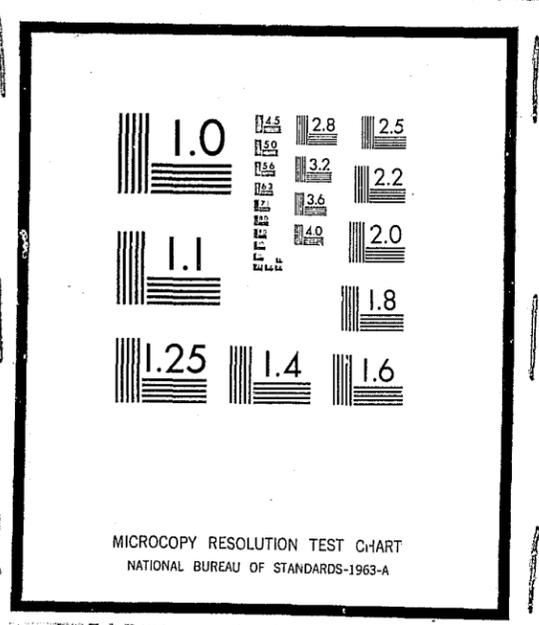


# NCJRS

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504

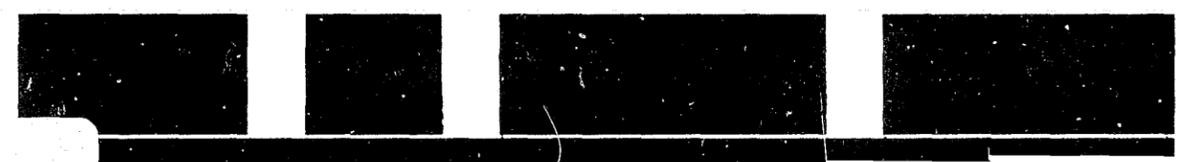
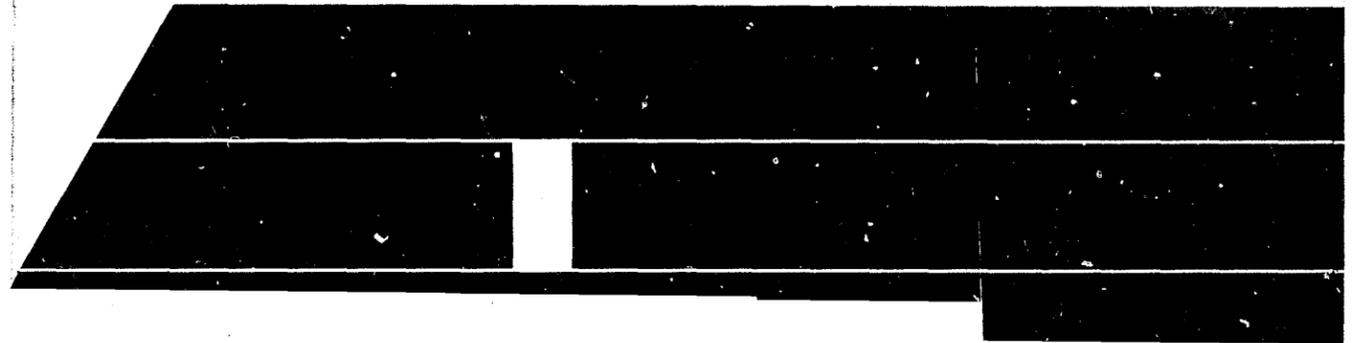
Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U.S. Department of Justice.

U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION  
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE  
WASHINGTON, D.C. 20531

9/22/76  
Date filmed

## Who Gets Detained?

### An Empirical Analysis of the Pre-adjudicatory Detention of Juveniles in Denver



DUP



17417  
Final Report



U.S. DEPARTMENT OF JUSTICE Law Enforcement Assistance Administration  
National Criminal Justice Information and Statistics Service  
UTILIZATION OF CRIMINAL JUSTICE STATISTICS ANALYTIC REPORT 3

**UTILIZATION OF CRIMINAL JUSTICE  
STATISTICS PROJECT Publications**

**Sourcebook of Criminal Justice Statistics – 1973**  
by Michael J. Hindelang, Christopher S. Dunn, L. Paul  
Sutton, A. L. Aumick

**Sourcebook of Criminal Justice Statistics – 1974**  
by Michael J. Hindelang, Christopher S. Dunn, A. L.  
Aumick, L. Paul Sutton

**Public Opinion Regarding Crime, Criminal Justice, and  
Related Topics**  
by Michael J. Hindelang

**New Directions in Processing of Juvenile Offenders:  
The Denver Model**  
by Lawrence E. Cohen

**Who Gets Detained? An Empirical Analysis of the  
Pre-adjudicatory Detention of Juveniles in Denver**  
by Lawrence E. Cohen

**Juvenile Dispositions: Social and Legal Factors Related  
to the Processing of Denver Delinquency Cases**  
by Lawrence E. Cohen

**Offender-Based Transaction Statistics: New Directions  
in Data Collection and Reporting**  
by Carl E. Pope

**Sentencing of California Felony Offenders**  
by Carl E. Pope

**The Judicial Processing of Assault and Burglary  
Offenders in Selected California Counties**  
by Carl E. Pope

**Other National Criminal Justice Information and  
Statistics Service Reports**

**Criminal Victimization Surveys in the U.S.: 1973**

**Criminal Victimization Surveys in the Nation's Five  
Largest Cities: National Crime Panel Surveys in Chicago,  
Detroit, Los Angeles, New York, and Philadelphia**

**Criminal Victimization Surveys in 13 American Cities:  
National Crime Panel Surveys in Boston, Buffalo,  
Cincinnati, Houston, Miami, Milwaukee, Minneapolis,  
New Orleans, Oakland, Pittsburgh, San Diego, San  
Francisco, and Washington, D.C.**

**Crime in Eight American Cities: National Crime Panel  
Surveys in Atlanta, Baltimore, Cleveland, Dallas, Denver,  
Newark, Portland, and St. Louis—Advance Report**

**Crimes and Victims: A Report on the Dayton-San  
Jose Pilot Survey of Victimization**

**The Nation's Jails: A report on the census of jails from  
the 1972 Survey of Inmates of Local Jails**

**Survey of Inmates of Local Jails, 1972: Advance Report**

**Children in Custody:**

Advance Report on the Juvenile Detention and  
Correctional Facility Census of 1972-73

Report on the Juvenile Detention and Correctional  
Facility Census of 1971

**National Prisoner Statistics Bulletins:**

Capital Punishment 1974, 1973, 1971-72 (3 volumes)

Prisoners in State and Federal Institutions on  
December 31, 1971, 1972, and 1973

Census of State Correctional Facilities 1974:  
Advance Report

**National Survey of Court Organization: 1975**  
Supplement to State Judicial Systems

**Criminal Justice Agencies in Regions 1-10 (10 volumes)**

**Historical Statistics on Expenditure and Employment  
for the Criminal Justice System: 1971 to 1973**

**Expenditure and Employment Data for the Criminal  
Justice System: 1972-73**

**Utilization of  
Criminal Justice Statistics  
Project  
ANALYTIC REPORT 3**

**WHO GETS DETAINED?  
An Empirical Analysis of the  
Pre-adjudicatory Detention  
of Juveniles in Denver**

by **Lawrence E. Cohen**  
Research Analyst

CRIMINAL JUSTICE RESEARCH CENTER  
Albany, New York

This project was supported by Grant No. 72-SS-99-6006, awarded to the Criminal Justice Research Center, Albany, New York, by the Statistics Division, National Criminal Justice Information and Statistics Service, Law Enforcement Assistance Administration, U.S. Department of Justice, under the Omnibus Crime Control and Safe Streets Act of 1968, as amended; the project, entitled "Utilization of Criminal Justice Statistics," is being directed by Michael J. Hindelang and monitored for LEAA by Sue A. Lindgren. Points of view or opinions stated in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

LEAA authorizes any person to reproduce, publish, translate, or otherwise use all or any part of the copyrighted material in this publication, with the exception of those items indicating that they are copyrighted by or reprinted by permission of any source other than the Criminal Justice Research Center.

Copyright 1975 by Criminal Justice Research Center

NCJR 3

JUN 22 1976

ACQUISITIONS

SD-AR-3 1975

U.S. DEPARTMENT OF JUSTICE

Law Enforcement  
Assistance Administration

National Criminal Justice  
Information and Statistics  
Service

**U.S. DEPARTMENT OF JUSTICE  
Law Enforcement Assistance Administration**

**Richard W. Velde, Administrator**

**Harry Bratt, Assistant Administrator  
National Criminal Justice Information and  
Statistics Service**

**Benjamin H. Renshaw, III, Director  
Statistics Division**

**Library of Congress Cataloging in Publication Data**

Cohen, Lawrence E.  
Who gets detained?

(Analytic report — Utilization of Criminal Justice  
Statistics Project; SD-AR-3)

Bibliography: p.

Supt. of Docs. no.: J 1.42/3:SD-AR-3

1. Juvenile justice, Administration of—Denver—  
Statistics. 2. Juvenile Courts—Denver—Statistics.

I. Title. II. Series: Criminal Justice Research  
Center. Utilization of Criminal Justice Statistics  
Project. Analytic report — Utilization of Criminal  
Justice Statistics Project; SD-AR-3.

KFX1353.2 1975b 345'.78883'08 75-619296

THE UTILIZATION OF CRIMINAL JUSTICE STATISTICS Project was funded initially in 1972 by the National Criminal Justice Information and Statistics Service of the Law Enforcement Assistance Administration. One primary aim of the project is the production of annual editions of the Sourcebook of Criminal Justice Statistics, a compilation of available nationwide criminal justice statistical data. A second aim has been and continues to be an examination of the utility that a variety of criminal justice statistical data bases have for addressing questions of practical and theoretical interest in the field.

One product of that examination is a series of analytic reports, of which this volume is one. These reports, written by research staff members of the Utilization of Criminal Justice Statistics Project, all have a common theme: the discussion of a central criminal justice topic using an exemplary or innovative criminal justice data base. Each report in the series not only discusses substantive findings in regard to particular issues, but also considers the qualities and limitations of the data, as well as techniques and problems of analysis, in relation to the substantive findings.

At a time when criminal justice statistics development is extensive, and often expensive, these analytic reports focus attention on one often overlooked function of criminal justice statistics—the analysis of current issues and questions based on available data. In fact, the utilization issue is perhaps as important as any in the area of criminal justice statistics. It often happens that data are collected—usually at great expense—without subsequent efforts to utilize such data to address the pressing problems that confront criminal justice. This series of Analytic Reports explores the problems and prospects inherent in the application of various sources of criminal justice statistical data to issues of interest and concern to agency personnel, planners, researchers, and the public alike.

**MICHAEL J. HINDELANG  
Project Director**

## PREFACE

THIS IS THE SECOND in a series of papers that address issues concerning the processing of juvenile offenders. The series of papers on juvenile processing (listed inside the front cover) uses data collected on juvenile court dispositions in Denver during 1972. These data are perhaps one of the most comprehensive sources of information on juvenile court dispositions now available. The scope of the Denver information makes it possible to assess the importance of variables of two general types—legal and status—in the disposition of juveniles. A variety of appropriate statistical techniques and controls are applied.

In this report, an attempt is made to discover the variables or combinations of variables that most substantially account for the variation in *detention decision* outcomes.

In a subsequent report data collected from the Denver Juvenile Court will be used to determine the extent to which the social biographies and personal attributes of juveniles, as opposed to “legally relevant” variables, account for the variation in the severity of *disposition* finally accorded the child.

The author is greatly indebted to a number of individuals whose assistance and cooperation greatly facilitated this research and wishes to express gratitude to Betty White, Director of Intake for the Denver Juvenile Court, and Anthony Pasciuto, Tom Giacinti, and John Carr of the Denver Anti-Crime Council for their assistance and cooperation in securing the data utilized for these studies and in arranging interviews with court personnel.

---

## CONTENTS

Preface . . . . .	5
Introduction . . . . .	11
The Research Setting . . . . .	12
The Denver Juvenile Court . . . . .	12
The Detention Process in Denver . . . . .	13
The Juvenile Detention Center . . . . .	15
Previous Empirical Work . . . . .	15
Methodology . . . . .	16
Data Analysis . . . . .	17
Age and Detention . . . . .	17
Sex and Detention . . . . .	17
Ethnicity and Detention . . . . .	18
Socioeconomic Status and Detention . . . . .	19
Family Stability and Detention . . . . .	20
Present Activity and Detention . . . . .	20
Prior Court Referrals and Detention . . . . .	21

Data Analysis—(Continued)

Seriousness of Offense and Detention . . . . .	22
Type of Referral Agency and Detention . . . . .	22
Summary of the Bivariate Relationships . . . . .	23
Multivariate Findings . . . . .	23
Summary of the Multivariate Findings . . . . .	25
Summary and Conclusion . . . . .	25
Appendix A—Bivariate Correlations (r) and Beta Weights Representing the Direct Effects of the Independent Vari- ables on Detention Decision Outcomes . . . . .	27
Appendix B—PAA Results in Terms of Percent Detained . . . .	28
Bibliography . . . . .	29

---

TABLES

1 Detention Decision Outcome by Age . . . . .	17
2 Detention Decision Outcome by Sex . . . . .	18
3 Detention Decision Outcome by Ethnicity . . . . .	18
4 Detention Decision Outcome by Socio- economic Status . . . . .	19
5 Detention Decision Outcome by Family Stability . . . . .	20
6 Detention Decision Outcome by Present Activity . . . . .	21
7 Detention Decision Outcome by the Number of Prior Court Referrals . . . . .	21
8 Detention Decision Outcome by Severity of Offense . . . . .	22
9 Detention Decision Outcome by Type of Referral Agency . . . . .	23

---

## WHO GETS DETAINED?

### An Empirical Analysis of the Pre-adjudicatory Detention of Juveniles in Denver

#### Introduction

JUVENILE DETENTION is generally defined as "the temporary care of children who require secure custody for their own or the community's protection in physically restricting facilities, pending court disposition" (Sheridan, 1966:23). The detention of juveniles prior to an adjudicatory hearing is only one of many controversial issues involving the practices of American juvenile courts and agencies.<sup>1</sup> Critics have charged that among other things, the facilities used to detain children in many jurisdictions are inadequate and hence fail to properly care for the children they confine, and that intake and discharge patterns at these facilities are often arbitrary and capricious.<sup>2</sup>

According to a survey conducted by the National Council on Crime and Delinquency, approximately 409,000 or about two-thirds of all juveniles apprehended by the police in 1965 were held in detention facilities for an average of 12 days.<sup>3</sup> A more recent survey is *Children in Custody: A Report on the Juvenile Detention and Correctional Facility Census of 1971*, the first census of public State and local residential facilities for

both adjudicated juveniles and those awaiting court action. The report states that the June 30, 1971, population for the 321 detention centers and shelters surveyed was 12,111; on the average, juveniles were held in detention centers for 11 days and in shelters for 20 days.<sup>4</sup> As important and widespread as the detention process is in our juvenile justice system, this decision has seldom been the subject of systematic empirical research. By far the most important reason underlying the failure of researchers to study the detention decision process adequately is related to court recordkeeping practices; a large number of juvenile courts do not keep appropriate records.<sup>5</sup> However, one convenient data base is compiled by the Denver Juvenile Court.

The data collected by the Denver Juvenile Court are among the most complete in the country. For each child brought before the court, a case history record is compiled, which contains detailed information regarding the juvenile's age, sex, ethnicity, and the Denver census tract in which he or she resides. This form also contains information relating to a host of other variables, such as the type of offense for which the juvenile was apprehended, the agency which referred the child to the court (police, school, welfare, etc.), data concerning prior juvenile court record, parents' income and marital status, home situation, and whether the child is in school,

---

<sup>1</sup>For a summary of the actual issues facing the American juvenile courts, see Glen and Weber, 1971.

<sup>2</sup>See N.C.C.D., *Standards and Guides for the Detention of Children and Youth*, 1961, 2nd ed., p. xxii.

<sup>3</sup>President's Commission on Law Enforcement and the Administration of Justice, *Task Force Report: Juvenile Delinquency and Youth Crime* (Washington, D.C.: U.S. Government Printing Office, 1967), p. 37.

<sup>4</sup>See U.S. Department of Justice, *Children in Custody: A Report on the Juvenile Detention and Correctional Facility Census of 1971* (Washington, D.C.: U.S. Government Printing Office).

<sup>5</sup>See Ferster *et al.*, 1971, p. 32.

working, or idle. Finally, this form contains information concerning the types of treatment the child receives from the court. The case history record notes whether or not the child was held in detention, whether the child's case was treated informally or handled formally by the filing of a petition, and the type of final case disposition accorded by the court.<sup>6</sup>

It will be our purpose here to analyze data pertaining to detention practices within the Denver Juvenile Court. Specifically, we wish to determine the extent to which the biographical and social attributes of juveniles, as opposed to "legally relevant" variables (such as prior record and severity of offense) accounted for the variations in decisions to detain juveniles prior to adjudication in 1972. However, before undertaking this task, a short description of some of the characteristics of the city of Denver, its juvenile justice system, and the detention process itself will be presented.

## The Research Setting<sup>7</sup>

The 1970 census lists Denver as the 25th most populous city in the United States, with an estimated 515,000 residents. Of this population, 31 percent were younger than 18, and thus, came under the jurisdiction of the Denver Juvenile Court. The city's ethnic composition was mainly white (89 percent), followed by black (9 percent), and "other", a residual category (2 percent). Of the city's white population, approximately 18 percent were classified by the census as persons of "Spanish heritage."

The median family income in Denver was \$9,650 during 1969. However, "Spanish heritage" and black families earned median incomes of \$7,323 and \$7,278, respectively. The median educational level for those in Denver over the age of 25 was 12.5 years. Blacks had a median educational level of 11.0 years; their "Spanish heritage" counterparts, slightly less (10.0 years). Thus, less than half of the city's blacks and persons of "Spanish heritage" older than 25 were high school graduates.

Official crime statistics indicate that approximately half of all reported crimes in the state of Colorado

occurred in the County and City of Denver, though only one-fourth of the State's population resided in this geographic area.<sup>8</sup>

According to a recent analysis by the City and County of Denver (1972), the greatest proportion of serious crimes in Denver occurred in census tracts that had: 1) the greatest increase in recipients of aid for dependent children; 2) the greatest percentages of those on welfare; 3) the greatest proportion of the population younger than 18; 4) the greatest percentage of those living in overcrowded housing; 5) the greatest population density; 6) the greatest number of public housing facilities; 7) the greatest percentage of rental housing; and 8) the greatest percentage of minority residents.<sup>9</sup>

Reports compiled by the metropolitan Denver Police Department's Crime Information Service indicate that of all those arrested in Denver for index crimes in 1972, more than half were juveniles. As a result of the substantial involvement of juveniles in illegal activities, the City of Denver is forced to rely heavily on its juvenile justice system for the processing of apprehended offenders.

## The Denver Juvenile Court

The Denver Juvenile Court was first authorized by the Colorado State Legislature in 1903. However, in 1899 Judge Ben Lindsey was instrumental in guiding through the legislature laws that provided for a special court for handling "disorderly" Denver juveniles. Such persons were identified under a Colorado school law as:

Every child . . . who does not attend school . . . or who is in attendance at any school and is vicious, incorrigible or immoral in conduct, or who is an habitual truant from school, or who habitually wanders about the streets during school hours without any lawful occupation or employment, or who habitually wanders about the streets in the night time.<sup>10</sup>

Although this court was supposed to provide treatment for juveniles who habitually misbehaved at school, Lindsey deliberately extended this enactment to include all children of school age. Hence, as of April 12, 1899,

all Denver children of school age who came in contact with the courts were being handled by this special court.<sup>11</sup> This led Lindsey to claim that his was the first juvenile tribunal in the country, thereby predating the Cook County Court by several months. Today, the Denver Juvenile Court maintains its innovative traditions and closely mirrors the adult processing system with respect to the requirements of due process.<sup>12</sup>

At the time our data were collected, the Denver Juvenile Court had two full-time judges and two full-time referees to preside over hearings. These judges and referees were assisted by the Juvenile Probation Department, which conducted pre-disposition investigations on the background of juvenile offenders and made recommendations to judges regarding final dispositions. At the time of the observations for the present research, there were 20 juvenile counselors working under the court's direction, each of whom had an average caseload of approximately 43 juveniles.<sup>13</sup>

In 1972, the Denver Juvenile Court processed 5,700 complaints against children who had allegedly violated laws or statutes pertaining specifically to juveniles. In addition, the court also handled more than 5,000 matters concerning dependency and neglect cases, adoptions, paternity suits, and consents to wed among juveniles. Our concern will be limited to the processing of the 5,700 delinquency referrals. Of these juvenile court delinquency referrals, 88 percent came to the court's attention through the Denver Police Department; the remaining 12 percent of the complaints were forwarded through school and welfare agencies, or parents who did not feel they could control their children.

Given the large volume of cases appearing before the Denver Juvenile Court, the time required to process cases is considerable. For example, in 1972, because of the number of backlogged cases, it took an average of 76 days from the time a case reached the intake division of the court until a decision was made as to whether a petition should be filed, whether the child should be placed under informal supervision, or whether the case should be referred to some outside agency. This time period was even longer for the cases finally brought to

the attention of juvenile court judges. In 1972, cases that reached the court in which the child admitted guilt required, on the average, 130 days until termination, but adjudicated cases that were contested averaged 211 days from the time the complaint was received until it was disposed of by the court.<sup>14</sup>

To obtain the information necessary to describe the manner in which juveniles are processed by the Denver Court, lengthy systematic interviews were conducted with juvenile officers over a 2-week period in October 1973. Furthermore, the author observed all phases of the court's proceedings and activities during this period. A description of the detention process gathered from these interviews and observations follows.

## The Detention Process in Denver

By statute, the probation intake division of the Denver Juvenile Court is required to make recommendations as to whether juveniles are to be held in detention or released to the custody of their parents or guardians prior to an adjudicatory hearing.

This intake unit is generally composed of a supervisor and six probation officers. Among themselves, they provide coverage 7 days a week for approximately 18 hours a day. Each of these officers is assigned to intake on a full-time basis; the officers estimated that they spent about 2 hours interviewing each of the juveniles passing through the intake phase.

Court procedure requires that each child brought into Juvenile Hall be interviewed by one of the intake officers prior to admittance. It is the duty of the intake officer to determine immediately if the child is on probation or is residing within another jurisdiction.<sup>15</sup> If it has been determined that the child meets one of these conditions, the probation intake officer then notifies the proper agency and holds the child in custody until he or she can be transferred. All other juveniles are interviewed with their parents or guardians present.

The probation intake officer subsequently decides whether the child is to be released or held in detention. Probation department guidelines make it clear that

<sup>6</sup> See Cohen, 1974, p. 298.

<sup>7</sup> The following material was also presented in an earlier report. (See *New Directions in Processing Juvenile Offenders: The Denver Model*). Readers familiar with the earlier report may wish to skip directly to the data analysis section.

<sup>8</sup> See City and County of Denver, *Crime Reduction: High Impact Anti-Crime Program*, 1972, p. 22.

<sup>9</sup> See *supra* note 10, p. 4.

<sup>10</sup> See Philip B. Gilliam, *The Story of Judge Ben B. Lindsey* (Mimeo: Denver Juvenile Court, 1969).

<sup>11</sup> See *supra* note 10, p. 4.

<sup>12</sup> See Cohen, 1974, pp. 51-82.

<sup>13</sup> These figures were supplied by the Denver Anti-Crime Council.

<sup>14</sup> See *supra* note 8, p. 9.

<sup>15</sup> Those children who reside in other districts are transported to their home jurisdiction to the custody of juvenile officials.

juveniles are not to be detained simply as a disciplinary measure or while an investigation into the complaint against the child is underway. Rather, there must be strong evidence that the child represents a danger to himself or the community when a decision to detain the child is made. Danger to self or community is said to be established by the intake officer through the examination of such factors as the seriousness of the offense for which the child is charged, the existence of probable cause that the child committed the alleged offense, the suspect's prior offense record, and an assessment of his or her home environment.

Any child who is to be detained longer than 48 hours must be brought before a court referee by the intake officer for a detention hearing, at which time the intake officer will present his justifications for requesting further detention of the child. The referee then has the option of confirming or denying the intake officer's request.<sup>16</sup>

If the referee agrees with the intake officer's decision that the child should be detained prior to a hearing, the director of the Juvenile Hall Detention Facility is consulted. The director then must decide if the child is to be held in the Juvenile Hall or transferred to the County Jail.<sup>17</sup>

Presently, the Colorado Children's Code requires that a court order be issued before a child can be transferred from the Juvenile Detention Facility to the County Jail. It is the duty of the Director of Detention to request this court order and subsequently to make arrangements for the transfer of the child.

To assist the intake officer in his investigation of the child, the Delinquency Control Division (D.C.D.) of the Denver Police Department compiles a daily report that provides information on the investigation of the alleged charges against all youngsters booked at Juvenile Hall within the previous 24-hour period.<sup>18</sup> Thus, in most circumstances, the intake officer has access to any police information regarding the case that may be necessary to aid the investigation. If other information is needed, the

<sup>16</sup>Referees claimed that they take the intake officer's recommendation under advisement, but contend that they do not hesitate to overrule this request if they believe it to be ill advised.

<sup>17</sup>The director states that juveniles are only transferred to the county jail when it is thought that they represent sufficient danger to themselves or others in the facility.

<sup>18</sup>One D.C.D. officer is permanently stationed with the juvenile intake unit.

intake officer can contact a receiving officer at the Delinquency Control Division.

Under the Colorado Children's Code, the family of a child who has been placed in detention may request release on bond. If such a request is made, it is the duty of the intake officer to contact a Juvenile Court judge or referee, who then determines the amount of the bond. Judges and referees who were interviewed said that this determination was made on the basis of such considerations as the type of offense for which the child is being held, his previous delinquency history, the amount of property damage (if any) resulting from the child's alleged delinquent activity, and the extent of personal injury to the victim of the delinquent activity.<sup>19</sup>

When questioned about their intake procedures, officers within the Probation Department estimated that about half of the children who appear before them are given lectures or informal supervision or released to community agencies for treatment and thus never appear before a judge or referee. Such dispositions are said to be accorded when the juvenile has been referred for a relatively minor offense and has had no prior delinquency record, and whose family volunteers to take the initiative in procuring treatment. However, any decision made by the intake officer is subject to approval by his supervisor.

Intake officers estimated that about two-thirds of their time is spent compiling information necessary to complete the social investigations of juveniles. Most of the information is gathered by telephone, and the particular length of time spent on each child's investigation is determined by such criteria as offense severity, prior police and court record, and the child's home situation.

The data indicate that in 1972, 24 percent of the juveniles referred to the Denver Court for delinquency matters were placed under detention. This figure exceeds the National Council on Crime and Delinquency recommendation that detention rates should not be in excess of ten percent of the total number of juveniles referred.<sup>20</sup>

<sup>19</sup>Most judges and referees claimed to set bail, when applicable, at about one-half the amount required for an adult charged with a similar offense.

<sup>20</sup>See N.C.C.D., Standards and Guides for the Detention of Children and Youths, 1961, p. 18.

## The Juvenile Detention Center

Once a decision has been made to detain the child pending court action, the juvenile is transferred next door to the juvenile detention center, which is operated by the Division of Youth Services of the State Department of Institutions. By statute, the detention center is designed to serve both Denver and Pueblo Counties.<sup>21</sup>

In total, there were five juvenile detention centers operating in Colorado in 1972, which were supported by a budget of \$1,150,933. The Director of the Denver Detention Center estimated the cost of detention per child per day to be somewhere between \$14 and \$17. By adult standards, these detention centers would be considered minimum security institutions.

The Denver Detention Center has six living quarters, with 25 beds in each—thus, the center is designed to house 150 children. The director of this facility asserted, on the basis of statistics kept by his staff, that during 1972 the Denver Center's population fluctuated from a low of 66 to a high of 103, the daily average being 84 youths in residence. According to the director, the female population is always considerably less than the male population. The Denver facility is designed to accommodate only 25 girls (one unit); at the time of the interview there were 17 females being detained. The Denver facility is attended by a staff of 72, which, in the director's opinion, is sufficient to facilitate the Center's operations. The director stated that approximately 25 percent of all youths placed in detention are held for allegedly perpetrating acts that would *not* be considered infractions if committed by adults. He further estimated that juveniles were detained, on the average, from 5 to 7 days before the plea hearing, and, if not released at this point, another 17 to 21 days while awaiting a dispositional hearing.<sup>22</sup> Having thus described the detention process and facility, let us review what has previously been empirically established or discovered about juvenile detention.

## Previous Empirical Work

Our search of the delinquency literature revealed only one previous empirical study that sought to

<sup>21</sup>At the time of this interview, only one child from Pueblo County was being detained at this facility.

<sup>22</sup>The director's figures were gathered from summary statistics in his possession.

identify the variables most strongly associated with the detention decision outcomes, while systematically controlling for possible extraneous factors. This study by Sumner (1970) examined the detention practices of various California counties; she sought to identify legal and nonlegal factors that may have contributed to the lack of uniformity in detention patterns.

Sumner analyzed the decisions regarding detention or release of 1,849 children referred to probation departments during a 2-month period in 1967. She determined the bivariate relationships between 31 independent variables and detention decision-outcomes. Briefly, she found that neither the sex of the child nor the agency of referral were related to the detention decision. However, blacks and children from broken homes were considerably more apt to be detained than were whites and youths from intact homes. Those detained were, on the average, about 4 months older than those who were not. She also found that children of parents from unskilled and semi-skilled occupational groups were significantly more apt to receive detention than children whose parents were skilled workers. Furthermore, the families of those detained had significantly smaller incomes than the families whose children were released without being detained.

The offense for which the child was referred was unrelated to the detention decision. However, the probability of detention increased directly with the number of prior referrals on the child's record.

Recognizing the possibility that other variables may affect the nature of the bivariate relationships she identified, Sumner utilized a statistical technique that allowed her to control for such extraneous factors and provided her with a more complete picture of the factors related to the detention decisionmaking process.<sup>23</sup> Six factors were found to be most closely associated with the detention decision outcome when controls were added to the analysis. These factors, in order of their relative importance, were:

- 1) number of prior court referrals;
- 2) type of prior offense history;
- 3) history of prior detention;
- 4) history of previous probation;
- 5) referral as a runaway;
- 6) referral for incorrigibility.

<sup>23</sup>Sumner employed multiple regression analysis; multiple regression is a multivariate analytic technique which will be described later in this paper.

Sumner's study clearly points to the need for the application of statistical controls in the analysis of juvenile court detention decision data in order to obtain a more complete picture of the relationships involved in this decisionmaking process. The effects of several variables that were found to be substantially related to the criterion at the bivariate level of analysis were reduced below significance when controls were applied to the data. On the other hand, other variables were apparently masked at the initial level of analysis; only when controls were applied were these variables found to relate significantly with the criterion. Thus, similar techniques of statistical control will be employed in the analysis of our data about juvenile detention in Denver.

## Methodology

In this study we examined the relationship between various status and legal variables and the decision to detain or release prior to adjudication all juveniles (excluding dependence and neglect cases) referred to the Denver Juvenile Court in 1972. The categorization of most of the independent (status and legal) variables in this study can be easily determined from the tables in the data analysis section. However, the measurement of social class and severity of offense require explanations.

The social class of the juvenile was estimated by an index derived from information concerning the median family income and educational levels of the census tract in which the child resided at the time of apprehension.<sup>24</sup>

In general, those who resided in census tracts in which the median family income was \$15,000 a year or more, and the median educational level was 14 years or more, were classified as "high status." Those living in tracts where the median income level was between \$7,000 and \$14,999, and the educational level was between 10 and 13.9 years, were labeled as "middle status"; those living in tracts in which the median family income was less than \$7,000 and the median educational level was less than 10 years were classed as "low status."

Seriousness of offense was determined by dividing all possible offenses listed on the case history record into eight categories. A number of probation personnel, the court referees, and the juvenile court judges in Denver

<sup>24</sup>The index of social class was derived by transforming income and educational levels into z-scores, adding the resulting values, and making decisions on the basis of the natural cutting points in the distribution.

were then asked to rank these categories on a continuum from least to most severe. There was surprising unanimity among those asked to rank these offenses. The ranking of the offense categories from least to most severe and the various infractions that constitute these offense types are listed below:<sup>25</sup>

- 1) Alcohol offenses: possession, drunk.
- 2) Miscellaneous offenses: curfew, carrying weapons, discharging firearms, disturbance, malicious mischief, filthy language, loitering, illegal possession of firearms, throwing missiles, other.
- 3) CHINS: behavior or condition injurious to self or others, truancy, runaway, beyond parental control.
- 4) Drug offenses: marijuana possession, use or sale of marijuana, possession or sale of narcotics, possession or sale of dangerous drugs, inhaling toxic vapors.
- 5) Auto delinquencies: joyriding, tampering, theft from auto.
- 6) Sex offenses: statutory rape, prostitution, other.
- 7) Property offenses: burglary, breaking and entering, auto theft, theft, fraud, forgery, shoplifting, arson.
- 8) Violent offenses: assault, aggravated assault, battery, manslaughter, murder, robbery, kidnapping, forcible rape.

The dependent variable utilized in this analysis (detention decision outcome) was divided into "detained" and "not detained" categories. An attempt was made to identify the factors that appeared to be related to this decision by examining first the bivariate, then the multivariate relationships between the detention decision outcome and the independent variables at our

<sup>25</sup>If the child was charged with more than one offense, the offense employed in the analysis was the most serious of the multiple offenses.

disposal. The bivariate relationships were ascertained through simple tabular analysis. Differences of 10 percent or more among detained categories were regarded as substantial.<sup>26</sup> At the multivariate level of analysis, a variety of appropriate statistical techniques were applied, thus enabling us to control for the statistical influence of extraneous variables in our analysis.<sup>27</sup>

## Data Analysis

### Age and Detention

The data secured from the Denver Juvenile Court contain information regarding the age at time of apprehension for 4,174 of the cases referred in 1972.<sup>28</sup> The largest proportion of referred juveniles were 15- and 16-year-olds, comprising 40 percent of the total. The second most frequent age cohort was 17-year-olds, accounting for 34 percent of the referrals. Thirteen- and 14-year-olds constituted 20 percent of referred juveniles, and those 12 or younger were the least frequently

appearing category, accounting for only 6 percent of the referrals.

Table 1 presents the bivariate relationship between the age of the child at time of apprehension and the detention decision made by intake officers and court referees. There appears to be no great difference in the proportion of juveniles detained among the various age cohorts. Fifteen- and 16-year-olds were the most frequently detained age cohort (25 percent), followed closely by the 13- and 14-year-old group (24 percent). The next most frequently detained age cohort was the oldest category (17-year-olds) with 21 percent detained. The youngest age group (12 or younger) represents the cohort least frequently detained, with 17 percent of those referred to the court having been placed under protective custody.

The difference between the most and least frequently detained age cohort is less than 10 percentage points. Hence, our examination of the relationship between age and detention leads us to conclude that age, by itself, is not substantially related to the detention decision outcome in Denver.

TABLE 1 Detention Decision Outcome by Age

Detention decision outcome	AGE				Total
	12 or younger	13-14	15-16	17	
Not detained	83% (210)	76% (636)	75% (1,248)	79% (1,120)	77% (3,214)
Detained	17% (43)	24% (196)	25% (423)	21% (298)	23% (960)
Total	6% (253)	20% (832)	40% (1,671)	34% (1,418)	100% (4,174)

Number of missing cases = 1,526.

<sup>26</sup>Although the designation of a 10 percent difference as indicative of substantial relationship is arbitrary, differences of this magnitude have been recommended by many scholars. For example, see Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory* (Chicago: Aldine Publishing Company, 1967), pp. 201-202.

<sup>27</sup>The two techniques utilized were step-wise multiple regression and predictive attribute analysis. For a complete description of these techniques, see Cohen, 1974, pp. 114-121.

<sup>28</sup>Sample sizes vary from table to table because of missing data.

### Sex and Detention

Our data indicate that more than 80 percent of the juveniles referred to the Denver Juvenile Court in 1972 were males. Table 2 indicates the bivariate relationship between the sex of the referred juvenile and the detention decision outcome in Denver. The proportion of detained females (22 percent) is very similar to that of males given like treatment (24 percent). Thus, it

**TABLE 2 Detention Decision Outcome by Sex**

Detention decision outcome	SEX		
	Female	Male	Total
Not detained	78% (709)	76% (2,964)	76% (3,673)
Detained	22% (195)	24% (931)	24% (1,126)
Total	19% (904)	81% (3,895)	100% (4,799)

Number of missing cases = 901.

appears that the child's sex does not substantially influence the detention decision at this level of analysis.

#### Ethnicity and Detention

Table 3 presents the bivariate relationship between the ethnicity of referred juveniles and the decision regarding detention or release. Along with social class, ethnicity is the most frequently mentioned status variable in the criminological literature hypothesized to affect the severity of treatment accorded alleged offenders in our system of justice.<sup>29</sup> The case history records in Denver contain information regarding the relationship between ethnicity and detention decisions

**TABLE 3 Detention Decision Outcome by Ethnicity**

Detention decision outcome	Ethnicity				Total
	White	Spanish Heritage	Black	Other	
Not detained	81% (1,174)	74% (1,523)	75% (839)	77% (77)	77% (3,613)
Detained	19% (273)	26% (529)	25% (283)	22% (22)	23% (1,107)
Total	31% (1,447)	43% (2,052)	24% (1,122)	2% (99)	100% (4,720)

Number of missing cases = 980.

outcomes for 4,720 of those referred to the court in 1972.

The fact that minorities are overrepresented in official delinquency and court statistics is well known; the data in Table 3 indicate that Denver does not deviate from this pattern. Children of Spanish heritage comprised 43 percent of those referred to the court, but only approximately 25 percent of the city's juvenile population. Blacks were also overrepresented among the juvenile court referrals, accounting for 24 percent of those referred, but only about 13 percent of the city's juveniles. Whites (other than children of Spanish heritage), on the other hand, were underrepresented among those referred to the court (31 percent) when one considers that they represent approximately 61 percent of the total Denver juvenile population. "Others," a residual ethnic category, however, appear to be more even in terms of the percent referred to the court (2 percent) compared to their proportional representation in the juvenile population of Denver (1 percent).

Table 3 indicates that although minorities were more apt to be detained than white youths, the differences were not substantial. Youths of Spanish heritage (26 percent) and blacks (25 percent) were most frequently detained, followed in turn by "others" (22 percent) and whites (19 percent). Hence, based on the criteria established earlier (10 percent difference) we conclude that the bivariate table fails to show substantial differences in the detention decision outcomes with regard to ethnic classifications of juvenile offenders. Thus, the allegations of many writers that minority

group members are significantly more apt to receive unfavorable treatment from juvenile court functionaries than are whites fails to gain support from this table.<sup>30</sup>

#### Socioeconomic Status and Detention

These data permit us to examine the relationship between socioeconomic status and detention decision outcomes for 4,212 youths referred to the juvenile court in 1972.

As we stated earlier, the socioeconomic status of juveniles referred to the Denver Juvenile Court was determined by census information regarding the median family income and educational levels of various census tracts. Using these variables as indicators of socioeconomic status is certainly not unusual in delinquency research (Shaw and McKay, 1929; Schmid, 1960; Mead, 1973; Thornberry, 1973). However, the bivariate results in Denver were surprising in relation to the findings of other studies. According to our operational definitions of various status levels in Denver, approximately one-fifth of the city's census tracts are classified as "upper status," about half as "middle status," and about one-third as "lower status." Interestingly, only 50

percent of those referred to the juvenile court in 1972 were classed as "lower status," a much lower proportion than that usually found in delinquency studies employing official data.

A surprisingly large proportion of referrals were classified as "middle status" offenders (44 percent). "Upper status" referrals accounted for only 6 percent of the total. Hence, our data show that the proportion of "lower status" offenders is much smaller, the percentage of "middle status" offenders much greater, and the proportion of "upper status" juveniles about the same as that which is usually found to exist in other ecological studies using official sources of data (Gibbons, 1970:104).

Table 4 shows the bivariate relationship between the socioeconomic status of the census tracts in which those referred to the court in 1972 resided and the decisions by court personnel regarding detention or release. This table clearly shows that the proportions of children detained increases monotonically from high to low status. Although only 16 percent of those classified as "upper status" were detained, a larger proportion of "middle status" juveniles (23 percent) received similar treatment. Those classed as "lower status" offenders were the most frequently detained group; 28 percent of

**TABLE 4 Detention Decision Outcome by Socioeconomic Status**

Detention decision outcome	Socioeconomic status			
	High	Middle	Low	Total
Not detained	84% (215)	77% (1,442)	72% (1,514)	75% (3,171)
Detained	16% (40)	23% (428)	28% (573)	25% (1,041)
Total	6% (255)	44% (1,870)	50% (2,087)	100% (4,212)

Number of missing cases = 1,488.

<sup>30</sup> However, the data do indicate that a substantially lower proportion of white youths were referred to the court, relative to black and "Spanish heritage" juveniles. The data do not allow for a determination as to whether this fact is due to the selective apprehension of minority youths, or greater delinquent involvement.

these children were placed under the protective custody of the court. Hence, the decision to detain appears to be inversely related to the socioeconomic status of referred children at the bivariate level of analysis. The proportion of detained "low status" children exceeds that of "high status" juveniles by 12 percent.

<sup>29</sup> See Schrag, 1971, p. 90.

## Family Stability and Detention

Our data contain information regarding the relationship between the child's home situation and the detention decision outcome for 4,341 of the juveniles referred to the court in 1972.<sup>31</sup> The influence of a disrupted homelife on the severity of disposition accorded by the juvenile court is frequently suggested in the work of many writers (Schur, 1972:126). The contention is usually that juveniles who are from disrupted homes are more often accorded severe treatment by the court than are their counterparts from intact homes. Using the percentage of children in Denver younger than 18 living with both parents as a rough measure of the proportion of intact homes, we found that according to the 1970 census, 22 percent of youths under 18 were living in disrupted homes.<sup>32</sup>

Our data indicate that 63 percent of the juveniles referred to the Denver Court in 1972 were from disrupted homes. Hence, those from disrupted homes appear to have been greatly overrepresented among the 1972 court referrals.

Table 5 indicates the bivariate relationship between the child's home situation and the detention decision outcome. Whereas 19 percent of those living in homes in which both natural parents were present were placed under protective custody in detention facilities, a larger proportion (27 percent) of those from disrupted homes were accorded like treatment. The magnitude of the observed differences among the treatment given the proportions of those from intact and disrupted homes is less than the ten percent difference set earlier as indicating substantial differences in accorded treatment.

<sup>31</sup> A disrupted home is defined here as one in which both natural parents of the child are not now residing.

<sup>32</sup> Although many "intact" homes are by no means stable, and conversely, many "disrupted" homes are indeed stable, the data are inadequate to make such distinctions. However, it has been suggested by writers such as Schur (1972:126) that children from broken homes are more often stereotyped by juvenile court officials as coming from unstable home environments.

Hence, at the bivariate level analysis there does not appear to be a substantial difference in the treatment accorded juveniles on the basis of their home situations.

**TABLE 5** Detention Decision Outcome by Family Stability

Detention decision outcome	Family situation		Total
	Intact home	Disrupted home	
Not detained	81% (1,299)	73% (2,003)	76% (3,302)
Detained	19% (311)	27% (728)	24% (1,039)
Total	37% (1,610)	63% (2,731)	100% (4,341)

Number of missing cases = 1,359.

## Present Activity and Detention

The case history records compiled for the children referred to the Denver Juvenile Court contain information regarding whether the youth was working and/or attending school at the time of his referral, or idle. Information on this variable and its relationship to subsequent treatment by social control agents has been essentially ignored in previous studies. Here we are able to assess its relationship to the detention decision outcomes for 4,487 of the juveniles referred in 1972.

Table 6 examines the bivariate relationship between present activity and the detention decision outcomes. As can be readily seen, those who were not working or in school were considerably more apt to be detained than were others working and/or attending school. Of those who were idle, 37 percent were detained, but only 20 percent of those working or in school received similar treatment. This difference of 17 percent in detention decision outcomes allows us to suggest that the child's present activity is substantially associated with the detention decision outcome at the bivariate level of analysis.

**TABLE 6** Detention Decision Outcome by Present Activity

Detention decision outcome	Present activity		
	Working and/or in school	Idle	Total
Not detained	80% (2,731)	63% (676)	76% (3,407)
Detained	20% (681)	37% (399)	24% (1,080)
Total	76% (3,412)	24% (1,075)	100% (4,487)

Number of missing cases = 1,213.

## Prior Court Referrals and Detention

With respect to the juvenile's previous court record, the data provide information concerning the number of prior court referrals and the detention decision outcomes for 4,560 of the youths appearing before the Denver Juvenile Court in 1972. Unfortunately, it was not possible to determine the number of police contacts in each child's past that did not result in a referral to the juvenile court.

Table 7 indicates the bivariate relationship between the number of times the youth has previously been referred to the court and the criterion variable. The data

show that the greatest proportion of juveniles appearing before the court had no previous court referrals (44 percent), followed in turn by those with between two and four previous referrals (24 percent), those with only one prior court appearance (17 percent), and finally, those with five or more referrals (15 percent).

As Table 7 clearly indicates, the probability of a youth's being detained increased directly with the number of times he had appeared before the court on previous charges. Only 10 percent of those with no previous court appearances were detained, followed by those with one prior court referral (22 percent), and juveniles with two through four prior appearances (34 percent). Finally, those with five or more referrals (44 percent) were the most likely group to be detained prior to their adjudicatory hearings. The differences in the percent detained among each of the prior court referral categories are quite large and greater than the minimum magnitude required to establish the existence of a substantial relationship. The fact that less than one-half of those with five or more prior court appearances, and only about one-third of those with between two and four previous referrals are placed in detention, may perhaps be interpreted as an indication of the reluctance on the part of Denver officials to invoke the detention process.

In sum, the bivariate relationship between the number of prior court referrals and the use of detention is found to be of a substantial magnitude, indicating that the juvenile's chances of being detained were apparently related to the number of previous occasions he has been referred to the court.

**TABLE 7** Detention Decision Outcome by the Number of Prior Court Referrals

Detention decision outcome	Number of prior court referrals				Total
	0	1	2 - 4	5+	
Not detained	90% (1,794)	78% (620)	66% (723)	56% (380)	77% (3,517)
Detained	10% (204)	22% (172)	34% (368)	44% (299)	23% (1,043)
Total	44% (1,998)	17% (792)	24% (1,091)	15% (679)	100% (4,560)

Number of missing cases = 1,140.

### Seriousness of Offense and Detention

The data provide information about offense type for 4,745 of the juveniles referred to the Denver Juvenile Court in 1972. From "least severe" to "most severe," (see "Methodology" section) these offense types and their proportional frequency of occurrence are: 1) alcohol offenses (2 percent); 2) miscellaneous offenses (17 percent); 3) CHINS (12 percent); 4) drug offenses (11 percent); 5) auto delinquency (13 percent); 6) sexual offenses (1 percent); 7) property offenses (33 percent); and violent offenses (11 percent).

Table 8 presents the relationship between the seriousness of offense (as ranked by intake officers, referees, and judges) for which the child is charged and the detention decision outcome. Surprisingly, because of the importance ascribed to this variable by department guidelines, the severity of offense, in our judgment, appears to play a rather negligible part in this decision. The data do not appear to indicate any *direct* relationship between the severity of offense as scaled for which the juvenile is charged and the detention decision outcome.

Those who allegedly perpetrated sex-related offenses were most apt to be detained (50 percent), followed in turn by those referred for drug offenses (30

percent), alcohol offenses (29 percent), violent crimes (27 percent), auto delinquencies and property crimes (22 percent), and CHINS cases (22 percent); miscellaneous offenses (20 percent) brought before the court were the least apt to produce a decision to detain the child.

It might be expected that those juveniles referred to the court for status offenses (i.e. those which would not be defined as crimes if committed by adults) would be least likely to be detained than those referred for nonstatus offenses. Although this appears to be the case for CHINS and miscellaneous offenses, those charged with alcohol-related offenses were among the most frequently detained juveniles.

In some, the rated seriousness of the offenses for which the child had been referred to the court did not appear to have been directly related to the detention decision outcome. We did find, however, that some offense types rated as relatively "less serious" by Denver Court functionaries, had higher detention rates than did those rated as "most serious," and that these differences exceeded our criteria of 10 percent. Thus, if we were interested in the relationship between type of offense and detention decision outcome (instead of seriousness of offense) we would have concluded that a substantial relationship was present among the data.

TABLE 8 Detention Decision Outcome by Severity of Offense

Detention decision outcome	SEVERITY OF OFFENSE								
	Alcohol	Misc.	CHINS	Drugs	Auto	Sex	Property	Violent	Total
Not detained	71% (58)	80% (660)	78% (464)	70% (351)	78% (484)	50% (18)	78% (1,224)	73% (369)	76% (3,628)
Detained	29% (24)	20% (164)	22% (132)	30% (153)	22% (138)	50% (18)	22% (349)	27% (139)	24% (1,117)
Total	2% (82)	17% (824)	12% (596)	11% (504)	13% (622)	1% (36)	33% (1,573)	11% (508)	100% (4,745)

Number of missing cases = 955.

### Type of Referral Agency and Detention

The relationship between the severity of dispositions meted out by social control agents to juveniles and the type of agency that initiated the referral has, to the best of our knowledge, been largely unexplored. Because

our data allow us to observe this relationship, we will consider it in our study. Referrals by welfare agencies, parents, or school officials will be classified as miscellaneous referrals. Police referrals, on the other hand, are self-explanatory.

Table 9 shows the bivariate relationship between the type of agency referring the child to the court and the detention decision outcome. Information is available for 4,773 juveniles, 87 percent of whom arrived before the court via a police referral, but only 13 percent of whom were referred by miscellaneous agencies or parents. This table further indicates that those referred by the police were slightly more apt to be detained than were those referred by other agencies. Whereas 20 percent of the miscellaneous referrals were detained, 24 percent of those who arrived before the court via police referral received similar treatment. The difference in the percent detained between these two types of referral is 4 percent—by our standards, a nonsubstantial difference. Hence, we conclude that at the bivariate level of analysis, the agency by which the child is referred to the court does not appear to influence the detention decision outcome.

TABLE 9 Detention Decision Outcome by Type of Referral Agency

Detention decision outcome	Type of referral agency		
	Misc. <sup>a</sup>	Police	Total
Not detained	80% (499)	76% (3,151)	76% (3,650)
Detained	20% (122)	24% (1,001)	24% (1,123)
Total	13% (621)	87% (4,152)	100% (4,773)

Number of missing cases = 927.  
<sup>a</sup> Includes school officials, welfare workers, and parents.

### Summary of the Bivariate Relationships

The bivariate analysis has indicated, on the basis of the difference-of-percents criteria established earlier, that the attributes of socioeconomic status, present activity, and the number of previous court referrals appear to have been related to the detention decision outcome: lower status juveniles, those youths not working or in school, and children with a previous history of court referrals were more apt to be detained than were their peers. Curiously, the seriousness of the

offense allegedly committed by the juvenile was not found to be substantially related to the criterion, even though department regulations and our interviews with court officials specify this variable to be an important consideration in this decisionmaking process. However, children allegedly committing certain types of offenses—sex offenses, drug offenses—were more apt to be detained than children committing other offense types.

### Multivariate Findings

As we have previously indicated, the analysis of relationships in which attributes are considered one at a time in relation to a criterion, often fails to provide the researcher with a complete or accurate picture of the interrelationships occurring within the data. Therefore, it is often necessary to employ statistical procedures that allow for the assessment of the independent effects of each of the attribute variables on the criterion (detention decision outcome) while controlling simultaneously for the effects of the remaining variables. For this purpose we employed step-wise multiple regression analysis.<sup>33</sup> Furthermore, it is often the case that relationships among variables are influenced by the interaction of factors, in which case a linear regression analysis would fail to uncover these effects. In order to investigate the possibility of interaction effects occurring within the data, we also utilized a procedure called Predictive Attribute Analysis (PAA).<sup>34</sup>

<sup>33</sup> In step-wise multiple regression each variable is entered separately into the equation, whereas in a traditional multiple regression solution, all variables are entered simultaneously. The resulting equation takes the following form:

$$Y = a + b_1 X_1 + b_2 X_2 + \dots + b_k X_k + e$$

Where: Y represents the dependent variable  
a is a constant  
b<sub>1</sub> . . . . . b<sub>k</sub> are least squares regression coefficients  
X<sub>1</sub> . . . . . X<sub>k</sub> represent various predictor variables such as age, sex, and race.  
e is the residual error term representing unknown variation.

With step-wise multiple regression each variable is entered on the basis of its ability to account for the greatest amount of variation in the criterion. Hence, this procedure enters variables into the equation on the basis of their ability to increase the explanatory (predictive) power of the equation. The R<sup>2</sup> that results from these two types of regression analyses have similar interpretations.

<sup>34</sup> With PAA our main concern is with the classification of individuals by either the presence or absence of certain characteristics or attributes related to the particular dependent variable

Continued on next page.

The results of our regression analysis indicate that two significant changes occur in the pattern of relationships observed at the bivariate level when the simultaneous effects of the independent variations are considered. The introduction of statistical controls reduces the independent effect of socioeconomic status below the level of substantiality. That is, when the effects of other independent variables are considered, the effect of socioeconomic status is not a substantial factor in the detention decision outcome. Furthermore, the regression analysis indicates that although the direct effect of family stability is apparently masked at the initial level of analysis, it is substantially related to the criterion when other variables are controlled. For heuristic purposes, we will arbitrarily define beta weights equal to or exceeding  $\pm .10$  as indicative of substantial relationships. (For a summary of the relative magnitude of these beta weights, see Appendix A.)

In terms of the magnitude of our regression findings, our data show that the decision to detain a youth in Denver prior to adjudication was most strongly associated with 1) a history of prior court referrals ( $B = .240$ ); followed in turn by 2) idleness (not working or attending school ( $B = .145$ ); and 3) a disrupted home life ( $B = .107$ ), when other available factors were controlled.

As we have previously mentioned, the fact that regression analysis identifies only the independent linear relationships makes it necessary for us to employ a

Footnote 34 continued.

under analysis. Hohenstein (1969:140) outlines the rationale behind this procedure.

The process divides the sample through a series of (splits) into a set of mutually exclusive and exhaustive subsets. The basic idea in the procedure is the sequential segregation of subgroups, one at a time, so as to arrive at a set of subgroups which will best be able to reduce the error in predicting the dependent variable. At any stage in the branching process, the set of groups developed at that point represents the best possible scheme for predicting the dependent variable in that sample from the information available.

Although PAA is generally performed with dichotomous variables, we employed both dichotomous and polychotomous variables. This alteration does not change the basic logic of this analytic tool.

When utilizing PAA, pre-determined splitting and stopping rules are needed. The splitting rule establishes which subdivisions are to be performed; the stopping rule indicates when the subdivision process is to be terminated. Our splitting rule was based on the selection of the variable that had the maximum Kendall's tau association with the criterion. For a subdivision to be made, the tau value must have equaled or exceeded  $\pm .10$ . With respect to our stopping rule, the analysis terminated when the number of cases in a cell was less than 100.

technique that will allow us to systematically uncover the indirect effects or interaction patterns that occur within the data. To accomplish this purpose, we used PAA. Indeed, the use of this technique uncovered the presence of complex interaction within the data. (See the PAA diagram in Appendix B.)

For example, the PAA confirmed that in general, those with the greatest number of prior court referrals had the highest probability of being detained. The PAA further indicated that detention rates varied substantially for juveniles within each of the prior referral subcategories employed in our study, depending on both the legal characteristics of their cases and their own personal attributes. That is, across the categories of prior referral, there was no one consistent, similar pattern of variables that explained rates of detention.

Among juveniles with no record of previous court referrals, youths were most likely to be detained if they were idle (22 percent of 234) rather than working and/or in school (9 percent of 609). Furthermore, idle youths with no history of prior court referral were especially likely to be detained if they were referred to the court by a miscellaneous agency such as the school, welfare department, or their parents (56 percent of 25) rather than by the police (18 percent of 208).

For those (792) who had previously been referred to the court on one occasion, the data indicated that the type of referral agency was most strongly related to the decision to detain the child. Once again, we found that those referred by miscellaneous agencies were substantially more apt to be detained (50 percent of 66) than those referred to the court by the police (19 percent of 718), particularly if they were females. The data show that 68 percent of the 38 females in this group were detained as opposed to 25 percent of the 28 males.

The greatest amount of substantial interaction within our data with respect to this criterion was found among those youths having between two and four court referrals. The age of the juvenile was most strongly associated with the decision to detain among this prior court referral subcategory. In general, the youngest cohorts were found to have the highest detention rates. Those 12 or younger (41) were detained 44 percent of the time; 13- and 14-year-olds (151) with between two and four prior court referrals were also detained 44 percent of the time. Fifteen- and 16-year-olds (392) and those aged 17 (360) had detention rates of 35 percent and 25 percent, respectively.

The data further demonstrated that 13- and 14-year-olds with between two and four prior court referrals

were most likely detained if they were referred by a miscellaneous agency (89 percent of nine) rather than by the police (41 percent of 142). However, in this group referred by the police, those youths who were high status and middle status were substantially more apt to be detained (high: 60 percent of 5; middle: 54 percent of 41) than were their lower status counterparts (34 percent of 87).

The only variable found to be substantially related to the detention decision outcome among the 15- and 16-year-olds with between two and four prior court referrals was present activity. Here, idle youths (47 percent of 90) were more frequently detained than were those working and/or in school (31 percent of 291). Similarly, the only variable found to be substantially associated with the criterion among the 17-year-olds who had previously been referred to the court from two to four times was the type of offense with which the youth had been charged. Especially noteworthy was the fact that 25 percent of the (97) property offenders, 12 percent of the (95) miscellaneous offenders, and 11 percent of the (37) auto delinquency offenders were detained.

Finally, among those who had previously been referred to the court five or more times, the type of referral agency was found to be most strongly related to the criterion. The 24 in this group referred by miscellaneous agencies were detained 75 percent of the time, as opposed to 43 percent among those 652 referred by the police.

## Summary of the Multivariate Findings

The regression analysis indicated that at the multivariate level, the number of prior court referrals, present activity, and family stability were substantially and independently related to the detention decision outcome, when all other known predictor variables were simultaneously controlled. It was found that those with the greatest number of previous court referrals, idle youth, and those from disrupted homes were relatively more apt to be detained than were their counterparts.

We subsequently utilized PAA to examine systematically the indirect relationships occurring among predictor variables and the decision to detain Denver juveniles. Our PAA analysis (like our regression) showed that no variable by itself was sufficient to account for

detention decision outcomes. Rather, the decision to detain a juvenile prior to an adjudicatory hearing appeared to be influenced by a combination of factors, the most important being the number of previous court referrals. Within each of the prior referral categories, different combinations of variables appeared to be related to the detention decision outcomes. However, present activity and the type of referral agency frequently emerged in various combinations with other variables as strongly related with the decision to detain a child. Specifically, idle children and juveniles referred to the court by miscellaneous agencies were consistently more apt to be detained than were juveniles working and/or in school, or those directed to the court by police referral.

Once again, we found that the severity of the offense with which the child is charged was not directly related to the detention decision outcome, although Probation Department guidelines suggest that this factor be given prime consideration when making this decision. Indirectly, however (that is, in combination with other variables), we have shown that various offense types did appear to be related to high detention rates.

## Summary and Conclusion

We have conducted a study that attempted to account for variation in the detention decision outcomes made by functionaries of the Denver Juvenile Court in 1972. At the same time, we have attempted to improve upon some of the inadequacies of many prior differential treatment studies in the following ways:

1. We selected a data base that permitted the use of many variables, some which were not previously used in differential treatment studies. The presence or absence of these variables (either as independent or control variables) in the former analyses may have substantially altered findings.
2. A larger number of specific offense categories were employed. Most previous studies have focused on only a single or a very few nonrepresentative offenses or have utilized offense classifications so broad that they fail to distinguish among the differential associations of various types of crime with the severity of dispositions accorded by the court.
3. We utilized methodological and statistical techniques that uncovered statistical interaction patterns, masking effects, and the possibility of spurious relationships among the data.
4. We used polychotomous rather than dichotomous categories for many of the variables. Thus,

more specific information about relationships among the variables has been obtained than in previous studies using only dichotomous classifications.

- We ordered the variable of seriousness of offense according to the opinions of those who actually make detention decisions. In this way, the interpretation of data related to personal attributes and legal characteristics of offenders was more sensitive to the *actual* processes in the juvenile court.

It was hoped that these modifications in research design would prove useful in specifying more adequately the variables that are most strongly related to the detention decision outcomes made by court functionaries.

Although our study has indicated that the variance in detention decision outcomes was most substantially related to the number of previous times the child had been referred to the court, it also provides evidence that other factors may also account for differences in detention decisions. For example, the fact that idle youth were found to be detained more often than those working and/or in school appears to lend support to the view that differences in certain attributes of children referred to the court may account for differences in accorded "treatment." Although "idleness" may be construed as a violation of the Denver Juvenile Statutes, it does not necessarily follow that those who are not working and/or in school are more in need of protective custody (i.e., they constitute "a danger to themselves or the community") than those who were attending school and/or working.

Similarly, the finding that those referred by miscellaneous agencies were more likely than those referred by the police to be detained under many circumstances also raises questions concerning the interpretation of court guidelines, which specify that only those who represent a danger to themselves or the community are to be placed under protective custody prior to adjudication. Our data reveal that those referred to the court by miscellaneous agencies were almost exclusively CHINS cases. Since this offense type frequently involves "supervision problems," it may be that juveniles referred for this offense by the school, welfare officials, etc., were more frequently placed under detention for supervision until the court was able to take some action to "adjust" the child's home situation. Under these circumstances it appears that court officials view "improperly supervised" children as a danger to themselves and the community.

The aim of this study has been to attempt to discover the variables most strongly related to the variation in detention decision outcomes among those referred to the Denver Juvenile Court in 1972. The reader must be cautioned on several points regarding the interpretation of the findings reported here. First, in some instances (particularly in those where relationships were assessed while many controls were applied simultaneously), considerable information was found to be incomplete or missing. These missing data may represent a possible source of bias if not randomly distributed throughout the sample. The fact that considerable data are missing from the analysis suggests that the findings should be viewed cautiously.

Secondly, some variables (such as the number and nature of previous police contacts, the suspect's demeanor upon apprehension, or the victim's preference) suggested in other studies as having a significant bearing on the discretion of social control agents, were not attainable through our data base. The inclusion of these variables in our analysis may have altered our findings and most certainly would have provided us with a great deal more information regarding the variations in the Denver detention decisions.

The absence and incompleteness of information needed to conduct a definitive study of detention decisions has been noted by Ferster *et al.* (1971:63):

Unfortunately, the absence of useful information occurs for the same reason as the high detention rates. The fact that 22 states do not even bother to keep any detention statistics documents the broad indifference to the problem. The statistics in other states are usually so incomplete that they are useless for planning personnel, facilities, or anything else. The absence of data, crucial for making any changes in the present detention system, is a major block to solving the problem.

A more complete data base may not have permitted us to assess whether detention was justified in any particular case, but it would have allowed for a more complete and reliable determination of the factors most substantially related to variations in detention decision outcomes.

In a subsequent monograph we will attempt to determine empirically who among those referred to the Denver Juvenile Court in 1972 were accorded the most severe dispositions. It is hoped that the present data base will allow us to identify the organizational contingencies, legal factors, and personal attributes most substantially associated with variation in the nature and severity of treatment meted out by the court.

## APPENDIX A

### Bivariate Correlations (r) and Beta Weights Representing the Direct Effects of the Independent Variables on Detention Decision Outcomes

Independent variables	r	Beta	R square change <sup>a</sup>
Number of prior court referrals	.256	.240	.066
Present activity: Working or in school/idle	.186	.145	.019
Family stability: Intact home/disrupted home	.074	.107	.004
Referral agency: Miscellaneous agency/police	.020	-.083	.003
Age	.018	-.047	.002
Sex: Female/male	-.016	.042	.002
Seriousness of offense: Alcohol, miscellaneous, CHINS, drugs/ sex, auto delinquency, property crime, violent crime	.019	-.005	.000
Socioeconomic status: Non-low/low	.010	.004	.000
Ethnicity: White/nonwhite	.060	.003	.000
R = .31 <sup>b</sup>			

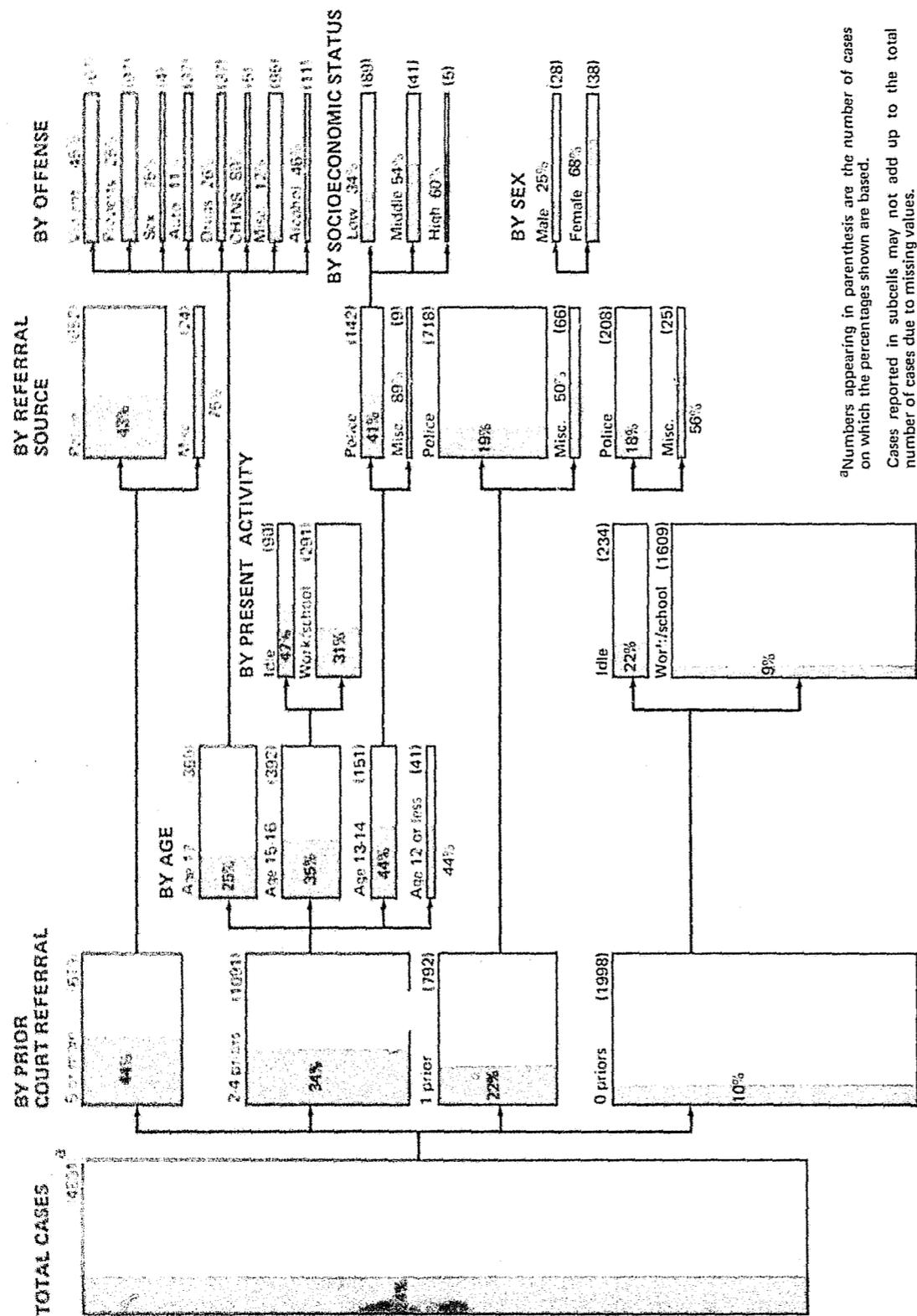
NOTE: Dependent variable of detention decision outcome dichotomized as no/yes.

<sup>a</sup> R<sup>2</sup> change indicates the amount of variation in the dependent variable which can be statistically accounted for by a specific predictor variable. By summing this column we obtain measure called R<sup>2</sup> which indicates the total amount of variation in the dependent variable which can be attributed to the variation in the best weighted combination of the independent variables.

<sup>b</sup> Multiple correlation coefficient.

Appendix B

PAA Results in terms of percent detained



<sup>a</sup>Numbers appearing in parenthesis are the number of cases on which the percentages shown are based. Cases reported in subcells may not add up to the total number of cases due to missing values.

BIBLIOGRAPHY

City and County of Denver  
1972 Crime Reduction: High Impact Anti-Crime Program. Manuscript published by the City of Denver.

Cohen, Lawrence E.  
1974 Conferring the Delinquent Label: The Relative Importance of Social Characteristics and Legal Factors in the Processing of Juvenile Offenders. Unpublished Doctoral Dissertation. University Microfilms. Ann Arbor, Michigan.

Ferster, Elyce  
1971 "Juvenile Detention: Protection, Prevention, or Punishment?" Pp. 31-64 in *Zenoff, et al. Diverting Youth from the Correctional System*. U.S. Department of Health, Education, and Welfare.

Gibbons, Donald C.  
1970 Delinquent Behavior. Englewood Cliffs, New Jersey: Prentice Hall.

Gilliam, Philip B.  
1969 The Story of Judge Ben B. Lindsey. Unpublished Manuscript, Denver Juvenile Court.

Glen, Jeffrey E., and J. Robert Weber  
1971 The Juvenile Court: A Status Report. National Institute of Mental Health. Washington, D.C.: U.S. Government Printing Office.

Hohenstein, William H.  
1969 "Factors Influencing the Police Disposition of Juvenile Offenders." In T. Sellin and M. Wolfgang (eds.), *Delinquency: Selected Essays*. New York: John Wiley and Sons.

Meade, Anthony  
1973 "Seriousness of Delinquency, the Adjudicative Decision and Recidivism—A Longitudinal Configuration Analysis." *Journal of Criminal Law and Criminology* 64 (No. 4).

Schmid, Calvin  
1960 "Urban Crime Areas: Part I." *American Sociological Review* 25: 327-342.

Schrag, Clarence  
1971 *Crime and Justice: American Style*. National Institute of Mental Health. Rockville, Maryland.

Schur, Edwin  
1973 *Radical Non-Intervention: Rethinking the Delinquency Problem*. Englewood Cliffs, New Jersey: Prentice Hall.

Shaw, Clifford R., and Henry D. McKay  
1929 *Delinquency Areas*. Chicago: The University of Chicago Press.

Sheridan, William H.  
1966 *Standards for Juvenile and Family Courts*. U.S. Department of Health, Education, and Welfare. Washington, D.C.: U.S. Government Printing Office.

Sumner, Helen  
1970 *Locking Them Up*. National Council on Crime and Delinquency: Western Region.

Thornberry, Terrence P.  
1973 "Race, Socioeconomic Status and Sentencing in the Juvenile Justice System." *Journal of Criminal Law and Criminology* 64 (No. 1): 90-98.