

**CURRENT PROBLEMS IN POLICE STATISTICS**  
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The index to the Journal of the American Statistical Association covering the period 1888-1939 contains one entry which reads "police records, inadequacy and non-uniformity." Under the entry "crime" there are several references showing that the incidence of crime and crime statistics were the topics of several papers early in the history of the association. The index to the Journal covering the years 1940-1955 does not even contain the subject entries "police statistics," or "crime." May we conclude from this that the problems which concern our session today became so unimportant in the last 30 years as not to merit professional attention, until rediscovered by Dr. Beattie in his illuminating paper in the September 1959 issue of the Journal.

Thirty-two years ago the Annual Meeting of the Association heard a paper by Louis N. Robinson in which he said "There is nothing very encouraging in the history of criminal statistics during the last twenty-three years....If progress in the future is to be at the same rate of speed as in the past, we who are gathered here today and our children's children will all be dead and gone, perhaps swept away by recurrent crime waves, before we have the kind of criminal statistics which plain common sense now dictates we should have." At the same meeting in 1928, Lent D. Upson said "neither the public nor the authorities responsible for curbing offenses have any usable knowledge of the number and character of crime committed or the cost of these depredations. The facts - when records exist at all - lie buried in the 'squeal books.' Police can not ask for adequate statistics from others until they have shown an inclination to remedy the defects existing in their own procedure." It would appear that only modest progress has been made and that the current problems in police statistics might well be examined in the light of the new movement toward professionalization in the police service.

Since law enforcement is primarily a local matter in the United States, the raising of the standards of statistical work becomes a particularly difficult task. Improvement can not effectively be legislated or directed from above, certainly not from the national level. Since the laws governing crime and police procedures are generally state wide, in certain states, where effective state data reporting procedures now exist, there is some hope that the state statistical agencies might work effectively with their local law enforcement agencies. However, any useful statistical training program would imply a considerable expansion of the duties of these state agencies. Since only a few states now have effective state-wide crime reporting, other means will be necessary in most of the United States. It should be noted that the growing acceptance of state-mandated minimum police training standards may eventually result in the development of well organized police training centers serving entire states. While such state laws presently deal with the assurance of a minimum number of hours of training for individual police officers, the pattern could be extended to specialized unit training, such as

training for officers in charge of statistical units. Of course, at the present time, the minimum state standards are well below the training standards of the best local police departments. It is suggested, however, that mandated minimum training standards may prepare local police agencies to accept minimum standards in the technical services, such as statistics and records.

Fundamental to any improvement in police statistics is a change in the attitude of police commanders and the rank and file of police officers toward statistics. There can be no real enthusiasm for improved statistical procedures unless the police officers themselves can be made to realize that statistical methods are a useful tool for them in the more effective performance of their duties. All of us who have worked with police officers of high and low rank have, no doubt, been impressed with two fundamental attitudes toward statistics. First of these is an impatience with statistical reporting, regarding this as a routine chore which is added to their many, already irksome, reporting responsibilities. In large measure this attitude is explained by the lack of "feedback". Complaints are constantly heard about statistical reports flowing from the field commanders to headquarters, from headquarters to state agencies and to Washington, without anything coming back. Unless the originating unit can see a return to it from the efforts expended in preparing statistical reports, these reporting operations will become strictly routinized. On higher levels, if periodic reporting under the regulations of state agencies or in the course of cooperations with the Uniform Crime Reporting program is regarded as simply an addition to an already over burdened work schedule, the main positive gains in such a broader based reporting system will be lost. Certain fairly obvious administrative steps can be, and are, taken to involve as many members of the police department as possible in the statistical reporting cycle. Summaries of departmental annual reports may be made available to each police officer, in the same way that many business corporations make available their annual stockholders reports to their employees. In addition superior officers, down to and including the rank of patrol sergeant can be supplied with daily or weekly statistical summaries. Despite the statistical pitfalls in the comparison of uniform crime reports between cities, these dangers should not preclude vigorous discussions of the reports submitted by communities of generally comparable character, in order to help identify factors bearing upon efficient police service. Such discussions would be appropriate on the level of district or precinct commanders and chiefs. It remains a source of amazement how many senior police officers have never made any use of the Uniform Crime Reports except to assert that comparisons can not be made.

The second and far more damaging attitude is a wide-spread cynicism in respect to the validity of police statistical reports. This skepticism in regard to their own reports reflects a long

standing conviction in many police agencies that the "truth" can not be reported, or at least should not be reported in such matters as the number and types of crime complaints received. It will be recalled that in the autobiography of Lincoln Steffens he tells how he and Jacob Riis created "crime waves" in the New York City newspapers by publishing crime complaint information which was buried in a pigeonhole of a police officials desk. Many ingenious procedures have been instituted in subsequent years to assure that no crime complaint "gets lost." Experience suggests, however, that human ingenuity will defeat the most soundly conceived system. Fundamental to this problem is the fact that the reported statistics on crime complaints are used to determine the efficiency rating of the very police commanders who report the data. There is, inevitably pressure to "close the squeal book" and therefore to improve the clearance rates. Since experienced police commanders know that, with the exception of certain types of crimes against the person, the clearance rates even with vigorous police action are likely to be low, the situation from their point of view can be improved by minimizing crime complaints reported. On the level of a police chief it may be difficult for him to present to the political leaders of his community and to the public, a picture which is too black, because the police department may be blamed for these conditions which are, of course, not of their making. Occasionally a fearless new administration will shock the public with crime complaint figures which are realistic. Such shock treatment often results in substantial increases in police department budgets and manpower. However, matters soon seem to return "to normal." There would appear to be need for drastic action to separate the function of data reporting and analysis from that of efficiency rating of police commanders. Until the commander of a precinct is convinced that he will not be penalized by reporting an actual increase in crime complaints, there will be a tendency for him to take the same attitude toward his periodic reports as a salesman toward his daily activity statement. Certainly in a period when statistical standards in respect to politically sensitive series of data like the number of unemployed, industrial production and the cost of living are now of the highest, the same professional approach to police statistics is needed.

There would appear to be four major areas in police statistics which promise the greatest rewards from intensive professional work. These are: effective presentation of data, development of sample survey procedures, intensive use of small area data, and the introduction of electronic data processing. The first of these selected areas concerns the comparatively simple problem of effective tabular and graphic presentation. Unfortunately many police departments now fail to communicate their message to the community. This failure makes more difficult the accomplishment of the police mission in the community. In a period when the competition for public attention is more intensive than ever before, a poorly prepared and presented report reflects adversely upon the public opinion of the members of a police department and the manner in which they are performing their duties. A small investment of time

and effort will produce effective tables and charts which will give the public an impression of professional competence. An examination of the current standards of presentation in the annual reports of police departments will quickly reveal the lost opportunity in this regard. The use of simple and effective charts in newspapers and on television programs has been found in a number of cities to be of great assistance in telling the police story to the public. From the technical point of view, instruction in the methods of statistical presentation can be easily absorbed by designated police or clerical personnel assigned to these duties. Much of the good opinion that a community may have of its police department as a progressive organization, may be lost by a poorly prepared report. The dramatic and human story of the work of a police agency should be revealed in the show window that is the annual report. The statistician can make a real contribution to police work in this simple area.

The second area of promising development is the adaption of sample survey procedures to police problems. Just as sample surveys provide useful estimates in many important areas of economic and social data, so police commanders could use scientific sampling in order to obtain information needed for planning and operations. The reluctance of many police officials to accept sampling on the ground that they do not wish "estimates" is paralleled by similar attitudes in industrial and accounting applications. The massive evidence now available of successful applications of sampling procedures should be brought to the attention of the police. Perhaps one of the most interesting and potentially significant applications of sampling is in the making of attitude surveys in sensitive areas. Such surveys might be addressed to such questions as police-community relations, attitudes of minority groups and the like. Inspector G. Douglas Gourley's pioneering study published in 1953 should be read in this connection. Because of the confidential and sensitive nature of the work of a police sampling unit, the personnel should probably be police officers trained in statistical procedures. The organization and operation of such a sampling unit will require professional guidance which could well be provided in most parts of the country by sample survey specialists.

The growing abundance of small area statistical data has led a number of police departments to code their crime complaints and activity reports by city block, census tract or other small area unit. With the results of the 1960 Census of Population and Housing soon to be available, the opportunity will present itself for many more police departments to relate police activity to small area economic and social data. Fundamental in such a procedure is the adoption of a coding system by blocks or at least by census tracts. Coding police reports by beat and by precinct or district, while important from the point of view of administrative analysis, does not permit meaningful statistical comparisons. It is best, of course, to lay out police unit boundaries so as to agree with census tract boundaries. In some cities police representatives serve as members of the local Census Tract Committees in cooperation with business and other groups. Police representatives can gain much by working together with

local public utilities, school officials, health department representatives and academic students interested in the making of current estimates of the population of small areas. In some communities the professional isolation of the police has caused them to duplicate analyses which have already been made by other agencies. One of the more interesting by-products of the correlation of small area data and police crime complaints and activity reports should be the development of defensible schemes for patrol force allocation. The pioneering work of Dean O. W. Wilson needs to be followed up by intensive correlation analysis using data from the larger cities. Out of this, uniformities should emerge which will permit the development of rational manpower allocation plans.

The last of the suggested areas for major work is the application of electronic data processing to police statistical problems. While punched card equipment has long been used in major cities, the potentials of E.D.P. have not been explored. It would appear that file computers with large rapid access capacities would be most promising since police records require rapid search as well as rapid print-out. The manufacturers of E.D.P. equipment should be encouraged to develop programs which would be applicable to the larger departments, and groups of smaller agencies using centralized files. By all these means police statistics will advance.

In the accomplishment of these objectives the professional statisticians of the United States have a responsibility to assist the police profession. Comparatively few professionally trained statisticians are now employed in law enforcement agencies and, except for the largest cities, the employment of such personnel would not be justified

on a fulltime basis. It seems necessary therefore to involve teachers of statistics and statistical practitioners in this task. Perhaps, the local chapters of the American Statistical Association might seek to assist their police departments with professional advice. Colleges and universities, which now have police training programs, are, in many cases, as at The City College of New York, offering special classes in statistical methods which are attended by selected law enforcement personnel. Such courses could be offered more widely, but should be oriented toward police applications. Following the lead of many professional groups, a series of institutes could be organized in the larger cities to which police departments could send selected officers for an intensive, short period training. Such a program might well be supported by a foundation interested in improving public administrative standards.

#### References

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