



## CITY OF PHILADELPHIA

**Police Department**  
HEADQUARTERS, FRANKLIN SQUARE  
PHILADELPHIA, PA 19106

**John F. Timoney**  
POLICE COMMISSIONER

September 5, 2000

The Honorable Jonathan A. Saidel  
City Controller  
1401 JFK Boulevard, Suite 1230  
Philadelphia, PA 19102

Dear Mr. Saidel:

I am writing in response to the Controller's Office's audit of the Police Department's crime statistics for calendar year 1998.

Accurate and timely crime statistics are of the utmost importance to the Police Department. As you know, I have made increasing the accuracy of the Department's crime statistics one of my top priorities since my arrival in March 1998. In fact, within weeks of becoming Police Commissioner, I withdrew the crime statistics that the Department originally submitted to the Federal Bureau of Investigation (FBI) for the first six months of 1998 due to my concerns with the integrity of the data submitted. This was the first time in the history of the Department that such a step had been taken.

At that time, the Department began to restructure completely its crime reporting processes. As a first step, in April 1998 I created a Quality Assurance Bureau (QAB) headed by a Chief Inspector who reports directly to me. The sole purpose of the QAB is to continually review and audit the accuracy of the Department's crime reports, a mission that has not only dramatically improved the accuracy of our crime statistics but also put the Department in a position to institute a COMPSTAT process similar to the process that proved so effective in reducing crime in New York City. This process, which requires the Department's top management to meet regularly with district and specialist unit commanders to review the Department's performance in fighting crime relies heavily on up-to-date and accurate statistics and has become the core of the Department's management philosophy. At the weekly COMPSTAT meetings, I repeatedly stress the importance of accurate statistics and have made sure that all district commanders understand that miscoding of crime reports will not be tolerated.

Another critical component of the Department's plan has been the complete overhaul of the computer infrastructure used to compile crime statistics since the time period covered in the audit. In 1998, the Police Department tracked its crime statistics using an antiquated computer and data collection system. The computer system used was a data entry system called the Tartan System, which required a team of data entry clerks to enter all crime data compiled on paper reports from all police districts and detective

divisions. Recognizing that this system was inefficient and mistake prone, the Department implemented a new system in November 1999. The new system provides virtually real-time crime information and includes a number of automated error checking capabilities designed specifically to eliminate many of the mistakes that were common in the old system.

As a result, the Department's current system for gathering, reporting, and analyzing crime statistics is entirely different from the system used prior to my arrival. Due to these changes, I have no hesitation in assuring you that the crime statistics currently produced by the Department are the most accurate in its history and comparable in terms of accuracy to those produced by any of the nation's other top police departments.

That notwithstanding, I had initially hoped that this audit would live up to its stated goal of helping the Department to improve further the accuracy of its crime statistics. Unfortunately, the audit's chosen methodology analyzes a reporting system that has already been significantly changed and makes several erroneous statistical assumptions that seriously underestimate the reliability of the Department's statistics for the time period reviewed. As a result, the audit report is of virtually no help to the Department.

#### Methodology Flawed

There are several problems with the audit's methodology that call into question the validity of its results and its usefulness in reviewing the Department's crime reporting processes. These problems are the result of: (1) choosing to audit a time period that was immediately prior to and during the Department's complete overhaul of its reporting processes and (2) utilizing a biased and non-random methodology that includes several questionable statistical assumptions to analyze the accuracy of its crime statistics.

Even if these problems were overlooked, however, the audit's projection that Part I crimes (which are the offenses reported to the FBI) were potentially undercounted by 10 to 28 percent during that time period are significantly inflated. To arrive at this conclusion, the audit reviewed 1,053 of the approximately 1.4 million incident reports generated by the Department (which it claims to be a statistical sample of all crime reports). Of these 1,053 reports, FBI personnel who reviewed them found a total of 13 reports that they believe should have been coded as Part I crimes but were coded by the Department as Part II (or less serious) crimes. The audit then used an overly complicated method to extrapolate this inaccuracy rate to state the number of Part I crimes in 1998 had been undercounted by between 10 and 28 percent of the original total.

While the Department agrees that those 13 reports were miscoded, the audit did not adjust this calculation to include reports that should have been coded as Part II offenses but were miscoded as Part I offenses. A review of the sample chosen for the audit shows that four reports that should have been coded as Part II offenses were mistakenly coded as Part I offenses. If the audit had taken these reports into account, the overall undercounting of Part I crime would have been limited to nine of the 1,053 records surveyed, a reduction of approximately 30 percent from the number of Part I inaccuracies reported in the audit.

### *Audit Time Period*

In preparing its sample, the Controller's Office sampled crime data supplied from the Department for calendar year 1998. This time period, however, was one of extreme change for the Department. As stated in the audit, I became Police Commissioner in March 1998, three months into the year. Although I instituted changes to the Department's system almost immediately, these reforms were not fully implemented until the fall of 1998 at the very earliest. Some of these changes, especially the changes in technology described above, were not fully implemented until November 1999. As a result, at best only three to four months of the crime data sampled in the audit reflect the Department's current reporting system. ***In reality, the Controller's Office chose to audit a reporting system that no longer exists.***

### *Sampling Method Biased*

In addition to the problems created by the time period selected for review, the method which the Controller's Office chose to pick sample reports was biased. To create the audit's sample, the audit deliberately selected a higher percentage of records from districts and crime classifications that the Department had already identified to the Controller's Office as being the most problematic. As a result, the districts that had the most severe problems with crime statistics were over-represented in the sample and the districts that did a better job with crime classification were under-represented.

The methodology chosen by the Controller's Office is therefore similar to taking a poll for the Pennsylvania Senate race by polling Philadelphia residents only. Logically, the higher than average concentration of Democrats in Philadelphia would render the results of that poll basically useless in predicting the outcome of a statewide race.

When my staff raised this issue during our exit conference (that the audit's results were distorted because it drew conclusions from its biased sample as if it were a simple random sample) your staff tried to correct the problem by using a statistical technique to account for the bias inherent in the sample. After reviewing the revised audit, we remain unconvinced that this new approach adequately corrects for the bias.

In effort to clear up these problems, I asked the Chair of the Mathematics Department at the University of Pennsylvania to review both the original and revised audit methodology. ***In both cases, he found that the methodology was problematic and significantly distorted the accuracy of the Department's crime statistics.*** In addition to the problems described above, his analysis of the audit's revised methodology pointed out several additional errors with regard to determination of sample sizes and confidence intervals as well as several highly problematic assumptions regarding the audit's use of inaccuracy rates. In fact, when he substituted the audit's analysis with an unbiased methodology for the data, the Part I crime inaccuracy rate is actually seven percent, which is substantially lower than the range of 10 to 28 percent projected by the audit. ***Due to the unreliability of this projection, the Department recommends that it be removed from the audit report.***

In addition, the audit used uncorroborated phone interviews with complainants and other witnesses as its basis for claiming on page 16 of the audit that Part I crimes could have been undercounted by an additional 31,000 to 39,000 incidences. The audit states that 806 cases (out of the 1,053 sampled cases) were identified for which the auditor “could attempt to telephonically contact and interview a complainant or other named witness.” In total, 384 individuals were interviewed and it was noted that there were “29 instances where assertions made by the [interviewees] differed from the written facts in the police reports.” In every case where a complainant’s or other witness’s recollection (a year after the fact) differed from the incident report, and without any other piece of corroborating evidence, the audit assumed that the police officer had reported the case incorrectly. Based on these phone calls, not all of which were returned, the audit makes the extremely suspect projection that Part I crimes could have been undercounted by as many as an additional 31,000 to 39,000 incidences.

The audit acknowledges the weakness inherent in this estimation by stating that the “projection represents only statistical extrapolations,” and that “...[w]e did not perform any supplemental investigation work” and “...[a]s a result...cannot express a definite conclusion as to the accuracy or inaccuracy of any alleged misstatements or missing information in police reports arising from our interviews with complainants and other witnesses.” Statements such as these beg the question of why, if this information is not conclusive, it was included in the audit. Given the nature of this projection, the Department believes that its inclusion is irresponsible. ***The Department therefore strongly recommends that these numbers and all corresponding conclusions be removed from the audit.***

Notwithstanding these objections to the way the audit was prepared, we have carefully reviewed the Controller’s Office report. Below is our response to the individual findings of the audit.

#### Statistical Accuracy and Efficiency

**Recommendation:** Consider acquiring software that would enable patrol officers to prepare police reports electronically. Such software would reduce the risk of coding errors and enable the Department to upload data electronically to the main INCT System.

**Response:** Beginning in August 1999, the Department began the process for acquiring software that will automate the incident reporting process. In July 2000, the Department issued a request for proposals for this software and is awaiting responses from vendors.

**Recommendation:** Use the INCT system to generate data needed to prepare monthly Uniform Crime Reporting (UCR) program reports instead of re-entering crime data into a separate computer system.

**Response:** As described above, the procedures described in the audit are no longer in use. In November 1999, prior to the issuance of the audit, the Department began the process of generating UCR reports directly from the INCT system. By January 1, 2000, the process was fully automated.

**Recommendation:** Increase attention in UCR training to the problematic coding and scoring inaccuracies identified in the report.

**Response:** The Department agrees with this recommendation and will devote more time to helping officers code these problematic crime classifications. It should be noted, however, that the classifications that present the most problems for the Department are the very same classifications that produce the most errors nationwide. The FBI acknowledges that coding these cases, particularly simple and aggravated assaults, are among the most difficult for police departments across the country.

**Recommendation:** Reemphasize to supervisors charged with reviewing police reports their responsibility for performing a quality review of the reports.

**Response:** Since the initiation of the COMPSTAT process in April 1998, the Department has continually emphasized the importance of producing accurate crime reports including the need for supervisors to review the reports prepared by the officers under their commands. Nevertheless, the Department will reemphasize to its supervisors their responsibility for reviewing crime reports.

**Recommendation:** Require the Quality Assurance Bureau (QAB) to contact complainants and other witnesses on a more regular basis to verify facts recorded in police reports.

**Response:** At present, the Department requires district commanders to contact complainants to verify the facts recorded in police reports. While the Department believes that it is more practical to continue this method and to query commanders regarding these contacts at the weekly COMPSTAT meetings, the Department will consider delegating this responsibility to the QAB.

**Recommendation:** Consider the feasibility of telephonically interviewing Emergency-911 callers on a periodic basis to determine if patrol officers may be deliberately failing to take police reports. Contact attorneys representing the City to pursue any necessary Court approvals for making such calls.

**Response:** The Department will explore the feasibility of conducting such interviews, possibly through the QAB, and will examine the legal ramifications of pursuing such a strategy.

#### Data Integrity

**Recommendation:** Consider centralizing the process of manually coding reports to eliminate any corruption of data, real or perceived, and provide for more reliable and consistent application of crime coding.

**Response:** The Department is prepared to consider all suggestions for improving the reliability and consistency of its crime statistics and will examine the costs and benefits of centralizing the coding process.

**Recommendation:** Compel officers who prepare and review Police reports to sign their names as required by Police regulations.

**Response:** The Department agrees with this recommendation and will increase its efforts to enforce strict adherence to police regulations regarding officer signatures for police reports.

**Recommendation:** Restrict district personnel that might have a personal interest in the crime rates from having physical access to blank police reports to reduce the opportunity for someone to downgrade a crime.

**Response:** The Department believes that it would be impractical to restrict access to blank reports. Strict enforcement of the Department's existing policies regarding signatures on police reports is a more reasonable method for ensuring the integrity of the incident reporting and the data collection process.

#### Report Tracking

**Recommendation:** Require the use of logs for tracking police reports removed from files to prevent loss of paperwork. Logs should indicate who moved reports, when the reports were taken out, and when reports were returned to the file. Track the movement of Police paperwork between units by utilizing transmittal forms.

**Response:** The Department will explore the costs and benefits of implementing these recommendations. Given the amount of paperwork already required of police officers and my strong desire to eliminate unnecessarily burdensome paperwork requirements, however, I am skeptical that the benefits of these suggestions will outweigh the costs.

#### Monitoring

**Recommendation:** Request that crime data be audited by either the Controller's Office or some other independent audit organization once every three years.

**Response:** The QAB serves as an internal audit group for reviewing the accuracy of crime reports and for providing UCR Program training. The Department believes the QAB's work is sufficient to monitor and maintain accountability and accuracy for crime reporting and data collection. The QAB has, however, begun working with criminologists and statisticians from area universities to further refine its procedures.

Yours sincerely,

John F. Timoney  
Police Commissioner