



The VisionQuest Program: An Evaluation

Peter W. Greenwood, Susan Turner

185601

The research described in this report was supported by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, Research and Statistics, U.S. Department of Justice, under Grant 85-JN-CX-0016.

ISBN: 0-8330-0837-4

109581

U.S. Department of Justice
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this ~~copyrighted~~ material has been granted by

Public Domain/OJJDP
U.S. Department of Justice
to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the ~~copyright~~ owner.

The RAND Publication Series: The Report is the principal publication documenting and transmitting RAND's major research findings and final research results. The RAND Note reports other outputs of sponsored research for general distribution. Publications of The RAND Corporation do not necessarily reflect the opinions or policies of the sponsors of RAND research.

Published by The RAND Corporation
1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138

109581

R-3445-OJJDP

The VisionQuest Program: An Evaluation

Peter W. Greenwood, Susan Turner

November 1987

Supported by the
Office of Juvenile Justice
and Delinquency Prevention,
U.S. Department of Justice

NCJRS

MAR 15 1988

ACQUISITIONS

RAND

PREFACE

In September 1984, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) awarded The RAND Corporation a grant to examine and evaluate the effectiveness of several private sector corrections programs designed to handle serious juvenile offenders. Two of these programs, NEWLIFE Youth Services' Paint Creek Youth Center and RCA Service Corporation's South Jersey Juvenile Program, were partly supported by grants from OJJDP under its Private Sector Corrections Initiative. A third program, the Los Angeles Client Specific Planning project of the National Center for Institutions and Alternatives, was supported by a grant from the Seaver Institute. As a condition of all three grants, juveniles were assigned to the experimental and control programs on a random basis.

VisionQuest was also selected by OJJDP for a funding grant, which was to be used to open a program in Philadelphia. However, while the negotiations between OJJDP and VisionQuest were under way, VisionQuest withdrew its proposal and proceeded to implement the Philadelphia program, supported entirely by local and state funds.

The RAND Corporation nevertheless decided to include VisionQuest in its evaluation, for two reasons: (1) VisionQuest is one of the largest and most controversial private programs in the country, and (2) the kinds of data required were available from the San Diego County Probation Department, which had conducted follow-up studies of juveniles placed in VisionQuest and comparable programs.

This report compares the recidivism rates for the first group of San Diego VisionQuest graduates against groups of similar San Diego delinquents who were placed in other correctional programs. It also examines a number of issues that have been major points of contention between the Probation Department and VisionQuest since the use of the program was first considered.

The report should be of interest to researchers and practitioners who are interested in the design and evaluation of effective correctional programs for serious youthful offenders.

SUMMARY

In 1981, the San Diego Juvenile Court began placing chronic delinquents in a privately run, out-of-state program called VisionQuest. The use of this program was opposed by the San Diego County Probation Department on the grounds that (1) the treatment methods used by VisionQuest were unorthodox, (2) the activities engaged in by the youths posed unnecessary risks to their health and safety, and (3) the costs of the program were excessive.

Six years later, VisionQuest continues to receive placements from San Diego, although placements were suspended for one year in 1984 following the death of a youth who had recently been assigned to the program. The program remains controversial. Although some of the practices to which the Probation Department initially objected have been gradually modified by VisionQuest (to make them more acceptable), the basic format and content of the program remain unchanged.

The analyses described in this report were undertaken to investigate (1) why the court and the Probation Department (particularly some individual deputy probation officers) have such divergent views on the potential risks and benefits of the program, and (2) how recidivism rates for VisionQuest graduates compare with those of comparable youths who have gone through other programs. Information on the first issue was obtained by reviewing internal memos and correspondence maintained by the Probation Department and conducting interviews with representatives from the court, the Probation Department, and VisionQuest.

Our findings on recidivism are based on analyses of arrests during the first 6 to 18 months after release from treatment. Recidivism data for the first 90 male San Diego graduates from VisionQuest were compared with data for two reference groups: 257 male juvenile delinquents who had been placed in a San Diego probation camp during the two years prior to initiation of the VisionQuest placements, and a small group of delinquents who refused to accept VisionQuest placement and were placed in other programs.

THE VISIONQUEST PROGRAM

Most of the youths who were referred to VisionQuest by the juvenile court were chronic delinquents who had failed in a number of prior

placements and were candidates for commitment to the California Youth Authority (CYA). In order to be accepted into VisionQuest, juveniles had to agree that they would:

1. Stay with the program for at least one year.
2. Complete two of the three impact programs offered by the program.
3. Abstain from drugs, alcohol, and sex while in the program.
4. Not run away from the program or from family issues.

The impact programs operated by VisionQuest consisted of rustic wilderness camps, wagon trains pulled by horses and mules that traveled over the Western states, and extended sailing and bicycling expeditions. All of the programs emphasized physical conditioning, accountability for one's actions, and overcoming personal and physical challenges (quests). A youth would typically spend about three months in the wilderness camp, five months on a wagon train, and five months in a community residential program before being sent back to his home. In all of the VisionQuest programs, the staff reside with the program participants on a 24-hour basis.

WHY IS THE PROGRAM CONTROVERSIAL?

In its investigation and assessment of the VisionQuest program, prior to the initiation of routine placements, the San Diego Probation Department reported that it found the program to be inappropriate for San Diego youths because of the use of physical "confrontations" by staff to deal with inappropriate behavior on the part of youths; health, safety, and licensing problems involved with the impact programs; potential liability to the county resulting from injuries to the youths; unresolved litigation involving previous deaths in the program; and high program costs.

The juvenile court succeeded in getting the Board of Supervisors to approve a contract for the placement of juveniles in VisionQuest in spite of Probation's objections, but these same issues continued to be points of contention between VisionQuest management and the deputy probation officers assigned to monitor the young people in the program. In several instances, individual deputies filed child-abuse complaints against VisionQuest staff members for alleged rough-handed disciplinary methods or because some juveniles were inadvertently exposed to severe weather conditions and required emergency medical attention.

Disagreements also arose over the ways in which deputy probation officers conducted their periodic site visits, the timeliness and thoroughness with which VisionQuest reported serious disciplinary or medical incidents to Probation, and the readiness of particular juveniles to be released from the program. VisionQuest usually argued for more time to complete a series of home visits, while Probation urged quicker release.

All of the issues raised by Probation could be seen as legitimate matters for concern. And, according to the deputies who handled VisionQuest cases, they were matters in which the Probation Department's opinion usually prevailed. What distinguished VisionQuest from other 24-hour programs was its ability to resist some of the Probation Department's directives by appealing directly to the court.

The question of what standards a Probation Department should apply in monitoring the welfare and safety of a juvenile who has volunteered to be placed in a program after being fully apprised of the conditions in that program is a serious issue. Do the juvenile and his family have the right to choose an unconventional program if they believe it will be in the youth's own best interests? As long as Probation attempts to apply conventional standards to unconventional programs, the kind of animosity that arose between VisionQuest and San Diego Probation can be expected to continue.

CHARACTERISTICS OF COMPARISON SAMPLES

The likelihood that a juvenile offender will be arrested following his release from a program is associated to some degree with his prior record. Research has shown that delinquents arrested at an early age and those with many prior arrests or placements are the most likely to be arrested again.

The first 90 male juveniles graduated from VisionQuest had an average of 8.4 prior arrests. Sixteen percent had served terms in the CYA prior to their VisionQuest placement. They averaged 16.3 years of age at the time they entered the program and 12.3 years of age at the time of their first arrest. The average length of stay in VisionQuest was 398 days.

Our primary comparison group consisted of 257 male juveniles who had been placed in the San Diego Probation Department's YCC (Youth Correctional Center) program at its West Fork Camp several years prior to commencement of the VisionQuest placements. The YCC program consisted of remedial schoolwork and participation in work crews on county projects. The average length of stay was 111 days.

Although YCC placements were also intended to be an alternative to CYA commitments, the much shorter terms served at YCC suggested that the population it served was somewhat less serious than that later placed with VisionQuest. The YCC sample was somewhat older (17.4 years of age) at the time of placement than the VisionQuest sample, was older at the time of first arrest (13.7 years of age), and had experienced slightly fewer arrests (7.9). Only one of the YCC youths had been committed to the CYA before his current placement. The VisionQuest subjects were somewhat more serious offenders than the YCC groups across all dimensions. On that basis, we would expect the VisionQuest youths to be arrested somewhat more frequently following their release.

The other comparison group consisted of those youths who refused VisionQuest placements and were placed in either the CYA or some other community program. Those who were placed in the CYA were consistently more serious offenders than the VisionQuest sample, while those receiving community placements were about the same as the YCC group. Only eight of those who refused to accept VisionQuest placement and were committed to the CYA had been released a year or more before we coded their records.

DIFFERENCES IN OUTCOMES

The ultimate test of any rehabilitation program is the rate of criminality demonstrated by its graduates when they return to the streets. Of the YCC graduates, 71 percent were rearrested within one year of their release. Among the (slightly more serious) VisionQuest graduates, the rate of recidivism was 55 percent, 16 percentage points lower. The recidivism rate for the small number of CYA graduates was 88 percent, while the rate for those sent to other local placements was 68 percent. VisionQuest's edge generally held up or increased when different time periods were examined (6 or 18 months), or when only more serious types of offenses were considered.

Using logistic regression to control for differences in prior records, we estimated that placement in VisionQuest reduced the one-year recidivism rate (i.e., the probability of being arrested within one year of release) from 71 percent to 39 percent—32 percentage points.

If a program does not turn most of its graduates into law-abiding citizens, it should at least reduce their rate of criminality. Among both YCC and CYA graduates, the average annual post-release arrest rate was 1.6 arrests per year; among community placements, the average was 1.4 arrests per year; among VisionQuest graduates, it was 1.2

arrests per year, 25 percent lower than the rate for YCC or CYA graduates.

We cannot be certain whether the lower recidivism and arrest rates demonstrated by VisionQuest graduates were due to the effects of treatment or were simply a result of the longer time served.¹ However, the latter is unlikely. Prior research shows that length of time served is weakly (at best) associated with recidivism (Gottfredson and Gottfredson, 1980). In addition, the few CYA youths who served long terms did not have lower recidivism rates.

Assuming an annual arrest rate of 1.5 per year, a 0.1 probability of arrest, a \$20,000 annual cost for incarceration, a \$1,000 total social cost per crime, and an 80 percent recidivism rate—all conservative figures, according to our results and estimates derived from the National Academy of Science Panel on Criminal Careers (Blumstein et al., 1986)—the total estimated career costs for one chronic juvenile offender are \$225,000; of this, \$100,000 is for correctional costs alone. If the offender's probability of recidivism could be reduced to 0.7, the savings in career costs would be \$75,300 (\$33,300 in correctional costs). Reducing the recidivism rate to 0.6 would save \$112,000 in total career costs, including \$50,000 in future correctional costs. These potential cost savings can be used to justify the extra costs of more intensive programs such as VisionQuest, if those programs can be shown to result in substantially lower rates of recidivism.

¹Time served was highly correlated (near 0.9) with a VisionQuest placement.

ACKNOWLEDGMENTS

We gratefully acknowledge the assistance and encouragement of the former director of the Office of Juvenile Justice and Delinquency Prevention, Alfred Regnery, and our grant monitor, Deborah Wysinger; the access to research and interviews provided by the San Diego County Probation Department, particularly Chief Probation Officer Cecil Steppe, Deputy Chief Probation Officer Douglas Willingham, and research analyst Mary Ramirez; access to information provided by many of the officers and staff of VisionQuest; and the cooperation of current and former judges of the San Diego Juvenile Court Dennis Adams, Napoleon Jones, Jr., and Judith McConnell, and the Court's Administrator, Michael Roddy.

We also thank the California Youth Authority, its former director, James Rowland, Director of Institutions and Programs C. A. Terhune, Research Director Elaine Duxbury, and other administrators and staff who allowed us to observe, film, and interview both staff and wards at several institutions.

Finally, we gratefully acknowledge the useful comments and suggestions provided by RAND colleagues Stephen Klein and Allan Abrahamse, and our Program Director, Barbara Williams.

CONTENTS

PREFACE	iii
SUMMARY	v
ACKNOWLEDGMENTS	xi
Section	
I. INTRODUCTION	1
II. HISTORY AND CHARACTERISTICS OF THE SAN DIEGO VISIONQUEST PROGRAM	5
Origins and Early History	5
The Start of the San Diego Program	7
Supervision by San Diego Probation	10
Description of the VisionQuest Program	13
Emphasis on and Expectations About Changes in Attitude and Behavior	17
III. EVALUATION DESIGN AND DATA SOURCES	19
Purpose of Correctional Programs	19
Treatment and Control Groups	20
Sources of Data	21
IV. CHARACTERISTICS OF PROGRAM SAMPLES	23
Prior Record	23
Program Characteristics	25
V. DIFFERENCES IN POST-RELEASE CRIMINAL BEHAVIOR	28
Recidivism Rates	28
Comparison of VisionQuest and YCC Recidivism Rates, Controlling on Risk	31
Time to First Failure	34
Arrest Rates	36
VI. CONCLUSIONS AND DIRECTIONS FOR THE FUTURE	38
Recidivism Rates	38
Program Costs	39
What Factors Account for VisionQuest's Effectiveness? ..	40

Appendix

A. Differential Program Effectiveness	47
B. A Model for Estimating Total Expected Career Costs for Chronic Juvenile Offenders	51
REFERENCES	55

I. INTRODUCTION

Although rehabilitation is the primary goal of the juvenile justice system in the United States, evaluation studies over the past 15 years have concluded that the type of treatment program a youth is exposed to has little if any effect on his or her future criminality. No type of treatment program has been found to be consistently more effective than any other in reducing recidivism rates (Sechrest, White, and Brown, 1979), particularly for juvenile offenders who have had five or more arrests and have at least a 70 percent chance of being arrested in the future. These chronic offenders typically come from troubled family situations, have been doing poorly in school, have experienced several prior placements, and have fallen into a delinquent lifestyle which includes the abuse of drugs and alcohol and association with delinquent peers (Greenwood and Zimring, 1985; Blumstein et al., 1986).

In recent years, the juvenile justice system has tended to commit these chronic juvenile offenders to secure county or state facilities for terms that gradually increase with each successive arrest. While serving these terms, the young offenders attend remedial education and vocational training classes designed to prepare them to reenter the community upon their release. Most of the staff who now work in public correctional programs admit that their time is largely absorbed by custodial and administrative duties, and that little serious effort is explicitly devoted to treatment programming. The general attitude is that it is up to the youths themselves to take advantage of the opportunity to straighten out. The rearrest rate for these chronic offenders has been distressingly high; a large percentage of them move on to become career criminals in the adult system. A recent study found that 91 percent of the juvenile offenders in San Diego with three or more prior arrests were subsequently rearrested during the first two years following their release. The two-year recidivism rate for all juvenile offenders was 68 percent (San Diego Association of Governments, 1983). A ten-year follow-up study of youths released from two California Youth Authority (CYA) facilities in the early 1970s found that 93 percent were eventually rearrested and 47 percent were recommitted to the CYA or prison within two years of their initial release (Haapanen and Jesness, 1982).

However, not all practitioners are pessimistic about the potential for correctional programs to alter delinquent behavior. A number of states and counties have developed or contracted with a variety of innovative

programs designed explicitly to reduce subsequent criminal behavior. Some of these programs place the youths in remote wilderness settings as an alternative to secure residential placement. Most of the programs are small in scale and have higher staff-to-ward ratios than are found in typical secure programs. Most of them use an eclectic combination of treatment strategies that are thought to have shown promise in previous settings, including positive peer culture, token economy, guided group interaction, reality therapy, criminal personality, and outward-bound. Many of these programs have been developed by private agencies in an attempt to provide the treatment services desired by some judges and correctional administrators that are not being provided by county or state programs (Greenwood and Zimring, 1985).

During a three-and-one-half year period beginning in May 1981, the San Diego Juvenile Court placed several hundred chronic juvenile offenders in a privately run corrections program called VisionQuest, headquartered in Tucson, Arizona. Most of the delinquents would have been committed to the CYA or other residential placements if they had not been selected for VisionQuest. Instead of being institutionalized, they spent their 12- to 15-month stay participating in a variety of challenging outdoor impact programs and dealing with the behavioral problems that got them into trouble with the law. Their treatment took place first in rustic wilderness camps, then on the road in wagon trains which crisscrossed the Western half of the country, and finally in group home residential settings. Many of their parents also participated in weekly group sessions which addressed the same issues and problems that were being faced by the juveniles (Adams, 1987).

The judges who refer youths to VisionQuest or similar programs consider these programs to be a clear improvement over institutionalization, in both the effectiveness and the humaneness with which serious juvenile offenders are treated. However, some courts and correctional agencies have questioned particular aspects of alternative programs on health and safety grounds or have challenged the accuracy of their claimed success rates. Commitments to VisionQuest from San Diego County were suspended in October 1984, after a San Diego youth died a few days after being placed in the program. Commitments were resumed in September 1985 after both local and federal officials made investigations into the cause of death and absolved the VisionQuest staff of any criminal negligence.

While reasonable people may disagree about the conditions in which juvenile offenders should be housed during their commitments and the amount of services or recreational amenities that they should be provided with, there should be no lack of agreement that the ultimate aim

of these commitments is to reduce the number and seriousness of future crimes. Therefore, the ultimate test of any program designed to treat chronic juvenile offenders is its effect on their subsequent criminality.

Although no particular treatment approach has consistently been shown to be more effective than others in reducing recidivism rates, particular programs have at times been found to be more effective than would be expected by chance. The principal controversy provoked by these examples is whether the effective results occasionally demonstrated by these programs are the result of chance or luck, the efforts of an unusually charismatic and effective leader, or a combination of program management strategies and treatment techniques that might be utilized in other sites. In a previous report (Greenwood, Abrahamse, and Zimring, 1984), one of the authors argued that the quality, training, and enthusiasm of the staff, along with the skills and dedication of the program management, may be as important a contribution to program success as the theoretical intervention strategy adopted.

In 1984, The RAND Corporation was awarded a grant to explore this possibility by comparing the effectiveness of a number of private sector programs against the traditional alternatives with which they were designed to compete. These comparisons involved the random assignment of eligible youths to the experimental treatment programs (which had been approved by the committing judges) and to traditional control programs. The random assignment procedure allows evaluators to estimate the probability that differences in follow-up recidivism rates are due to real differences in program effectiveness, rather than to differences in the characteristics of the youths who are assigned to them.

Two of the programs evaluated under this grant were selected and partially funded by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) on the basis of a formal competition (OJJDP's Private Sector Juvenile Corrections Initiative), in which VisionQuest was a leading contender with a proposal for a new program to serve chronic delinquents from Philadelphia. However, during the 12-month period before OJJDP reached a final decision on the grant awards, VisionQuest withdrew from the competition and proceeded to implement the program it had proposed for Philadelphia, supported solely by per diem payments from that city.

Notwithstanding its withdrawal from the juvenile program competition, we believed that it was important to include VisionQuest in our evaluation because it is one of the largest, most controversial, and fastest-growing juvenile correctional programs in the private sector.

Our problem was finding a VisionQuest site in which a reasonable comparison group could be identified.

Between 1978 and 1980, before placements from San Diego to the VisionQuest program started, the San Diego Probation Department had run a YCC (Youth Correctional Center) program at its 60-bed West Fork Camp near Escondido. This program was designed for youthful offenders similar to the type that VisionQuest later began accepting. Youths assigned to YCC lived in dormitories and divided their time among Special Education classes (run by the County Department of Education), participation in work crews assigned to various county departments (trail building, park maintenance, etc.), and recreation. The average length of stay was approximately 100 days. The camp was eventually converted to an adult facility to handle the overflow from other adult camps.

This report compares post-release arrest measures for the first 90 male youths graduated from the San Diego VisionQuest program with (1) youths who had been placed at YCC in the several years preceding the opening of the San Diego VisionQuest program and (2) youths who refused to accept commitments to VisionQuest and were placed in other local or state programs.

Section II describes the characteristics and development of VisionQuest's program and how it came to be implemented in San Diego. It also describes some of the program and case management issues that have been points of controversy since the first attempts by the juvenile court to place young offenders in the program.

Section III describes our evaluation design and sources of data. Section IV presents background data on the age and prior records of youth in each of our samples, and the length of time they spent in the programs. Section V presents and compares the recidivism rates, times to first arrest, and rates of arrest during the first year after release for each of the samples. Section VI combines data on program costs and subsequent rates of criminality in an attempt to estimate the net effect of alternative program placements on overall correctional costs and future crime rates. It also summarizes the study findings and recommends some changes in the way private correctional programs are licensed and used.

II. HISTORY AND CHARACTERISTICS OF THE SAN DIEGO VISIONQUEST PROGRAM

ORIGINS AND EARLY HISTORY¹

To fully appreciate the nature of VisionQuest's program and the controversies it generated in San Diego, one must know something about the origin of the program, the people who started it, and how it came to be used in San Diego.

VisionQuest was founded in 1973 by the two men who continue to run it today—Bob Burton, the Chairman of the Board, and Steven Rogers, the Executive Director. Burton was a college and semiprofessional football player who had worked as a VISTA volunteer with the Plains Indians. His correctional experience prior to founding VisionQuest included several years with Delaware Juvenile Corrections, where he became Assistant Superintendent of Training Schools, and several years with Las Vegas Juvenile Probation, where he was in charge of the juvenile detention unit. While at Las Vegas, Burton met Rogers, who came to serve on his staff. Frustrated with the problems of attempting to work with juveniles in an exclusively institutional setting, Burton and Rogers decided to leave Las Vegas Juvenile Probation and put together a community-based program of their own.

In the beginning, Burton's and Rogers' basic idea was to take some juveniles out of secure facilities and work with them in community residential settings. Because of their athletic backgrounds, the two men also believed that strenuous physical conditioning and short wilderness outings were the way to build rapport with the youths and help them to gain confidence in their own abilities. Eventually, Burton and Rogers convinced Judge John Collins in Tucson, Arizona, to try this type of program. Collins selected six juveniles from the state training school, and VisionQuest was born.

Most child-care organizations are nonprofit, a legacy of their charitable origins. In fact, federal reimbursement for certain types of child-care services is available only to nonprofit agencies. Running against this tradition, Burton and Rogers decided to make VisionQuest a for-profit company so that they and their staff could chart their own directions and be held accountable for the results.

¹See Adams (1987) for a more detailed history of VisionQuest's origins and its founders' philosophy regarding youth.

The decision to become a profit-making company may well have helped VisionQuest to grow at the rate it has—it now consists of more than 600 staff handling an equal number of youths. Nevertheless, some detractors cite its for-profit status as evidence that Burton and Rogers are in the business primarily for the money. Although both men live with their families in middle-class suburban settings and appear to lead conventional middle-class lives, it is not uncommon to hear critics of the program speculate about their probable wealth.

During its first three years in Tucson, the program developed slowly and was limited to residential facilities (group homes), street work with delinquent youths, and occasional field trips into surrounding wilderness areas. By 1976, the program had grown to include about 15 group homes. At that point, it took off in a new direction: Burton and Rogers acquired an old covered wagon and joined the Bicentennial Wagon Train during its passage through Arizona. The youths' reaction to the experience of traveling with the wagon train and working with the animals was so positive that VisionQuest's directors decided to make wagon-train travel a continuing part of the program.

In 1979, VisionQuest entered a new stage, when it was inspected and approved by the Pennsylvania Department of Public Welfare for out-of-state placement. Certification of the VisionQuest program in Pennsylvania, as in most other sites, was initiated and actively encouraged by a juvenile court judge who had decided on his own that the program had something to offer, having read about it in the media and then inspected it personally. The judge who got things started for VisionQuest in Pennsylvania was Fred P. Anthony, Administrative Judge of the Juvenile Court in Erie County. In Pennsylvania, unlike most other states, a juvenile court judge can specify the program or facility in which a juvenile is to be placed, rather than delegating this authority to county or state correctional officials.

As placements from other counties in Pennsylvania began to increase, VisionQuest opened several wilderness camps and group home facilities throughout the state. By 1985, the number of youths committed from Pennsylvania and other Eastern states exceeded the number being placed from the West.

The safety and medical risks posed by the wagon train, wilderness camps, and other VisionQuest impact programs is an issue that is frequently cited by VisionQuest's critics. Altogether, a total of nine youths and two staff have died while participating in VisionQuest activities. One youth drowned in the Allegheny River while trying to escape. Another either jumped or fell from a highway bridge. A third died from an internal infection. Six youths and two staff members drowned in a storm in the Sea of Cortez while participating in an OceanQuest expedition.

There can be little argument that the strenuous and challenging activities involved in these programs do pose somewhat more risks of physical injury than the activities of conventional institutional programs, and the remoteness of the sites raises additional concerns about the timely availability of emergency medical assistance and the ability of public officials to monitor the quality of treatment and care afforded the juveniles. All of these factors provide ammunition to the critics who argue that the impact programs pose an unreasonable danger to the youths who participate and expose the committing jurisdictions to unnecessary liability.

The counterargument offered in support of the impact programs is that some degree of risk is an essential element in getting the youths to begin to take responsibility for their actions. A Pennsylvania Task Force set up to review VisionQuest's safety procedures and record concluded that its safety precautions were as stringent as those of any other program and that the risks were justified for the more seriously criminal delinquents (Pennsylvania (State of), 1985).

THE START OF THE SAN DIEGO PROGRAM²

In May 1981, the first delinquent from San Diego County was placed in VisionQuest by Juvenile Court Judge Dennis Adams, against the recommendations of the Probation Department and without benefit of a Board of Supervisors' approved contract. Judge Adams had learned about VisionQuest through a survey commissioned by the San Diego Bar Association to identify innovative programs that might offer better hope for success with chronic juvenile delinquents than the programs being run or utilized by the County Probation Department or the CYA (McKenzie and Rooz, 1982).

The placement of the first delinquent was Judge Adams's way of forcing the issue. In the normal course of business, a program like VisionQuest is placed under contract to the county as a 24-hour residential treatment program if it meets the requirements and standards established by the Probation Department and the Department of Social Services. These two agencies periodically monitor the quality of programs and the progress of youths who are committed to them. Judge Adams had become frustrated when he felt that Probation was not moving rapidly enough to place VisionQuest under contract, after he had repeatedly asked them to do so.

²Based on interviews with the major participants and a review of San Diego Probation Department records.

The placement of the first juvenile from San Diego in VisionQuest forced the Probation Department to make a clear stand either for or against the program. Prior to that time, Probation had investigated VisionQuest but had not moved to place it under contract, because a number of aspects of the program did not meet the agency's approval. After a three-month investigation, Probation and the Department of Social Services recommended against placing VisionQuest on the list of approved 24-hour residential treatment programs. The reasons cited for disapproval were:

- The controversial nature of the treatment element known as "confrontations."³
- Unresolved litigation involving prior deaths of youths in the program.
- Health, safety, and licensing problems involving the impact programs.
- High program costs.
- Potential county liability resulting from accidents or injuries to youths in the program.

These were issues that VisionQuest could not respond to without drastically altering the nature of its program. They also raise the question of how the judge and the Probation Department could have reached such divergent positions.

The judge deals primarily with failures of the current treatment system. Judge Adams, like many juvenile court judges before him, wanted to find a program that promised to break the cycle of failure that most chronic delinquents are in. He wanted to shake up the system, and VisionQuest offered a theory and program that held out that promise. It had an enthusiastic and committed staff dedicated to leading a group of supposedly incorrigible delinquents through a steady regime of challenging activities. And to Judge Adams, the potential benefits appeared worth a try.

The Probation Department, as an institution, is forced to take a more skeptical stance. Probation officials have seen many "promising" programs come and go. They are trained to look for potential problems and are held to answer when something does go wrong.

But beyond these differences in organizational perspectives, VisionQuest represented an additional challenge to the Probation Depart-

³A technique for dealing with continuous inappropriate behavior, in which a youth is surrounded by staff members who confront him verbally. In the early years of the program, a youth who tried to back away from his confronters would be taken to the ground and held in prone restraint. The technique has been modified, and only standing restraint is now used. Confrontation is described in more detail later in this section.

ment's authority. Throughout its history, VisionQuest had been—and still is—a “judges’ program.” When it has been brought to a new site, it has usually been at the instigation of a judge, not corrections officials. VisionQuest holds itself out as accountable to the judges, reporting back to the court on the progress of each youth and recommending when the youth is ready for release. These evaluation responsibilities are usually reserved for probation officers monitoring a program.

Most 24-hour residential treatment programs at least pay lip service to responding to the suggestions of the probation officers who monitor them, and they try to stay on the officers’ good side. VisionQuest, on the other hand, has developed a reputation of resisting what it sees as unnecessary interference by probation staff. Rather than accepting the edicts of probation officers, as other 24-hour programs are said to do, VisionQuest staff had operated from the position that they were hired by the court because of their expertise and that their own quality-control system was superior to occasional visits from probation officers. This position immediately set them apart from other 24-hour residential programs and put San Diego Probation on the defensive.

The issues raised by Probation in recommending against approval of a VisionQuest contract were all legitimate matters for concern. The value of the “confrontations” had been questioned by many observers, especially the fact that a youth’s angry reaction was dealt with by wrestling him down and holding him on the ground. Indeed, VisionQuest has restricted the use of this tactic over the past few years, forbidding staff from attempting to provoke physical confrontations or confronting a youth when they know that he is likely to “blow.”

It is also true that youths are more susceptible to injury while handling horses and mules or rappelling down cliffs than they might be in a more traditional residential setting. The drowning of the six youths who were attempting to cross the Sea of Cortez on a VisionQuest ocean expedition occurred only shortly before VisionQuest was brought up for consideration by San Diego County. At that time, the county was already involved in litigation growing out of alleged civil rights violations brought by parents of juveniles who had been placed in another “innovative” 24-hour residential treatment program in Arizona. That program had recently been closed down because of the large number of complaints filed against it. Neither the wagon trains nor the wilderness camps used by VisionQuest were explicitly licensed, as residential facilities normally are; they were operating under a “letter of approval” from the state of Arizona, a document normally used to cover field trips.

Given the responsibility of the Probation Department for monitoring the quality of care afforded juveniles and protecting the county from

future liability, the Probation Department's recommendation against VisionQuest was not unreasonable or unexpected. But given Judge Adams's interest in seeking out programs that offered better prospects of positive results than those currently available, it was also not unreasonable for him to bypass the Probation Department and request approval for VisionQuest placements directly from the Board of Supervisors. In September 1981, the Board approved an initial 45 placements. The VisionQuest contract has been renewed on a yearly basis ever since.

SUPERVISION BY SAN DIEGO PROBATION

Within the Probation Department, a separate group of deputy probation officers are responsible for supervising all of the juveniles placed in 24-hour residential treatment programs under contract to the county. Their responsibilities include monitoring the progress of the youths and the quality of care they are provided, and recommending to the court when the placement should be changed or terminated. Since probation officers tend to specialize by facility, at any one time during the course of the VisionQuest contract, one or two officers have been assigned to the VisionQuest cases.

To carry out their responsibilities, these officers visit the juveniles in the program about every three months. They also receive routine reports on each youth's progress from VisionQuest and special reports on any youth involved in an accident or disciplinary incident. Given the high degree of skepticism of both Probation and VisionQuest toward each other's motives and qualifications, this has frequently been a strained relationship.

Several issues became repeated sources of friction. One was the filing of child abuse charges by San Diego probation officers on the basis of incidents they witnessed or were told about by VisionQuest staff or the youths. In one case, a deputy alleged that he had seen a VisionQuest staff member slapping a youth; however, both VisionQuest and the youth involved denied that the incident ever occurred. In another case, charges grew out of a planned wilderness quest in which youths were supposed to spend several days alone in the wilderness (under the supervision of staff observers), with minimal provisions and equipment. An unexpected storm that brought rain and cold temperatures caused several of the youths to be treated at a hospital for hypothermia and other effects of their exposure. In another case, charges were filed on the basis of allegations made by a youth who had been expelled from the program and returned to Juvenile Hall.

In no instance were such charges ever filed for further legal action by the local authorities in whose jurisdictions they occurred. One local prosecutor responded that the nature of VisionQuest's treatment methods were well known. He said that if San Diego did not like the VisionQuest methods, it should pull its juveniles out of the program—not sit around filing child-abuse complaints. Of course, San Diego probation officers would have liked nothing better than to threaten VisionQuest with pulling the participants out if VisionQuest did not change its practices, but they felt they had been stripped of their power by the court.

Another source of contention involved the periodic visits by probation officers to their VisionQuest caseload. The probation officers wanted to be left alone with the youths and their records, while VisionQuest wanted to minimize what they saw as the disturbing effect of the visits. Each side claimed to be acting in the best interests of the juveniles, while the other side was motivated by mercenary or self-protective interests, so the visits frequently generated considerable tension.

The principal issues on which probation officers could act were complaints about the program or evidence that a youth was ready for release before VisionQuest wanted to let him go. Raising either of these issues was likely to help turn the youth somewhat against the program. VisionQuest's staff complained that the participating youths were frequently agitated and more difficult to deal with immediately following the probation officers' visits.

The probation officer usually plays a key role in determining when a juvenile is ready to be released from a 24-hour residential program. However, in the case of juveniles assigned to VisionQuest, the probation officers felt that the court was more likely to accept VisionQuest's opinion than theirs. The basic issue usually boiled down to how many successful home visits were required, and how those visits should be spaced, before a juvenile was ready for outright release. In the case of a youngster who was making particularly good progress, Probation might feel that some of the visits could be skipped. Some probation officers believed that VisionQuest was keeping its participants in the program an unnecessarily long time in order to build up its own revenue, while VisionQuest staff argued that Probation was simply trying to save a few dollars at the expense of the youths.

Probation and VisionQuest have also been in constant disagreement about the procedure for reporting significant injuries or behavioral incidents, particularly those in which a juvenile was restrained by the staff or taken to the ground. Probation wanted an immediate written report prepared by the staff members involved; VisionQuest usually

provided an immediate telephone report, and a written report (which Probation characterized as third-hand) was later prepared by VisionQuest's Quality Assurance staff. Probation objected that the follow-up written reports were frequently at odds with what had been reported over the phone.

Accuracy in reporting incidents is part of a larger issue about access to data. San Diego probation officers acknowledge that VisionQuest has an extremely thorough internal reporting system for keeping track of critical incidents and the progress of its youths. They believe that every significant incident gets relayed up to top management for eventual review. However, the existence of all this information has been a constant source of frustration to the probation officers because VisionQuest does not grant them routine access to it, apparently because of a concern that Probation would somehow use it against the program. VisionQuest does not believe that it should have to report the problems disclosed in its records that most other programs would not have any records about.

Another point of contention relates to the full reporting of disciplinary incidents and when to file formal charges against a youth. Probation officers cite numerous incidents in which they would have filed formal criminal charges against a youth, while VisionQuest chose to handle them as internal disciplinary matters.

A final factor that has contributed to tensions between Probation and VisionQuest is the tendency of VisionQuest management to directly challenge the integrity, truthfulness, or sincerity of deputy probation officers with whom they have a dispute. VisionQuest management requested the replacement of several deputy probation officers whose conduct they challenged; in one case, they barred two probation officers from the site of a VisionQuest National Congress because one of the officers had recently filed a child-abuse complaint against the program. All the probation officers who handled VisionQuest cases observed that at times they received chilly receptions from VisionQuest staff during routine visits to their charges, when VisionQuest management was displeased with something that Probation had done.

When a San Diego youth died shortly after being placed in the VisionQuest program, in May 1984, the Probation Department conducted an extensive investigation of the circumstances surrounding the death. An inquiry was also undertaken by the local prosecutor in Silver City, New Mexico, where the incident occurred, as well as the U.S. Attorney in San Diego. Neither prosecutor found any basis for filing charges against VisionQuest staff. In October 1984, the San Diego Juvenile Court suspended all further placements to VisionQuest until the cause of death, and VisionQuest's contribution toward it,

could be adequately assessed. At this point, one deputy probation officer began mailing out packets of internal memos, reports, and newspaper clippings which emphasized VisionQuest's safety and licensing problems, to other jurisdictions.

In May 1985, the San Diego County Criminal Grand Jury released a report which urged the county to terminate its contract with VisionQuest, citing the high cost of the program and its lack of proven success. The grand jury report cited Probation Department figures reporting a 69 percent recidivism rate (based on arrests) for the first 100 juveniles who went through the program.

In September 1985, the U.S. Attorney investigating the 1984 death concluded there was no criminal wrongdoing on the part of VisionQuest. The autopsy report concluded that the youth died from a massive internal infection resulting from a chest injury. It was not clear when or where that injury had been sustained. In November 1985, the juvenile court resumed placements in VisionQuest, requiring more extensive medical testing before youths were cleared for placement and increasing the amount of time devoted to physical conditioning while youths were retained in Juvenile Hall.

DESCRIPTION OF THE VISIONQUEST PROGRAM

Most of the juvenile offenders who were committed to VisionQuest by the San Diego Juvenile Court had experienced a number of prior arrests and placements and had become candidates for commitment to the CYA or one of the privately run 24-hour programs that accepted youthful offenders under contract from the county. If the court determined that an adjudicated youth was an appropriate candidate for VisionQuest, the youth was interviewed by a local VisionQuest staff member, who explained the format and requirements of the program and determined whether there was anything about the youth, such as severe emotional or medical problems, that would prevent him from participating fully in the impact programs. If the youth and his family agreed to placement in VisionQuest, he was required to make four commitments:

1. To complete two of the three impact programs offered by VisionQuest during his placement, i.e., the wilderness camp, wagon train, or OceanQuest.
2. To abstain from sex, drugs, and alcohol while in the program.
3. Not to run away from the program or family issues—either his natural family or the tepee family he was going into.
4. To stay with the program for at least one year.

If the youth and his family accepted the placement and the court approved, he was then transported from the San Diego Juvenile Hall to the VisionQuest wilderness camp near Silver City, New Mexico.

The juveniles who were placed in VisionQuest by the San Diego Juvenile Court immediately found themselves residing in a rustic boot-camp environment, living in a tepee with six to ten other youths and a junior staff member, sleeping on the ground, and engaging in a strenuous physical conditioning program in addition to regular schoolwork. Whenever they acted up or failed to carry out their assigned chores with sufficient attention and enthusiasm, they were confronted and called to account by the senior staff.

When a youth successfully completed the orientation and training program of the wilderness camp (the average completion time was about three months, but some took up to seven months), they joined one of several wagon trains that traveled the back roads of the Western states from Arizona to Canada and covered about 24 miles a day.

Each wagon train consists of approximately 50 youths and the same number of accompanying staff, a dozen wagons, 60 to 70 horses and mules, and a dozen other support vehicles (school buses, cook wagons, portable toilets and showers, horseshoeing equipment, and vehicles carrying the personal equipment of the staff).

A typical day on the wagon train begins with a 5:30 a.m. wake-up call to begin feeding the animals. In the next two hours, the tents and camp equipment are dismantled and packed away and the animals are hitched to the wagons. By 8:00 or 8:30 a.m., the train is moving down the road, leaving a small complement of youths and staff behind to pack up the other vehicles, drive them on to the next camp site, and set up the camp. The wagon trains usually pull into the next camp site during early afternoon. The animals are unhitched and staked out, and other camp chores are attended to. The remainder of the afternoon and early evening hours are devoted to work and other camp chores.⁴

After four to six months on the wagon train, a youth might be placed back in a wilderness camp and given greater responsibilities for day-to-day operations, such as helping to break the wild mustangs that VisionQuest acquires each year, or sent to a VisionQuest group home in Arizona, where he or she can attend regular classes and prepare to return home.

⁴Over the years, VisionQuest school buses have been converted to self-contained classrooms with built-in desks and computer equipment. Current VisionQuest policy requires that wagon trains to be in camp by 1:00 p.m. and that all juveniles have at least four hours of schooling per day.

From a treatment perspective, the principal program components or features that distinguish VisionQuest from more typical public or private secure residential programs are the central role of the impact programs, the high ratio of staff to youths, the close family/communal living environment the staff attempts to create, the constant emphasis on improving behavior and attitude and the high expectations for change communicated to each youth, the use of staff-initiated verbal and physical confrontations as a technique to open up communication, efforts at family therapy, and the eclectic background of the staff. The VisionQuest program has gradually evolved over a period of more than ten years.

Impact Programs

Many juvenile justice programs involve some type of camping or wilderness experience. The typical Outward Bound experience, for example, lasts for about 28 days. In most programs, these experiences are scheduled near the end of a youth's program as part of the ritual of graduation.

In VisionQuest, participation in the impact programs begins immediately and is much more extensive, lasting from 7 to 12 months. The objective of the individual impact programs (wilderness camp, wagon train, sailing, bicycling trips, etc.) is to impose a set of graduated performance goals and personal responsibilities on the youths under demanding and unfamiliar conditions. Impact program activities are thought to encourage improved cooperation among youth and staff and to increase opportunities for youths to experience the satisfaction of success in overcoming difficult obstacles. No attempt is made to disguise the close symbolism between the physical quests pursued within the impact program and the individual quests the youths are supposed to be pursuing in their own personal development. The special requirements imposed by the impact programs uniquely define both the daily activities of youths within the program and the issues with which they must deal.

High Ratio of Staff to Youths

Because of the diverse and sometimes hazardous nature of the daily activities, the prior records of the program's clients, and the absence of any physical security measures, VisionQuest maintains a very high staff-to-youth ratio (approaching one-to-one). To hold personnel costs down, the most junior staff are paid extremely low wages.

While many other intensive residential programs show a similar staff-to-youth ratio on paper, the actual number of staff present at VisionQuest impact program sites appears to be higher, because the staff reside at the sites, except for their two days off per week, and for all practical purposes are immediately available to deal with any problems. In most other programs, the staff go home at the end of their shift.

Close Family/Communal Environment

The VisionQuest practice of requiring staff to reside in camp helps to foster a highly integrated communal/family environment. This environment is enhanced by VisionQuest's practice of employing many married couples who work together within the program, some of whom are raising their own young children within the camp environment.

VisionQuest staff are trained to be sensitive to the troubled and often chaotic family experiences of their clients and are encouraged to serve as appropriate adult role models in their relationships with each other and their families. Since many of the youths have experienced physical neglect or abuse, senior staff members are trained and encouraged to express affection to the youths in the form of hugs or arms around the shoulder. The semblance of family environment is accentuated by the easy familiarity that develops between youth and staff and the communal nature of dining, recreation, and other activities.

Emphasis on Family Therapy

Most intensive programs recognize the need to make some improvements or at least respond to the problems in a youth's home environment, but VisionQuest goes further than most in attempting to bring the parents of participating youths together in group sessions to identify and deal with the issues that arise between them and their children. A constant two-way flow of information is maintained by the program—back to the parents about the progress of their children and back to the youths about developments at home. Youths are allowed to make periodic phone calls to their homes, and parents are encouraged to visit the program sites and attend special ceremonies such as the Indian rituals that are used by the staff to celebrate a youth's progress through various phases of the program (Adams, 1987).

EMPHASIS ON AND EXPECTATIONS ABOUT CHANGES IN ATTITUDE AND BEHAVIOR

VisionQuest management and most staff appear to share a common belief that their approach is effective and that they can turn most delinquent youths around. However, they also recognize that their clients must be constantly confronted with the consequences of irresponsible behavior and attitudes and must be trained to respond in more appropriate ways. These two beliefs translate into a high frequency of corrective and complementary communication from staff to youth and almost constant discussion of specific behavior or attitudinal problems among the staff. The staff discussions are made even more constant by the fact that all of the staff are involved in the treatment process and all of them live with the youths at least five days a week.

Confrontations

One of the more controversial features of VisionQuest's treatment approach involves the use of intense verbal confrontation between staff and youth. Confrontations are directed by the senior staff and generally occur when the staff feels that the youth is continuously behaving inappropriately or is failing to deal with some unresolved issue.

Confrontation generally begins with three or more staff surrounding a youth, one of them assuming a nose-to-nose/eye-to-eye stance squarely in front of the youth. The verbal style is loud and challenging. If the youth tries to turn or back away, he is held in position to maintain eye contact. In the past, a youth who resisted or struck out at the staff would be taken to the ground and held in a prone restraint. However, in response to numerous criticisms of this practice, VisionQuest revised their policy to permit only standing restraints rather than wrestling the youth to the ground.

A confrontation may continue for up to 30 minutes or until the staff feels the issue has been resolved. During this period, the youth might go through a sequence of arguing, struggling, crying, being still, and finally engaging in quiet conversation. The restraining holds of the staff change to affectionate hugs near the end of the process. No attempt is made to hide these confrontations, which go on throughout the day in the midst of other activities.

Eclectic Staff Backgrounds

In most residential programs that deal with the type of youth served by VisionQuest, the residential and treatment staff are required to have prior training or experience in some type of social work or counseling. Most programs also consider hiring new staff from outside the program for their more senior or management positions.

VisionQuest, on the other hand, hires almost all new staff at entry-level positions and promotes from within. The primary requirements of applicants are that they show an aptitude and interest in working with young people, that they be appropriate role models, and that they be able to get along with the rest of the staff. Although many of the staff do join the program with prior training or experience in working with adolescents, others have backgrounds in carpentry, logging, trucking, farming, or as wilderness guides.

After completing an initial probationary period and being accepted by the senior staff, new staff who wish to be promoted to higher levels are expected to make a commitment to stay with the program for at least five years. Staff members are expected to represent appropriate role models both on and off duty, and such behavior as being found in possession of marijuana, getting too drunk to drive, or treating a youth inappropriately has resulted in immediate termination.

III. EVALUATION DESIGN AND DATA SOURCES

PURPOSE OF CORRECTIONAL PROGRAMS

Correctional programs for chronic juvenile offenders are designed to serve a variety of purposes, but their ultimate goal is to reduce or eliminate subsequent criminal offenses by the juveniles they treat. Therefore, we have used measures of post-release criminal behavior as the primary indicators of program effects.

When comparing the effectiveness of different programs in reducing subsequent criminal behavior, it is important to ensure that all the programs treat the same type of individuals. The classic problem in comparing programs that accept commitments within any one jurisdiction—particularly when the programs differ in their activities, living conditions, or lengths of commitment—is that of selection bias. Left to their own devices, the courts typically commit the offenders with the worst prior records, those who are seen as the worst risks, and those who have failed in other programs to what they see as the more intensive intervention, while offenders with lighter records and those who are seen to be less of a risk tend to be committed to the more benign, less secure, and shorter-term programs. The end result is that the more secure/longer-term programs usually produce higher recidivism rates than other programs, partly because the people who are committed to them are the more serious offenders.¹

Because recidivism rates are known to be correlated with prior records, we can use statistical controls on prior-record variables to reduce the effects of selection bias on our samples. Unfortunately, prior record and other social background characteristics explain only 10 to 20 percent of the variance in recidivism rates (Gottfredson and Gottfredson, 1986). Therefore, if we have reason to believe that judges are sentencing selectively for purposes of incapacitation or rehabilitation, we also must believe that there is some selection bias in the samples that statistical controls for prior record cannot eliminate.

The preferred solution to the problem of selection bias in evaluating correctional programs is “random” or “equal probability” assignment, in which individuals who are determined to be eligible and appropriate for all the programs to be compared are assigned by judges or a correc-

¹Comparisons of California probationers and prison inmates by Petersilia and Turner (1986) provide evidence to support this conclusion.

tions classification board to an "eligible pool." Individuals in this pool are then randomly assigned to the programs that are to be compared.

It is difficult to find situations in which random assignment is used, however, since courts and correctional administrators usually have subjective opinions about the severity or effectiveness of the methods being used by a particular program, and they feel that it is important to reflect those opinions in assigning cases. The selection of appropriate programs based on prior record and perceived needs is a basic function of judges and correctional administrators, and they are reluctant to give it up.

As mentioned earlier, the acceptance of random assignment procedures by private programs and their committing jurisdictions was a basic prerequisite for participation in the OJJDP's Private Sector Corrections Initiative. Although an early contender for an award, VisionQuest implemented its program without waiting for the results of OJJDP's formal selection procedures, using local funding to support the full costs of the placements. Moreover, it did not use random assignments, which eliminated the possibility of evaluating the program at the Philadelphia site.²

However, because VisionQuest is one of the largest private programs dealing with chronic juvenile offenders, OJJDP officials agreed that it could be included in the RAND evaluation of private sector programs if suitable comparison samples could be found. The VisionQuest San Diego program qualified because the San Diego Probation Department had already assembled most of the records that would be required, and because YCC, which had been operated by the Probation Department prior to the commencement of VisionQuest placements, seemed to offer a reasonable comparison sample. The YCC and VisionQuest programs were reported by Probation to have handled the same kinds of youths, but they did not operate at the same time, which we hoped would minimize selection bias.

TREATMENT AND CONTROL GROUPS

The juveniles on whom we analyzed data were committed to three different types of placements: (1) the San Diego County Probation Department's camp at West Fork, known as YCC, (2) VisionQuest, and (3) other programs in which offenders who were offered a VisionQuest placement but rejected it were placed. This third group was too small

²By December 1985, when the programs selected for the OJJDP evaluation were starting to receive placements, VisionQuest had already received more than 100 commitments from the Philadelphia Juvenile Court.

to provide statistically significant results and is included for rough comparison purposes only; it is divided into youths receiving CYA commitments after rejecting VisionQuest and those receiving other community placements.

Once the court decided a youth might be appropriate for placement in VisionQuest, the youth was interviewed by VisionQuest staff, who explained the program.³ Visionquest rejected very few youths because of physical or behavioral problems that would make it difficult for them to function in a wilderness setting. Most of the rejections were of youths who would not make the required commitments to the program or who preferred some other form of placement.

About one-quarter of the juveniles who were interviewed and screened by VisionQuest for possible placement reportedly chose not to accept a placement because they did not like the activities or length of commitment required in the program, or because they thought they might get an easier sentence somewhere else.⁴ Juveniles in this group were subsequently placed in a variety of settings, including the CYA, other 24-hour schools, group homes, and even home-on-probation. We distinguished between "rejecters" who were committed to the CYA and those who were placed in other programs to obtain two samples that would bracket the VisionQuest and YCC samples with regard to prior-record severity and post-release performance.

The first group for whom we coded records comprised 257 male juveniles who were placed at the YCC camp between 1978 and 1980 (when the camp was converted to an adult facility). Of these, 184 were followed up for at least 12 months, and 73 were followed up for only 6 months. Our second group consisted of the first 90 male youths who were released from the VisionQuest program,⁵ all of whom were followed for 18 months. The third group consisted of 66 VisionQuest rejecters for whom varying periods of follow-up data were available.

SOURCES OF DATA

Most of the juvenile and criminal history data used in our analysis were initially collected by the San Diego Probation Department as part of its routine evaluation procedures. Some of the more recent VisionQuest post-release data and all the information on juveniles who

³VisionQuest now uses a 15-minute video presentation to make each candidate youth aware of what the program involves.

⁴According to the VisionQuest staff who interviewed them.

⁵There were insufficient data for 5 of the first 90 male "graduates" to enable us to code their records. We selected the next 5 releasees to replace them.

rejected VisionQuest were coded specifically for this analysis—the former by probation staff, the latter by Sourcepoint, a private contractor that had worked with San Diego Probation data before.

The coding was facilitated by the fact that San Diego Probation maintains a chronological listing of all arrests and known dispositions for all their juvenile cases. Adult arrests for those over 18 years of age are listed in the prosecutors' computerized index. For many programs, including YCC and VisionQuest, these data were summed in aggregate categories at 6-month intervals for routine program-evaluation purposes.

For our analysis, we used the basic chronological listing of all arrest charges for each individual, rather than the 6-month totals. Each arrest, with its charges and dispositions, was coded as a separate incident.

The original tallies generally included the date of arrest (or filing), the offense (in most cases, penal codes were listed), the disposition of the charge (whether it was dismissed or found true), and the sentence type and length (if applicable). Only occasionally were disposition dates available. Our unit of analysis was the arrest date. For each arrest date, we coded the penal code for all the charges, whether the charge was a juvenile or adult charge, the disposition, disposition date (if known), and sentence type and length (if applicable). In other words, we coded virtually all the information on the tally sheet.

In addition, we coded information from the front page of the Probation data form, which is filled out when a juvenile is placed in a program. The information includes date of birth, committing offense (the offense for which the juvenile was placed), entry and exit date from the program, release type (escape, regular, etc.), and where released at exit (Juvenile Hall, family home, AWOL, etc.).

To validate Probation's and Sourcepoint's original coding of arrest records, we selected a subsample of 30 cases (10 each of VisionQuest, YCC, and VisionQuest rejecters) to verify directly against the case folder and computerized file. Six of the 30 folders could not be located because they were sealed, purged, or being used in some other office. In the remaining 24 folders, we found only one discrepancy between the code sheets and the original files. A check of the computerized files for adult arrests for all 30 cases revealed that two of the VisionQuest and five of the YCC cases could not be verified because the records had already been expunged according to a regular purging cycle. Computer records for the remaining coded cases all agreed with the code sheets.

IV. CHARACTERISTICS OF PROGRAM SAMPLES

PRIOR RECORD

As noted above, the best way to estimate the effects of intervention programs on future recidivism rates is to compare their effects on similar groups of offenders. If the groups are not exactly similar, as is the case here, differences in the characteristics of the juveniles treated by different programs will have some effect on the observed outcomes.

In this analysis, we consider four major program options (listed in decreasing order of severity): the CYA, VisionQuest, YCC, and "other" San Diego programs. Interviews and prior studies (Greenwood et al., 1983) have indicated that the most serious youthful offenders are committed to the CYA; this is the program of last resort in California. Only 58 percent (38 of 66) of the VisionQuest rejecters were committed to the CYA. The rest received commitments to local programs or were sent home on probation. Therefore, we would expect the VisionQuest sample to be somewhere between the CYA and YCC groups in relative seriousness, and the "other" group to be the least serious. Furthermore, we would expect these differences in seriousness to show up not only in the characteristics of participating youth but in their recidivism rates as well.

Table 4.1 shows how the four programs compare on a variety of prior-record measures, including average number of prior arrests for any offense (including status offenses), safety crimes (restricted to burglary, arson, and crimes of violence), or crimes of violence only (restricted to robbery, assault, rape, homicide, and hit-and-run with personal injury); average number of prior convictions (for any or only safety offenses); percentage who have served prior CYA terms; average age at which the offenders were first arrested; and average age at which they entered their respective treatment programs.¹

The pattern of prior-record measures across programs generally conforms to our expectations. The CYA group is the most serious, and the community placements the least serious. The VisionQuest sample was more serious than the YCC sample on every background measure.

One of the major differences between VisionQuest and YCC placements is that 16 percent of the VisionQuest sample had served CYA

¹Results in this section reflect only youth for whom at least one year of follow-up data was available. This reduced the YCC sample from 257 to 184, and the VisionQuest-rejecter sample from 66 to 33. All VisionQuest youth had 18 months of follow-up data available.

Table 4.1
PRIOR-RECORD MEASURES OF COMPARISON GROUPS
 (Youths with at least one year of follow-up data)

Measure	Program Group			
	CYA ^a (N = 8)	VisionQuest (N = 90)	YCC (N = 184)	Other ^b (N = 25)
Average number of prior arrests	11.8	8.4	7.7	6.6
Average number of prior safety arrests	4.4	2.9	2.0	2.4
Average number of violent arrests	0.8	0.8	0.6	0.4
Average number of convictions	4.9	3.8	3.0	3.0
Average number of safety convictions	2.1	1.3	1.0	1.1
Percent with prior CYA terms	12.0	16.0	0	4.0
Average age at first arrest	11.5	12.3	13.6	13.0
Age at program entry	16.0	16.3	17.4	16.3

^aJuveniles who refused VisionQuest placements and were placed in the CYA.

^bJuveniles who refused VisionQuest placements and were not placed in the CYA.

terms, whereas virtually none of the YCC youths were CYA "graduates."² These former CYA residents averaged twice as many prior arrests as the other VisionQuest participants. Also, the YCC participants were, on average, about one year older than the youths in the other groups at the time of placement.

Table 4.2 shows the distribution of commitment offenses across comparison groups. These data confirm that the programs were receiving approximately the same mix of offenders: 10 to 20 percent had committed crimes against persons; about 50 percent had committed burglary or theft. There is no consistent pattern to the differences we observed.

²According to San Diego Probation officials, youths with prior CYA commitment should not have been eligible for commitment to any 24-hour school or camp.

Table 4.2

**PERCENTAGE DISTRIBUTION OF COMMITMENT
OFFENSES OF COMPARISON GROUPS**

(Youths with at least one year of follow-up data)

Most Serious Commitment Offense Type	Program Group			
	CYA ^a (N = 8)	VisionQuest (N = 90)	YCC (N = 184)	Other ^b (N = 25)
Violent	12	10	11	8
Robbery	0	6	10	12
Burglary	25	31	25	20
Theft	50	33	33	24
Weapons or sex	0	3	2	0
Drugs	0	0	2	12
Status	12	14	12	20
Other	0	2	4	4

NOTE: Columns may not add to 100 percent because of rounding.

^aJuveniles who refused VisionQuest placements and were placed in the CYA.

^bJuveniles who refused VisionQuest placements and were not placed in the CYA.

PROGRAM CHARACTERISTICS

Treatment programs differ not only in the activities and intervention methods they employ, but also in the time participants are required to serve and the conditions that can lead to their expulsion. The programs examined in this study differ considerably along these dimensions, as can be seen from Table 4.3.

The average length of stay in the YCC camp was 106 days, whereas the average stay of youths committed to the CYA or to VisionQuest is more than a year. This difference in length of stay may be one reason the YCC camp received somewhat less-serious offenders than did VisionQuest.

Almost one-quarter of the youths committed to the YCC program did not satisfactorily complete their term of residency but escaped or were discharged for disciplinary reasons; this failure rate is twice that of the CYA or VisionQuest. The difference may reflect the way in which authorities responded to within-program violations, rather than the frequency of violations themselves. VisionQuest and the CYA appear to have policies for dealing with minor in-program offenses internally, whereas San Diego Probation's policy was to go back to

Table 4.3
PROGRAM CHARACTERISTICS OF COMPARISON GROUPS
 (Youths with at least one year of follow-up data)

Program Measure	Program Group			
	CYA ^a (N = 8)	VisionQuest (N = 90)	YCC (N = 184)	Other ^b (N = 25)
Average length of stay (days)	446	398	106	174
Average age at release	17.2	17.4	17.7	16.7
Percent with any arrest	0	12	21	40
Percent with safety arrest	0	0	8	0
Percent with disciplinary or escape release	0	10	23	52
Percent committed directly to CYA	0	1	4	0

^aJuveniles who refused VisionQuest placements and were placed in the CYA.

^bJuveniles who refused VisionQuest placements and were not placed in the CYA.

court and file new charges. VisionQuest policy for dealing with runaways and escapees also differs from that of YCC. VisionQuest tries to bring the youth back to the program and get him to deal with the problems he was running from. San Diego Probation apparently filed charges on YCC runaways and terminated them from the program. Four percent of the runaways from the YCC sample were committed directly to the CYA, as one of the most drastic forms of program failure, compared with only 1 percent of those from VisionQuest.

Table 4.4 shows the difference between average times served by youths who successfully completed the VisionQuest and YCC programs and average times served by those who did not. In both programs, escapees and individuals who were terminated prior to completion served on the average about 60 percent as long as those who completed the program.

Table 4.4
AVERAGE NUMBER OF DAYS IN PROGRAM,
AS A FUNCTION OF RELEASE STATUS
 (Youths with at least one year of follow-up data)

Program	Release Status	
	Escape or Termination Prior to Completion	Completion
VisionQuest	253	414
YCC	67	118

V. DIFFERENCES IN POST-RELEASE CRIMINAL BEHAVIOR

RECIDIVISM RATES

More than half of the juveniles in this study were arrested¹ during the first year after they were released from their placement. Table 5.1 shows several recidivism measures that can be used to compare program outcomes.² The measures reflect different follow-up periods, different levels of seriousness in the alleged criminal behavior, and different responses by juvenile or criminal courts. Since we do not have very good measures of the time served in placements in the follow-up periods, all of the measures are based on calendar time, not necessarily time on the street.

We use three increasingly restrictive measures of arrest: arrest for *any offense* (including status offenses); arrest for a *safety offense*, i.e., burglary, robbery, assault, and other felony crimes against the person; and arrest for *violent offenses*, i.e., robbery, assault, rape, and other felony crimes against the person. We examine the more restrictive categories of offenses because they focus attention on crimes that directly affect public safety. The reason for examining arrests for any offense is that they occur more frequently and thus are more likely to

¹The status of arrests near the exit date from a program was sometimes unclear from the available data. For this study, recidivism consists of criminal events that occurred after the official exit date from a program. This definition may have inflated post-release measures by a few percentage points for both YCC and VisionQuest youth, because we considered some arrests as "post-release" that San Diego Probation and VisionQuest considered "during-program failures." For example, a youth may have gone AWOL from VisionQuest, been terminated from the program, and been transferred back to San Diego, where charges were filed on which he was sent to the CYA. The records would show arrest charges and a CYA commitment after the exit date from the program, and thus we would count this event as a post-release failure. However, VisionQuest and San Diego Probation would consider this a during-program failure. We estimate that about 5 percent of both YCC and VisionQuest youth had arrests that we categorized differently from VisionQuest or Probation.

²As shown in Table 4.3, a small percentage of VisionQuest and YCC youth were placed in the CYA as a result of arrests occurring during the program period. Since the average length of stay for CYA commitment is well over a year, these "program failures" were effectively eliminated from the study, because they were not free to commit crimes during the one-year standard follow-up period we use. The failure rates may be suppressed somewhat if we include these artificial "successes" in our calculations, but if we delete them, we may introduce another form of selection bias by pruning out the higher-risk offenders from the YCC sample. We chose to exclude from the recidivism measures youth who were directly committed to the CYA. This practice produces recidivism rates a few percentage points higher than those that would be obtained if these youths were included.

Table 5.1
RECIDIVISM 6 AND 12 MONTHS AFTER RELEASE
 (Percent of group rearrested)

Recidivism Measure	Program Group			
	CYA (N = 8)	VisionQuest (N = 89)	YCC (N = 177)	Other (N = 25)
Any arrest:				
6 months	88	31	53	60
12 months	88	55	71	68
Any safety arrest:				
6 months	62	15	28	12
12 months	62	26	34	28
Any violent arrest:				
12 months	25	11	12	16
Any safety conviction:				
12 months	38	13	18	24
Any CYA or prison commitment:				
12 months	12	15	11	24

NOTE: Includes only those youth with at least one year of follow-up data; excludes eight youths directly committed to the CYA.

reveal recidivism in a relatively short period of time. As expected, recidivism rates for all three types of offenses are highly correlated. Recidivism rates for any arrest and safety arrests (from Table 5.1) are plotted in Figs. 5.1 and 5.2.

The prior-record measures in Table 4.1 would lead one to expect the groups in the leftmost columns to have higher recidivism rates than those at the right. But our findings show the VisionQuest group performing better than expected. A smaller percentage of the VisionQuest youths had been arrested for any offense or for safety offenses 6 months after leaving the program than of the YCC group, even though YCC graduates would be expected to have somewhat lower recidivism, on the basis of their prior records. At the end of one year, the VisionQuest group was still performing better, although the difference is not as great as it was at 6 months.

Table 5.2 shows the recidivism of the VisionQuest sample and the third of the YCC sample for which data were available 18 months after release. The VisionQuest youths continue to exhibit a lower recidivism rate as measured by arrest or conviction for any offense or for safety offenses.³

³These 79 YCC youths appear to be somewhat less serious offenders than the YCC youths with only 6 and 12 months of follow-up data.

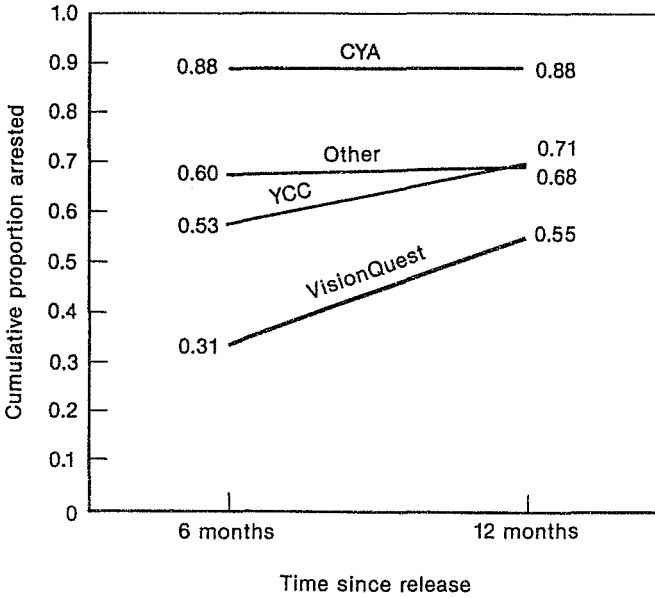


Fig 5.1—Recidivism rates at 6 and 12 months: any arrest

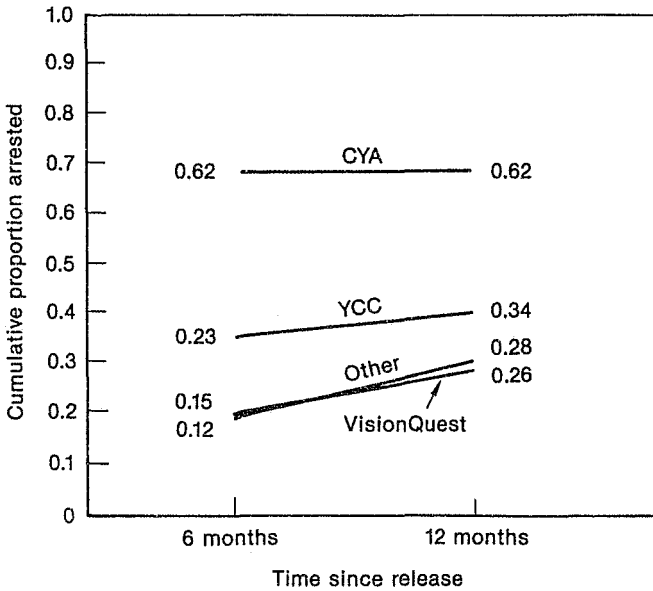


Fig 5.2—Recidivism rates at 6 and 12 months: safety arrests only

Table 5.2
RECIDIVISM 18 MONTHS AFTER RELEASE
 (Percent of group rearrested)

Recidivism Measure	Program Group	
	VisionQuest (N = 89)	YCC (N = 79)
Any arrest	63	81
Any conviction	49	57
Safety arrest	33	37
Safety conviction	16	24
Placement in prison or CYA	18	8

Like Table 5.1, Table 5.2 also shows that VisionQuest graduates are more likely than YCC graduates to receive prison or CYA commitments for subsequent convictions, even though a smaller proportion are convicted of serious crimes. The data show more commitments of VisionQuest youths to prison or the CYA (18 percent) than convictions for safety offenses (16 percent). On the other hand, the percentage of YCC graduates receiving prison or CYA sentences is only one-third the number convicted of safety crimes.

This anomaly may be due to errors in distinguishing between within-program and post-program offenses, as noted above. When an offender is committed to the CYA shortly after his release, it is often unclear whether he was free on the street for a time or awaiting disposition in Juvenile Hall. The high rate of CYA placements for VisionQuest subjects shown in Table 5.2 may also reflect flaws in the reporting of arrest dispositions, systematic differences between the two samples in the seriousness of the crimes included in the safety-arrest category, or differences in the way graduates of the two programs are treated in court. At this point, we cannot say which (if any) of these possible explanations applies.

COMPARISON OF VISIONQUEST AND YCC RECIDIVISM RATES, CONTROLLING ON RISK

The recidivism results above are based on observed differences between VisionQuest graduates and other youth. We have suggested that the VisionQuest youth perform better than expected, given their fairly serious prior records. In the following analysis, we more formally

control for the differences in prior record between VisionQuest graduates and YCC youth.⁴

We examined four major recidivism measures: (1) any arrest during the first 6 months after release; (2) any arrest for a safety crime during the first 6 months after release; (3) any arrest during the first 12 months after release; and (4) any arrest for a safety crime within the first 12 months after release. For the first two measures, we included all YCC youth; for the second two, we excluded the YCC offenders for whom we had only 6 months of follow-up data.

We selected nine predictor variables for each of the four recidivism measures: (1) age at first arrest; (2) number of prior arrests; (3) previous arrest for a violent crime; (4) prior CYA commitment; (5) release from YCC or VisionQuest as the result of a disciplinary charge or escape; (6) age at entry into YCC or VisionQuest; (7) whether the most serious current commitment offense was for a property crime; (8) whether the most serious commitment offense was for a violent crime; and (9) whether the youth was placed at YCC or VisionQuest.⁵

Because our dependent variables were binary, we used logistic multiple-regression analyses. We first included all nine variables in each model. From each model, we then selected those items that were significant ($p < .10$) and refit the models. The pared down models are shown in Tables A.1 through A.4 of Appendix A. As expected, placement in VisionQuest is shown to be associated with significantly reduced odds of having any arrest or a safety arrest within 6 and 12 months of release from the program. Figures 5.3 and 5.4 translate the logistic regression coefficients for VisionQuest status from the models and show the estimated probability of recidivism for VisionQuest graduates for each of the four dependent measures. The actual probability of recidivism for the YCC group is shown as a reference point.⁶

When we control for background factors, the estimated probability of having any arrest in the first 12 months for VisionQuest graduates is 0.39, compared with 0.71 for YCC graduates (32 percentage points

⁴We include only YCC youth as a comparison because the sample sizes of the other comparison groups were too small to provide meaningful results.

⁵Very few background variables were available for the offenders in our samples except those reported above for prior record (race, for example, was not included).

⁶With these logistic models, the percentage decrease in recidivism is not a constant. The estimate depends upon the particular values associated with the individual factors in the model. Figure 5.3 presents the estimated effect of having been placed in VisionQuest evaluated at the average probability of recidivism for youth placed at YCC. Estimates of the decreased probability of recidivism can be calculated at other than the average YCC recidivism rate. To calculate the VisionQuest youths' probability, the YCC probability is converted to odds and the log is taken. The logistic regression beta coefficient is added to this, and the sum is then exponentiated (base e) to convert to the new odds for the VisionQuest youths, which are then translated back into a probability.

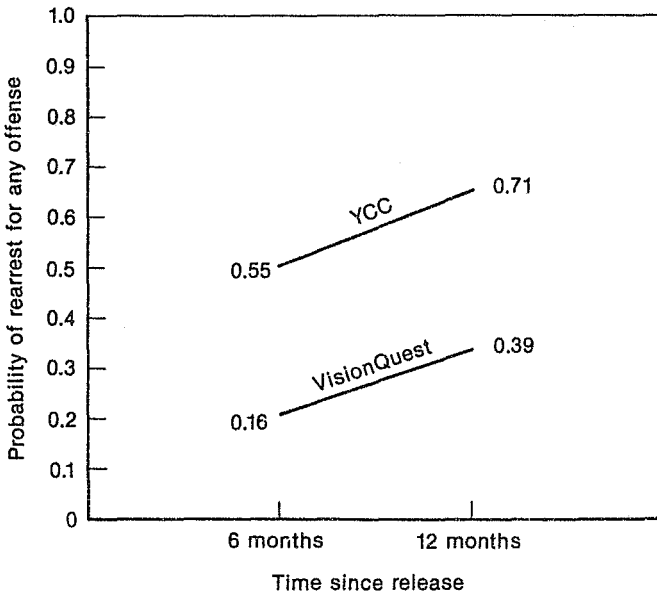


Fig 5.3—VisionQuest and YCC recidivism rates, controlling on prior record: any arrest

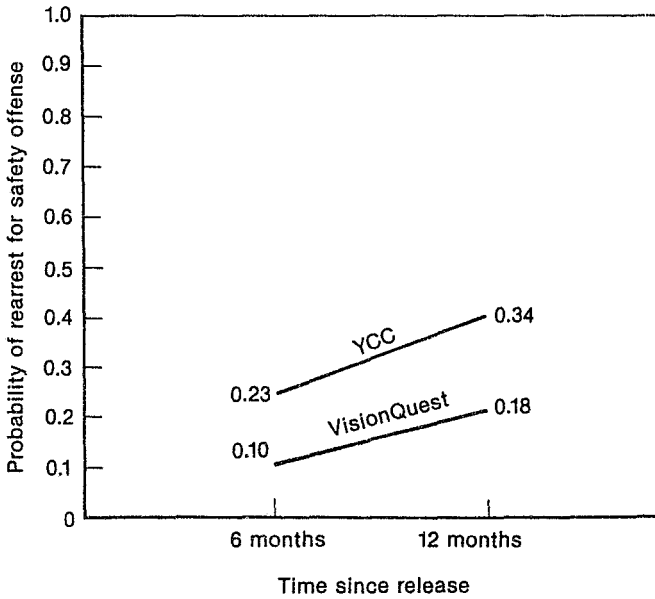


Fig 5.4—VisionQuest and YCC recidivism rates, controlling on prior record: safety arrests only

higher). In the first 12 months, VisionQuest graduates are estimated to have an 18 percent probability of any safety arrest, compared with 34 percent for YCC. These estimates, controlling for background characteristics, suggest that placement at VisionQuest is associated with a recidivism rate about half that of YCC graduates, larger than the differences between YCC and VisionQuest youths in Table 5.1. This was expected, in light of the fact that the VisionQuest youths had more serious prior records than the YCC youths. A supplementary analysis in which VisionQuest participants were subdivided into three different risk groups (reported in Appendix A) showed no evidence of differences in VisionQuest effectiveness within any particular risk group.

Like other studies, however, our analysis is limited in its ability to predict who will and who will not fail. For example, we are able to explain only about 16 percent of the variance in who will be arrested in the first 6 months following release. Although our overall prediction ability is low, our knowledge of placement type explains at least half of the variance that we are able to explain.

TIME TO FIRST FAILURE

The use of simple recidivism rates to measure program outcomes requires us to standardize the follow-up period over which the rates are to be measured. Subjects for whom we do not have follow-up data for the full period must be dropped from the analysis, and data for follow-up periods longer than the standard period cannot be used.

One way of making better use of data that cover a variety of follow-up periods is to plot the distribution of "time to first arrest." This is simply a cumulative frequency distribution of the time at which subjects experience their first arrest. Figures 5.5 and 5.6 show plots of time to first arrest for the VisionQuest and YCC samples, using "arrest for any crime" and "arrest for a safety crime" as the respective measures of failure.⁷ The YCC recidivists were arrested sooner after release than the VisionQuest recidivists. Furthermore, it appears that a higher percentage of the YCC group will ultimately fail. Differences in safety arrests, however, are not as great.

⁷These figures represent only the youths with at least one year of follow-up data; eight youths committed directly to the CYA are excluded. All VisionQuest youth have 18 months of follow-up data. Data for YCC for the interval between 12 and 18 months after release are based on 79 of the 177 YCC youths and are thus not necessarily representative of the whole group.

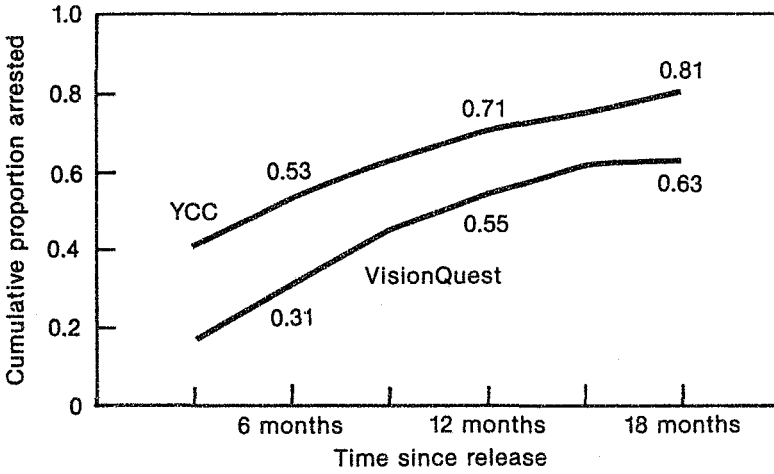


Fig 5.5—Time to first arrest: any arrest

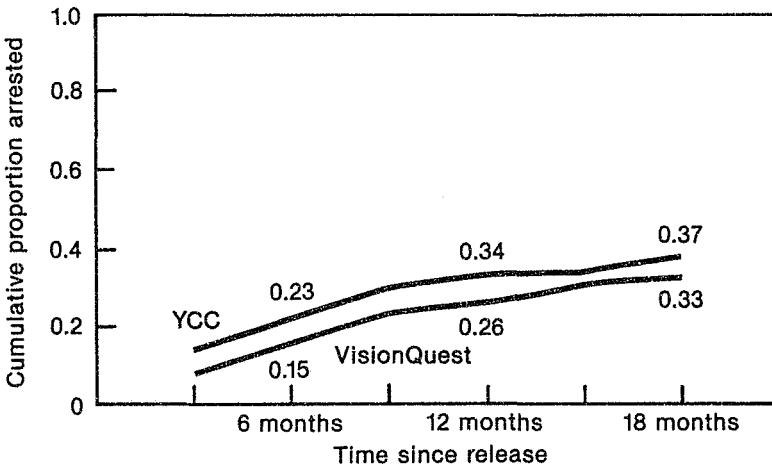


Fig 5.6—Time to first arrest: safety arrests only

According to Fig. 5.5, the percentage of VisionQuest participants who will ever be arrested appears to peak at about 63 percent, while the YCC subjects appear to continue to fail, even after reaching 71 percent at 12 months. In only 5 months, half of the YCC sample had been rearrested, whereas it took 11 months for a similar fraction of the VisionQuest sample to fail.⁸

ARREST RATES

Recidivism rates show the fraction of a sample or treatment group that have committed new crimes, but they do not indicate how much crime offenders are committing. The amount of crime experienced by the community depends not only on the number of offenders, but also on the rate at which active offenders commit their crimes.

In the absence of accurate self-reported data on individual offending patterns, our best source of data is individual arrest rates.⁹ Table 5.3 shows average rates for each of the program samples, calculated for the calendar year immediately preceding the arrest that led to program placement and the year following release. The VisionQuest group, which was arrested an average of 1.2 times per year for any offense and 0.3 times per year for a safety offense, again performed somewhat better than would be expected on the basis of prior record. They were arrested 25 percent less frequently than CYA or YCC graduates.

⁸A supplementary analysis used simple, nonparametric survival modeling (SAS procedure LIFETEST) to test whether time to failure was different for YCC and VisionQuest youth. This technique utilizes all the available data—including those for the 67 YCC youth with only 6 months of follow-up data as well as for some VisionQuest youths with follow-up data beyond 18 months. Results from this analysis suggest that, as Fig. 5.5 shows, VisionQuest and YCC youth differ significantly with respect to time to failure for any arrest. However, time to failure for a safety arrest is not significantly different for the two groups.

⁹See Greenwood and Turner (1987) for a discussion of variations in self-reported offense arrest rates.

Table 5.3
AVERAGE PRE- AND POST-PROGRAM ARREST RATES

Program	Arrest Rate (arrests/year)			
	Any Arrest		Safety Arrest	
	Pre- placement	Post- placement	Pre- placement	Post- placement
CYA (N = 8)	3.9	1.6	0.4	0.9
VisionQuest (N = 89)	2.1	1.2	0.7	0.3
YCC (N = 177)	2.2	1.6	0.5	0.4
Other (N = 25)	1.6	1.4	0.4	0.4

NOTE: Arrest rates are calculated on the basis of a calendar year and *do not* control for time served, which would be more appropriate if such information were available. Includes only those youth with at least one year of follow-up data; excludes eight youths directly committed to the CYA.

VI. CONCLUSIONS AND DIRECTIONS FOR THE FUTURE

The strength of our conclusions regarding the effectiveness of VisionQuest compared with short-term probation camps like YCC or longer-term placements in the CYA is limited by systematic differences in the characteristics of youths who participated in these programs and the limited size of the CYA sample. Youths who were placed in the YCC camp had, on average, less serious prior records than those who were later placed in VisionQuest. Those who refused VisionQuest placements and were committed to the CYA had more serious records than the average VisionQuest participant, while those who received other placements had less serious records than those in YCC. All previous studies suggest that groups with more serious prior records will be more likely to commit crimes in the future.

RECIDIVISM RATES

When we compare the amount of criminal behavior engaged in by the participants of these programs after their release, all but VisionQuest fall in the order that would be predicted by the seriousness of their prior records. VisionQuest graduates have fewer arrests than graduates of YCC, even though the latter have less serious records.¹

VisionQuest participants are also arrested less frequently than the youths who rejected VisionQuest placements and were committed to the CYA, but we cannot reach any clear conclusions regarding the relative effectiveness of VisionQuest and the CYA, due to differences in the seriousness of the participants' prior records and the small size of the CYA sample.

San Diego Probation officers assert that their recidivism and arrest rates would also decline by 25 percent if they were allowed to hold youths as long in their program as VisionQuest does, and this may be reasonable. When YCC was in operation, the average length of stay was limited by pressures to accept additional cases. However, there is

¹This finding contradicts the conclusions reached by the San Diego Probation Department from analyses of essentially the same data. To the best of our knowledge, the differences are the result of Probation analysts not controlling for differences in follow-up time after release and differences in predicted risk between members of the two comparison groups.

no evidence to suggest that an increase in time served will in itself produce a substantial decrease in recidivism.²

Further evidence in support of VisionQuest's effectiveness is provided in a study by Goodstein and Sontheimer (1987), prepared for the Pennsylvania Juvenile Court Judges' Commission. That study compared one-year recidivism rates for ten residential programs to which Pennsylvania judges had been committing juveniles. Although no significant differences among placements (with or without controls for selection) were reported with respect to recidivism measures, the re-arrest rate for VisionQuest youth, 37 percent, was substantially lower than that for the other eight programs that accepted the more serious offenders³ (51 percent).

PROGRAM COSTS

One of the factors that many critics (including San Diego Probation) cite in arguing against making placements to VisionQuest is the high cost of the program. San Diego County paid VisionQuest approximately \$77 per day for each juvenile it placed there.⁴ The per-capita daily cost for the YCC program at West Fork was between \$29 per day (in 1978 dollars)—the figure reported by Probation—and \$55 per day, the figure estimated by the California Probation Business Managers' Association by averaging cost across all county probation camps for 1982-83 (CPBMA, 1984). There is considerable disagreement about whether the reported costs for public correctional facilities realistically reflect capital costs, employee benefits, and services (such as education) that are provided by other agencies.

Even if VisionQuest placements are in fact somewhat more expensive than placements in public programs, it is still necessary to evaluate whether the extra expense is justified by the lower rate of recidivism of VisionQuest graduates. In Appendix B, we describe a

²Beck and Hoffman, 1976; Berecochea et al., 1973; Gottfredson et al., 1973; Jaman, Dickover, and Bennett, 1972; Jaman, 1968.

³Newcastle Secure; Bensalem Secure; Youth Forestry Camp #2; Newcastle Residential; Bensalem Residential; St. Gabriel's Hall; Glen Mill School; and Loysville. Using Cohen's (1977) power tables and Goodstein and Sontheimer's (1987) published recidivism figures, we computed differences in proportions (basically a *t*-test) between the 37 percent VisionQuest failure rate (based on 52 cases) and the average 51 percent failure rate (based on 417 youth in the eight comparison programs). Results indicated that these proportions were significantly different, at $\alpha = 0.10$, two-tailed. This post hoc calculation is only one of numerous comparisons that could be made among all ten groups and is thus only suggestive of VisionQuest's effectiveness.

⁴The county was reimbursed for more than 90 percent of these expenses by federal Aid to Families with Dependent Children (AFDC) funds and state funds.

mathematical model that projects the lifetime career cost to society of a typical chronic juvenile offender under various assumptions about his future recidivism rate. Our cost model is based on one proposed by Shinnar and Shinnar (1975) and later refined by Greenwood and Abrahamse (1982) and Cohen (1983) to predict the incapacitation effects (time spent incarcerated and crimes prevented) of alternative sentencing policies.

Given parameters describing a juvenile's average arrest rate (arrests per year), probability of arrest for any one crime, probability of incarceration and average time served for each arrest, and probability of recidivism following each period of incarceration, the model calculates the expected length of his criminal career (how long he will continue to commit crimes), the expected number of crimes he will commit, the expected number of times he will be arrested, and the expected total amount of time he will be incarcerated. When dollar values are assigned to reflect the cost of each crime and the annual cost of keeping an offender in custody, the model can be used to estimate the total crime and correctional costs of a criminal career.

Assuming an arrest rate of 1.5 per year, a 0.1 probability of arrest, an annual incarceration cost of \$20,000, a total social cost of \$1,000 per crime, and an 80 percent recidivism rate—all conservative figures, according to our earlier analyses and estimates derived from the National Academy of Science Panel on Criminal Careers (Blumstein et al., 1986), the total estimated career costs for one chronic juvenile offender are \$225,000, of which \$100,000 is for correctional costs alone. If the offender's probability of recidivism could be reduced to 0.7, the savings in career costs would be \$75,300, of which \$33,300 would be correctional costs. Reducing the recidivism rate to 0.6 would save \$112,000 in total career costs, including \$50,000 in future correctional costs.

A chronic juvenile offender with a projected 80 percent recidivism rate and an expected arrest rate of 1.5 per year (similar to the juveniles committed to VisionQuest and YCC) can be expected to continue committing crimes for 13.3 years. Clearly, then, it is in society's best interests to pay somewhat more for juvenile corrections programs that significantly reduce recidivism rates.

WHAT FACTORS ACCOUNT FOR VISIONQUEST'S EFFECTIVENESS?

If we followed the pattern of most so-called meta-analyses (e.g., Lipton, Martinson, and Wilks, 1975; Rezmovic, 1984; Romig, 1978; and

Sechrest et al., 1979), we would first attempt to place VisionQuest in a general program category based on principal "treatment techniques." With this approach, VisionQuest would probably be categorized as a "wilderness" program, although most wilderness programs last for no more than 28 days and are offered only as a supplement to other program activities.

Since wilderness programs as a group have not consistently reduced recidivism rates more than other program types, the inclusion of VisionQuest would not be likely to change the general assessment that no one treatment has been found superior to any other, or to no treatment at all. The apparent success of the VisionQuest program in reducing the subsequent arrest rates of San Diego youth would be dismissed as a lucky fluke, or possibly the result of charismatic leadership. Under the traditional evaluation paradigm, depicted in Fig. 6.1, the only way to refute the contention that "nothing works" would be to have a whole series of programs based on a particular treatment method prove consistently more effective than average.



Fig. 6.1—The old simple model

In an earlier publication, Greenwood and Zimring (1985) took issue with the traditional paradigm, arguing that a variety of program inputs, including the quality of program management and characteristics of the staff, may have just as much impact on outcomes as the treatment modality.

We are currently developing a conceptual model to describe and measure a number of program inputs and processes, as depicted in Fig. 6.2, which we believe can influence the effectiveness of a program.

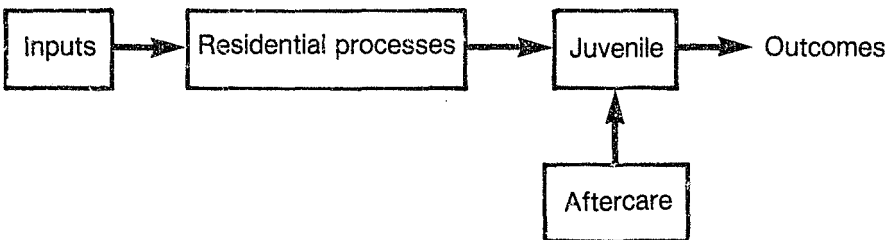


Fig. 6.2—A more complex model

Inputs

The six basic *inputs* that appear to determine an intervention program's basic character are (1) the level of funding, (2) the facilities, (3) the treatment plan, (4) the staff, (5) the organization operating the program, and (6) the characteristics of the juvenile justice system in which it is embedded, particularly the system's sentencing policies. Most prior evaluations have distinguished among or characterized programs only by their treatment plans, completely ignoring the potential effects of the other input variables, which are arguably just as important. We believe that this failure to recognize and control for the effects of differences in the other input variables accounts for the failure of prior corrections evaluations to identify consistent treatment effects.

For instance, all other factors being the same, we would not expect one program to be as effective as another that receives twice as much funding. Nor would we expect a program that was housed in a completely inappropriate, decrepit old building to achieve the same results as one that had a new building designed to its own specifications. Nor would we expect a program operated by inappropriate and unenthusiastic staff to be as effective as one in which the staff were carefully selected, trained, and enthusiastic about their work.

Processes

In order for the *inputs* discussed above to have the desired impact on intermediate and final outcomes, intervening processes must bring the inputs together to bear on the juveniles. We have subdivided treatment programs into the following *process* categories:

1. *Screening*: determining which juveniles are appropriate for the program and which should be excluded because they are likely to be disruptive or because they have security or treatment needs that cannot be met by the program.
2. *Diagnosis and program planning*: determining each juvenile's individual treatment needs and setting up a treatment plan to meet them.
3. *Education*: programs and activities designed to increase academic skills.
4. *Vocational training and life skills*: programs and activities designed to provide job skills and/or increase employability and the capacity for independent living.
5. *Individual therapy*: programs or activities designed to deal with or confront those personal issues that appear directly

related to criminal activity (e.g., anger management, drug-abuse counseling or therapy, assertiveness training, guided group interaction).

6. *Family therapy*: programs or activities designed to deal with the problems of other family members, or to improve the juvenile's ability to cope with such problems.
7. *Fitness and recreation*: activities that are healthful and *enjoyable* and provide the juvenile with an opportunity to relax or let off steam.
8. *Room and board*: the kind of space provided for sleeping and private activities; the type of food the juvenile is fed and the conditions under which he must eat it.
9. *Security*: the means used to ensure compliance with the program requirements and to prevent youth from victimizing each other.
10. *Discipline*: the method by which rules are enforced and the character of the sanctions imposed for violations.
11. *Role modeling*: the type of role models to which the juveniles are exposed and the frequency and conditions of exposure.

Scoring experimental and control programs on the way they perform these 11 processes is one of the most difficult aspects of program evaluation. Yet a program's ultimate effectiveness is probably determined by the way in which these processes are performed.

Because the present evaluation was performed retrospectively, we did not have the opportunity to observe all aspects of how VisionQuest performed all the above processes. We visited the West Coast wagon train, the East Coast Wilderness Camp in Franklin, Pennsylvania, and group homes in Tucson, Arizona, and Franklin and Erie, Pennsylvania. We have also continued to monitor the development of the VisionQuest program.

It was not possible to visit the YCC program, because it was terminated well before this study began. Our information about YCC comes entirely from discussions with its former director and other San Diego Probation staff. Therefore, we could not compare the substantive aspects of these programs along the lines of the evaluation model discussed above, except in the most general way.

We observed that VisionQuest generally performs the processes listed above more competently than most of the other programs we have observed. In our judgment, VisionQuest's efforts in diagnosis, vocational and life skills training, family therapy, and role modeling are particularly noteworthy. Many programs do not provide these functions at all, or do so only to an extremely limited degree.

VisionQuest's diagnosis and individualized treatment planning are based on both conventional background reports and standardized tests, as well as close and continued observations and monitoring of juvenile performance in different social settings. The wide variety of activities operated by VisionQuest at many locations provides a great deal of latitude in designing individualized programs. The pattern of constant communication among senior staff about the progress of individual youths appears to make good use of the options, and the staff are prompt in responding to situations where a youth does not appear to be progressing satisfactorily.

The daily chores and responsibilities imposed upon young people participating in the impact programs appear to be ideal means of instilling good work habits. The opportunities for hands-on work experience greatly exceed what is available to all but a small percentage of the youths in traditional residential programs.

The efforts VisionQuest devotes to communicating with the juveniles' families, involving them in group sessions, bringing them out to visit the impact programs, clarifying issues between youths and their families, and family reunification exceed anything we have seen in all but a very few programs. We believe that this emphasis on family issues may be one of the most important factors that sets VisionQuest apart from most public programs, given the chaotic relationships that most chronic delinquents and their families appear to have. In most training schools and county camps, family involvement is limited to weekend visiting hours. Very few programs attempt to "work with the family."

Finally, the diverse backgrounds and program responsibilities of the VisionQuest staff provide a much broader and more realistic mix of role models for the juveniles. The staffs are not limited to teachers and custodians, but include teamsters, blacksmiths, wranglers, outdoor specialists, and people with all of the other types of skills required to keep impact programs in operation. Additionally, the staff members, including many married couples, reside with the juveniles in the program, which provides the opportunity to observe interactions among family members and between members of the opposite sex; the youths even get to learn something about childrearing, since there are usually a few toddlers along on wagon trains or residing in the wilderness camps.

We are currently collecting and analyzing detailed observations on a number of residential programs to test the explanatory power of our model. At this point, we are optimistic about its ability to predict or explain program success. We are also designing an aftercare experiment to determine the potential impact of intensive aftercare services

on recidivism rates for youth released from high-quality residential programs.

We do not yet know precisely what it takes to make residential treatment programs effective, but the results of this evaluation would suggest that programs like VisionQuest are on the right track.

Appendix A

DIFFERENTIAL PROGRAM EFFECTIVENESS

The analysis reported in Sec. V indicates that youths placed in VisionQuest have significantly reduced chances of being rearrested after release from the program. One of the major concerns of juvenile corrections programs is whether the effectiveness of their treatment differs for different types of youth. Some treatment programs appear to be more effective for younger offenders, some for youths without drug problems, others for youths who are less-serious offenders. We did not have adequate data to investigate a wide range of youth types; however, we were able to examine whether the VisionQuest program appeared to be differentially effective for those youths who had different probabilities of recidivism based on the measures available to us (primarily age and prior record).

We divided the 89 VisionQuest youths into three groups, defined by risk of recidivism, as determined by each of the four recidivism measures discussed above. Risk scores were computed by calculating predicted recidivism probabilities based on the logistic regression models in Tables A.1 through A.4.¹ Table A.5 presents the actual and predicted probabilities of recidivism for the three different risk groups for each of the four major outcomes.

For each risk group and recidivism measure, the actual recidivism rates are less than expected. This reflects the significant effect for VisionQuest status shown in Tables A.1 through A.4. The pertinent question for risk analysis is whether the predicted versus actual recidivism rates are different for juveniles with different risks of recidivism. For example, is the difference between 0.10 and 0.45 for low-risk offenders for "any arrest during 6 months" greater or less than the difference between 0.59 and 0.90 for the high-risk offenders?

¹We did not include the coefficient for VisionQuest youth because we wanted to estimate each youth's predicted probability of recidivism without adding in the effect of being placed in the program (i.e., we wanted to estimate what his risk would have been without being placed in the program). We did want the coefficients for the other variables adjusted for VisionQuest status, however, to take account of possible correlations between the variables and VisionQuest status. Therefore, we calculated (excluding the coefficient for VisionQuester) the predicted probabilities from the models outlined in Tables A.1 through A.4, rather than reestimating the equations without the VisionQuest status predictor.

We caution that the subsample groups are quite small—approximately 30 youths per risk group—and the reduction in percentage points in Table A.5 reveals no consistent pattern for differential effectiveness for youth of different risk levels. For “any arrest, 6 months” and “any safety arrest, 6 months,” moderate-risk youth show the greatest change between predicted and actual risk. Low- and high-risk youth look very much the same. For “any arrest, 12 months” and “any safety arrest, 12 months,” low-risk youth show the largest differences between predicted and actual recidivism rates.² Overall, VisionQuest does not appear to be differentially effective for youths of different risk levels, at least as we have defined them here.

Table A.1

**EFFECT OF VISIONQUEST ON ANY ARREST, 6 MONTHS
POST-RELEASE: VISIONQUEST AND YCC YOUTH ONLY**
(Adj R² = 0.160, N = 333)

Variable	Mean	Logistic Regression Results			
		Beta	Std. Error	Chi Square	P
Intercept	—	7.800	3.019	6.68	0.010
Previous violent arrest?	0.393	-0.704	0.289	5.92	0.015
Number of prior arrests	7.973	0.204	0.030	45.73	0.000
Age at program entry	17.125	-0.508	0.173	8.57	0.003
VisionQuester	0.267	-1.869	0.380	24.21	0.000

NOTE: SAS Procedure LOGIST was used for logistic regression analyses. Adjusted R-square = (model chi-square - 2p)/(-2L(0)), where p is the number of variables in the model, excluding the intercept. See LOGIST procedure in *SUGI Supplemental Library User's Guide*, 1983.

²If we convert the percentages in Table A.5 to logits (a more appropriate measure when dealing with changes in percentages), we find basically the same pattern of differences between predicted and actual logits as with the raw percentages. The major exception is that the low-risk offenders show the largest change for “any arrest, 6 months.”

Table A.2

**EFFECT OF VISIONQUEST ON ANY SAFETY ARREST,
6 MONTHS POST-RELEASE: VISIONQUEST AND
YCC YOUTH ONLY**

(Adj R² = 0.054, N = 333)

Variable	Mean	Logistic Regression Results			
		Beta	Std. Error	Chi Square	P
Intercept	—	3.873	3.273	1.40	0.237
Number of prior arrests	7.973	0.103	0.245	17.45	0.000
Age at program entry	17.125	-0.340	0.189	3.25	0.071
VisionQuester	0.267	-1.089	0.419	6.77	0.009

NOTE: SAS Procedure LOGIST was used for logistic regression analyses. Adjusted R-square = (model chi-square - 2p)/(-2L(0)), where p is the number of variables in the model, excluding the intercept. See LOGIST procedure in *SUGI Supplemental Library User's Guide*, 1983.

Table A.3

**EFFECT OF VISIONQUEST ON ANY ARREST, 12 MONTHS
POST-RELEASE: VISIONQUEST AND YCC YOUTH ONLY**

(Adj R² = 0.057, N = 266)

Variable	Mean	Logistic Regression Results			
		Beta	Std. Error	Chi Square	P
Intercept	—	8.424	3.239	6.76	0.009
Number of prior arrests	7.827	0.094	0.028	11.22	0.001
Age at program entry	17.039	-0.468	0.186	6.36	0.012
VisionQuester	0.335	-1.348	0.357	14.24	0.000

NOTE: SAS Procedure LOGIST was used for logistic regression analyses. Adjusted R-square = (model chi-square - 2p)/(-2L(0)), where p is the number of variables in the model, excluding the intercept. See LOGIST procedure in *SUGI Supplemental Library User's Guide*, 1983.

Table A.4

**EFFECT OF VISIONQUEST ON ANY SAFETY ARREST,
12 MONTHS POST-RELEASE: VISIONQUEST AND
YCC YOUTH ONLY**
(Adj R² = 0.013, N = 266)

Variable	Mean	Logistic Regression Results			
		Beta	Std. Error	Chi Square	P
Intercept	—	5.180	3.066	2.85	0.091
Number of prior arrests	7.827	0.052	0.024	4.56	0.033
Age at program entry	17.039	-0.359	0.176	4.15	0.042
VisionQuester	0.335	-0.855	0.367	5.41	0.020

NOTE: SAS Procedure LOGIST was used for logistic regression analyses. Adjusted R-square = (model chi-square - 2p)/(-2L(0)), where p is the number of variables in the model, excluding the intercept. See LOGIST procedure in *SUGI Supplemental Library User's Guide*, 1983.

Table A.5

**PREDICTED AND ACTUAL RECIDIVISM RATES
FOR VISIONQUEST YOUTH**
(Proportion of risk group who recidivated)

Outcome	Risk					
	Low (N = 30)		Moderate (N = 30)		High (N = 29)	
	Predicted	Actual	Predicted	Actual	Predicted	Actual
Any arrest:						
6 months	0.45	0.10	0.70	0.27	0.90	0.59
Any safety arrest:						
6 months	0.19	0.07	0.30	0.03	0.48	0.34
Any arrest:						
12 months	0.71	0.33	0.82	0.53	0.91	0.79
Any safety arrest:						
12 months	0.34	0.07	0.43	0.30	0.57	0.41

Appendix B

A MODEL FOR ESTIMATING TOTAL EXPECTED CAREER COSTS FOR CHRONIC JUVENILE OFFENDERS

This model uses the assumptions and methods for estimating criminal-career parameters first developed by Shinnar and Shinnar (1975) and later refined and expanded by Cohen (1983). It assumes that offenders commit crimes at random intervals according to a Poisson process, at an average rate (L), throughout the period of their active careers. The average probability of arrest for any one offense (q) is constant throughout the career, as is the probability that any one arrest will result in confinement (J) and the expected sentence length (S). An offender's average arrest rate (u) is given by

$$u = Lq .$$

If sentence lengths are fairly short in comparison to career length, the average fraction of time that any one offender will be free to commit crimes in the community is

$$F = 1 / (1 + LqJS) .$$

The fraction of time he will be incarcerated is $1 - F$; and the average number of crimes he will commit between periods of confinement is $1 / (qJ)$.

We assume that each offender has a constant probability of recidivating (R) after each period of confinement. Therefore the expected total number of times an offender will be incarcerated is $1 / (1 - R)$, and his expected career length is $(S / (1 - R)) / (1 - F)$. The total number of crimes he can be expected to commit is

$$(1 / (qJ))(1 / (1 - R)) ,$$

and the total amount of time he is expected to be incarcerated is

$$S/(1 - R)$$

The total correctional costs are derived by multiplying the total time the offender is expected to be incarcerated by the average annual cost of incarceration. The total crime costs are derived by multiplying the total number of crimes the offender is expected to commit by the average social cost per crime.

For our base case (Table B.1), we assume that the average social cost per crime is \$1,000, and the average annual cost of confinement is \$20,000. We also assume average arrest rates of 1.5 arrests per year (the rate of the San Diego YCC sample), a 0.4 probability of confinement given arrest, and a one-year average length of stay for offenders sentenced to correctional facilities.

Table B.2 shows the effect of reducing the average time served per crime to half what is assumed in the base case (to reflect, for example, a lower probability of arrest, likelihood of confinement, or average sentence length). Table B.3 shows estimates for the lower expected time served and an average social cost per crime of only \$200, both very conservative assumptions.

Table B.1

ESTIMATED CRIME, CORRECTIONS, AND TOTAL CAREER COSTS AS A FUNCTION OF RECIDIVISM RATE: BASE CASE

(q = 0.1; J = 0.4; cost per crime = \$1,000)

Variable	Assumed Recidivism Rate				
	0.9	0.8	0.7	0.6	0.5
Expected number of commitments	10.00	5.00	3.33	2.50	2.00
Total crimes	250.00	125.00	83.33	62.50	50.00
Total time					
incarcerated (yrs)	10.00	5.00	3.33	2.50	2.00
Total career length (yrs)	26.67	13.33	8.89	6.67	5.33
Career crime cost (\$)	250,000	125,000	83,333.33	62,500	50,000
Career incarceration cost (\$)	200,000	100,000	66,666.66	50,000	40,000
Total career cost (\$)	450,000	225,000	150,000	112,500	90,000

Table B.2

**ESTIMATED CRIME, CORRECTIONS, AND TOTAL CAREER COSTS AS A FUNCTION OF RECIDIVISM RATE:
REDUCED TIME SERVED**

($q = 0.05$; $J = 0.4$; cost per crime = \$1,000)

Variable	Assumed Recidivism Rate		
	0.8	0.7	0.6
Expected number of commitments	5.00	3.33	2.50
Total crimes	250.00	166.67	125.00
Total time incarcerated (yrs)	5.00	3.33	2.50
Total career length (yrs)	13.33	8.89	6.67
Career crime costs (\$)	250,000	166,666.6	125,000
Career incarceration costs (\$)	100,000	66,666.66	50,000
Total career costs (\$)	350,000	233,333.3	175,000

Table B.3

**ESTIMATED CRIME, CORRECTIONS, AND TOTAL CAREER COSTS AS A FUNCTION OF RECIDIVISM RATE:
REDUCED TIME SERVED, LOWER ASSUMED COST OF CRIME**

($q = 0.05$; $J = 0.4$; cost per crime = \$200)

Variable	Assumed Recidivism Rate		
	0.8	0.7	0.6
Expected number of commitments	5.00	3.33	2.50
Total crimes	250.00	166.67	125.00
Total time incarcerated (yrs)	5.00	3.33	2.50
Total career length (yrs)	13.33	8.89	6.67
Career crime costs (\$)	50,000	33,333.33	25,000
Career incarceration costs (\$)	100,000	66,666.66	50,000
Total career costs (\$)	150,000	100,000	75,000

REFERENCES

- Adams, Dennis, *Path of Honor*, Blue Horse Productions, Tucson, Ariz., 1987.
- Beck, J., and P. Hoffman, "Time Served and Release Performance: A Research Note," *Journal of Research in Crime and Delinquency*, Vol. 13, 1976.
- Berecochea, J., D. Jaman, and W. Jones, *Time Served in Prison and Parole Outcome: An Experimental Study*, Research Division, California Department of Corrections, Sacramento, 1973.
- Blumstein, Alfred, J. Cohen, J. Roth, and C. Visher (eds.), *Criminal Careers and "Career Criminals"*, National Research Council, National Academy of Sciences, Washington, D.C., 1986.
- California Probation Business Managers' Association, *Comparable Cost Model, Phase I: Institutional Care*, Chief Probation Officers' Association of California (Contra Costa County), California Youth Authority, October 1984.
- Cohen, Jacob, *Statistical Power Analysis for the Behavioral Sciences*, Academic Press, New York, 1977.
- Cohen, Jacqueline, "Incapacitation as a Strategy for Crime Control: Possibilities and Pitfalls," in Norval Morris and Michael Tonry (eds.), *Crime and Justice: An Annual Review of Literature*, Vol. 5, University of Chicago Press, Chicago, 1983, pp. 1-84.
- Goodstein, Lynne, and Henry Sontheimer, "A Study of the Impact of Ten Pennsylvania Residential Placements on Juvenile Recidivism," Prepared for presentation to the Pennsylvania Juvenile Court Judges' Commission, May 8, 1987, Center for Juvenile Justice Training and Research, Shippensburg University of Pennsylvania, Shippensburg, Pa., 1987.
- Gottfredson, D., M. Neithercutt, J. Nuffield, and V. O'Leary, *Four Thousand Lifetimes: A Study of Time Served and Parole Outcomes*, National Council on Crime and Delinquency, Davis, Calif., 1973.
- Gottfredson, Michael, and Don M. Gottfredson, *Decisionmaking in Criminal Justice: Toward the Rational Exercise of Discretion*, Ballinger Publishing Company, Cambridge, Mass., 1980.
- Gottfredson, Stephen D., and D. M. Gottfredson, "Accuracy of Prediction Models," in Alfred Blumstein, J. Cohen, J. Roth, and C. Visher (eds.), *Criminal Careers and "Career Criminals"*, National Research Council, National Academy of Sciences, Washington, D.C., 1986.

- Greenwood, Peter W., and Allan Abrahamse, *Selective Incapacitation*, The RAND Corporation, R-2815-NIJ, August 1982.
- Greenwood, Peter W., and Susan Turner, *Selective Incapacitation Revisited: Why the High-Rate Offenders Are Hard to Predict*, The RAND Corporation, R-3397-NIJ, March 1987.
- Greenwood, Peter W., and Franklin E. Zimring, *One More Chance: The Pursuit of Promising Intervention Strategies for Chronic Juvenile Offenders*, The RAND Corporation, R-3214-OJJDP, May 1985.
- Greenwood, Peter W., Allan Abrahamse, and Franklin Zimring, *Factors Affecting Sentence Severity for Young Adult Offenders*, The RAND Corporation, R-3173-NIJ, August 1984.
- Greenwood, Peter W., Albert Lipson, Allan Abrahamse, and Franklin Zimring, *Youth Crime and Juvenile Justice in California: A Report to the Legislature*, The RAND Corporation, R-3016-CSA, June 1983.
- Haapanen, Rudy, and Carl Jesness, *Early Identification of the Chronic Offender*, California Youth Authority, Sacramento, 1982.
- Jaman, D., *Parole Outcome and Time Served for First Releases*, Research Division, California Department of Corrections, Sacramento, 1968.
- Jaman, D., R. Dickover, and A. Bennett, "Parole Outcome as a Function of Time Served," *The British Journal of Criminology*, Vol. 12, 1972.
- Lipton, Douglas, Robert Martinson, and Judith Wilks, *The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies*, Praeger, New York, 1975.
- McKenzie, Evan, and Robert A. Roosz, *The Kids Nobody Wants: Treating the Seriously Delinquent Youth*, National Council of Juvenile and Family Court Judges, Reno, Nev., 1982.
- Pennsylvania (State of), Department of Public Welfare and the Juvenile Court Judges' Commission, *Task Force Report on the VisionQuest Program in Pennsylvania, 1985*, Family Court Division, Court of Common Pleas, Allegheny County, Pa., 1985.
- Petersilia, Joan, and Susan Turner, with Joyce Peterson, *Prison Versus Probation in California*, The RAND Corporation, R-3323-NIJ, July 1986.
- Petersilia, Joan, Susan Turner, J. Kahan, and Joyce Peterson, *Granting Felons Probation: Public Risks and Alternatives*, The RAND Corporation, R-3186-NIJ, January 1985.
- Rezmovic, Eva Lantos, "Assessing Treatment Implementation Amid the Slings and Arrows of Reality," *Evaluation Review*, Vol. 8, No. 2, April 1984.

- Romig, D. A., *Justice for our Children: An Examination of Juvenile Delinquent Rehabilitation Programs*, Lexington Books, Lexington, Mass., 1978.
- San Diego Association of Governments, *The Serious Juvenile Offender*, 1983.
- SAS Institute, Inc., *SAS User's Guide: Statistics, Version 5 Edition*, 1985.
- , *SUGI Supplemental Library User's Guide*, 1983 Edition.
- Sechrest, Lee, Susan O. White, and Elizabeth D. Brown (eds.), *The Rehabilitation of Criminal Offenders: Problems and Prospects*, National Academy of Sciences, Washington, D.C., 1979.
- Shinnar, S., and R. Shinnar, "The Effects of the Criminal Justice System on the Control of Crime: A Quantitative Approach," *Law and Society Review*, Vol. 9, No. 4, 1975, pp. 581-611.