National Criminal Justice Reference Service

ncjrs

1.0		2.8	2.5
		3.2	2.2
		3.6	
1.1		4.0	2.0
			1.8
1.25	1.4		1.6
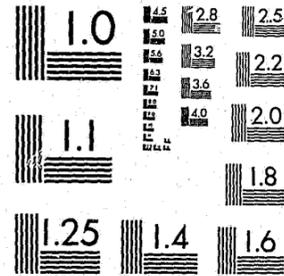
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

3-18-82

National Institute of Justice
United States Department of Justice
Washington, D. C. 20531

DRAFT

ESTIMATING THE COSTS OF IMPLEMENTING THE
PRIVACY AND SECURITY REGULATIONS
ISSUED BY THE
DEPARTMENT OF JUSTICE

VOLUME III

EXECUTIVE SUMMARY

APRIL 30, 1979

CONTRACT NUMBER J-LEAA-026-77

80565

PREFACE

The Institute for Law and Social Research, under LEAA Contract Number J-LEAA-026-77, was asked to develop a cost model for estimating the incremental costs to state and local agencies of complying with DOJ/LEAA privacy and security regulations governing the dissemination of criminal history record information.

This document is the last of three volumes that describe the workings and application of the Privacy and Security cost model.

Volume II, the Automation Supplement to the User's Guide, is designed for those persons electing to use the automated version of the Privacy and Security cost model. This volume provides instructions on how to compile and load the various programs and subroutines that comprise the automated model. Detailed descriptions of the programs are furnished. In addition, instructions are provided on how to execute the software, including descriptions of the various types of entries that users can make from the Cost Analysis Form (CAF) and related schedules described in Volume I. A third section describes the two different types of output reports that can be generated by the automated model and how the data on those reports can be used. The final section of Volume II deals with the logic that underlies the programs. This section is included to provide users with a basis upon which to make modifications to the computer programs if required.

It is designed to provide program managers and others with background information about privacy and security, generally, and the DOJ/LEAA regulations, specifically. The document also

presents an overview of the development and testing of the manual and automated versions of the cost model, observations of the study team regarding privacy and security costs at state and local levels, and comments on the field test and the independent evaluation of the model by RLM Associates. Appendixes include field test results and a copy of the RLM evaluation.

The other two volumes of this report are

Volume I: User's Guide to the Privacy and Security Cost Model, designed for program and administrative personnel who wish to use the manual version of the model to estimate the costs of complying with DOJ/LEAA regulations or for projecting future costs.

Volume II: Automation Supplement to the User's Guide, designed for users of the automated version of the Privacy and Security cost model.

CONTENTS

EXHIBITS

I. PROJECT OVERVIEW

A. BACKGROUND

The DOJ/LEAA privacy and security regulations are a federal response to the need to strike a balance between the individual's right to privacy and society's legitimate needs for information. Promulgated in May 1975 and amended in 1976 and 1977, the regulations establish standards regarding the dissemination of criminal history record information by state and local criminal justice agencies.

The events leading to the issuance of the privacy and security regulations are summarized in Exhibit 1. Highlights of the regulations are presented in Exhibit 2.

Concern on the part of state and local agencies regarding the cost implications of the regulations led LEAA to contract with INSLAW for the development of cost data and principles relating to compliance with the regulations.

According to LEAA,

> ... a majority of states ... indicated that significant additions or modifications have to be made to their state "systems" in order to achieve compliance, and that in most cases additional state legislation must be enacted. A major problem of achieving both these objectives is the general uncertainty among states as to the ultimate costs involved in achieving compliance.

> ... state agencies responsible for implementation of the Regulations have stressed the need for this information in order to justify budget requests and to support legislative proposals. Estimations of privacy and security costs are also needed by LEAA for purposes of immediate and long-range program evaluation.[1]

---

[1]Law Enforcement Assistance Administration, "Statement of Work," Contract J-LEAA-026-77, August 28, 1977.

Exhibit 1

EVENTS LEADING TO FINAL
DOJ/LEAA PRIVACY AND SECURITY REGULATIONS

Events	Significance
1970 Mathias amendment to crime control legislation enacted.	• LEAA called upon to submit privacy and security recommendations to President and Congress. • Follow-up legislation not acted upon.
1973 Amendment to Omnibus Crime Control and Safe Streets Act of 1968 enacted as Section 524(b)	• Mandated completeness, accuracy, privacy, and security of criminal history information, and provided for challenge and correction. • Basis for future DOJ/LEAA regulations.
1974 Draft regulations (highlights at right) published in February. Revised and put in final form in September but not issued in anticipation of congressional passage of comprehensive privacy and security law (not forthcoming).	• Dissemination guidelines. • Review-and-correction procedures. • Requirement for states to develop plans for keeping criminal information "complete, accurate, and current." • Plans to be operational by 7/1/76.
May 1975 "Final" regulations issued (28 CFR Part 20) reflecting numerous changes in 2/74 version.	• Requirements established in five basic areas: completeness and accuracy, dissemination, audit, security, and access and review. Procedures to be operational by 12/31/77. • DOJ/LEAA soon receives objections to limitations on dissemination and to dedicated computer requirement.
October 1975 DOJ/LEAA proposes amendment to 5/75 regulations	• Dedicated computer requirement to be eliminated.

Exhibit 1 (Continued)

Events	Significance
March 1976 Revised regulations are issued.	• Dedication mandate deleted. • Less stringent dissemination limitations.
December 1977 DOJ/LEAA amends regulations	• Deadline for fully operational state privacy and security plans extended from 12/31/77 to 3/1/78. • Extensions beyond 3/1/78 granted on case-by-case basis only.

Exhibit 2

HIGHLIGHTS OF DOJ/LEAA REGULATIONS REGARDING CRIMINAL JUSTICE INFORMATION SYSTEMS (28 CFR Part 20)

Applicability of Regulations

All state and local agencies and individuals having received LEAA funds for collection, storage, or dissemination of criminal history record information in either manual or automated systems since 7/1/73.*(20.20)

Criminal History Record Information (CHRI)

Data collected on individuals consisting of identifiable descriptions and notations of arrests and of any of the full range of possible dispositions--e.g., any of the basic OBTS/CCH data elements. EXCLUDED are intelligence and investigative information; psychiatric records, social histories, photographs, fingerprint records, and the like, when such information does not indicate specific involvement of person with criminal justice system; statistical data not identifying particular individuals. (20.3b)

Limitations on Dissemination**

Regulations do not limit dissemination of the following CHRI:
- Conviction data, including pleas and nolo contendere.
- Information about an offense for which an individual is currently within the criminal justice system.
- Data in "wanted" posters, announcements, lists.
- Notations in original records of entry (such as police blotters) compiled chronologically and open to public by law or custom.
- Data in court records of public judicial proceedings, published court or administrative opinions, records of traffic offenses maintained for licensing purposes, announcements of executive clemency.

Agencies may disseminate CHRI for purposes of international travel and granting of citizenship, may respond to specific CHRI requests from media if data are in sources exempt from regulations (no matter how dated the information), may transmit CHRI to other criminal justice agencies, and must give CHRI to subject individuals who challenge it.

Otherwise, dissemination of CHRI, including juvenile data, is subject to limitations--see 20.21(b)(c)(d).

Exhibit 2 (Continued)

Completeness and Accuracy

Arrest data at central state repository (CSRs are optional) and available for dissemination must be updated with dispositions within 90 days of disposition. Agency must query CSR, if any, prior to dissemination of CHRI to assure competeness.*** Agencies must implement audits and other quality control procedures to assure accuracy of data. (20.21a)

Audits and Related Records

If representative sample of state and local criminal justice agencies are to be audited annually by the state to verify adherence to regulations. Related records include names of all persons and agencies receiving disseminated data, and dates of dissemination. (20.21e) Annual state audits are in addition to the agency-conducted audits noted under "completeness and accuracy."

Security Requirements

Must adhere to security standards issued by the state. Computer data processing may be shared or dedicated, and procedures must preclude access by noncriminal justice terminals. Other requirements relate to programs, personnel, physical security, and accountability. (20.21f)

Access and Review

Implement procedures to permit individuals to challenge, review for completeness and accuracy, and correct CHRI, including agency notification of all criminal justice recipients of corrections to previously disseminated CHRI. (20.21g)

---

*The regulations do not apply to agencies receiving criminal history record information (CHRI) from LEAA-funded agencies if the receiving agencies have not been granted LEAA funds for the collection, storage, or dissemination of CHRI, except to the extent the regulations are incorporated into the user agreements the recipients would be required to sign.

**"Dissemination" is not defined in the regulations. However, LEAA defines the term as the disclosure of information to anyone outside the criminal justice agency maintaining the information, except those disclosures to a local, state, or federal repository.

***Except in those cases in which time is of the essence and the repository is technically incapable of responding within the necessary time period. Queries are required even when disemination is to another criminal justice agency, except when reposting "up the line" to the next appropriate agency (as when police transfer arrest reports to prosecutors or when an agency reports CHRI to NCIC).

B.   THE PROJECT IN SUMMARY

The purpose of this project, then, was (1) to develop cost data and principles related to the cost of acheiving state-level compliance with the DOJ/LEAA privacy and security regulations; and (2) to incorporate these data and principles into a cost estimating methodology--a cost model--that would enable the states to estimate the costs associated with complying with the regulations and to project future costs.

The cost model that was developed includes both a manual and an automated version. Volume I of this report includes the manual model, accompanying instructions, and supporting documentation. Volume II includes the automated model's documentation, instructions for its use, and supporting details.

The models are divided into two parts: One part estimates the costs of developing the program to bring the states into compliance; the other estimates annual costs for operating the programs once developed.

As observed during field surveys in several states, development costs included review of the DOJ/LEAA regulations by commissions, committees, or task forces as a first step. This usually served as a prelude to the development of a state privacy and security plan and its eventual implementation. Following adoption of the plan, expenses attendant to coordination with state and local agencies were usually accompanied by assignment of control and monitoring activities to an existing or newly created state agency.

Operating costs include costs attendant to acheiving full disposition reporting and recording and monitoring of delinquent disposition reports--part of an effort to acheive "complete and accurate" criminal history record information. Other operating costs include logging disseminations, ensuring quality control by auditing and other means, ensuring facility and data security, and establishing procedures for CHRI access, challenge, and review.

In both instances, i.e., for development and for operations, the models are intended to collect incremental costs--in essence, costs incurred by the state that are directly attributable to the regulations. In certain instances, the additional costs are clear cut and obvious. For example, the regulations require states to audit; it is very unlikely that any states had CHRI audit programs before issuance of the regulations. The regulations also require procedures whereby persons with criminal history records can review their records and challenge information contained therein. This, too, clearly is a new cost and marginal. But, some requirements are less clear, particularly when it comes to the matter of CHRI completeness and accuracy. Many states and localities have systems and procedures in place to collect arrest information. But few states have solved the problem of getting all or nearly all disposition information into the record. Hence, since the regulations require completeness and accuracy, it is logical to "charge" new disposition reporting procedures and new delinquent disposition monitoring systems to privacy and security. In fact,

however, the model is neutral on these matters of interpretation, i.e., what should or should not be charged to privacy and security. A methodology is presented to add up costs and to facilitate such additions. Interpretations are left to the state or local officials who use the model.

1. Development of the Cost Model

As reported in Volume I, development of the cost model proceeded through eight steps. These are summarized in Exhibit 3.

2. The Models in Overview

The manual model is actually two models in one. The first part is the Cost Analysis Form (CAF), which has eight sections--one section for each of the six functional cost areas, one for frequently used cost factors, and one for a summary. The CAF can be used to make "broad brush" estimates using default values and experience factors that were developed in the course of the project. As can be seen in Exhibit 4, the eight CAF sections require a maximum of 197 cost items (excluding security, which does not have default values and hence requires detailed costing). The other part of the manual model is the detailed supporting cost schedules--seven in all. There is one detailed supporting cost schedule for each functional cost area, plus a schedule for developing frequently used cost factors. The detailed supporting schedules require a maximum of 1,242 data items. Cost details are then transferred from the schedules to the appropriate CAF section. Thus, the CAF serves a dual function: It provides broad brush estimates and it also serves as a place to post interim summaries. Ultimately, all costs are transferred to CAF Section I, the Cost Summary.

Exhibit 3

STEPS IN THE DEVELOPMENT OF THE COST MODEL

STEP NUMBER	STEP DESCRIPTION	APPROACH OR METHODOLOGY
1	Regulation analysis	Requirements analysis undertaken; literature review conducted.
2	Develop skeletal outline of cost elements	Basis: Identified functional requirements and compliance options; INSLAW's previous work with CJIS cost modeling proved to be invaluable.
3	Develop initial cost data collection instrument and test in two states	Detailed cost recording for each functional requirement; data collection in Maryland and Virginia.
4	Revise cost data collection instrument and collect data in five states	Alabama, Arizona, California, Georgia, Minnesota
5	Develop the manual model and supporting schedules	Finalized identity of cost elements, cost experience factors and cost defaults, short-form cost estimating methodology, and detailed supporting schedules.

(Continued)

III-9

Exhibit 3 (continued)

STEP NUMBER	STEP DESCRIPTION	APPROACH OR METHODOLOGY
6	Develop the automated cost model	Adapted manual model to automation; eliminated all interim, manual computations; automatic production of output reports.
7	Field testing and outside evaluation	Field testing done in Virginia; independent evaluation by RLM Associates.
8	Final Report	Three-volume report prepared: Volume I - User's Guide; Volume II - Automation Supplement; Volume III - Executive Summary.

Exhibit 4. OVERVIEW OF THE MANUAL COST MODEL

Exhibit 4. OVERVIEW OF THE MANUAL COST MODEL

[Diagram with boxes:]

I COST SUMMARY (14)

[DETAILED SUPPORTING SCHEDULE]

II DISPOSITION REPORTING, RECORDING (25) — B (247)

III DISSEMINATION (19) — C (208)

IV AUDITING (10) — D (172)

V SECURITY (8) — E (83)

VI ACCESS, CHALLENGE, AND REVIEW (13) — F (196)

VII PLANNING (73) — G (286)

VIII COST FACTORS (45) — H COST FACTORS (50)

(205) (1242)
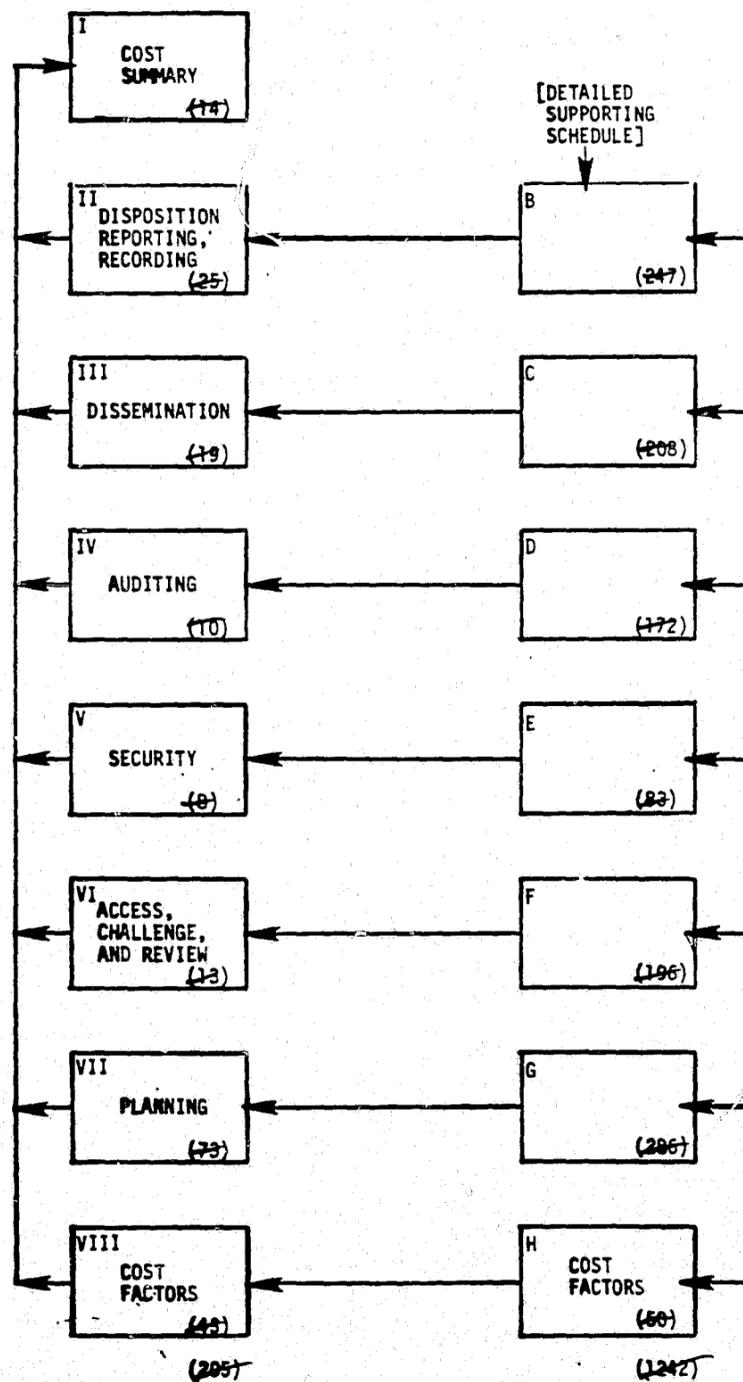
The automated model is much like the manual model inasmuch as it facilitates short-cut, broad brush estimates using what are called "standard costs." The automated model allows moving from standard costs to detailed costs--back and forth with ease as all extensions and computations are handled by the computer. Once all costs are entered, several output reports can be produced by the computer. To facilitate data entry, the manual model can be used as an input source; for this purpose all data items on the manual model that are to be entered into the automated model are indicated with a check mark ($\checkmark$). The automated model has the following features:

- Interactive, question and answer format
- Keyed to the manual cost model
- Requires input of frequently used cost factors and variable information
- Allows short form (standard costs) or long form (detailed costs) inputs
- Steps through each area of the requirements
- Performs all interim computations
- Provides hard-copy output of input for data verification
- Provides hard-copy output reports

3. Field Testing and Evaluation

As part of the project, INSLAW staff field tested the model in Virginia. Results are reported in Section II; examples of the manual and automated model output (using Virginia cost data) are included in Appendixes A and B.

The model was also evaluated by an independent firm, RLM Associates. A copy of the evaluation is included as Appendix C. Comments on the evaluation report are included in Section III.

4. Observations on Privacy and Security Costs in the States

Development of the manual and automated cost models and the supporting field work led to a number of observations relevant to the development of plans and programs in the privacy and security area.

- State legislation and costs incident to privacy and security. Many states had enacted legislation before the DOJ/LEAA regulations were issued; thus costs were incurred before the DOJ/LEAA regulations. These costs should not be considered as costs incident to federal privacy and security regulations, per se.

- Planning for privacy and security compliance. States visited by INSLAW staff had made concerted efforts to review their compliance at the state and local levels and to determine what compliance options were possible and practical.

- The cost of planning for privacy and security compliance. Compliance planning was a major development cost; ongoing planning costs are less, but still involve significant outlays.

- Disposition data reporting and recording.

  -- The bulk of disposition reporting is being done by manual means; for the most part, data are collected on special forms. Many of the collection procedures pre-date the regulations.

  -- In most of the states surveyed, final dispositions are reported less than 50 percent of the time, but there is evidence that the percentage has been increasing since the regulations were issued.

  -- Disposition costs include expenditures for personnel, forms, and postage; a major cost element will be following up on dispositions not reported.

III-13

  -- Disposition recording volumes are up at many Central State Repositories (CSRs); many CSRs have set up programs to monitor report receipt. Several CSRs only follow up prior to the time of dissemination.

  -- Disposition recording at the CSR is one of three major operating costs incident to privacy and security (the other two are planning and security costs).

- Dissemination logging

  -- At the local level, dissemination logging is a new responsibility and a newly incurred cost. On the other hand, many local agencies have amended their dissemination policies and are not disseminating criminal histories; instead, they are referring inquiries directly to the CSR.

  -- At the state level, major costs have been incurred by states for which logging disseminations is a new activity.

  -- Log maintenance and retrieval can be a high-cost activity, especially if done manually. Computerized logging is a less expensive alternative.

- Auditing and quality control

  -- Audit policies and procedures

    - Some states are planning to generate random sample listings of arrest and disposition data for use by auditors; but we saw no evidence that any listings were, in fact, being generated.

    - Audit is currently the weakest aspect of privacy and security; there is a critical need for technical assistance in the auditing area. Realistic policies and procedures are required; audit plans are also required.

  -- Auditing personnel

    - Several states are using currently employed Uniform Crime Reporting (UCR) representatives as privacy and security compliance monitors and auditors,

III-14

in addition to their other duties
(UCR, NCIC, CCH, etc.). In states
not using UCR representatives, a
minimum number of auditors have been
hired (1-3)--and these persons often
have other duties.

-- Audit costs

. INSLAW's cost model recognizes two
types of audits--a procedural or
"compliance-oriented" audit, and a
full audit, which would include all
procedural checks, as well as an
evaluation of security precautions.

. Most local agencies can be audited
within three days. Major costs in-
clude auditor personnel time, travel,
and per diem. Larger urban agencies
could require up to one month to
audit.

-- Quality control

. States have done very little with
quality control other than at the
point of data entry (i.e., checking
input records against source docu-
ments). Most of the existing quality
control procedures pre-date the pri-
vacy and security regulations.

. Security. Security costs are up at state and local
levels; we suspect that major future costs will be
incurred at the local level.

. Access, challenge, and review. These are generally
new procedures and additional cost items for most
states, but our examinations reveal that the costs
are negligible, to-date. These costs may increase
with time as individuals learn about their rights
to challenge the completeness and accuracy of their
criminal history records.

. Records corrections. This could be a very costly
activity in terms of ensuring that all discrepan-
cies are corrected and that appropriate action is
taken. Arizona is using an "all points broadcast"
to correct errors--a seemingly efficient procedure.
In one state, manual procedures to ensure that
records are corrected take considerable time and
effort.

In conclusion, the DOJ/LEAA regulations have heightened con-
cern with the privacy and security of criminal history record in-
formation. This is particularly so at the local level. The regu-
lations are not looked upon as impeding law enforcement activities;
particularly at the local level, the regulations are appreciated,
since they impose an absolute prohibition on disseminations to non
criminal justice users. This has curbed what many local police
officials looked on as a questionable police service.

5. Observations on Local Costs

In the course of the project, limited samples of data were
collected from several municipalities in the five states that
cooperated in the study. These included Alabama, Arizona, Georgia,
Minnesota, and Virginia. In each state, the Privacy and Security
Coordinator or his or her representative collected data from three
to five local jurisdictions. The data collected covered three cost
areas: (1) increased disposition reporting costs; (2) costs inci-
dent to dissemination logging; and (3) costs related to security,
including building security.

The collected data have been reduced and are included as Exhi-
bit 5. Data are presented from 18 municipal police departments,
including a department at the University of Georgia (Athens). In
most instances, a population indicator is also included. Five
population groups are listed: under 24,999; 25,000 to 49,999;
50,000 to 99,999; 100,000 to 249,999; and over 250,000. Although
the data are not complete and were not verified on-site, they
highlight several items of interest.

Criminal history disposition reporting. Of 18 jurisdictions, only six reported increased disposition reporting volumes. Excepting one agency with very small volumes (McLeod County, MN, which had an increase of from 5 to 20 dispositions), only one agency (Montgomery, AL) attributed as much as 40 percent of its increased disposition reporting to Privacy and Security. The "none," "not applicable," and "unknown" answers were in the majority as to what percentage of the increase was attributable to Privacy and Security. Disposition reporting has not increased in these municipalities as yet, not at least to any appreciable extent.

Criminal history disposition logging. The picture that emerges from the data is clearer in regard to disposition logging. For example, the three Virginia municipalities indicated increases ranging from 4,000 to 8,000, whereas none had been required previously. Two of the Minnesota municipalities indicated that they were required to log before the regulations were required. Alabama and Georgia reported increases, including an increase of 33,000 in Atlanta. The data from Arizona are inconclusive and confused. On balance, though, dissemination logging does appear to be an additional cost item for many municipalities.

Security costs. Seven police agencies indicated security expenditures ranging from $100 to $67,750; the median expenditure for the seven jurisdictions was $500. It is impossible to say whether the expenditures in Portsmouth ($67,750) and at the University of Georgia ($9,000) were a direct result of the regulations. In any event, security costs could be a major factor

Exhibit 5. PRIVACY AND SECURITY COST DATA FROM SELECTED MUNICIPALITIES

	Birmingham (AL) POP: 1	Selma (AL) POP: 4	Montgomery (AL) POP: 2	Phoenix (AZ) POP: 1	Tucson (AZ) POP: 1	Pima Co. (AZ) POP: 1
A. Criminal History Dispo. Reporting						
1. Dispos reported to CSR pre-P&S Regs.	3600	1800	900	Minimal	Unknown	Unknown
2. Dispos reported currently	3600	1800	1500	All	Unknown	420
3. If incr., % attributable to P&S Regs.	None	None	40%	Yes	---	Unknown
4. Avg. # of minutes to prepare dispo	10"	3"	N/A	5"	---	5"
5. Add'l clerks required, if any	None	1/2	None	None	None	1/2
6. Avg. annual salary incl fringe	N/A	$5760	N/A	N/A	---	$7,000
7. Other costs						
a. Forms	None	N/A	N/A	Unknown	None	Unknown
b. Photocopy	$ .05	N/A	---	N/A	None	Unknown
c. Specialized input equipment	N/A	N/A	---	N/A	None	Unknown
d. Other (specify)	---	N/A	---	N/A	$ 300	---
B. Criminal History Dispo Logging						
1. Dissem's logged before P&S Regs	All	None	None	1500/day	5	Unknown
2. Dissem's logged currently	All	540	250	1400/day	None	500
3. Avg. # of minutes to log dissem	1"	1"	2"	1"	3"	1"
4. Add'l clerks required, if any	None	1/2	None	None	None	None
5. Avg. annual salary incl fringe	N/A	$5760	N/A	N/A	---	N/A
6. Other costs						
a. Forms	None	$ 50	None	---	---	Unknown
b. Postage	---	---	---	---	---	Unknown
c. Other (specify)	---	---	---	$100	---	
7. Annual revenue	$ 5	$ 1 ea	No change	$ 25/mo.	---	None
8. Amt in #7 attribt'd to P&S Regs	None	---	N/A	All	---	None
C. Security						
1. Locks installed to control access	None	---	None	$ 25	---	Unknown
2. Badges for employees	None	---	None		---	Unknown
3. Closed circuit tv monitors	None	---	None		---	Unknown
4. Background inv. of employees	None	---	None		---	Unknown
5. Lockable storage cabinets	None	---	None		---	Unknown
6. Building modification	None	---	None		---	Unknown
7. Hire add'l security guards	None	---	None		---	Unknown
8. Computer software modification	None	---	None		---	Unknown
9. Other (specify)	None	---	None	$210	---	Unknown
10. Total	None	$ 300	None now—future cost $7,000	$235	---	Unknown

Legend -- Population Groups
#1--over 250,000   #3--50,000 - 99,999   #5--10,000 - 24,999
#2--100,000 - 249,999   #4--25,000 - 49,999

Exhibit 5 (Continued)

III-19

	Prescott (AZ) POP: 5	Cochise Co. (AZ) POP: 3	Atlanta (GA) POP: 1	Clayton Co. (GA) POP: 2	U. of GA PD Athens (GA) (20,000 Stdts)	Charlottesville (VA) POP: 4
A. Criminal History Dispo. Reporting						
1. Dispos reported to CSR pre-P&S Regs.	Other Agency	N/A	28,000	4,000	900	3,000
2. Dispos reported currently	Other Agency	N/A	28,000	8,000	900	3,200
3. If incr., % attributable to P&S Regs.	N/A	None	N/A	None	None	N/A
4. Avg. # of minutes to prepare dispo	N/A	N/A	10"	3"	30"	5"
5. Add'l clerks required, if any	None	None	None	None	1 Sec'y	0
6. Avg. annual salary incl fringe	N/A	N/A	N/A	N/A	$7,000	N/A
7. Other costs						
a. Forms	1	N/A	None	None	-0-	0
b. Photocopy	$ 500	N/A	None	None	$ .12	0
c. Specialized input equipment	N/A	N/A	None	None	N/A	0
d. Other (specify)	N/A	N/A	None	---	N/A	0
B. Criminal History Dispo. Logging						
1. Dissem's logged before P&S Regs	Not Req'd.	Unknown	40,000	None	200	None
2. Dissem's logged currently	1269	N/A	73,000	2,700	200	4,000
3. Avg. # of minutes to log dissem	1"	N/A	30'	2"	10"	5"
4. Add'l clerks required, if any	N/A	N/A	None	None	1	? (6)
5. Avg. annual salary incl fringe	N/A	N/A	N/A	N/A	$7,000	$6,000
6. Other costs						
a. Forms	$ 5	N/A	$ 87.50	$ 200	None	$ 50
b. Postage	---	N/A	None	None	None	$ 250
c. Other (specify)	---	N/A	None	---	None	0
7. Annual revenue	No fees	N/A	$ 90.00	No fees	None	0
8. Amt in #7 attribt'd to P&S Regs	N/A	N/A	(Decv)	N/A	N/A	0
C. Security						
1. Locks installed to control access	N/A	---	None	---	$ 750	$ 100
2. Badges for employees	N/A	---	None	---	5	$ 150
3. Closed circuit tv monitors	N/A	---	None	---	None	0
4. Background inv. of employees	N/A	---	None	---	45	0
5. Lockable storage cabinets	N/A	---	None	---	1,200	0
6. Building modification	N/A	$ 100	None	---	None	0
7. Hire add'l security guards	N/A	---	None	---	None	0
8. Computer software modification	N/A	---	None	---	1,800	0
9. Other (specify)	N/A	---	None	---	5,200	$ 400
10. Total	N/A	$ 100	None	---	$9,000	$ 650

Legend -- Population Groups
    #1--over 250,000
    #2--100,000 - 249,999
    #3--50,000 - 99,999
    #4--25,000 - 49,999
    #5--10,000 - 24,999

Exhibit 5 (Continued)

	Rochester (MN) POP: 3	Duluth (MN) POP: 3	Faribault (MN) POP: 5	McLeod Co. (MN) POP: 4	Richmond (VA) POP: 2	Portsmouth (VA) POP: 2
A. Criminal History Dispo. Reporting						
1. Dispos reported to CSR pre-P&S Regs.	1,450	4,300	700	5	18,000	4000
2. Dispos reported currently	1,450	3,850	800	20	18,000	?
3. If incr., % attributable to P&S Regs.	——	N/A	None	50%	0	7%
4. Avg. # of minutes to prepare dispo	——	1/2"	2"	5"	5"	4"
5. Add'l clerks required, if any	None	None	1/4	None	Unknown	None
6. Avg. annual salary incl fringe	——	N/A	$9,058	0	0	N/A
7. Other costs						
a. Forms	Minimal	$ 100	$ 200	0	0	$ 400
b. Photocopy	None	0	$ 55	$ 20	0	$ 500
c. Specialized input equipment	None	0	0	0	0	N/A
d. Other (specify)	——	0	0	0	0	N/A
B. Criminal History Dispo Logging						
1. Dissem's logged before P&S Regs	Logged bef. P&S Regs	None	100	Logged bef. P&S Regs	None	Unknown
2. Dissem's logged currently	——	275	100	5	8,000	5,000
3. Avg. # of minutes to log dissem	2"	1"	2"	2"	5"	120"
4. Add'l clerks required, if any	None	None	1/4	0	1/8	None
5. Avg. annual salary incl fringe	——	N/A	$8,013	0	N/A	N/A
6. Other costs						
a. Forms	——	$ 14	Minimal	0	None	0
b. Postage	——	0	Minimal	0	Unknown	0
c. Other (specify)	——	0	Minimal	——	Unknown	0
7. Annual revenue	——	$ 275	$ 100	0	None	0
8. Amt in #7 attribt'd to P&S Regs	None	100%	None	0	N/A	N/A
C. Security						
1. Locks installed to control access	None	N/A	None	0	$ 400	$ 150
2. Badges for employees	None	N/A	None	N/A	$ 100	$ 50
3. Closed circuit tv monitors	None	N/A	None	N/A	0	0
4. Background inv. of employees	None	N/A	None	N/A	Unknown	$ 50
5. Lockable storage cabinets	None	N/A	None	0	0	$18,500
6. Building modification	None	N/A	None	N/A	0	$11,000
7. Hire add'l security guards	None	N/A	None	N/A	0	$14,000
8. Computer software modification	None	N/A	None	N/A	0	0
9. Other (specify)	None	N/A	None	N/A	0	$24,000
10. Total	None	N/A	None	N/A	$ 500	$67,750

Legend--Population Groups
#1--over 250,000
#2--100,000 - 249,999
#3--50,000 - 99,999
#4--25,000 - 49,999
#5--10,000 - 24,999

in the future, especially when states are in a position to audit local operations on a regular basis. Even a $500 expenditure per police department would be a major cost, notwithstanding costs that might be incurred by prosecutors, courts, pretrial agencies, public defenders, probation agencies, and correctional institutions. All such agencies generally house criminal history record information.

II. FIELD TESTING THE MODELS

On January 8 and 9, 1979, members of the INSLAW staff visited three state agencies in Richmond, VA, to gather data for a test of the Privacy and Security cost model. The agencies visited and types of cost data collected are listed below.

After the cost information was collected, the manual version of the model was exercised to compute the costs of compliance in each of the six functional areas addressed by the DOJ/LEAA regulations. In each instance, the detailed costs schedule was used to compute the costs experienced by the state.

The next step was to enter the required data from the completed Cost Analysis Form and related schedules into the automated model. A comparison was then made between the results of the computer-generated reports and the results of the manual model. With the exception of two arithmetic errors in the manual model, which were later corrected, the costs arrived at using the manual and automated models were within 0.5 percent of one another; this difference was attributed to the computer carrying all computations out to four decimal places rather than to the two decimal places used in the manual model.

As a result of the field test, some minor changes were made in the manual model forms. The order in which some questions appeared on the CAF or schedules was changed; some questions were consolidated; and the method for capturing percentages was changed to be carried to two decimal places in both models.

AGENCY VISITED	INFORMATION PROVIDED
Division of Criminal Justice and Crime Prevention (Advisory Committee to Virginia Criminal Justice Services Commission)	Costs associated with planning for compliance with DOJ/LEAA regulations.
Virginia Criminal Justice Services Commission	Dissemination procedures and costs
	Auditing procedures and costs
	Security costs for Commission Officers
	Record challenge and review procedures and costs.
Central Criminal Records Exchange (Virginia State Police)	Disposition recording processing and costs
	Security for CCRE building
	Dissemination procedures and costs
	Data processing costs.

As noted earlier, a sample of costs computed by the manual model for Virginia is contained in Appendix A. A sample of outputs from the automated model, again for Virginia, are contained in Appendix B.

III. COMMENTS ON THE EVALUATION BY RLM ASSOCIATES

INSLAW contracted with RLM Associates and its principal consultant, Robert L. Marx, to provide a third-party evaluation of the cost model. As stated in the Introduction to the evaluaton, RLM Associates were employed to "provide a critical review of the cost model and to comment concerning the rationality and applicability of the model." A copy of the evaluation is included in Appendix C.

In the course of Mr. Marx's on-site review and data collection, several modifications were made to the manual and automated models. As also noted in the Introduction: "During detailed conversation with the INSLAW project staff members, several recommendations for refinement of the model have already been presented and changes made. This report does not, then, represent a complete summary of our work but only that work not already responded to by INSLAW."

The first part of the evaluation (pp. 1-6, inclusive) provides an Introduction and General Comments on the model, its applicability and quality. As noted on page 5, the overall comment is positive: "The INSLAW cost model is well done and thoroughly professional."

The second part of the evaluation (pp. 7ff) comments on each of the six functional areas of privacy and security costs; our response to those comments follows:

Disposition Data Reporting and Recording Costs (Section II and Schedule B). On the topic of "Determining the Number of Dispositions," there are two major, related criticisms: One concerns the number of dispositions per arrest (whether it is one or more than

one) and the number of delinquent dispositions. The model evaluated by RLM Associates contemplated costing interim and final dispositions, i.e., costing increased disposition reporting and recording expenses that could be attributed to the regulations, as well as costing efforts to collect delinquent dispositions. On the basis of these criticisms, a change has been made. The model has been revised to cost "final" disposition--i.e., one disposition per arrest. As noted in both Section II and Schedule B, although one disposition per arrest is assumed, the jurisdiction is free to cost "interim and final dispositions."

Other comments in this section deal with whether software, microfilming, and computer time should or should not be chargeable to Privacy and Security. Our field studies indicated that states had incurred costs in these areas because of the DOJ/LEAA regulations. Cost apportionment is appropriate if, in fact, such costs were incurred. The model provides categories for recording costs incurred; it is neutral regarding whether costs should or should not be recorded therein. The model's construction is intended to record costs when and as appropriate; it is not intended to either encourage or discourage any particular cost.

Dissemination Costs (Section II and Schedule C). A fairly fundamental problem is raised in the evaluation--whether the forms adequately differentiate dissemination costs chargeable to the regulation from those not chargeable. It is our finding that the language in Section II ("What percentage of the disseminations

logged annually is the result of Privacy and Security regulations?") and in Schedule C (as noted in most of the major sections) is adequate to separate costs that should not be charged.

Other comments include a suggestion that dissemination revenue should be ignored (p. 9); no action was taken on this matter. The default value for the number of disseminations--"4.145" (also noted on page 9)--was separated into its component parts (1.376 hard-copy criminal history disseminations per arrest and 2.769 on-line criminal history summary disseminations per arrest); the comment on this subject was very helful in clarifying the suggested default value. Another very helpful comment concerned the costs associated with logging disseminations in an automated system. Our assumptions and initial calculations were revised accordingly; the costs per transaction, as can be seen in Schedule C (page C-2), are now in line with RLM's estimates.

Auditing for Compliance Costs (Section IV and Schedule D). No comments.

Security Costs (Section V and Schedule E). No comments.

Record Challenge and Review Costs (Section VI and Schedule F). On the basis of RLM's comments that the default values were low, we re-computed the costs under new assumptions and the costs are higher, as indicated. (Volume I, Section IV contains a justification for the costs for these defaults and for other defaults used in the model.)

Planning Costs (Section VII and Schedule G). No comments.

Frequently Used Cost Factors (Section VIII and Schedule H). No comments.

APPENDIXES

PRIVACY AND SECURITY COST ANALYSIS FORM (CAF)

SECTION I
PURPOSE, INSTRUCTIONS, AND COST SUMMARY

A. Purpose and Instructions

1. This form is designed to estimate the cost impact of the DOJ/LEAA Privacy and Security regulations on state and local criminal justice agencies.

2. The model can be used to compute "broad brush" or "ballpark" cost estimates by completing only Section II through VIII of this form and transferring the results to the chart in item B below. Sections II through VIII include several mathematically devised default cost values based upon costs observed in selected states. The "Users Guide" for this model explains how each of these defaults was developed (Volume I, Section D).

3. The model can be used to estimate more detailed costs by answering the questions contained in Schedules B through G that supplement this form.

4. It is also possible to use a combination of the detailed Schedules (B through G) for some sections of this cost model and the defaults on this form (II through VIII) for other sections.

5. If you elect to fill out any of the detailed cost schedules, you must first complete Section VIII of this form.

B. Summary of Privacy and Security Costs

Functional Requirements	a. Development Costs	b. Annual Operating Costs
1. Disposition Data Reporting and Recording	$1,881.00	$71,640.22
2. Dissemination	- 0 -	8,153.39
3. Auditing	7,762.72	16,357.59
4. Security	74,421.00	17,125.95
5. Record Challenge and Review	/ / / / /	48.15
6. Planning for Implementation	160,981.45	66,226.71
7. (Dissemination Revenue)	- 0 -	- 0 -
8. TOTALS	245,046.17	179,552.01

SECTION II

DISPOSITION DATA REPORTING AND RECORDING COSTS

> NOTE: Complete this section to estimate final disposition reporting and recording costs; this section assumes one (final) disposition per arrest. If the jurisdiction desires to cost interim and final dispositions, appropriate adjustments will be required
> OR
> Complete Schedule B and insert the costs in the boxes below, as directed.

	Development	Operating

A. Reporting Final Disposition Data by State and Local Agencies

  1. Enter the number of arrests currently reported to the Central State Repository (CSR) by state and local agencies annually. — N/A ✓

  2. Enter the number of dispositions reported annually to the CSR by state and local agencies prior to the implementation of P&S regulations. — N/A ✓

  3. Compute the incremental increase in the annual number of dispositions reported to the CSR by all agencies as a result of P&S regulations. Subtract item 2 from item 1. — N/A

  4. How many of the additional dispositions to be reported to the CSR (item 3 above) will be reported in an automated mode? — N/A ✓

  5. How many of the additional dispositions to be reported to the CSR (item 3 above) will be reported in a manual mode using forms? — N/A ✓

  6. Compute the total increased disposition reporting costs resulting from P&S regulations by applying the following formula OR complete Section 1 of Schedule B.

    a. Number of dispositions reported in an automated mode (item 4 above) _____ x $ 0.60. — $N/A

    b. Number of dispositions reported in a manual mode (item 5 above) _____ x $ 0.55. — $N/A

  7. Add figures in items 6a and 6b above and enter total in box at the right. — $7,130.69

B. Recording Final Disposition Data at the CSR

  1. How many of the additional dispositions (item 3 above) will be recorded at the CSR in a manual mode? — N/A ✓

  2. How many of the additional dispositions (item 3 above) will be recorded at the CSR in an automated mode? — N/A ✓

  3. Compute the additional disposition recording costs resulting from P&S regulations by applying the following formula OR complete Section 2 of Schedule B.

    a. Number of CSR dispositions recorded in a manual mode (item 1 above) _____ x $ 0.60. — $N/A

    b. Number of CSR dispositions recorded in an automated mode (item 2 above) _____ x $ 0.83. — $53,250.21

  4. Add figures in items 3a and 3b and enter total in box at the right. — $53,250.21

	Development	Operating

C. Delinquent Disposition Monitoring

  1. Approximately how many arrests reported to the CSR annually have delinquent final dispositions? Item A.1 above x .4 OR enter the actual number, if known. — N/A ✓

  2. Compute the cost of collecting delinquent final disposition data. Item 1 above x $ 0.40 OR complete Section 3 of Schedule B. — $1,060.⁴⁸

D. Software Modifications. If software modifications were required to the CSR computer system to allow for delinquent disposition monitoring or for other changes resulting from disposition recording requirements, complete Section 4 of Schedule B and enter results below.

  1. Development costs. — $ -O-

  2. Annual operating costs. — $ -O-

E. Microfilm Costs. If microfilm is used to store disposition data at the CSR as a result of the P&S regulations, complete Section 5 of Schedule B and enter the results in the boxes below.

  1. Development costs. — $1,881.⁴⁸

  2. Annual operating costs. — $10,039.32

F. Total Final Disposition Reporting and Recording Costs

  1. Development Costs. Add the figures in the boxes in the "Development" column. Enter total in the box at the right and in item B.1.a, Section I, CAF. — $1,881.⁴⁸

  2. Annual Operating Costs. Add the figures in the boxes in the "Operating" column. Enter total in the box at the right and in item B.1.b, Section I, CAF. — $71,480.22

SCHEDULE B
DISPOSITION DATA REPORTING AND RECORDING COSTS*

	Development	Operating

1. **Reporting Final Disposition Data by State and Local Agencies**

   a. **Clerical Costs**

   (1) Enter the number of arrests currently reported to the Central State Repository (CSR) by state and local agencies annually.   *100,000* ✓

   (2) Enter the number of final dispositions reported annually to the CSR prior to the implementation of the Privacy and Security (P&S) regulations.   *84,000* ✓

   (3) Compute the incremental increase in the annual number of dispositions reported to the CSR by all agencies as a result of the P&S regulations. *Subtract item (2) from item (1) and enter the result in the space to the right.*   *16,000*

   (4) Approximately how many minutes does it take a clerk to prepare a form or make a computer entry reporting a criminal history disposition? (Experience in other jurisdictions indicates a range between 2 minutes and 11 minutes.)   *4* ✓

   (5) Compute the estimated total number of clerical person-hours required statewide by all agencies to report criminal history dispositions. *Items (3) x (4) above ÷ 60.*   *1,066.67*

   (6) Enter the average adjusted hourly salary of a clerk from item B.3.a, Section VIII, CAF.   *$6.22*

   (7) Compute the annual clerical cost to all agencies for disposition reporting. *Items (5) x (6) above.*   *$6,634.69*

   b. **Machine-readable Tape Costs**

   If disposition data are being reported to the CSR on magnetic tape, answer the following questions:

   (1) Approximately how many tapes required annually for disposition reporting are chargeable to P&S?   *-0-* ✓

   (2) Estimate the average cost/tape using the table below.

Tape Length	Cost/Tape
600 feet	$ 8.00
1200 feet	$ 10.00
2400 feet	$ 15.00

   $-0- ✓

   (3) Compute the total cost for tapes. *Items (1) x (2) above.*   *$-0-*

---

*As noted in Section II, this Schedule assumes one (final) disposition per arrest. If the jurisdiction desires to cost interim and final dispositions, appropriate adjustments will be required.

B-1

---

c. **Data Entry Equipment Costs**

(1) What special types of data entry equipment are used by state and local agencies to report dispositions? (Include only equipment purchased or leased solely for P&S compliance.)

(a)	Leased Equipment			Purchased Equipment			(h)	(i)
	(b)	(c)	(d)	(e)	(f)	(g)	Annual Maintenance Cost/ Unit Purchased	Annual Maintenance Cost, All Units
Equipment Type	Quantity Leased ✓	Annual Rental/ Unit ✓	Total Lease Cost (b) x (c)	Quantity Purchased ✓	Purchase Price/ Unit ✓	Total Purchase Cost (e) x (f)	(e) x (h)	
Key to Disk								
Key to Tape								
Key to Disk to Tape								
Keypunch								
Other (Name) ✓								

	Development	Operating

(2) Total annual rental fees. *Add figures in column (d).*   *$-0-*

(3) Total cost of purchased equipment. *Add figures in column (g).*   *$-0-*

(4) Total annual maintenance cost. *Add figures in column (i).*   *$-0-*

(5) Total annual data entry equipment cost. *Items (2) + (4) above.*   *$-0-*

d. **Forms Costs**

(1) What is the estimated cost per copy for the disposition report form? *See item H, Section VIII, CAF.*   *$.031* ✓

(2) Compute the total cost to all agencies for disposition report forms chargeable to P&S. *Items 1.a(3) x d(1) above.*   *$496*

e. **Total Final Disposition Reporting Costs**

Add boxes 1.a(7), b(3), c(5) and d(2) above. Enter total in box at the right and in item A.7, Section II, CAF.   *$7,130.69*

B-2

2. Recording Final Disposition Data at the CSR

    a. **What** type(s) of system(s) are used by your state for recording criminal history case disposition data? *Check all that apply.* ✓

        ☐ Manual forms. *Answer only question b below.*

        ☐ Computer-generated input medium. *Answer only question c below.*

        ☑ On-line terminal data entry to CSR data base. *Answer only question c below.*

    b. Manual Data Recording Costs

        Fill in the chart below to derive clerical and forms costs for recording data on underline manual forms. NOTE: Number may not exceed incremental increase reported by all agencies in item 1.a(3) above.

(1) Activity	(2) Average No. of Mins. Required ✓	(3) No. of Such Actions Annually ✓	(4) Annual Clerical Time (2) x (3)	(5) Forms Cost/ Single Activity* ✓	(6) Annual Forms Cost (3) x (5)
Receive, Open and Route Dispo. Report Form					
Sight Verification of Data					
Pull Case Jacket, Enter Dispo. Data, Refile					
Other (Name) ✓					

*Enter cost, if known, or refer to item H, Section VIII, CAF.

<div></div>

                                                         Development   Operating

        (7) Total clerical hours required. *Add numbers in column (4) and divide total by 60.*   -0-

        (8) Enter the average adjusted hourly salary of a clerk. *Same as item 1.a(6) above.* $-0-

        (9) Compute the total clerical cost for recording disposition data. *Multiply items (7) x (8) above.* $-0-

        (10) Total annual forms cost chargeable to P&S. *Add numbers in column (6).* $-0-

        (11) Total manual system recording costs. *Add items (9) and (10) above. Enter total in box at right and in item B.3.a, Section II, CAF.* $-0-

---

    c. Automated System Data Recording Costs

        (1) Clerical and Forms Costs. Fill in the chart below to derive clerical and forms costs associated with entering disposition data into an automated system.

(a) Activity	(b) Average No. of Mins. Required ✓	(c) No. of Such Actions Annually ✓	(d) Annual Clerical Time (b) x (c)	(e) Forms Cost/Single Activity ✓	(f) Annual Forms Cost (c) x (e)
Receive, Open & Route Dispo. Report Form	[2]* 25.69	16,000	411,040	.008	128
Sight Verification of Data	[2]				
Create Computer Code Sheet	[2]				
Sight Verification of Code Sheet	[2]				
Keystroke Data into System	[3]				

*Numbers in brackets are values for use in lieu of local estimates.

                                                      Development   Operating

        (g) Total clerical hours required. *Add numbers in column (d) and divide by 60.*   6850.67

        (h) Enter the average adjusted hourly salary of a clerk. *Same as item 2.b(8) above.* $6.22

        (i) Compute the total clerical costs for recording disposition data in an automated system. *Items (g) x (h) above.* $42,611.17

        (j) Total annual forms cost. *Add figures in column (f).* $128

        (2) Computer Costs

            (a) Enter the annual number of dispositions entered into the CSR computer that are chargeable to P&S.   16,000 ✓

            (b) Enter the average cost/on-line inquiry (input transaction) from item C.2, Section VIII, CAF. $.06

            (c) If data are entered into the CSR computer directly from agency magnetic tapes, approximately how many CPU hours are required annually for processing?   35.52 ✓

            (d) Enter the cost of a CPU hour from item C.3, Section VIII, CAF. $200.00

(e) How many computer-generated reports resulting solely from the P&S program relate to the recording of criminal history data? *Fill in the chart below.*

Name of Report	Quantity Produced Annually
Missing or Incomplete Data	✓
Delinquent Disposition	✓
Printout of Transactions Recorded	*52* ✓
Requests for Delinquent Dispo. Data	✓
Other (Name) ✓	✓

Development | Operating

(f) Total number of computer-generated reports. *Add the figures in the "Quantity Produced Annually" column above.*   *52*

(g) Enter the cost of a computer-generated report from item C.1, Section VIII, CAF. $65.52 ✓

(h) Compute the total cost for computer-generated reports. *Multiply items (f) x (g) above.* $3,407.04

(i) Total computer processing costs. *Items [(a) x (b)] + [(c) x (d)] + (h) above.* $10,511.04

(3) Total Automated System Data Recording Costs. *Add boxes (1)(i) + (1)(j) + (2)(i) above. Enter total in box at the right and in item B.3.b, Section II, CAF.* $53,250.21

3. Delinquent Disposition Monitoring

a. Indicate below the methods used to check with state and local agencies on delinquent dispositions.

(1) Check (✓) Method(s) Utilized	(2) Method	(3) Annual Number ✓	(4) Average Cost Each (Excluding Labor) ✓	(5) % Chargeable to P&S ✓	(6) Total Annual P&S Cost/Method (3) x (4) x (5)
	Telephone Calls				
	Teletype				
	Telegraph				
✓	Form Letters	1,200	.365	100	438
	Individually Written Letters				
	CSR Personnel Sent to Field	NOTE: If this method is used, answer subsection 3.b below.			

Development | Operating

(7) Compute the total cost (less labor) for delinquent disposition tracers. *Add the numbers in column (6) above.* $438

(8) Approximately how many clerks are responsible for preparing requests for delinquent disposition information?   1 ✓

(9) What is the average number of hours/year a clerk spends preparing requests for delinquent disposition information?   100 ✓

(10) Enter the average adjusted hourly salary of a clerk. *Same as item 2.c(1)(h) above.* $6.22

(11) Compute the total annual clerical cost for preparing requests for delinquent disposition information. *Multiply items (8) x (9) x (10) above.* $622.00

(12) Compute total cost of notifying agencies about delinquent dispositions. *Add items (7) and (11) above.* $1,060.00

b. CSR Personnel Sent to Field

If CSR personnel are sent to the field to gather delinquent disposition information, supply the following information:

(1) Estimated number of trips/year.   -0- ✓

(2) Average travel cost/trip. (Experience shows range between $13 and $140.) $-0- ✓

(3) Average number of days/trip.   -0- ✓

(4) Average per diem rate. (Experience shows range between $14 (meals only) and $35.) $-0- ✓

(5) Total travel cost. *Items (1) x (2) above.* $-0-

(6) Total per diem cost. *Items (1) x (3) x (4) above.* $-0-

(7) Indicate on the chart below the types of CSR personnel sent to the field:

(a) Personnel Type	(b) Average No. of Trips/Year ✓	(c) Average No. of Working Hours/Person/Trip (Including Travel Time) ✓	(d) % of Time Chargeable to P&S ✓	(e) Enter Avg. Adj. Hourly Salary from Section VIII, CAF, item B.3	(f) Total Cost/Personnel Type (b) x (c) x (d) x (e)
Auditor					
Clerk					
Clerk Supervisor					
Police Officer					
Other (Name) ✓					✓

(g) Compute the total salary costs for CSR personnel sent to the field. *Add the numbers in column (f) above.* $ 0

(8) Total cost for personnel sent to field. *Add boxes
(5) + (6) + (7)(g) above.*

$ O

c. Total Delinquent Disposition Monitoring Costs

Add boxes a(12) + b(8) above. *Enter total in box at the
right and in item C.2, Section II, CAF.*

$1,060. 00

4. Software Modifications

a. What software developments or modifications to the data dispo-
sition recording process were required solely because of P&S
requirements? *DO NOT include developments or modifications
due to other programs such as OBTS/CCH, SJIS, etc. An
example of an item to include is programming an infor-
mation system to produce a disposition tape in a format
readable by the CSR computer.*

(1) Type of Software Modification or Development	(2) Enter Number of Programmer Person-hours Required	(3) Enter Number of System Analyst Person-hours Required
Request for Delinquent Disposition		
Disposition Due Date Tickler File		
Incomplete or Missing Data Report		
Other (Name)		

(4) Total programmer person-hours. *Add numbers in column
(2) above.*

-O-

(5) Total system analyst person-hours. *Add numbers in
column (3) above.*

-O-

(6) Enter the average adjusted hourly salary for a programmer
from item B.3.e, Section VIII, CAF.

$-O-

(7) Enter the average adjusted hourly salary for a system
analyst from item B.3.d, Section VIII, CAF.

$-O-

(8) Approximately how many hours of programmer time will
be required annually to maintain the above software
developments?

-O- ✓

(9) Approximately how many hours of system analyst time
will be required annually to maintain the above
software developments?

-O- ✓

---

(10) Compute the total programmer software development
costs. *Items (4) x (6) above.*

$ -O-

(11) Compute the total system analyst software develop-
ment costs. *Items (5) x (7) above.*

$ -O-

(12) Total personnel costs for software development.
Add items (10) + (11) above.

$-O-

(13) Compute the total programmer annual software main-
tenance cost. *Items (6) x (8) above.*

$ -O-

(14) Compute the total system analyst annual software
maintenance cost. *Items (7) x (9) above.*

$-O-

(15) Compute total annual personnel costs for software main-
tenance. *Add items (13) + (14) above.*

$-O-

b. Computer Processing Costs

(1) Approximately how many hours of CPU time were required
to develop the above software modifications?

-O- ✓

(2) Approximately how many hours of CPU time will be re-
quired annually to maintain the above software
modifications?

-O- ✓

(3) Enter the total cost of an hour of CPU processing
time from item C.3, Section VIII, CAF.

$ -O-

(4) Compute the CPU cost for developing the above software
modifications. *Multiply items (1) x (3) above.*

$-O-

(5) Compute the annual CPU cost for the maintenance of the
above software modifications. *Multiply items (2) x (3)
above.*

$-O-

c. Total Software Modification Costs

(1) Total development costs. *Add boxes a(12) + b(4)
above. Enter total in box at the right and in item
D.1, Section II, CAF.*

$ -O-

(2) Total annual operating costs. *Add boxes a(15) + b(5)
above. Enter total in box at the right and in item
D.2, Section II, CAF.*

$-O-

5. Microfilm Costs

a. Is microfilm used as a medium for storing case disposition
source documents at the CSR? ✓

☑ Yes   ☐ No

If yes, answer the following questions:

b. Supplies and Processing Costs

(1) What is the estimated number of defendant records micro-
filmed/year (assumes 3 images per second)?

16,000 ✓

(2) Use the chart below to derive an average cost/record (3 images per second) for microfilming or enter your own estimates, if known.

Microfilming Process	Cost or Cost Range/Record
Roll Microfilm	$ 0.003 - $ 0.004
Microfiche	$ 0.458
Microfilm Jacket	$ 0.08 - $ 0.10

NOTE: The above costs are for supplies and processing only. Labor costs are not included.

$.01 √

(3) Compute total microfilming costs (less CSR labor). *Multiply item (1) x (2) above.*

$160

c. Equipment Costs

(1) Fill in the chart below to derive the cost of equipment used to microfilm case disposition source documents. *Include only equipment purchased or leased for P&S compliance.*

(a) Equipment Type (Specify)	Leased Equipment			Purchased Equipment				
	(b) Quantity Leased	(c) Annual Rental/ Unit	(d) Total Lease Cost (b) x (c)	(e) Quantity Purchased	(f) Purchase Price/ Unit	(g) Total Purchase Cost (e) x (f)	(h) Annual Maintenance Cost/ Unit Purchased	(i) Annual Maintenance Cost All Units (e) x (h)
Reader/ Printer				3	3,300	9,900	198	594

(2) Total annual rental fees. *Add figures in column (d).* $ -0-

(3) Total cost of purchased equipment. *Add figures in column (g).* $9,900.00

(4) What percentage of the above is chargeable to P&S? 19 % √

(5) Total annual maintenance cost. *Add figures in column (i).* $594.00

(6) Total microfilm equipment development cost. *Items (3) x (4). Enter total in box at the right and in item E.1, Section II, CAF.* $1,881.00

(7) Total annual microfilm equipment cost. *Items (2) + (5) above.* $754.00

d. Labor Costs

(1) How many hours of microfilm operator labor are spent on filming disposition records? 7,792.32

(2) What percentage of the above is chargeable to P&S? 19 % √

(3) Enter the average adjusted hourly salary of a microfilm operator from item B.3.f, Section VIII, CAF. $6.22

(4) Compute the total labor cost chargeable to P&S. *Items (1) x (2) x (3).* $9,445.32

e. Total Microfilm Operating Costs. Compute the total microfilm cost for supplies, leased equipment, and labor. *Add boxes b(3), c(7) and d(4). Enter total in box at the right and in item E.2, Section II, CAF.* $10,039.32

Appendix B.   EXCERPT OF AUTOMATED MODEL OUTPUT REPORT

I.   DISPOSITION REPORTING AND RECORDING COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
REPORTING DISPOSITIONS				0.			0.
RECORDING DISPOSITIONS							
DELINQUENT DISP. MONITORING							
SOFTWARE MODIFICATIONS	0.	0.					0.
MICROFILM				1881.			1881.
TOTALS	0.	0.	0.	1881.	0.	0.	1881.

II.   DISSEMINATION COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
DISSEMINATION PROCESSING							
TERMINAL & LINE COSTS				************		************	0.
SOFTWARE & PROCESSING	************	************					0.
TOTALS	************	************	0.	************	0.	************	0.

III. AUDITING FOR COMPLIANCE

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
FULL AUDITING							
PROCEDURE AUDITING							
AUDIT GUIDELINES	7762.						7762.
SOFTWARE DEVEL. & MAINTENANCE	************	************					0.
TOTALS	************	************	0.	0.	0.	0.	7762.

IV. SECURITY COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
PHYSICAL SECURITY					13750.		13750.
SOFTWARE SECURITY	0.	0.					0.
EMPLOYEE SCREENING, ORIENTATION,TRAIN. & PERFORMANCE	0.			0.	0.		0.
ADDITIONAL SECURITY PERSONNEL							
SECURITY COSTS TO LOCAL CJ AGENCIES	0.			0.	0.		60671.
TOTALS	0.	0.	0.	0.	13750.	0.	74421.

VI. PLANNING AND DEVELOPMENT & GROUP A

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
APPOINTED MEMBERS OF GROUP	6078.						6078.
SUPPORT STAFF	97623.						97623.
OFFICE & CONF. FACILITIES					3398.		3398.
TRAVEL & PER DIEM			863.				863.
OFFICE EQUIP., SUPPLIES & SERVICES				4688.			4688.
TOTALS	103701.	0.	863.	4688.	3398.	0.	112649.

VI.   PLANNING AND DEVELOPMENT : GROUP   B

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
APPOINTED MEMBERS OF GROUP	1425.						1425.
SUPPORT STAFF	35723.						:35723.
OFFICE & CONF. FACILITIES					1649.		1649.
TRAVEL & PER DIEM			282.				282.
OFFICE EQUIP.,SUPPLIES & SERVICES				2421.			2421.
TOTALS	37149.	0.	282.	2421.	1649.	0.	41501.

VI.   PLANNING AND DEVELOPMENT FOR P&S COMPLIANCE

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
ADDT'L PERSONNEL	0.						0.
OFFICE FACILITIES					0.		0.
TRAVEL & PER DIEM			0.				0.
EQUIP.,SUPPLIES & SERVICES				0.			0.
TRAINING PERSONNEL COSTS	6278.						6278.
TRAINING FACILITIES					0.		0.
TRAVEL & PER DIEM FOR TRAINING			881.				881.
TOTALS	6278.	0.	881.	0.	0.	0.	7160.

I. DISPOSITION REPORTING AND RECORDING COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
REPORTING DISPOSITIONS	6639.			496.			7135.
RECORDING DISPOSITIONS	42637.	10511.		128.			53276.
DELINQUENT DISP. MONITORING	622.		0.	438.			1060.
SOFTWARE MODIFICATIONS	0.	0.					0.
MICROFILM	9451.			754.			10205.
TOTALS	59348.	10511.	0.	1816.	0.	0.	71675.

II. DISSEMINATION COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
DISSEMINATION PROCESSING	7434.	165.		559.			8158.
TERMINAL & LINE COSTS				************		************	0.
SOFTWARE & PROCESSING	************	************					0.
DISSEMINATION REVENUE							0.
TOTALS	************	************	0.	************	0.	************	8158.

III.   AUDITING FOR COMPLIANCE

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
FULL AUDITING	14405.	0.	1650.	0.			16055.
PROCEDURE AUDITING	**************		************				0.
AUDIT GUIDELINES	518.			0.			518.
SOFTWARE DEVEL. & MAINTENANCE	**************	************					0.
TOTALS	**************	*************	************	0.	0.	0.	16574.

IV.   SECURITY COSTS

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
PHYSICAL SECURITY							
SOFTWARE SECURITY	0.	0.					0.
EMPLOYEE SCREENING, ORIENTATION, TRAIN. & PERFORMANCE	1126.						1126.
ADDITIONAL SECURITY PERSONNEL	0.						0.
SECURITY COSTS TO LOCAL CJ AGENCIES							15999.
TOTALS	1126.	0.	0.	0.	0.	0.	17125.

V.   RECORD CHALLENGE AND REVIEW

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
RECORD REVIEW	19.	2.		12.			33.
RECORD CHALLENGE	8.	1.		1.			6.
APPEALS PROCESSING	************	************		************			0.
TOTALS	************	************	0.	************	0.	0.	39.

VI. PLANNING AND DEVELOPMENT : GROUP   A

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
APPOINTED MEMBERS OF GROUP	2701.						2701.
SUPPORT STAFF	55733.						55733.
OFFICE & CONF. FACILITIES					4009.		4009.
TRAVEL & PER DIEM			173.				173.
OFFICE EQUIP., SUPPLIES & SERVICES				1298.			1298.
TOTALS	58434.	0.	173.	1298.	4009.	0.	63913.

VI.   PLANN◯AND DEVELOPMENT : GROUP   B

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
APPOINTED MEMBERS OF GROUP	570.						570.
SUPPORT STAFF	295.						295.
OFFICE & CONF. FACILITIES					0.		C.
TRAVEL & PER DIEM			0.				0.
OFFICE EQUIP.,SUPPLIES & SERVICES				0.			0.
TOTALS	865.	0.	0.	0.	0.	0.	865.

VI. PLANNING AND DEVELOPMENT FOR P&S COMPLIANCE

	PERSONNEL	COMPUTER PROCESSING	TRAVEL & PER DIEM	EQUIP, SUPPLIES, & SERVICES	FACILITIES	TERMINALS & LINES	TOTALS
ADDT'L PERSONNEL	0.						0.
OFFICE FACILITIES					0.		0.
TRAVEL & PER DIEM			0.				0.
EQUIP..SUPPLIES & SERVICES				0.			0.
TRAINING PERSONNEL COSTS	1256.						1256.
TRAINING FACILITIES					0.		0.
TRAVEL & PER DIEM FOR TRAINING			176.				176.
TOTALS	1256.	0.	176.	0.	0.	0.	1432.

SUMMARY OF PRIVACY AND SECURITY COSTS

FUNCTIONAL REQUIREMENTS	DEVELOPMENT COSTS	ANNUAL OPERATING COSTS
1. DISPOSTION DATA REPORTING AND RECORDING	1881.	71675.
2. DISSEMINATION	0.	8158.
3. AUDITING	7762.	16574.
4. SECURITY	74421.	17125.
5. RECORD CHALLENGE AND REVIEW	0.	39.
6. PLANNING FOR IMPLEMENATION	161310.	66210.
TOTALS	245374.	179781.

ROBERT L. MARX
1077 TICONDEROGA DRIVE
SUNNYVALE, CALIFORNIA 94087
TELEPHONE (408) 245-9441

RLM ASSOCIATES

Appendix C

COMMENTS ON

A PRIVACY COST MODEL

prepared for

The Institute for Law and Social Research

by

RLM Associates

February 1979

INTRODUCTION

On 19 March 1976 The Law Enforcement Assistance Administration (LEAA) published in the Federal Register its amended regulations concerning the collection, storage, and dissemination of information for criminal history records.

LEAA, through the National Criminal Justice Information and Statistics Service (NCJISS) has contracted with the Institute for Law and Social Research (INSLAW) to "develop costing data and principles relating to the expense of achieving compliance with the regulations." This contract, now nearing completion, has resulted in the construction of a cost model and associated data collection forms.

INSLAW has contracted with RLM Associates (Robert L. Marx) to provide a critical review of the cost model, and to comment concerning the rationality and applicability of the model.

During detailed conversations with the INSLAW project staff members, several recommendations for refinement of the model have already been presented and changes made. This report does not, then, represent a complete summary of our work but only that work not already responded to by INSLAW.

We have enjoyed the opportunity to review the model and collection forms. By the very nature of our task, there is a somewhat negative tone to this report. Let there be no inference drawn, however, that we are without respect for the product or the people who constructed it. On the contrary, we are convinced that the cost model is useful, professionally constructed, and marks an admirable beginning in the potentially fruitful area of determining the cost implications of policy decisions and regulations.

GENERAL COMMENTS

MODEL OVERVIEW

The cost model is organized in much the same way as the regulations themselves. There are six major sections of the model, each corresponding to a major portion of the regulations:

Disposition reporting and recording,

Record dissemination,

System audit,

System security,

Record challenge and review, and

Planning for system compliance.

Disposition Reporting and Recording. The regulations suggest the continuation or creation of a central state repository, and mandate that criminal history records kept there shall contain disposition information current to within 90 days. Although the regulations themselves define disposition as "information disclosing that criminal proceedings have been concluded" the amplifying remarks published with the regulations add the key words "within an agency". The number of dispositions per arrest record is multiplied several fold by this amplification.

Record Dissemination. The regulations specifically state that record dissemination is always voluntary on the part of the central repository, never mandated by the regulations. When dissemination does occur, however, the repository must make sure that the receiving person or agency has a right to the information (implying a list of authorized recipients) and that an audit trail of disseminations is provided (implying dissemination logs). To the extent that such procedures were not in effect before publication of the regulations, their institution and operation generate costs ascribable to the regulations.

System Audit. The regulations require that states conduct audits of a representative sample of state and local criminal justice agencies, to determine adherence to the regulations and in particular to check dissemination logs. The costs of such audit capability is included in the cost model developed by INSLAW.

Security. The regulations require security for

2

criminal history systems, including physical containment, personnel reviews, and computer hardware and software changes in some cases. To the extent that information systems were not in compliance before publication of the regulations, costs to come into compliance would be included in the INSLAW model.

Challenge and Review. The regulations outline procedures to assure that subjects of criminal history records can inspect them, challenge their accuracy or completeness, and obtain changes< they also provide that the successful challenger can obtain a list of non criminal justice recipients of the erroneous record. All costs to assure compliance with these provisions are picked up in the model.

Planning for Compliance. The regulations require a certification of compliance by each state, and the model allows for expenditures associated with the planning and administrative functions to achieve certification.

THE MODEL TYPE

We wish to describe the model in two dimensions. First, it is a marginal model rather than a system model. That is, it considers only the additional costs in a particular state needed to bring the previously existing system into compliance with the regulations, rather than considering all costs associated with operating the system. This is entirely appropriate in light of the INSLAW contract specifications. Nevertheless it makes it nearly impossible to estimate nationwide costs from costs in a few states. For example, a state may have already had a good professional system beforehand, so that compliance with the regulations would require only minor "touching up", whereas another state may have had little or no system at all, so that compliance with the regulations would incorporate nearly all the costs of building a system from scratch.

Second, the model is primarily a payout model rather than an economic model. That is, for the most part it does not consider the allocation of existing resources to newly mandated tasks, but only the procurement of new resources. Again the choice is appropriate in light of the contract objectives. It does, however, again make comparison betwen states or extrapolation from a few states' data impossible. There are a few exceptions, mainly in the computer area, where the model changes from a payout form to an economic form; these are discussed in the detailed comments later in this report.

3

LONG AND SHORT FORMS

The data collection form, and indeed the model itself, is similar to a tax collection form. Very detailed pieces of information are collected, and a specific method is ordered to aggregate the information pieces into intermediate cost figures, and then into cost figures for each of the six major compliance elements discussed above and for total compliance. This technique is analogous to the "long form" in the income tax. The model also provides a "short form" analogy, in which detailed and intermediate calculations can be avoided in favor of default values based on INSLAW experience in development of the model.

Unlike the tax analogy, however, the user is allowed to migrate between the long and short forms on an item by item basis. The result of this provision is that, within limits, a state can make the resulting cost estimate somewhat larger or smaller than it would otherwise be by figuring the costs both ways, then selecting the more advantageous figures for each cost element.

This is not a serious deficiency of the model, as long as it is seen primarily as a method to understand the impact of the regulations, rather than the foundations for future funding requests from the states to NCJISS. If the model is intended for such a purpose, it should be considered as merely a preliminary estimate, to be backed up with a detailed budget in the conventional way for grant applications.

CONCOMITANT CHANGES

The cost figures derived from this model, even if carefully estimated, should not for a moment be thought of as a plan of action for the state concerned. The regulations provide an opportunity to rethink the whole concept of criminal history and the central state repository. By its very nature the model provides costs as if everything else were to stay the same whereas we can hope that substantial changes will be undertaken at the same time that compliance is achieved. For example, many state repositories file and maintain all arrest fingerprint cards received, whether or not the arrests are for crimes covered by their state mandatory reporting law; simple adherence to the letter of their own laws could substantially reduce operating costs without hindering effectiveness and while complying with the regulations. This is also the proper time to consider automation, or perhaps to make major alterations in the existing automated system. It is possible that now is the time to consider subject in process systems, or

purge and expungement laws or any of many other modifications to the 'old ways'. In short, for many states future expenditures will bear little relationship to the costs estimated here. This should not be considered a failure of the model, but rather a success for those system managers who recognize the regulations as a vehicle for change rather than a burden to be borne.

GENERAL APPLICABILITY OF THE MODEL

The model is suitable - in fact excellent - as a way to estimate costs of compliance with the regulations without concomitant changes in the system. It is our opinion that for most states the short form will be sufficient to gain the level of detailed knowledge necessary for their internal purposes. The long form, useful perhaps in some cases, seems to promise a level of precision that no such model can deliver.

Some may try to read into the model an implicit plan of action, that is a primer of what to do in order to assure compliance. Although the model, especially the titles of some of the cost components, may seem to suggest such an interpretation, it should be resisted. The model output is not the budget section of a grant request or state plan, it is merely an estimate of what could be involved financially, depending on the strategic and tactical actions of the individual state.

The model results should not be used to compare the status of one state to that of another, nor the efficiency of one state to that of another. The security and privacy regulations probably do not represent anything like a major component of the total cost picture for criminal history record keeping.

The model can be very useful to LEAA itself. Since the model outputs are closely related to sections of the regulations themselves, it could be useful to see what sections of the regulations 'caused' the most additional costs. Both for these regulations and for others which might be drawn in the future, it would be useful for the regulators to develop a sensitivity to the costs of compliance. As we have already suggested, the specific model outputs themselves may be less important here than merely acting to form a consciousness and way of thinking about costs for various regulatory forms.

GENERAL COMMENT ON QUALITY OF THE MODEL

The INSLAW cost model is well done and thoroughly professional. In any particular state it may be difficult or impossible to collect some of the primary cost element data specified in the model; this is less a

criticism of the model than a statement about the diversity of budget methods and operational methods among the states. Its applicability to the broad range of questions facing states and the federal government concerning criminal history systems is not broad; this is not because the model is incompetent but because it was designed to answer questions in the narrow focus of a particular set of regulations.

ORGANIZATION OF THE REPORT

The remainder of this report is presented in chapters corresponding to the major sections of the data collection forms and cost model.

SECTION II AND SCHEDULE B

Section II and schedule B are the short and long forms respectively of the data collection form for costs associated with the reporting and recording of disposition information in compliance with the regulations. (Section I is a cost summary section and there is no schedule A, so these are the first portions of the model discussed).

DETERMINING THE NUMBER OF DISPOSITIONS

Dissemination reporting and recording represent one of the larger cost elements under consideration. The INSLAW approach is to estimate or measure the number of disseminations reported before and after the regulations. Unfortunately this is far trickier than it at first seems. The model assumes that one can subtract the prior dispositions received from the current arrest notifications received to arrive at an estimate of disposition reports attributable to the regulations. Implicit here is the assumption that each arrest generates one and only one disposition. Although this may on occasion be true, it is subject to two kinds of counterexample. First, a single arrest may involve multiple charges (e.g. an arrest which "clears" twenty burglaries); depending on the system in use in the state, each of the charges can generate dispositions. Second, each charge may result in multiple dispositions; for example conviction, sentence, release from prison, release from parole. Such multiple dispositions seem to be contemplated in the amplifying remarks if not in the regulations themselves.

Once the number of dispositions chargeable to the regulations is estimated, the default values ($0.50 - 0.69 for reporting or $0.60-0.78 for recording) give the required cost figures directly in the short form. These default values seem reasonable notwithstanding the fact that a test run in Virginia yielded much higher numbers using the long form approach.

The short form next takes up the matter of delinquent disposition monitoring. Here the form provides the implicit assumption that each arrest reported results in 3.5 dispositions, and that all such dispositions are delinquent. The differences in treatment here compared to the earlier estimation of total dispositions attributable to the regulations is obvious. Changes should be made to (a) normalize only to those dispositions attributable to the regulations (by subtracting those dispositions previously received) and to estimate the same number of dispositions per arrest in both cases. A cost of $0.74 is then assigned to

monitor each delinquent disposition; the amount seems
reasonable, but we have no data to support or refute it.

Next the short form takes up the subject of software
modifications to support disposition recording and
delinquent disposition monitoring. Both development and
operating costs are allowed. We assume that operating
costs are primarily what is usually called "software
maintenance". If so we doubt that such costs should be
allowed. Software maintenance usually comes about in
response to redefined objectives; but the regulations
are unlikely to be redefined, and in any case the task
was to define costs of meeting the regulations as they
exist.

Finally the short form takes up the subject of
microfilm. Costs are to be tabulated if the microfilm is
being used "...as a result of the regulations." We
frankly do not see how any aspect of the regulations can
be construed to mandate microfilm. Microfilm is used, if
at all, because it is perceived as more efficient in
retrieval or storage than manual storage. Since we don't
allow a cost item for manual storage facilities, we
shouldn't allow such an item for microfilm systems.

CALCULATING COSTS USING THE LONG FORM

The long form (schedule B) presents some of the
same conceptual difficulties as the short form in the
estimation of dispositions to be received.

In the case of data entry equipment, the costs of
equipment rental and maintenance are to be included only
if the equipment is used solely in support of the
regulations. This seems proper in light of our
introductory comments that this is a "payout" model
rather than an economic allocation model. Later in the
schedule, however, computer CPU time is included on a
task basis even if the computer is used only partially
in support of the regulations. Granted that there are
some situations in which there is actually a payout for
each incremental unit of CPU time, more often the
equipment is on a general lease agreement in which lease
costs stay the same regardless of usage. We therefore
think that CPU time should be excluded from the model.

A similar arguement can be made concerning
microfilm equipment. The data collection form does not
specify that the equipment must be used solely for
compliance with the regulations (cf. our comments above
for the short form). Moreover the scaling factor called
for in the form is the total number of dispositions
filmed rather than the net amount ascribable to the
regulations.

8

SECTION III AND SCHEDULE C

Section III and schedule C are the short and long
forms respectively concerned with dissemination costs.
Note that the regulations neither mandate nor forbid
dissemination, but merely regulate the types of
information that may be disseminated (current, accurate,
and complete) and dictate dissemination logs so that
innacurate information disseminated can be corrected
later.

Currency, accuracy, and completeness costs are
primarily handled elsewhere in the cost model (e.g.
delinquent disposition monitoring, audit, etc.). This
section of the cost model should properly contain costs
directed to the dissemination log maintenance and some
quality control for completeness and accuracy just
before dissemination.

We do not believe that the data collection forms
adequately draw this distinction. The costs seem to be
all costs associated with dissemination, not just those
in direct support of the regulations. For example, the
model includes costs for fingerprint classification,
pulling subject's file, preparing record for mailing,
costs for postage, envelopes, and copying, computer
record inquiries, and so forth. These costs would be the
same whether or not the regulations existed; they are
caused by the act of dissemination, not by the
regulations.

By the same token, revenue collected for
disseminations is deducted from the cost of
dissemination. Again the revenue derives from the
dissemination rather than the regulations. Here the
problem is more subtle; if a state repository is
charging for some disseminations, then it should not
show payout costs for regulation compliance on those
disseminations. Perhaps the best way would be to ignore
reimbursed disseminations from the workload, on the
assumption that fees are set to recapture all costs.

The model provides a default value (4.145 times the
number of arrests reported) to be used if the actual
number of disseminations is not known. We do not know
how this default value was derived, but are suspicious
of it. Perhaps it was meant to represent one
dissemination for the arrest report itself and one for
each disposition reporting for that arrest. If so, it
ignores the substantial number of disseminations to
licensing agencies etc., and also probably overestimates
in the sense that many states do not disseminate
automatically whenever arrest or disposition data is
received. In any case the default is almost surely

9

unnecessary, since state repositories "always" keep monthly statistics concerning the number of disseminations.

The model provides for costs associated with logging disseminations in an automated system. The default values, which include storage medium costs and amortization of a tape or disk drive, are inordinately high (nearly $4.00 per dissemination in the case of a small system tape log) because of the underlying assumption that a drive will be dedicated to this task alone, and thus must be written off in the cost of logging. In fact the cost of such logging should be very small if good design practice (which calls for transaction logging) has already been practiced and the logging required by the regulations can be piggy-backed on this existing capability. We believe that a single default value, probably in the range of $.01 per dissemination, would be more appropriate, in which case the cost impact would be so modest as to be ignorable.

Our comments offered earlier about computer CPU time - briefly we believe that in most instances the use of computer time does not represent a payout type cost appropriate for the model - are also relevant here.

SECTION IV AND SCHEDULE D

Section IV and schedule D are the short and long forms respectively concerned with costs of auditing for compliance with the regulations.

Most of the problems of distinguishing whether costs are directly attributable to the regulations, which arise in other areas, do not exist in the audit area because noone performed such audits until required to do so. Problems involving the distinction between payout costs versus cost allocation do not occur either, since the audits tend to be separable and identifiable activities which can be counted and priced.

The cost areas identified in the data collection form are relatively straightforward:

The design, maintenance, and distribution of audit guidelines and the design and maintenance of support software;

The extraction and copying of random samples of criminal records;

Travel to selected sites and conduct of the audits;

The preparation of audit reports.

Each of these cost areas is described and appropriate intermediate data collected to allow cost estimation for the entire audit function. At times the methodology employed to collect the intermediate data is slightly clumsy (e.g. sometimes we start with the number of auditors on the staff, other times with the number of audit sites visited; one method or the other could be selected and all the questions framed in the same way). We can detect no serious flaw in the logic (as distinct from style), however, and have no critical comments on this section.

Our earlier comments concerning the inclusion of computer CPU time - we believe it should be excluded as not being a payout type cost - are relevant here.

SECTION V AND SCHEDULE E

Schedule E is the long form for estimating costs in the security area. Unlike other sections of the form, there are no default values and therefore no short form in the usual sense; rather, section V is a sort of tally sheet for intermediate results.

For the most part the schedule is straightforward. There are two areas in which we offer comments below.

The form asks for an estimate of the number of personnel background investigations made, and then for an estimate of what percentage of these are attributable to the regulations. We believe it would be better to ask first whether background investigations were required for any personnel positions prior to the regulations and the number of such investigations in the last full year before the regulations, then to get the comparable number for the year after the regulations, and to use these data as the basis for the cost estimate. In this way we can avoid some of the subjectivity implicit in the question as now stated.

The form asks for the number of agencies subject to the regulations, and then asks the responder to picture an "average" agency and to estimate the security costs for that agency. We are unable to formulate an alternative approach, but are uncomfortable with this one. In most states there will be hundreds of such agencies varying widely in size, sophistication, and security requirements. With such a large "multiplier effect" even small errors in estimation will be magnified, and could bias the entire cost estimate significantly. Perhaps this cannot be avoided; it may be worthwhile to isolate these cost estimates (along with others to be borne at the local agency level) in the model results, so that they can be examined separately from those costs borne at the state level, where the forms are most likely to be filled out.

SECTION VI AND SCHEDULE F

Section VI and schedule F are the short and long forms related to record challenge and review.

The forms actually treat three separable functions:

Record Review,

Record Challenge, and

Appeals Processing.

For each of these major functions, several cost areas are explored, including:

The cost of forms,

Labor costs (including clerks, hearing officers, etc),

Photocopy costs,

Postage, telephone, and telecommunications costs.

The method layed out in the long form is straightforward, and we have no negative comments. In the short form default values for costs are provided: $1.93 per record review, $8.63 per record challenge, and $75.99 per appeal process. Although we have no data to support us, we believe that these values may be on the low side, perhaps by a factor of three or so. Perhaps we are concerned primarily by our perception that reviews and challenges are not yet routine in nature, and thus consume supervisory and management labor time out of proportion to the inherent difficulty of the tasks involved. If INSLAW can support the default values, either through collection of cost data in other states or through task analysis methods, we have no further commentary on this section.

SECTION VII AND SCHEDULE G

These are the short and long forms associated with costs for planning and development of legislation, rules, policies, standards, or methods for compliance with the regulations. Perhaps the title could more appropriately distinguish between the planning function (which covers 'development' costs in the sense used in the model, and an administration function (which covers the 'annual operating costs' discussed in the model.

The complexity of this area is perhaps best shown by pointing out that the long form is eleven pages long (multiplied by the number of separate planning groups within the state!) and even the short form is an unshort four pages long.

Although the point is brought up in the forms several times, we believe that it should be emphasised even more that the discipline of the model requires that only those costs which are directly ascribable to the regulations, and only costs that were clearly payouts should be reflected on the forms. This point is especially important in the area of boards and commissions, most members of which are not paid separately and distinctly for service on the board, but rather attend as part of the 'other duties assigned' with their regular government positions. Labor costs for these persons should not be included, although travel and other specific costs may be.

Some boards and commissions should also be excluded on the arguement that their involvement in planning for or administering the regulations is minimal and incidental for their major purpose for existence. For example, many information system policy boards spend much of their time discussing possible new applications for the system, funding, and policies distinct from the subject matter of the regulations.

Finally, the reminder should be given that preexisting bou s, commissions, staffs, and programs do not fall within the scope of the cost model. Several states were concerned with security and privacy long before 19 March 1976; continuation of such interest and programs does not constitute an allowable cost in the model.

SECTION VIII AND SCHEDULE H

Section VIII and Schedule H are concerned with frequently used cost factors which recur in other portions of the model. Perhaps they are best thought of not as integral parts of the model but rather as ancillary to the model.

Cost estimation procedures are provided for various categories E of labor, for computer processing, report generation, and inquiry, for office space, equipment, and supplies, for forms and photocopies, and for travel and subsistence.

We have already commented, perhaps too often, about our feeling that most computer time costs should not enter into the model since it is usually not a payout cost. With this exception we have no major comments concerning the methods used or the default values proposed.

This completes our critique of the INSLAW cost model. For the reader who has patiently (or not so patiently) read through the seemingly neverending negativism, nihilism, and nitpicking of this report, we request one final task: return to the introductory remarks, in which we suggest that the model is solid, professional, and useful within the bounds for which it was constructed.

END