\hline & DEPARTM TYPE & & STAT & & COUNT & & \[
\begin{aligned}
& C I T Y \\
& \text { SI- } \\
= & \text { FICE }
\end{aligned}
\] & &  & & \[
\begin{aligned}
& \text { CITY } \\
& \text { SSOOR } \\
& \text { OFFICE }
\end{aligned}
\] & MORE RS) &  & & TOWNS & \\
\hline & NO. & \% & NO. & \% & NO. & \% & NO. & \% & NO. & \% & No. & \% & No. & * & NO. & * \\
\hline POWDER, MISC PROBS. & & 3 & 0 & 0 & 1 & 8 & 0 & 0 & 0 & 0 & 2 & 6 & 1 & 4 & 0 & 0 \\
\hline ACCURACY POOR & 6 & 5 & 2 & 10 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 3 & 3 & 11 & 0 & 0 \\
\hline CASE CARTRIDGE PROBS. & 25 & 21 & 5 & 24 & 2 & 15 & 1 & 14 & 3 & 21 & 8 & 24 & 6 & 21 & 0 & 0 \\
\hline GUN FAILURE & 17 & 15 & 1 & 5 & 2 & 15 & 0 & 0 & 3 & 21 & 5 & 15 & 6 & 21 & 0 & 0 \\
\hline LEADING, FOULING & 6 & \({ }^{5}\) & 1 & 5 & 3 & 23 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 7 & 0 & 0 \\
\hline MISFIRES & 30 & 26 & 5 & 24 & 6 & 46 & 2 & 29 & 3 & 21 & 9 & 26 & 5 & 18 & 0 & 0 \\
\hline PRIMER PROBS. & 29 & 25 & 4 & 19 & 6 & 46 & 0 & 0 & 1 & 7 & 11 & 32 & 7 & 25 & 0 & 0 \\
\hline POWER, PENETRATION LOW & 35 & 30 & 6 & 29 & 0 & 0 & 5 & 71 & 1 & 7 & 5 & 15 & 18 & 64 & 0 & 0 \\
\hline POWDER. WRONG AMT. & 21 & 18 & 3 & 14 & 3 & 23 & 1 & 14 & 4 & 29 & 5 & 15 & 5 & 18 & 0 & 0 \\
\hline RELOAD PROBLEMS & 8 & 7 & 2 & 10 & 2 & 15 & 1 & 14 & 2 & 14 & 1 & 3 & 0 & 0 & 0 & 0 \\
\hline RICOCHET & 8 & 7 & 1 & 5 & 0 & 0 & 1 & 14 & 1 & 7 & 0 & 0 & 4 & 14 & 0 & 0 \\
\hline SMOKING EXCESSIVE & 3 & 3 & 1 & 5 & 1 & 8 & 0 & 0 & 1 & 7 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline VARIAEILITY OF ENERGY RATES & 4 & 3 & 0 & 0 & 3 & 23 & 0 & 0 & 1 & 7 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline PENETRATION TOO GREAT & 11 & 10 & 3 & 14 & 0 & 0 & 0 & 0 & 2 & 14 & 3 & 9 & 2 & 7 & 0 & 0 \\
\hline OTHER & 14 & 12 & 5 & 24 & 1 & 8 & 0 & 0 & 1 & 7 & 3 & 9 & 3 & \(\underline{51}\) & 0 & 0 \\
\hline KNOCKDO WN POWER LOW & 32 & 27 & 5 & 24 & 0 & 0 & 3 & 43 & 3 & 21 & 6 & 18 & 14 & 50 & 0 & 0 \\
\hline MULTIPLE PROBS. & 5 & & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 3 & 4 & & 0 & 0 \\
\hline TOTAL & 263 & 217 & 44 & 212 & 30 & 230 & 14 & 199 & 26 & 183 & 60 & 178 & 75 & 253 & 0 & 0 \\
\hline
\end{tabular}

Table 6-3
COMPARISON BETWEEN CALIBER OF AMMUNITION AND PROBLEMS OF AMMUNITION CITED (NUMBER OF DEPARTMENTS)


Table

COMPARISON OF AMMUNITION PROBLEMS AND AMMUNIYION MANUFACTURERS CITED (NMBER OF DEPARTMENIS)

PROBLEMS
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{PROBLEMS} & \multicolumn{2}{|l|}{TOTAL} & \multicolumn{2}{|c|}{1} & \multicolumn{2}{|l|}{2} & \multicolumn{2}{|l|}{3} & \multicolumn{2}{|l|}{4} & 5 & & \multicolumn{2}{|l|}{6} & \multicolumn{2}{|l|}{7} & \multicolumn{2}{|l|}{8} & \multicolumn{2}{|l|}{9} \\
\hline & NO. & \% & NO. & * & NO. & \% & NO. & \% & NO. & \% & NO. & * & No. & \% & NO. & * & NO. & * & No. & * \\
\hline POWDER, MISC PROES. & 3 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline ACCURACY POOR & 6 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 9 & 0 & 0 & 0 & 0 & 1 & 6 & 0 & 0 \\
\hline CASE CARTRIDGE PROBS. & 24 & 10 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 9 & 0 & 0 & \(\dot{\square}\) & 24 & 2 & 12 & 0 & 0 \\
\hline GUN FAILURE & 17 & 7 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 9 & 0 & 0 & 1 & 4 & 0 & 0 & 0 & 0 \\
\hline LEAOING. FOULING & 6 & 2 & 1 & 100 & 0 & 0 & 0 & 0 & 1 & 33 & 0 & 0 & 0 & 0 & 1 & 4 & 1 & 6 & 0 & 0 \\
\hline MISFIRES & 30 & 12 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 27 & 0 & 0 & 0 & 0 & 3 & 19 & 0 & 0 \\
\hline PRIMER PROBS. & 27 & 11 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 33 & 3 & 27 & 0 & 0 & 1 & 4 & 0 & 0 & 0 & 0 \\
\hline POWER. PENETRATION LOW & 34 & 14 & 0 & 0 & 1 & 33 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 40 & 4 & 16 & 2 & 12 & 0 & 0 \\
\hline POWDER, WRONG AMT & 20 & 8 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 18 & 0 & 0 & 1 & 4 & 1 & 6 & 0 & 0 \\
\hline RELOAD PROBLEMS & 8 & 3 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline RICOCHET & 6 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 4 & 2 & 12 & 0 & 0 \\
\hline SMOKING EXCESSIVE & 3 & 1 & 0 & 0 & 1 & 33 & 0 & 0 & 1 & 33 & 0 & 0 & 0 & 0 & 1 & 4 & 0 & 0 & 0 & 0 \\
\hline VARIABILITY OF ENERGY RATES & 4 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline PENETRATION TOO GREAT & 10 & 4 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 20 & 3 & 12 & 1 & 6 & 0 & 0 \\
\hline OTHER & 12 & 5 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 4 & 1 & 6 & 0 & 0 \\
\hline KNOCKDOWN POWER LOW & 30 & 12 & 0 & 0 & 1 & 33 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 40 & 4 & 16 & 2 & 12 & 0 & 0 \\
\hline MULTIPLE PROBS. & 5 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 4 & 0 & 0 & 0 & 0 \\
\hline
\end{tabular}

Tabie 6-5

COMPARISON OF AMMUNITION PROBLEMS AND AMMUNITION MANUFACTURERS CITED (CONT.)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{array}{r}
10 \\
\text { NO. }
\end{array}
\] & \% & NO. \({ }^{11}\) & * & \[
\begin{aligned}
& 12 \\
& \text { NO. }
\end{aligned}
\] & \% & No. & \% & No. \({ }^{14}\) & \% & NO. & \% & NO. \({ }^{16}\) & \% & NO. \({ }^{17}\) & \% & NO. & \% & NO: & * \\
\hline POWDER, MISC PROBS. & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 12 & 0 & 0 & 1 & 5 & 0 & 0 \\
\hline ACCURACY POOR & 0 & 0 & 0 & 0 & 4 & 6 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline CASE CARTRIDGE PROBS. & 0 & 0 & 0 & 0 & 10 & 16 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 12 \\
\hline GUN FAILURE & 0 & 0 & 0 & 0 & 12 & 19 & 0 & 0 & 0 & 0 & 1 & 6 & 0 & 0 & 0 & 0 & 2 & 10 & 0 & 0 \\
\hline LEADING, FOULING & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 6 & 0 & 0 & 1 & 20 & 0 & 0 & 0 & 0 \\
\hline MISFIRES & 1 & 50 & 1 & 100 & 7 & 11 & 0 & 0 & 2 & 15 & 0 & 0 & 0 & 0 & 1 & 20 & 4 & 20 & 5 & 20 \\
\hline PRIMER PROBS. & 1 & 50 & 0 & 0 & 4 & 6 & 1 & 100 & 2 & 15 & 1 & 6 & 1 & 12 & 1 & 20 & 4 & 20 & 6 & 24 \\
\hline POWER, PENETRATION LOW & 0 & 0 & 0 & 0 & 4 & 6 & 0 & 0 & 3 & 23 & 6 & 33 & 2 & 25 & 1 & 20 & 1 & 5 & 0 & 0 \\
\hline POWDER, WRONG AMT & 0 & 0 & 0 & 0 & 9 & 15 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 5 & 5 & 20 \\
\hline RELOAD PROBLEMS & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 4 & 20 & 4 & 16 \\
\hline RICOCHET & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 8 & 2 & 11 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline SMOKING EXCESSIVE & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline VARIABILITY OF ENERGY RATES & 0 & 0 & 0 & 0 & 4 & 6 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline PENETRATION TOO GREAT & 0 & 0 & 0 & 0 & 2 & 3 & 0 & 0 & 1 & 8 & 2 & 11 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline OTHER & 0 & 0 & 0 & 0 & 1 & 2 & 0 & 0 & 1 & 8 & 0 & 0 & 2 & 25 & 1 & 20 & 2 & 10 & 1 & 4 \\
\hline KNOCKDOWN POWER LOW & 0 & 0 & 0 & 0 & 5 & 8 & 0 & 0 & 3 & 23 & 4 & 22 & 2 & 25 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline MULTIPLE PROBS. & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 6 & 0 & 0 & 0 & 0 & 1 & 5 & 1 & \\
\hline
\end{tabular}

\title{
ANNOUNCEMENT OF NEW PUBLICATIONS ON NATIONAL CRIME AND RELATED SUBJECTS
}

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\footnotetext{
(Notification key N -351)
}
END```


[^0]:    LEAA Poliee Equipment Survey of 1072, Vol, I: The Need Te Standard- Prioritien for Police Equipment.

[^1]:    Cuestionnaires were antually 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 cach of these six states.
    Thwnship departments exist only in regions $1,2,3$, and 5 .

[^2]:    ${ }^{1}$ Questionnaires were actually sent to 56 state police departments since there were 6 state denartnents which listed 2 police agencies without reference to a common eentral agency. However, only one set of queftionnaires was accepted from each of these six states.
    Townahip departments exist only in regions 1,2,3, and 5.

[^3]:    ${ }^{2}$ Excluding the 50 largest U.S. cities.
    ${ }^{3}$ By piopulation, 1970 U.S. Census.

[^4]:    'See table 1.2.2.

[^5]:    "See app. A, pi. A. 3 to A. 5 , for actual question presentation.

[^6]:    "The total numbers of handguns reported in Questions 2 and 3 were slighty gireater than the numbers of officers carrying handguns reported in Question 1 (180, 256 atid 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.

[^7]:    Hoss used handgun percentages were based on all respondents. Second most used handgun percentages were based on the 259 respondents lisiing a second handgun.

[^8]:    Percentages add io more than 100 percent since multiple answers were allowed. NOTE Percentages of departments in all other categories were $S$ percent orless.

