ESTIMATING THE IMPACT OF AUTOMATED FINGERPRINT IDENTIFICATION IN KENTUCKY

ESTIMATING THE IMPACT OF AFIS IN KENTUCKY

Gary W. Cordner, Ph.D.
College of Law Enforcement
Eastern Kentucky University
Richmond, KY 40475

OFFICE OF THE ATTORNEY GENERAL

FREDERIC J. COWAN
ATTORNEY GENERAL

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Executive Summary

Kentucky began operation of its Automated Fingerprint Identification System (AFIS) in January 1988 and completed its acceptance test in January 1989. This system automates classification, matching, storage and retrieval of fingerprints. The system is operated by Kentucky State Police in Frankfort and is intended to improve the efficiency and effectiveness of criminal investigation and identification using fingerprints.

This study assessed the impact of AFIS on criminal investigation and identification over the first twenty months of its operation. The affect of AFIS was found to be minimal averaging less than 3 suspect fingerprint "hits" (matches) per month. Most of these were for burglary cases (85%) which is not uncommon for other jurisdictions. While the average number of matches has been low, they have resulted in arrests and the issuance of warrants. While the initial impact of AFIS is minimal, it has the potential with increased utilization to impact the courts and corrections through an increase in arrests.

Recommendations for improving the utilization and effectiveness of AFIS based on the findings of this study include the following:

- continued utilization efforts to increase the awareness of AFIS by law enforcement agencies,
- continued efforts to improve the quality of AFIS data,
- increased efficiency in operational policies at the AFIS sites,
- improved training on print collection and processing
- AFIS oversight Advisory Committee, and
- improved AFIS tracking system to promote evaluation of the effectiveness of the system.

CONTENTS

TABLES

ESTIMATING THE IMPACT OF AFIS IN KENTUCKY

Introduction

Kentucky began operation of its Automated Fingerprint Identification System (AFIS) in January 1988 and completed its acceptance test in January 1989. This system automates classification, matching, storage, and retrieval of two kinds of fingerprint information: 1) ten-print cards that are obtained primarily from arrested persons but also from other individuals who are fingerprinted for purposes of background checks; and 2) latent prints found at crime scenes. The system is intended to improve police and criminal justice performance in two basic ways: 1) by making criminal identification and criminal investigation more efficient (e.g., quicker identification of suspects and arrestees, more economical processing of fingerprint cards); and 2) by making criminal investigation more effective. The improvement in effectiveness may result because AFIS can match latent prints to suspects in instances called "cold searches"; without AFIS, such matches are usually not possible.

The Kentucky AFIS is operated by the Kentucky State Police and housed in Frankfort, with remote latent print terminals located at the Lexington Police Department and the Jefferson County Department of Corrections. All ten-print cards are entered into the system by the state police in Frankfort. The remote terminals as well as the Frankfort site have the capability of entering latent prints to be compared against the system's database of ten-print cards and unidentified latent prints.

Methodology

Because the Kentucky AFIS has been in operation for over a year and a half, including nine months since the completion of acceptance testing, this forecast has the advantage of experiential data for estimating initial impact. The Commonwealth of Virginia was in a similar situation one year ago, and used eight months of data to forecast AFIS impact (Kolmetz, 1988). A year later, the forecast is reported to have been accurate (Kolmetz, 1989).

Both for impact assessment and for system monitoring, the Kentucky State Police have gathered summary information on AFIS activity since February 1988. Also, a database of AFIS "hits" (latent prints matched to ten-print cards) was developed in order to identify and track hits, arrests, prosecutions, convictions, and sentences. This database is of particular utility for estimating the impact of AFIS on correctional populations.

Longer-range forecasting, however, must rely less on initial experience and more on assumptions and judgments (Hudzik and Cordner, 1983). This is particularly true for a technological innovation such as AFIS--its impact will largely be determined by the behavior and decisions of police officers, detectives, prosecutors, and judges, not to mention offenders. On one hand, these actors may learn over time how to utilize AFIS to its fullest potential, maximizing its impact. On the other hand, these actors may adjust their behavior to off-set the technology and maintain the status quo. Because of these kinds of uncertainties, longer-range forecasting is often less accurate and is frequently presented in several scenarios (best-case,

median, and worst-case, for example).

Fortunately, even the longer-range forecasting for the Kentucky AFIS can be informed by work already done in other states. Besides Virginia, New York (Cruskie and Zimmerman, 1986) and Pennsylvania (Buck et al., 1987) have each forecast AFIS impact in advance of system implementation. In addition, several years worth of AFIS implementation experience are available from California and the city of San Francisco (Bruton, n.d.) and from Baltimore County (Simms, 1989; Mullins, 1987). Moreover, previous research has produced such important estimates as the percentage of crime scenes that contain latent prints (see Peterson et al., 1982).

Initial Impact

Data for the first twenty months of AFIS experience in Kentucky clearly indicate minimal impact. The system has averaged less than three suspect hits[1] per month (Table 1); if the first two months, during which many "backlog" latent cases were run, are disregarded, the average has been two suspect hits per month.

The focus here is on AFIS suspect hits because these may lead to arrests and ultimately to impacts on courts and corrections. It should be understood that AFIS also generates "elimination" hits, when latent prints are identified as belonging to property owners, investigating officers, and others who are not considered suspects. These hits are important and may save investigative time and resources, but may be ignored when estimating AFIS impact on the rest of the criminal justice system.

Table 1

KENTUCKY AFIS SUSPECT HITS BY MONTH

Month	Suspect Hits
Feb 1988	14
Mar 1988	9
Apr 1988	5
May 1988	2
Jun 1988	3
Jul 1988	-
Aug 1988	6
Sep 1988	2
Oct 1988	-
Nov 1988	3
Dec 1988	-
Jan 1989	-
Feb 1989	1
Mar 1989	5
Apr 1989	1
May 1989	1
Jun 1989	1
Jul 1989	2
Aug 1989	3
Sep 1989	1

The vast majority (85%) of Kentucky's AFIS suspect hits have come in burglary cases (Table 2). Although it is not unusual for burglaries to dominate AFIS activity (they have accounted for 49% of AFIS hits in Baltimore County, 67% in San Francisco, 71% in California, and 72% in Virginia), Kentucky's proportion of burglary cases is high. By contrast, only 6% of Kentucky's AFIS suspect hits have been for theft and auto theft cases, compared to 39% for Baltimore County, 14% for California, 13% for Virginia, and 12% for San Francisco.

The Louisville Police Department has accounted for 44% of Kentucky's AFIS suspect hits, and 67% of such hits thus far in 1989 (Table 3). The Lexington Police Department accounted for

Table 2

KENTUCKY AFIS SUSPECT HITS BY CRIME TYPE

Crime Type	1988 Hits*	1989 Hits#	Total
Burglary	38	12	50
Robbery	2	1	3
Murder	-	1	1
Other/Unknown	4	1	5
Totals	44	15	59

* - AFIS operated for 11 months in 1988
# - through September 1989 (9 months)

27% of the state's suspect hits in 1988 but only 7% to date in 1989. Similarly, the Jefferson County Police Department accounted for 23% of the 1988 AFIS suspect hits but none so far this year. Only one of Kentucky's 59 AFIS suspect hits during the first twenty months of the system's operation has been for a state police case.

When AFIS suspect hit success is examined by latent terminal site rather than by police agency responsible for each case, the terminal located at the Jefferson County Department of Corrections has easily been most successful. That site has accounted for 66% of Kentucky's AFIS suspect hits, followed by Lexington with 22% and Frankfort with 12%.

The extent to which Kentucky AFIS activity has been directed toward older "backlog" cases is examined in Table 4. During 1988, 70% of AFIS suspect hits were for cases from prior years; in 1989, this figure has decreased to 67% (disregarding three suspect hits for cases from unknown years). Still, only 30% of

Table 3

KENTUCKY AFIS SUSPECT HITS BY INVESTIGATING AGENCY

Agency	1988 Hits*	1989 Hits#	Total
Louisville P.D.	16	10	26
Lexington P.D.	12	1	13
Jefferson Co. P.D.	10	-	10
Kentucky State Police	-	1	1
Other Agencies	6	1	7
Unknown	-	2	2
Totals	44	15	59

* - AFIS operated for 11 months in 1988
\# - through September 1989 (9 months)

the suspect hits to-date have been for current-year cases.

Although data are incomplete, it appears that Kentucky's 59 AFIS suspect hits have resulted in no more than 23 arrests (18 arrests are known, while data are missing on a number of cases). This means that the AFIS has produced only about one arrest per month since its implementation.

This apparently low arrest rate on AFIS suspect hits is actually fairly consistent with experiences in some other jurisdictions. Both Virginia and Baltimore County reported 35% arrest rates of suspects identified by AFIS hits, whereas San Francisco reported a 73% arrest rate. One explanation for the generally low arrest rate, and possibly for the disparity between San Francisco and the other jurisdictions, is that AFIS suspect hits often identify individuals already facing, or incarcerated on, other charges. While such individuals could be formally arrested and charged with the additional offenses from which the

Table 4

KENTUCKY AFIS SUSPECT HITS BY YEAR OF OFFENSE

Year of Offense	1988 Hits*	1989 Hits#	Total
1989	-	4	4
1988	13	1	14
1987	3	1	4
1980-1986	25	5	30
1970-1979	3	1	4
Unknown	-	3	3
Totals	44	15	59

* - AFIS operated for 11 months in 1988
\# - through September 1989 (9 months)

AFIS hits resulted, detectives and prosecutors often decide to defer or even drop further action once they learn that the suspect is already under the court's jurisdiction.

A summary of the outcomes of Kentucky's 59 AFIS suspect hits is presented in Table 5. Eight AFIS hits, all on burglary cases, have resulted in convictions. Seven of these eight cases have gone to sentencing--all seven defendants were given incarceration sentences, averaging 5.8 years. Sentencing in one case is pending. Ten other AFIS hits have resulted in arrests--one case was dismissed, while trials are pending in the other nine.

In six cases warrants have been issued but the suspects are already incarcerated on other charges. It is quite possible that these warrants will ultimately be served and the suspects tried, probably depending on how much time they serve on their current sentences. That is, if these suspects become eligible for release from prison in the near future, it may be probable that

Table 5

KENTUCKY AFIS SUSPECT HIT OUTCOMES

Outcomes	# of Cases
Arrested and convicted	8
Arrested and pending	9
Arrested and dismissed	1
Warrant issued, suspect already incarcerated on other charge	6
Warrant issued, suspect at large	17
Prosecution declined	11
Cleared by exception	2
Unknown	5

they will be tried on the AFIS cases, whereas if they are not eligible to be released for ten or twenty years, they are less likely to be tried for the AFIS cases, especially if the AFIS cases are for nonviolent offenses.

The largest single category of AFIS hit outcomes, with 17 cases, includes the cases in which warrants have been issued but not served. Although these cases cannot be considered unqualified successes at this point, it can be expected that some of these warrants will be served as time goes by, thus improving the arrest rate for AFIS hits.

The 11 instances of declined prosecution came from just two jurisdictions, and were primarily due to AFIS hits on old "backlog" cases. Three from Owensboro were for burglaries over five years old. The remainder, from Lexington, included two thefts and four burglaries over five years old. These older cases do not necessarily preclude prosecution, however--in fact,

three of the eight AFIS convictions to-date have been for burglaries over five years old (all from Louisville P.D.).

In sum, the initial impact of AFIS on courts and corrections in Kentucky has been negligible. After twenty months of activity, nine cases have gone to court resulting in a total of 41 man-years of incarceration time. Even if the additional nine cases now pending court action all result in convictions and incarcerations, and even if most of the outstanding warrants are ultimately served and successfully prosecuted, the impact of AFIS will have been very small.

Long Range Impact

Despite the low level of AFIS activity in Kentucky to-date, it is entirely possible that AFIS will eventually have a more substantial impact on courts and corrections in the state. In order to forecast this potential impact, it is necessary first to define the key variables that determine AFIS impact. These are:

1. Find Rate - the portion of reported offenses that yield usable latent prints;

2. Suspect Hit Rate - the portion of usable latent prints that result in AFIS suspect hits;

3. Arrest Rate - the portion of AFIS suspect hits that result in arrests;

4. Prosecution Rate - the portion of AFIS arrests that result in prosecutions;

5. Conviction Rate - the portion of AFIS prosecutions that result in convictions;

6. Incarceration Rate - the portion of AFIS convictions that result in incarceration;

7. Incarceration Length - the average length of incarceration for AFIS cases that result in incarceration.

The minimal initial impact of AFIS in Kentucky has primarily been due to an extremely low find rate (or at least a low submission and processing rate) and a low suspect hit rate. Basically, too few latent prints have been run through the AFIS system and the suspect hit rate on these few latents has been low. The reasons for these low rates are discussed in the final section of this report.

For the first nine months of 1989, latent prints from only 480 cases were processed through the AFIS system, for an average of 53.3 cases per month, or an annual rate of 640 cases. How many cases could there have been? In 1988 in Kentucky, there were 99,526 reported Part I crimes, of which 75,665 went unsolved. Assuming similar figures for 1989, this indicates that only one out of every 155 reported offenses is resulting in a latent print processed through AFIS. Even if the solved cases are disregarded, on the assumption that an AFIS search was not needed because the case had been solved through other means, we see that only one out of every 118 unsolved Kentucky Part I crimes is resulting in a latent print processed through AFIS.

It might be argued that some kinds of Part I offenses (such as aggravated assaults and many thefts) are not likely to produce latent print evidence. But even if we restrict our attention to burglaries, and assume that 85% of AFIS searches have been for burglaries (since 85% of AFIS suspect hits have been for burglaries), we find that only one out of 47 burglaries, or one out of 40 unsolved burglaries, is currently resulting in a latent print processed through AFIS.

Of course, not every Part I crime, nor even every burglary,

can be expected to yield latent print evidence. However, studies from other jurisdictions indicate that latent prints can frequently be found at crime scenes. For example, in Rochester, New York latent prints were found at 39% of 7,000 crime scenes (Bloch and Bell, 1976); the Rand study reported that over half of crime scenes contain latent prints (Greenwood et al., 1975); and Baltimore County recently reported finding latent prints at 52% of burglary crime scenes (Butt, 1989). Some latent prints are not usable, though, because of poor quality or insufficient size and detail. San Francisco reports that 33% of crime scenes yielded usable latents (Bruton, n.d.), while studies from New York (Cruskie and Zimmerman, 1986) and Pennsylvania (Buck et al., 1987) estimated that 50-60% of all latent prints were usable. From all these data it appears reasonable to estimate that 20-33% of crimes scenes yield usable latent prints, as contrasted with the less than 1% of unsolved Kentucky Part I crimes, or 2.5% of unsolved Kentucky burglaries, that are producing latent prints processed through AFIS.

AFIS suspect hit rates are somewhat tricky to compare because of varying definitions. For example, if three latent prints from the same case all hit on the same suspect, is that one hit (one suspect) or three hits (three latent print identifications)? Similarly, if three latent prints from one case fail to get any hits, is that one failure (one case) or three failures (three latent prints without identification)?

Thus far in 1989 Kentucky has 15 AFIS hits (15 suspects) out of 480 cases processed through the system, for a supect hit rate per case of 3.1%. If total latent print identifications are counted (including multiple hits on the same suspect in the same

case), the total reaches 20 hits, while a total of 920 latent prints have been processed through AFIS in the 480 cases. No matter how these figures are arranged the hit rate is low--other jurisdictions report suspect hit rates between 10-20% (see, for example, Bruton, n.d.; Cruskie and Zimmerman, 1986; Buck et al., 1987).

We can use these find rates and hit rates from other jurisdictions to estimate the impact that AFIS could have in Kentucky if police began using the system more widely and if the system improved its hit rate. Three scenarios are outlined below, one using all unsolved Part I crimes as its starting point, one using unsolved burglaries as the starting point, and one based on the AFIS experience in Virginia.

Scenario A. Kentucky's 75,665 unsolved Part I crimes in 1988 could have produced between 15,133 (using the 20% find rate) and 25,222 (using 33%) cases with usable latent prints. These prints could have produced between 1,513 (using 10% on the lower figure) and 5,044 (using 20% on the higher figure) AFIS suspect hits. These could have produced between 530 (using 35% on the lower figure) and 3,682 (using 73% on the higher figure) AFIS arrests. Assuming 90% prosecution, conviction, and incarceration rates (these would all be current-year cases with latent print identifications on suspects with prior records), the range would be between 386 and 2684 AFIS incarcerations. Using the current average of 5.8 years per incarceration, these would result in between 2239 and 15,567 man-years of AFIS incarceration time per year.

While the range between these two figures is enormous, owing to the cumulative effect of differing rate estimates, even the low end is over 50 times higher than Kentucky's current level. The lower figure would probably have a noticeable impact on the correctional system in Kentucky, while the higher figure would have a substantial impact.

Scenario B. Kentucky's 1988 total of 21,601 unsolved burglaries could have yielded between 4320 and 7200 cases with latent prints. These could have produced between 432 and 1440 suspect hits, which could have produced between 151 and 1051 AFIS burglary arrests. These could have resulted in between 110 and 766 incarcerations for a total of between 638 and 4443 man-years of incarceration time. Even the lower end of the range is about 15 times greater than the current AFIS level.

Since burglaries currently represent 85% of Kentucky AFIS activity, we can raise the estimates just above to a range of 751 to 5227 man-years. This assumes, of course, that burglaries would continue to represent 85% of AFIS activity. If Kentucky AFIS activity was increased for other crimes so that burglaries represented only 70% of AFIS latent searches (the average for San Francisco, California, and Virginia), the estimated range would be between 911 and 6351 man-years of AFIS incarceration time per year for Kentucky.

Scenario C. Of the states that have implemented AFIS systems and produced complete statistical information, Virginia is most similar to Kentucky. In its initial phase Virginia averaged 16 AFIS arrests per month. Since Kentucky averages about 60% as

many Part I crimes as Virginia, Kentucky might expect to generate about 9.6 AFIS arrests per month, or 115 per year. This would translate to 84 incarcerations for a total of 487 man-years of incarceration time.

After complete installation of its 17 AFIS terminals over a three year period, Virginia estimated that AFIS activity would level off at almost triple the initial level. Although the implementation of additional terminals in Kentucky is uncertain, it is reasonable to expect AFIS activity to increase as more police officials become familiar with the system, even if no new terminals are added. Tripling the initial Virginia-based estimate of Kentucky AFIS activity would produce 345 arrests per year and 1461 man-years of incarceration time per year.

Forecast. These forecast scenarios are summarized in Table 6. Because the minimum and maximum impact forecasts differ by a factor of 32, some judgments about most likely scenarios are necessary.

The minimum impact forecast (115 AFIS arrests per year, 487 man-years of incarceration time per year), based upon Virginia's initial experience, is most likely to approximate Kentucky's AFIS activity over the next few years. Even this minimal impact forecast predicts ten times more annual AFIS activity than Kentucky has been generating so far. But if police officer and detective utilization of AFIS increases, and if adequate resources are devoted to the operation of AFIS, this level of activity is achievable.

Impact beyond this level would require more resources

Table 6

KENTUCKY AFIS FORECAST SCENARIOS

	Scenario A Best Case	Scenario B Limited Best Case*	Scenario C Virginia Initial	Scenario C Virginia Full
Suspect Hits#	1513-5044	617-2057	329^	986^
Arrests	530-3682	216-1502	115	345
Prosecutions	477-3314	194-1352	104	312
Convictions	429-2982	175-1217	93	279
Incarcerations	386-2684	157-1095	84	252
Man-Years of Incarceration Time	2239-15567	911-6351	487	1461

* - using number of unsolved burglaries as a starting point and assuming burglaries are 70% of AFIS activity
# - using definition presented in Note 1
^ - derived from numbers of arrests using 35% arrest rate

devoted to finding latent prints at crime scenes. Presently, there is no evidence to suggest that such additional resources will be made available. Consequently, the likelihood of AFIS impact beyond the minimal level specified above is unlikely. If more resources are made available, however, it is likely that impact could easily be doubled and perhaps increased as much as ten-fold over the minimal impact levels.

Discussion

The low level of AFIS activity in Kentucky to-date is primarily a result of two factors: 1) relatively few latent prints have been run through the AFIS system; and 2) the suspect hit rate on the latents that have been run has been relatively low. The first factor has in turn been caused by a combination of several conditions: 1) few crime scenes processed for latent prints; 2) few of the "found" latent prints submitted to AFIS; and 3) a backlog of latents at the AFIS terminals.

The failure to process many crime scenes for latent prints is caused by different factors in different jurisdictions. In agencies with crime scene evidence specialists (including Lexington, Louisville, and Jefferson County), the decision to request latent processing is typically left to patrol officers (especially for burglaries and other property crimes). These patrol officers may sometimes be reluctant to "bother" the specialists; they may not want to have to wait for them; they may be under formal or informal pressure to take their reports quickly and get back on the air; they may doubt the value of latent print evidence; etc. Also, the number of crime scene specialists is always limited; they may not always be available when patrol officers desire their services.

In agencies that lack the services of crime scene evidence specialists (or at least the quick availability of such services), responsibility for the search for latent prints falls to patrol officers or, perhaps, detectives. These officers often lack the training and equipment needed to locate and preserve latent prints, not to mention the appreciation for the value of such evidence. Additionally, these officers may be discouraged

from searching for latent prints if they are expected to complete reports quickly; if investigations are seen solely as detective responsibilities; or if other activities, such as traffic enforcement, are rewarded more highly.

Not all of those latent prints that are found are being submitted for AFIS processing. The magnitude of the portion not submitted is unknown. The primary causes are two: 1) lack of awareness of AFIS and its capabilities; and 2) poor turnaround time on latent prints that are submitted to AFIS. The awareness problem should gradually recede, while the slow turnaround time can be rectified with additional resources.

The slow turnaround time and consequent backlog of latent prints is primarily caused by inadequate staffing. In Lexington, the personnel who operate the AFIS terminal are also responsible for crime scene processing and for operation of the police department's dark room. AFIS activity in Lexington has virtually ceased in recent months. At the Jefferson County Department of Corrections, the personnel who operate the AFIS terminal are also responsible for booking all prisoners brought to the county jail and verifying their identification. The commander of the unit estimates that they are able to use their AFIS terminal only about one hour per week. In Frankfort, the state police unit that operates the AFIS latent terminal also manages the entire AFIS system and continually updates the data base of ten-print cards of persons arrested--this latter activity averages about 1,000 cards per month. Although there is no current backlog of latent prints at the AFIS terminal in Frankfort, there is a considerable backlog of evidence at state police headquarters

waiting to be processed for latent prints. Each site has a backlog of latent prints waiting to be run, whether at the AFIS terminal or at some other point in the evidence processing chain.

In addition to the problems of finding latent print evidence and getting it submitted to and processed through AFIS, Kentucky's system thus far has experienced a very low suspect hit rate. That is, the hit rate on the relatively few latent prints being processed is unusually low. The primary reasons seem to be: 1) an incomplete data base of ten-print cards of arrested persons; and 2) poor quality ten-print cards in the data base.

The incomplete data base problem is being partially rectified at present. The state police have located a number of ten-prints cards that were initially omitted from the AFIS data base, and these are being added. However, the problem will not be completely resolved until all police departments around the state routinely submit ten-print cards to the state police on all arrested persons--at present, not all agencies are uniformly following this practice.

Ideally, from the standpoint of maximizing AFIS suspect identifications, the ten-print data base should include juveniles, since a substantial portion of property crimes are committed by young people. Until Kentucky's fingerprint data base includes juveniles, its AFIS suspect hit rate will remain less than optimal.

The poor quality problem with Kentucky's AFIS data base results from the mixed quality of the ten-print cards submitted by police agencies from all around the state. Few of Kentucky's police agencies have specialist booking personnel to obtain ten-print cards, and few exercise any quality control over ten-print

cards obtained by arresting officers and detectives. Consequently, many of the ten-print cards in the AFIS data base contain one or more poor quality finger impressions. As a result, some latent prints run through AFIS fail to "hit" even though the suspects' ten-print cards are in the data base. How many such "misses" have occurred is not known; it is suspected, however, that the number is significant and a major cause of the low hit rate of Kentucky's AFIS.

Recommendations

The foregoing observations and discussion lead to several recommendations for making Kentucky's AFIS more productive.

1. The state police should continue and intensify their efforts to increase awareness of AFIS among police agencies around the state.

2. The state police should continue and intensify their efforts to improve the completeness and quality of the ten-print data base.

3. The Lexington, Louisville, and Jefferson County Police Departments and the state police should re-examine their operating practices with an eye toward maximizing the collection of latent print evidence.

4. The three host agencies with AFIS latent terminals should re-examine their operating practices and staffing with an eye toward eliminating latent print backlogs and providing quick AFIS processing of latent print evidence.

5. The Department of Criminal Justice Training should re-examine its recruit and in-service curricula in order to give a higher priority to collection and processing of both ten-print cards and latent print evidence.

6. An AFIS Advisory Committee should be established to help assure that AFIS gets adequate resources and attention. At a minimum, this committee should include the chief executives (or their designees) of the Lexington, Louisville, and Jefferson County Police Departments, the state police, the

Jefferson County Department of Corrections, and the Department of Criminal Justice Training. Representatives of the Kentucky Association of Chiefs of Police and the Kentucky Sheriffs' Association should also be included. The purpose of this committee is not to run the AFIS system, but rather to make sure it gets the resources, attention, and authority it needs to be effective.

7. An improved AFIS tracking system should be developed and implemented to monitor and evaluate the performance of the AFIS system. This will require some refinements of the present data collection system operated by the state police.

Conclusion

The impact of Kentucky's AFIS system on police, courts, and corrections has so far been negligible. Relatively modest increases in police utilization of AFIS and relatively inexpensive improvements in the operation of AFIS could easily result in a ten-fold increase in AFIS arrests and incarceration time. Increased police efforts to locate and utilize latent fingerprint evidence could result in even greater effects.

Realization of these increased effects will depend on commitment and resources. Otherwise, Kentucky will continue to receive only minimal returns on its multi-million dollar AFIS investment.

Notes

1. As used here, suspect hits are limited to one hit per suspect per case. In other words, if two latent prints from a case come back to the same suspect, only one suspect hit is counted.

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