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ABSTRACT

Ventures in Community Improvement (VICI) is a program that provides intensive training in construction skills to disadvantaged youth and at the same time allows them to produce tangible improvements in housing and public facilities in their own low-income communities. The model was tested twice previously, once in an eight-state demonstration that served 16- to 19-year-olds (in the late 1970s) and once in a demonstration involving women aged 18 to 35 (in the mid-1980s). Both demonstrations confirmed the model's effectiveness in helping disadvantaged persons earn higher wages than their counterparts who were not served by the program. A third demonstration of the VICI model was conducted in four cities: the Bay Area of northern California; Cleveland, Ohio; Houston, Texas, and Dallas, Texas, between 1984 and 1987. These projects, which were sponsored by Standard Oil/BP America, served both men and women between the ages of 18 and 24 in several cycles over an 18-month period. Despite the fact that this third demonstration was conducted in a climate of reduced national funding, all had positive outcomes. The VICI trainees produced work of tangible value, and in the two sites where a work value analysis was conducted, the value of the work produced exceeded the wages paid to the trainees. Overall, the job placement rates in the third demonstration were slightly higher than those of the two previous demonstrations. Moreover, two sites and one cycle from a third site surpassed the job placement rates produced by the Job Training Partnership Act (JTPA) system, with postprogram wages across the sites 40 percent higher than those earned by JTPA trainees. (MN)

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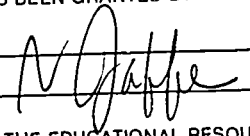
Ventures in Community Improvement (VICI): Findings from a Four-Site Replication Initiative, 1984-1987

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Ventures in Community Improvement (VICI):

Findings from a Four-Site Replication Initiative, 1984-1987

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Fall 1987

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EXECUTIVE SUMMARY

Ventures in Community Improvement (VICI) is a program that provides intensive training in construction skills to disadvantaged youth while they produce tangible improvements to housing and public facilities in their own low-income communities. Trainees are organized in small crews supervised by highly skilled craftspeople and are required to meet rigorous standards of performance over a minimum training period of six months.

The model was originally tested in the late 1970s in eight sites that served 16- to 19-year-olds. The demonstration was supported by the U.S. Department of Labor, which provided each site with more than \$1 million to support local operations. Extensive research demonstrated the effectiveness of the model in both preparing young people for jobs and producing high-quality work. Half the sites continued to operate the program on their own.

The second VICI demonstration was conducted in the mid-1980s with support from The Ford Foundation and primary funding by local resources. This demonstration applied the model to 18- to 35-year-old, low-income women, many of whom were dependent on welfare. These women performed well in the training and those who were placed in construction-related jobs earned an average of \$4 per hour more than women in a comparison group. More than half the ten demonstration sites continued the program beyond the demonstration period.

This report examines the third demonstration of the VICI model, which was sponsored by Standard Oil/BP America in four cities between 1984 and 1987. Building on lessons learned in previous VICI tests, the 1984-87 projects served both men and women, ages 18 to 24, in several cycles over an 18-month period. The demonstration sought to assess whether the model could be effectively replicated in an environment of reduced national funding for innovative programs, and, if so, how it would be affected by local adaptations and a variety of operating structures.

In the Bay Area of northern California, VICI was operated by the California Conservation Corps. The two programs have many characteristics in common: demanding work projects, tangible work, tight discipline and work in crews. The goal was to determine whether VICI's concentration on skill development could be incorporated into the CCC's focus on building job-readiness. We found that the two approaches could be effectively joined, but that flexibility in both is essential.

In Cleveland, the demonstration's original intent was to explore joint operation of VICI by a settlement house that provides social services and a community development corporation involved

in housing rehabilitation. However, the partnership was dissolved just prior to start-up and the social service agency ultimately operated VICI on its own. As a result, the agency found it difficult to make an adequate supply of work continuously available. Still, the agency was very successful at placing VICI participants in jobs following training.

The Houston program was operated by the public housing authority, had multimillion dollar rehabilitation projects that VICI crews could use as worksites and attempted to have VICI operated by a private contractor. The latter variation produced problems that outweighed the potential benefits.

The Dallas program, originally intended to operate as Houston's did, had to change direction because federal rehabilitation funds were withdrawn. Instead, the Dallas Housing Authority operated VICI as a special part of its ongoing construction-related maintenance work, using its existing staff as supervisors. These supervisors were not always sufficiently qualified for the training task. However, other aspects of the Dallas program were more effective, such as its creative use of support services.

Other variations on the VICI model in the two Texas sites included Dallas' waiver of minimum education requirements for trainees and the participation in Houston of a highly visible and influential Private Sector Initiatives organization to bring together the consortium of actors needed to run VICI as designed. In the midst of the demonstration, both Texas sites suffered from a local economic recession that created difficulties with the placement of VICI graduates.

Analyses of program operations and effects in the four demonstration sites are based on data and information collected through site visits, reviews of program documents, and participant data obtained from enrollment and exit forms filled out for each trainee. The work valuation assessment done in two sites involved estimates made by independent estimators of the cost of doing work of comparable quality by other means.

CONCLUSIONS

The replication of VICI in a climate of reduced national funding appears feasible. Its positive outcomes have led two sites to institutionalize the VICI program at the end of the demonstration period; a third is considering program reactivation.

VICI trainees produced work of tangible value and in the two sites where we conducted a work value analysis, the value of work produced exceeded the wages paid to the trainees. Overall, job placement rates slightly exceeded those achieved in the two previous demonstrations. Also, two sites and one cycle from a third site surpassed the job placement rates produced by the JTPA

system; postprogram wages across sites were 40 percent higher than those of JTPA trainees.

All sites were able to integrate men and women into the crew structure; three met or exceeded the goal of 25 percent participation by women. The women worked effectively. While there was some resistance to the inclusion of women on the crews, the problems experienced were relatively minor and easy to solve.

By encouraging local variations on VICI, the Standard Oil/BP America demonstration showed that the model has sufficient flexibility to meet local needs and constraints. As long as VICI's basic elements were retained, demonstration sites were able to vary the program design in ways that often increased its effectiveness. Successful local variations on the basic design included the following:

- o Eliminating minimum education requirements for trainees--This variation produced no adverse effect on job placement, length-of-stay in the program or the quality of work produced. Enrollment of trainees without adequate basic skills, however, requires that remediation be offered in the classroom component.
- o Classroom education--Classroom experience was found to be useful both as an orientation for new trainees and as a constructive use of downtime. This augmentation of on-site skill instruction was so effective, in fact, that it will be made a standard component of the VICI model in future projects.
- o Reduction of crew size--In some sites, the standard six- to seven-member crew was often adjusted to three or four members, which appeared optimal for training and developing work projects. However, we believe this change would be prohibitively expensive for most projects.

Other variations were unsuccessful. Departing too far from the basic crew, either by increasing crew size to 12 or by eliminating crews altogether, was found to be ineffective for both training and production. Also, the use of private construction contractors to deliver the program failed to meet its dual goals because the contractors' demands for production clearly outweighed the program operators' focus on training. Production was achieved at training's expense.

In looking at the experiences of the four demonstration sites, three factors emerge as key to effective VICI implementation.

Sites were most successful in meeting VICI goals when they had the following program elements:

- o Ready access to work projects--If sufficient work is difficult to obtain, program staff must divert too much attention from on-site training. If the program operator does not have a supply of work under its own control, agreements and timetables for work project flow must be reached well in advance of need.
- o A specifically designated program manager--VICI programs are too complex to operate without a full-time coordinator. Support for this type of administrative position is often difficult to obtain; without it, however, VICI management can drain a sponsoring organization's staff resources.
- o Policies that control attrition--Finding an appropriate level of attrition presents a special challenge to a VICI program attempting to meet its dual goals. While excessive attrition has a deleterious effect on job placement and work production, effective training requires setting standards that must be met for retention in the program. One solution to this dilemma is counseling and in-program discipline for trainees who need to change their behavior. Another is judicious use of unpaid classroom time for several weeks prior to on-site work, during which potential trainees can be screened and behavior standards can be made clear.

IMPLICATIONS

The Standard Oil/BP America VICI demonstration conclusively reaffirmed the current view that disadvantaged and welfare-dependent people can be trained, will work and can contribute to the public good. The demonstration also showed how the public sector can organize and implement programs that succeed. However, doing so required rethinking some standard approaches.

Rather than addressing problems individually, VICI calls for a more holistic approach--one that requires public programs and their funding sources (e.g. the welfare, employment and training, and housing systems) to broaden their perspectives and connect with other systems. Such an integrated approach greatly facilitates the use of dual social utility programs like VICI.

JTPA, for example, is challenged by aspects of the VICI model that do not conform to established practices; for example, VICI

requires a longer training time and higher costs than those preferred by this system, which is today particularly eager to "produce" rapidly and effectively. The welfare system is challenged to adjust its regulations to accommodate the needs of women in training. Housing agencies are challenged to organize work in order to facilitate training.

In the VICI sites, however, many of these local agencies were willing to try new ideas as long as realistic goals were established and met. The demonstration showed that by requiring adherence to a few core principles while allowing substantial local flexibility on other aspects of program design, a program can maintain the model's integrity and effectiveness and still respond to varying agency mandates and local needs.

Carrying out replication of proven models with this kind of success and flexibility on a larger scale is one of the major issues that must be confronted over the next decade if the lessons of past investments in social experiments are to be used effectively during a period of reduced funding. The recent VICI initiative provides practical lessons and generates optimism about the prospects for successfully replicating VICI on a large scale.

I. INTRODUCTION

This report examines the third demonstration of the Ventures in Community Improvement (VICI) model, which was sponsored by Standard Oil/BP America in four cities between 1984 and 1987. Each site conducted a VICI program for 18 months, operating several cycles in 18- to 24-year-old men and women.

This demonstration afforded Public/Private Ventures (P/PV) the opportunity to explore specific implementation issues in depth. The particular areas of focus fall into three groups:

1. Replication. Given the reduced levels of national funding available for local operations, technical assistance and oversight in this demonstration, could VICI be replicated in four new sites as efficiently as it was in the previous VICI efforts with results that are at least equivalent? (The original VICI demonstration provided more than a million dollars to each local program.) This finding would give some indication of the feasibility of large-scale replication in a climate of reduced national funding.
2. Implementation. The key implementation issues to be examined were:
 - o Could men and women be integrated in the program's crew structure? The original VICI demonstration targeted young males; the second targeted women. P/PV had not previously targeted a combination of males and females.
 - o What would be the key local adaptations of the basic VICI model and what effect would those adaptations have on performance? P/PV's interest in adaptations centered mainly on differing approaches to classroom training, worksite selection and supervision, size/structure of crews and advisory boards.
 - o Could we identify factors in the four new sites that would add to our knowledge of the relative strengths and weaknesses of particular management and operating structures? VICI has been operated under a number of different auspices employing different approaches. In this effort, we wanted to look more closely at the strengths and weaknesses of these alternatives.

3. Institutionalization. Could the sites develop the reputations and local support needed to institutionalize the projects? As with previous VICI efforts, P/PV was interested in starting a program initiative to meet local community needs, a program that would continue beyond the demonstration period, after support from national organizations had been removed.

BACKGROUND

The VICI model involves structured, rigorous on-site training in the construction trades. Trainees, supervised and taught by skilled journeypersons, work and learn while producing tangible improvements in their own community's low-income housing and public facilities. This demonstration was intended to identify and examine key operational issues as well as train community residents.

In 1977, when the VICI model was first designed, cities were grappling with a number of pressing issues. Then, as now, two problems were seen as particularly critical: unemployment among young adults, particularly minorities; and the deteriorating infrastructure of many communities, specifically housing and community facilities in low-income neighborhoods.

Then, as now, approximately two of every five minority youth looking for a job could not find one. As alarming as that figure is, it understates the problem by not including the estimated one unemployed youth in three who has simply given up looking for work. Many of these idle youth lack the basic skills that would enable them to participate in the few programs that are available to train and employ them. Between funding cuts in those programs and increased competition for scarce resources from other types of social programs, these youth have increasingly been left with no place to turn.

Efforts to revive neighborhoods have been similarly limited by diminishing resources and a lack of effective programming. Federal funding for the construction or rehabilitation of low-income housing has been reduced radically over the past several years. Low-income communities are searching for ways to best utilize the few resources still available in order to provide residents with safe, decent and affordable housing and community facilities.

The introduction of the VICI program provided an opportunity to address both issues. In the model, youth are organized in small crews, supervised by highly skilled instructors, and trained in the construction trades. Trainees are drawn from low-income communities, most of them economically depressed, and are provided entrée to crafts that could enable them to earn a decent living. Trainees learn these skills by helping rebuild their own

communities. Rehabilitating housing and community facilities in the trainees' "back yard" not only provides trainees with concrete, hands-on experience but also positively reinforces their self-image by allowing them to see their labor contribute directly to the well-being of their neighbors and themselves.

The original VICI demonstration was aimed at 16- to 19-year-old youth who were largely disadvantaged and out of school. The second demonstration, Women in VICI, applied the model to 18- to 35-year-old, low-income women, many of whom were single parents and dependent on welfare.

While the original demonstration proved the effectiveness of the VICI model in preparing young people for jobs and producing high quality work, it also showed that VICI was too rigorous for 16- and 17-year-olds. Performance demands and the discipline necessary for work production require more mature trainees. This information was incorporated into the Women in VICI and subsequent VICI program designs.

Subsequently, Women in VICI showed that the model can be effective with female trainees, who performed well in the construction-related training. Female trainees managed heavy materials, worked under difficult conditions and produced high quality work. As a result, the VICI program design now requires that female trainees be included in the program.

The focus of this report is an assessment of program operations in the third VICI demonstration, which replicated the model in four sites: Cleveland, Houston, Dallas and the Bay Area of northern California. This demonstration was begun in 1984 and ended in late 1987. It sought to replicate the VICI model, while putting new approaches into practice and implementing lessons learned during the two previous demonstrations. The demonstration was designed to train 36 to 50 participants at each site. Trainees were to be 18 to 24 years of age and economically disadvantaged, with females constituting approximately 25 percent of the total served. Trainees were to be residents of the communities where work was being performed. The report examines key issues related to program replication and implementation, and discusses lessons learned at each of the sites.

FUNDING

Standard Oil/BP America provided P/PV with funds to develop and operate VICI at the national level. P/PV's activities included site selection, technical assistance, monitoring, research and assistance with project continuation. Support for local operations was provided by The Meadows Foundation, The Cleveland Foundation, The George Gund Foundation, The Houston Committee for Private Sector Initiatives, Texas Eastern Transmission Corporation, EXXON, Shell Oil Company and Chevron. In the demonstration

phase, local VICI programs relied on seed funding received from these organizations.

Funds were used to leverage support from other sources, such as Job Training Partnership Act (JTPA) funds, community development grants and other housing funds. As a result, no single organization was financially responsible for the entire effort, allowing projects a greater chance of continuing operations after the demonstration period ends.

THE VICI MODEL

The VICI model was designed to achieve two major goals:

- o Providing intensive training in construction skills to enable disadvantaged young people to enter unsubsidized jobs or apprenticeship programs; and
- o Producing tangible community improvements through construction or rehabilitation of housing and public facilities in low-income communities.

In practice, VICI program operators have a high degree of flexibility in adjusting the model according to local needs and preferences. However, certain elements of the model must be present, including:

- o Crews of no more than six or seven trainees;
- o Crew supervision and training conducted by experienced journeypeople;
- o Crews composed of both male and female trainees (with at least 25 percent female participation strongly recommended);
- o Work performed that is of substantial value to low-income housing and/or public facilities;
- o A minimum of six months of training;
- o An intensive job placement process to help trainees acquire training-related jobs following program participation;
- o Working relationships between the program operator and other supporting organizations whose functions and expertise are required to implement all aspects of the model. These include:

- Unions or other credentialing organizations that can provide supervisors and placement opportunities;
 - Work-sponsoring organizations to identify and/or provide worksites; and
 - Employment and training agencies to assist in recruitment, funding and job placement, as necessary.
- o A program operator to manage the training of and production by the VICI crews. Any of the organizations mentioned earlier can fill this role or an independent organization can be enlisted.

P/PV strongly encourages two additions to this basic model design: support services and advisory boards. Neither are required for replication but both can have very positive effects on program operations and trainee performance if implemented properly.

P/PV encourages sites to directly provide or refer participants to a variety of support services, including child care, transportation, health screening, counseling and driver education. For this demonstration, P/PV required that access to support services be described in the application package. Because of the cost of these services, P/PV did not make them mandatory.

Advisory boards have proven useful in many VICI programs over the years; however, a number of programs have operated well without them and a few have operated in spite of them. Therefore, P/PV does not require that a board be appointed. Still, local operators are strongly encouraged to create boards composed, at a minimum, of representatives from all participating organizations. The board should attempt to oversee operations, facilitate coordination and problem-solving, and plan the future of VICI at the site. Since these boards are not required, their effectiveness and activities tend to vary from site to site.

ANTICIPATED OUTCOMES

Based on our experience in previous VICI demonstrations, we refined the model for this initiative. As a result, we expected that approximately 60 percent of the 36 to 50 young people trained in each site would complete the training and that approximately half of all enrollees would obtain employment in training-related jobs. We also expected hourly postprogram wages to average \$5.00 or more in each site. The demonstration largely

fulfilled these expectations. Specific outcomes are discussed in Chapter II.

Production projections were less specific, largely because production outcomes are more difficult to quantify. VICI's goal is to produce tangible, valuable work. In the original demonstration, VICI crews produced work judged to be of equal or higher quality than could have been expected from private contractors in 90 percent of the worksites examined. Expectations were that the quality of work in the third demonstration would match or exceed that earlier experience; how well this goal was met is discussed in Chapter III.

DATA COLLECTION

The analyses presented in this report are based on data and information collected through site visits, reviews of program documents and analysis of participant data obtained from enrollment and exit forms filled out for each trainee.

The assessment team conducted site visits at frequent intervals during the lifespan of each demonstration--from prior to start-up through completion (and in many cases, beyond completion). Members of the team interviewed administrators, managers, instructors, support service providers, trainees, cooperating organizations and funders. Their notes and various program documents were used in this assessment. For the work valuation assessment, the team conducted semistructured interviews with program operators, work providers and instructors; reviewed program documents and used independent estimators to provide estimates of the cost of doing work of comparable quality by other means. Data from enrollment and termination forms were coded and keyed for all trainees. When important data were missing, substantial efforts were undertaken to obtain the data from other program records or from direct contact with supervisors and trainees.

Throughout the report, data used are presented by site. As will become clear in the sections discussing the four programs, however, it is often impossible to ascribe differences in findings and results solely to site implementation of the model, since its effect cannot be disentangled from the impact of a community's economic environment. Because this impact affected program results, reported findings often must be attributed to prevailing economic conditions as well as model implementation.

STRUCTURE OF THE REPORT

Chapter II discusses program implementation: the nature of participants, job placement and other short-term outcomes, local compliance with and adaptation of the model, program management, and institutionalization. Chapter III discusses the value and

quality of work accomplished by VICI crews on selected projects in two sites and Chapter IV presents conclusions and recommendations.

II. PROGRAM IMPLEMENTATION

This chapter describes and analyzes the activities that were undertaken in implementing the VICI model at the four demonstration sites. Site selection, recruitment, trainee characteristics, structure of training, structure of work, job placement, program management and administration, and institutionalization are among the topics discussed.

SITE SELECTION

Standard Oil/BP America specified that three to five cities were to be selected as VICI sites from among eight in which it had a significant corporate presence: Anchorage, Alaska; the Bay Area in California; Cleveland, Ohio; Dallas, Texas; Denver, Colorado; Houston, Texas; Salt Lake City, Utah; and Toledo, Ohio. P/PV worked with each city to determine which sites would be most suitable to VICI operations. Elements involved in selection included: commitment from the local employment and training organization and other local organizations that could act as useful resources, the availability of sufficient work for the trainees and an economic climate conducive to job placement in the construction trades (as it turned out, our crystal ball was a bit cloudy). Ultimately, four sites were selected: the Bay Area, California; Cleveland, Ohio; Dallas and Houston, Texas.

The selection process was designed as an opportunity to examine the possibility of employing a variety of new program approaches. In the Bay Area, for example, P/PV saw the possibility of combining VICI with the California Conservation Corps (CCC). If such a combination were successful, the CCC could enrich its own program through specific skills training and VICI could be replicated throughout California via the CCC's statewide network of centers. VICI and the CCC have many characteristics in common: demanding work projects, tangible work, tight discipline and work in crews. However, the CCC concentrates on building job-readiness while VICI focuses on both job-readiness and marketable skills, stressing specific skill development and job placement. In the CCC, P/PV saw an opportunity to determine whether VICI's approach to skill development could be incorporated into the CCC. We learned that the two approaches can be joined but that flexibility is essential.

In Cleveland, we saw the opportunity to work with two types of community organizations. One, Friendly Inn Settlement House, is geared to social services; the other, a community development corporation known as Famicos Foundation, is geared to housing rehabilitation. Both organizations work in the Hough neighborhood, a very depressed area in Cleveland. After Cleveland had been selected as a VICI site, Famicos Foundation dropped its

support of the partnership, though it did supply a few worksites during the operational period; by the time Famicos Foundation dropped out of the partnership, it was too late to select another site. The breakup of the partnership had a deleterious effect on the program as Friendly Inn found it difficult to make an adequate supply of work continuously available.

Both Texas programs were operated by public housing authorities, had multimillion dollar rehabilitation projects that VICI crews could use as worksites, and were interested in attempting a variation of VICI that P/PV had been looking for the opportunity to try: one in which operation of VICI was done by a private contractor under the supervision of the housing authorities. Through this project, we learned that the problems associated with running a VICI program through a private contractor outweighed the benefits.

Unlike the other sites, Dallas also planned to see if the program could work without VICI's usual requirement that trainees have a minimum level of education. Houston had the added attraction of a highly visible and influential Private Sector Initiatives organization that served as a catalyst for bringing VICI to Houston, bringing together the consortium of actors needed to run the program as designed.

Following site selection, it was learned that federal funds for massive rehabilitation had been withdrawn due to lead contamination in the West Dallas Housing Project where VICI operations were planned. As a result, there was no role for a private contractor. However, extensive amounts of construction-related maintenance work still had to be done, so the housing authority operated the VICI program as a special part of its ongoing construction-related maintenance effort at that site. This change had implications beyond the type of work produced and training provided. Supervision also suffered, since existing staff were used to supervise trainees. These supervisors were not always sufficiently qualified for the training task.

It should also be noted that Houston and Dallas were selected as sites before the onset of the economic recession in the Southwest, which was due largely to falling oil prices. By the time the full economic impact could have been foreseen, the demonstration was underway. Had the recession hit earlier, it is likely that Houston and possibly Dallas would never have been selected, since inevitable difficulties with job placement would have been anticipated.

SITE PROFILES

To familiarize the reader with the basic makeup of the VICI program in the sites, the following sections summarize the most outstanding features, both positive and negative, of each site.

A brief profile of site characteristics is presented in Table II.1.

Bay Area, California

The CCC was the program operator of both a nine-month training cycle and, two-and-one-half months later, a six-month cycle. The first cycle involved four crews and the second involved two crews. During the two cycles, a total of 60 trainees were enrolled. The CCC handled recruitment, supplied and augmented supervision, and took responsibility for job placement. Trainees started at minimum wage, with raises based on performance.

During the first cycle, one supervisor was a union journeyman who was referred by the Alameda Building Trades Council, selected by the CCC and paid for by local foundation dollars that were funneled through one of the work providers. A second instructor was supplied directly by the CCC. The other two first-cycle supervisors were provided by the work sponsors; the CCC had little involvement in selecting them. During the second cycle, the Oakland Job Training Partnership Act (JTPA) program funded the other two supervisor positions, both of which the CCC filled with union journeymen.

During the first cycle, the program was managed primarily by the CCC center director with assistance from other CCC staff in managing operations at the worksites. A CCC staff member was brought into VICI operations later in the cycle to assist with job placement. He subsequently became the program coordinator under the center director's supervision and served in that capacity through the second cycle. Foundation funds paid his salary until JTPA funding was obtained to pay the coordinator at the beginning of the second cycle.

Work projects were supplied by the Knowland Park Zoo, East Bay Regional Parks District, Merritt College and the CCC. The College of Alameda, Merritt College and Contra Costa College provided the education component. During the second cycle, Merritt College provided counseling, acted as fiscal agent and donated office space.

The success of the Bay Area VICI program is best reflected by two features: the CCC's willingness to explore for broader use in its programs an emphasis on youth development goals through intensive skill training and job placement, and the extensive cooperation of the Alameda Building Trades Council, which donated labor, especially for extensive roofing repair. However, the union connection in the job placement process did not work very effectively. Despite special funding from the CCC to help the process along, the effort suffered from the CCC's lack of experience in job placement and initial results were disappointing. During the second cycle, with concerted attention paid to

Table II.1

SITE PROFILES

	Program Operator	Work Provider	Supervision	Total Trainees	Crew Size	Length of Training	Trainee Base Wages
BAY AREA	OCC Bay Area Center	Knowland Park Zoo, East Bay Regional Parks District, Merritt College, OCC	Union-- Alameda Building Trades Council and Work Providers	60	6-7	1 nine-month cycle 1 six-month cycle	\$3.35
CLEVELAND	Friendly Inn Settlement House	Nonprofit Groups, Private Homeowners, Local Businesses	Union-- Selected by Friendly Inn	39	6-7	2 nine-month cycles	\$3.35
DALLAS	Dallas Housing Authority (DHA)	DHA	Nonunion-- Existing DHA Staff	43	3-5*	five- to six-month cycles	\$4.00
HOUSTON	Housing Authority of the City of Housing (HACH)	Private Contractors Working on HACH projects	Nonunion-- Private Contractors	47	3-4**	six-month cycles, later reduced to three months, then to two months	\$4.32

*Occasionally not organized in crews

**Originally not organized into crews, later organized into crews of 3 to 4 trainees

placement and reduced attrition, placement rates greatly increased.

Cleveland, Ohio

In Cleveland, Friendly Inn Settlement House served as the VICI program operator, conducting two nine-month training cycles with three six- or seven-member crews for a total enrollment of 39 youth. Each crew was to receive three months of training in each of three skill areas: painting, carpentry and plumbing. Trainees were paid minimum wage.

JTPA funds were used to support trainee recruitment, eligibility determination and certification services and to pay the supervisor/instructor salaries. All supervisors were union journeymen referred to Friendly Inn by their locals.

United Way provided funding for a counselor who would be responsible for making referrals to support services, counseling trainees, performing administrative tasks, and doing job development and placement. Local foundation funds supported the program coordinator position. Work projects were provided by a wide range of nonprofit groups (including Friendly Inn), private homeowners and one local business. The trainees' wages were paid by Friendly Inn, which was reimbursed by work providers for work performed.

The Cleveland program's most outstanding feature was its strong commitment to the trainees. Friendly Inn Settlement House, the only social services agency that has operated a VICI program, insisted that the youth receive high quality training and that the trainees be enabled to secure jobs following training. The major difficulty was securing appropriate and sufficient work-sites.

Dallas, Texas

The Dallas VICI program operator was the Dallas Housing Authority (DHA). Unlike the Bay Area and Cleveland programs, whose crews were organized in cycles, Dallas phased in a new crew approximately every two months. While recruitment was originally a City of Dallas responsibility, it soon became a DHA one. Trainees were selected without regard to previous work experience, educational attainment or criminal justice background. During the Dallas demonstration, 43 trainees were enrolled in the VICI program. In a departure from the model, training was five months long, though some trainees continued on for a sixth month. Trainees' wages started at \$4.00 per hour, with some earning raises to \$4.25 and \$4.50 as performance rewards.

Supervision was provided by DHA. In accordance with the model, only the most highly skilled craftspeople were to serve as

Table III.1 (cont'd)

DISCRETE PROJECTS IN THE BAY AREA AND CLEVELAND

PROJECT NAME	OUTPUT	TRAINEE HOURS	% OF TOTAL
CLEVELAND Cycle II			
Furniture Store	Exterior: Painting, Repairs	2,851	68.5
House #1	Exterior Painting	325	7.8
House #2	General Repairs (including Painting, Carpentry, Plumbing)	197	4.7
House #3	Paint Exterior	191	4.6
House #4	Replace Porches	132	3.2
House and Garage	Reshingle, Repair Leaks	126	3.0
Settlement House	Interior Painting	92	2.2
House #5	Plumbing	68	1.6
House #6	Plumbing	57	1.4
House #7	Plumbing	24	.6
House #8	Plumbing	21	.5
Garage	Remove	18	.4
House #9	Plumbing	14	.3
House #10	Plumbing	10	.2
Miscellaneous and Uninvoiced Work		38	.9
		<u>4,164</u>	<u>99.9</u>

Houston scheduled major rehabilitation work in several housing projects. HACH incorporated the VICI project in the bid specifications so that any contractor wanting the work had to include VICI in the bid. The contractors supplied supervision. Late in the program, some trainees were hired directly by HACH rather than by contractors. Supervision was nonunion but the supervisors appeared to be technically competent.

JTPA funds were used for on-the-job training (OJT) contracts with the various contractors and applied to trainee wages. Using JTPA funding, SER-Jobs for Progress assisted with recruitment, provided counseling, managed the OJT contracts and assisted in job placement.

The Houston Committee for Private Sector Initiatives (PSI) got the program going in Houston and provided most of the funding for a part-time coordinator and "stretch" funds to pick up the slack when OJT funds could not be used to keep a crew going. PSI also organized and staffed the advisory board and is currently involved in institutionalizing the program.

A willingness to experiment was an outstanding feature of Houston's VICI program. HACH and the other participating organizations marshalled by PSI were interested in pioneering a new approach to VICI through the use of outside contractors and were committed to working through the inevitable difficulties. However, experimentation went too far in some instances, such as in the elimination of crews as an organizing, work production vehicle; the VICI model was diluted and had to be reconstructed to make the program work.

Job placement was the most difficult part of the program. Public assistance disincentives to employment and Houston's economic recession left the program with very disappointing job placement results.

THE TRAINEES

This section discusses the process of trainee recruitment, the use of mixed sex crews and the trainees' demographic characteristics.

Recruitment

Overall, recruitment fell in line with planned goals, though the Texas sites proved troublesome. Houston had the greatest difficulty overall in recruiting sufficient trainees for each enrollment period. The Dallas effort was the most labor-intensive and time-consuming.

The criteria by which applicants were screened were similar across the sites. Economic criteria dictated by JTPA funding

rules were used in all four sites. All four sites targeted young women and demanded the trainees be willing to learn and work and reside in the community. Some sites required evidence of academic skill levels sufficient to master the training. Criteria appear to have been applied uniformly within all sites.

Both Houston and Dallas experienced initial recruitment problems, though both programs eventually met recruitment goals. Ultimately, Houston was able to recruit approximately 70 percent of its VICI trainees from the housing projects. SER-Jobs for Progress and the Housing Authority for the City of Houston (HACH) combined efforts to do all recruitment, using such methods as flyers, community meetings and newspaper ads. The flyers, placed in individual mailboxes, proved most effective, often generating immediate discussion between potential trainees and VICI program staff.

In Dallas, JTPA staff were originally assigned the job of recruiting trainees; however, this approach did not yield sufficient applicants. To augment enrollment, the VICI coordinator generated computer printouts of demographically eligible youth in the housing authority's tenant population, conducted intensive door-to-door recruitment campaigns and made presentations at community meetings. Recruitment assistance was also provided by the local Girls Club, an organization represented on the advisory board, and El Centro Job Training Center, the classroom training provider. These efforts, while time-consuming and labor-intensive, proved effective.

Considerable thought has been given to the recruitment problems in Dallas and Houston. While answers are hard to come by, people in both housing authority administrations believe that public housing residents may have been reluctant to trust the authorities, whose roles include landlord and thus rent collector. Furthermore, employment and training programs tend not to recruit extensively in housing authorities. Some employment and training personnel say this is because historically few residents enroll and those that do often fail to either complete training or get jobs following training. Some even maintained that employment and training organizations don't know how to recruit or don't want to put the time into recruiting the public housing tenant population. Definitive reasons for problems in recruitment of housing authority populations in Dallas and Houston are not apparent.

Cleveland used the JTPA-funded recruitment organization, Career 2000, to handle recruitment, an arrangement that worked well. The effort was augmented by Friendly Inn's own community outreach, in which older youth previously active in Friendly Inn's programs were contacted. These youth, program staff reported, did better than other youth in the program, because the Friendly Inn youth understood up front how the agency operates and the

demands that would be placed on them. Friendly Inn reported fewer behavior problems and a more expeditious job placement process with these youth.

The CCC managed recruitment through newspaper ads and the state's employment service. The employment service was a source for initial recruitment, while newspaper ads were effectively used to fill vacancies resulting from attrition. VICI recruitment specified interest in learning construction skills, required that applicants be high school graduates or have GEDs, and screened applicants for income status. Some VICI trainees were already CCC corpsmembers. During the first cycle, JTPA income standards were used only as guides. In the second cycle, JTPA income eligibility was strictly enforced and the program's education requirements were dropped. The fact that not all trainees had high school diplomas had no adverse effect on trainee outcomes. Throughout, the CCC targeted women and minorities for enrollment.

For hard-to-reach populations like those in housing authorities, the most effective recruitment approach appears to be door-to-door canvassing. Individual outreach can be difficult and time-consuming but seems to work best for overcoming suspicion and distrust.

Enrollment of Females

Each VICI site was required to attempt to recruit and train sufficient females to at least reach the recommended participation rate of 25 percent. Both the Cleveland and Bay Area programs surpassed this goal, achieving female enrollments of 32 and 23 percent, respectively. Dallas nearly met the goal, enrolling 23 percent female trainees. Houston, however, fell far short of the female participation goal, enrolling only five (11%) females in a total complement of 47 trainees.

Based on our previous experience with the Women in VICI demonstration, we expected that the enrollment of females would meet with resistance from crew supervisors. Across the four sites, however, there were surprisingly few problems reported. Sexual harassment was alleged in two instances: in Dallas, where the allegation resulted in a change of supervisor and in Houston, where the contractor was also resistant to hiring females.

Although several crew supervisors initially expressed skepticism, most became accepting. Two commented on the difficulties women with children face in training and would face in the "real world." Most were laudatory about the female trainees' facility for work that requires particular patience and care, such as finish carpentry and painting borders. The most commonly heard refrain was that the women's attention to detail compensated for their lack of physical strength.

Female trainees at all sites reported that their male counterparts initially tried to instruct them and interrupted their own work to help when the females' work involved heavy labor. However, most women said they were determined to "hold their own." Male trainees at each site corroborated these reports. Supervisors in two sites were particularly impressed with the women's determination to succeed, saying that they did their work more intelligently and learned more quickly than the male trainees. For example, because one female trainee in the Bay Area showed great aptitude for electrical work, the supervisor said she was better able to plan and execute electrical tasks than were male trainees. The relatively small number of problems experienced by the women in training demonstrates that combining males and females in VICI programs can be done successfully.

Female trainees' retention rate at three sites for which information is available¹ nearly equalled that of their male counterparts. On average, women stayed through 82 percent of the program while men remained enrolled for 88 percent. Overall, rates of job placement were virtually identical for women (47%) and men (48%). However, female trainees were somewhat less likely (33%) than male trainees (44%) to be placed in training-related positions. These results are not surprising, given the nontraditional nature of the work.

Characteristics of Trainees

Table II.2 presents demographic information about trainees in VICI by site. The profile of VICI trainees indicates that the program served a substantially homogeneous population of minority (95%), unmarried (97%) youth. Many (76%) had at one time worked for pay, but all were unemployed at the time they entered the program; the majority (60%) were living with their parents and a substantial portion (42%) received some public assistance. Educational levels, while not high, show that slightly more than half of trainees had completed high school and an additional 13 percent had earned a GED. The average age of trainees at the time of entry was 20.2. Almost one in five (18%) reported having children. About as many trainees reported being head of their households as said they were the primary wage earner in their families. Although the profiles of trainees at individual sites did not radically depart from the overall profile, some differences did exist.

¹An accurate measure of the average length-of-stay cannot be calculated for the CCC-sponsored program because during the first nine-month cycle, trainees enrolled after the start of the program could not complete the full training period. Unfortunately for the present analysis, the CCC-sponsored site had the highest proportion of women enrolled of any site and also experienced a high level of trainee turnover during its first cycle.

Table II.2

CHARACTERISTICS OF TRAINEES
BY SITE

	Total	Cleveland	Dallas	Houston	Bay Area
Average age (years)	20.0	19.5	19.3	20.9	20.5
	(%)	(%)	(%)	(%)	(%)
Female	23	32	23	10	28
Minority	95	100	100	100	85
Black	88	100	84	98	75
Never married	97	100	95	98	95
With H. S. diploma	55	83	33	41	63
With GED	13	3	7	30	10
Living with parent	70	56	77	74	70
With children	18	22	21	23	10
Head of households	18	29	12	19	17
Primary wage earner	20	26	14	23	17
Ever worked for pay	76	61	77	77	83
Receiving any assistance	42	62	63	36	18
TOTAL NUMBER OF TRAINEES	189	39	43	47	60

In Cleveland, all program trainees were black and about one-third were female. In contrast to other sites, a high proportion (83%) also appeared to be more independent of their families than trainees in other sites; only 56 percent still lived with parents and 29 percent were heads of households. On the other hand, substantially fewer (61%) Cleveland trainees had ever worked for pay than trainees in other sites and a large proportion (62%) of the trainees had completed high school. Cleveland trainees reported receiving some type of public assistance. In short, trainees in Cleveland exhibited a mixed profile. While a high proportion had completed high school and many were independent of their families, few had been able to translate these factors into economic independence.

While Cleveland's profile differs from those of other sites by exhibiting higher proportions of trainees in selected demographic and economic categories, the Bay Area trainee profile is exceptional for its low proportions of trainees in the same categories. For example, in contrast to the 100 percent minority enrollment in the other communities, only 85 percent of Bay Area trainees were minority. In addition, receipt of public assistance was reported by only 18 percent of Bay Area trainees. Few trainees (10%) in this site reported having children and few (17%) characterized themselves as the primary wage earner in their families; however, a substantial proportion (83%) reported having worked for pay.

Trainee profiles in the two Texas sites are much more consistent with the overall profile, but even in these sites, a few differences warrant attention. Dallas, as noted in the brief description of its program, chose to recruit trainees without regard to levels of academic achievement. As a result, only one-third of Dallas trainees had graduated from high school; an additional 7 percent had earned a GED. At the same time, a large share (77%) of Dallas trainees remained in their parents' households and only 14 percent characterized themselves as their family's primary wage earner.

In addition to the proportionately few women enrolled, the Houston program's distinctive trainee characteristics are found in the high proportion of black trainees enrolled (98%)², the large number of trainees (30%) who had earned a GED, and the relatively low level (36%) of trainees who reported receiving public assistance.

We saw many similarities across sites in the type of trainees enrolled in the VICI demonstration. Although important differences that may have ultimately affected program results do exist between sites, the program generally attracted the type of

² Nearly matching the 100 percent black enrollment in Cleveland.

trainees for whom the model is designed: economically disadvantaged 18- to 24-year-old men and women.

TRAINING STRUCTURE

This section discusses crew formation and size, trainee behavior standards, length of training, the skills taught and the use of classroom training.

Crews

The formation of work crews is an essential part of the VICI model. Organizing young people into crews headed by highly skilled, competent instructors helps develop esprit de corps, a sense of responsibility and accountability. When crews are properly implemented, peer pressure acts positively to ensure that trainees report for work each day and carry their own weight in meeting production goals. Ideally, crew members can learn from one another. Each individual usually excels at some aspect of the work during the training period, and allowing them to assume a leadership role in that aspect of the crew's work can provide a sense of personal pride.

According to the model, VICI crew size should not exceed six trainees under a single supervisor. Considerable debate arises on the issue of crew size. Those directly involved in production typically argue for smaller crews, while those involved in funding argue for larger crews.

Two sites, Cleveland and the Bay Area, maintained the crew concept throughout the program. By necessity, however, crew size varied. Cleveland's painting crew often exceeded six trainees because it had to absorb trainees from carpentry and plumbing crews that did not have sufficient work available to operate at full strength. The CCC's crews also varied in size. Sometimes, high levels of attrition among corpsmembers reduced crew size. At other times, the unavailability of a crew supervisor necessitated melding two crews into one very large crew under a single instructor.

In Houston and Dallas, the crews were often less discrete. Toward the end of the program, Dallas assigned individual trainees to single workers to do fix-up maintenance work; earlier, it had experimented with this approach for air conditioning training, which involved small jobs in tight work spaces. Usually, however, Dallas crew size was three to five trainees. Conversely, Houston started without much allegiance to crews, having trainees work individually with supervisors instead. As the program matured, however, crews of three to four trainees were used.

With the exception of the Dallas air conditioning and maintenance trades, the programs worked most smoothly when crews were the organizing element for training and production. The quality of training and skill development was easier to track and production rates improved when programs adhered to the crew concept. Work that was organized to accommodate crews was usually carefully planned to involve more skill repetition, which enabled trainees to contribute more highly developed skills to the work over time. They were ultimately able to perform rudimentary tasks with less intensive supervision and were better prepared to tackle complex work.

Reducing crew size to three or four trainees is an attractive option. However, the resources to pay for the additional high quality supervisors who would be needed to achieve this ratio will not be readily available in most settings. Program costs would increase dramatically, often beyond the ability of participating groups to accommodate or justify.

Standards of Behavior for Trainees

VICI programs traditionally pride themselves on establishing and maintaining strict rules of behavior. The genesis of this tradition can largely be traced to the strong work ethic propounded by the union journeymen supervisors who were part of the original VICI demonstration. Strict rules were not generally found in employment and training programs at that time; they are more common today. JTPA rules governing payment to contractors often inhibit the enforcement of strict rules of conduct. Such was the case in Cleveland. According to the program operator and crew supervisors, several trainees should have been fired for excessive absences and tardiness, poor attitudes and/or disruptive behavior. But to satisfy JTPA requirements concerning attrition, Friendly Inn was unable to fire these trainees. Staff were forced to become highly creative in handling the trainees (some might argue that this was a positive side benefit) and many felt that far too much time was expended on disciplinary problems. The few trainees who were fired were not replaced.

The Dallas coordinator instituted personnel rules that appeared to be followed scrupulously in disciplinary matters and sanctions appear never to have exceeded what the policies permitted. Since Dallas had a six- to eight-week up-front JTPA-funded classroom training component, most of the "weeding out" occurred then. JTPA monetary sanctions were not applied, which allowed the contractor this flexibility. The trainees who were dismissed negatively affected the contractor's overall performance for the year. Prior to the arrival of the coordinator, personnel problems had wracked the program, resulting in a rash of both dismissals and dropouts. Trainees were not replaced--additional crews were added to ensure that Dallas would meet its obligations in training a sufficient number of youth. The coordinator was

initially lenient in dealing with absences, particularly those of female trainees with children. As the program matured, however, the rules were followed more closely and less individual discretion was applied. However, the coordinator closely tracked all trainees and worked with those whose attendance was erratic to help solve any problems that were contributing to the situation.

Houston's disciplinary experience was a mixed bag. The first contractor fired trainees for infractions that did not necessarily warrant such extreme action. Local VICI staff believe that racism may have been a factor. Although HACH and SER intervened, seven of the first 10 trainees were fired. Eventually, as a result of this intervention and changes in contractors, the attrition rate dropped substantially. Subsequent contractors were more in tune with VICI's goals. In fact, one contractor's liaison with VICI served as the director of training for the national Associated Builders and Contractors organization. Physical fights, blatant insubordination, use of drugs and sleeping on the job still called for automatic termination, but the number of such incidents declined sharply.

The Bay Area had the strictest and most clear-cut rules of behavior. The CCC has long been known as a no-nonsense program and its VICI portion was no exception. During the first cycle, there was approximately 100 percent turnover as trainees were replaced readily. Normally, a VICI program could not withstand such an attrition rate but the CCC is accustomed to high turnover and plans accordingly. During the second cycle, with the introductions of JTPA and its restrictions on high turnover, a full-time coordinator and new instructors hired by the CCC, attrition was reduced significantly. Therefore, proportionately more trainees stayed in the program long enough to acquire solid construction trade skills.

Table II.3 shows the large differences that existed between sites in the proportions of trainees dismissed from the program. Overall results indicate that VICI programs dismissed about one of every five trainees. The principal reason given for dismissal was unsatisfactory attendance (13%) but misconduct was cited in the dismissal of 6 percent of all trainees. Unsatisfactory work was rarely reported as the reason for a dismissal.

The most striking difference that appears among the individual sites is Cleveland's very low dismissal rate. As noted earlier, the Cleveland program was highly dependent on JTPA funding, which forced it to fulfill service and placement obligations, even if that required some relaxing of trainee behavior standards. This was consistent with Friendly Inn's mission as a social services agency. The Cleveland VICI staff worked with trainees with poor attendance records to bring them back into the program schedule. Only 8 percent of Cleveland trainees were dismissed.

Table II.3

REASONS FOR DISMISSAL OF VICI TRAINEES
BY SITE

	Total	Cleveland	Dallas	Houston	Bay Area
Percentage* of All Trainees Dismissed	21%	8%	14%	19%	35%
Reasons for Dismissal					
Unsatisfactory Attendance	13%	3%	12%	6%	25%
Unsatisfactory Work	2%	3%	0%	4%	0%
Misconduct	6%	3%	2%	9%	10%
TOTAL NUMBER OF TRAINEES	189	39	43	47	60

* Percentages for the reasons for dismissal in Cleveland are rounded and thus may not add to the total percentage of youth dismissed.

In contrast, 35 percent of all trainees were dismissed from the CCC-operated VICI program in the Bay Area--one-quarter because of unsatisfactory attendance and 10 percent because of misconduct. While the CCC follows established procedures to solve attendance problems, it prefers to have corpsmembers take responsibility for attendance themselves. As a result, the CCC did not hesitate to release from the corps trainees whose performance did not meet its required standards.

Length of Training

According to VICI guidelines, training is supposed to last six to nine months, which is longer than most employment and training programs. The longer period is necessary because construction skills can be complex and often require considerable repetition for mastery. In addition, training time constitutes much of the trainee's employment experience and trainees benefit from seeing construction projects through to completion.

However, JTPA funding standards and circumstances that led to attrition, and other factors often reduced the length of VICI training periods. Despite the prescribed six- to nine-month training period, only Cleveland provided two cycles of nine months each.

The CCC-sponsored Bay Area program initially began a nine-month program in January 1985, which was scheduled for completion that September. Trainees enrolled in the first wave of recruitment had the opportunity to serve the full nine months; however, trainees enrolled after January served only through the time remaining before the cycle ended in September. Data from the CCC-sponsored program are further complicated by the enrollment of several trainees who were already enrolled in the CCC prior to VICI participation. The CCC is a 12-month program and once these trainees had served 12 months in the CCC, they were terminated from both the CCC and VICI, even though they had not completed the full VICI cycle. The CCC later sponsored a full six-month VICI program, which began in February 1987.

Both Dallas and Houston planned six-month training cycles. In Dallas, trainees were actually enrolled in five-month training programs. Houston began with a six-month training cycle, but JTPA contract difficulties caused training periods to be limited to three and later two months toward the end of the demonstration.

Because of the substantial differences in the length of training periods across the sites, it is inappropriate to use average length-of-stay as a measure of retention and attrition. Instead, we have calculated the time served as a proportion of maximum time possible for that program. Results of this analysis are shown in Table II.4. Because of the unique circumstances

Table II.4

TIME SERVED AS PROPORTION OF
 MAXIMUM TIME IN TRAINING CYCLE ^a
 (Participants Enrolled in Cycles of 5 or More Months)

Site	Average Percentage of Program Completed
Cleveland	86.2
Dallas	81.8
Houston ^b	74.3
Bay Area	N.A.

^aProportions were calculated using the total number of days between a trainee's date of enrollment and the minimum number of days required for any trainee at that site enrolling on that date to graduate from the program. Trainees who were identified as having graduated from the program were assigned a value of 100. In some cases, no trainees enrolling on a particular date graduated from the program. When this occurred, the minimum days required for graduation was interpolated using data from trainees who enrolled in the same month. Because of rolling admissions but fixed completion dates in the Bay Area program, no proportions were calculated.

^bHouston operated program cycles of varying lengths. The analysis in this table is limited to those cycles that lasted five months or longer. The later cycles lasting only two or three months are excluded; the mean proportion of time served in these shorter cycles was 100 percent.

experienced in the Bay Area program, this is only reported for the other three sites.

There were notable differences in the average proportion of the program completed among the three sites for which the measure could be calculated, but a sizeable proportion of the full cycle was served by trainees in each. Cleveland, which ran two nine-month cycles, had the highest average percentage of time served (86.2). Dallas, which operated several five-month cycles, had an average percentage of time served of 82. Considering only the trainees enrolled in Houston's longer (5-month) cycles, the average percentage of time served was 74.3.

Houston also operated several two- and three-month long cycles and most trainees in these completed the full cycle. Clearly, however, trainees in two- to three-month training cycles could not be expected to learn as much as those in longer programs. Training activities of two to three months can provide basic orientation and introduction to construction, but true skills development and preparation for higher paying jobs cannot be achieved in such a short time.

Skills Taught

It has long been debated whether it is better to devote the entire training period to a single trade area or provide exposure to and teach the rudiments of several trades. While many argue that solid grounding in one set of skills promotes confidence and competence, others maintain that exposure to a variety of skill areas enables trainees to sample various trades and choose the one they want to pursue following training. In either case, youth must be trained in skills for which there is labor market demand. The decision on whether to pursue multiple or single skills is left to the local program operator.

P/PV does not specify a set amount of exposure youth should have to any individual trade; however, we do advocate a minimum of a few months in a single trade area. Exceptions may be made to provide trainees with "glancing" exposure. For example, a carpentry crew can benefit greatly from exposure to electrical work in the course of building a house. Learning the stage at which carpentry work must be interrupted to install wiring and seeing how wiring is done can contribute to an overall understanding of the construction process, even if trainees do not actually learn how to pull wire. Constant movement between skill areas, however, does not allow sufficient reinforcement of individual skills.

Only one site in this demonstration, Dallas, chose the single skill option. Each crew worked in one of a variety of skill areas, including carpentry, painting, air conditioning, electrical work and general maintenance. Despite their concentration on

one skill area, trainees' skill development was not as extensive as expected. This failure may be traced to work projects that were less sophisticated than originally planned. Also, some supervisors' low skill levels limited what the trainees could be exposed to.

The other sites concentrated trainee efforts on painting, carpentry and plumbing. One crew performed gut rehabilitation of a historic house, while the other crews rebuilt piers, a reflecting pond, a large, rustic stone and wood pottirg shed; altered the interior of a school for office and residential use; and built a sophisticated solar house. Houston also introduced trainees to electrical work, window glazing and tiling, while the Bay Area program included exposure to masonry and electrical work.

In general, the sites found that broad exposure to many trades is not advisable. To become truly productive, trainees must spend at least a few months on each skill area. By design, Cleveland, tried to rotate trainees through each skill area every three months. Work availability dictated that the greatest emphasis be on painting and trainees spent the vast majority of their time on those skills.

Despite advice to the contrary, Houston initially tried to change the content of skills training as often as weekly. It didn't work. Trainees could not practice skills long enough to master them. Much of the rationale for this policy was an attempt to mesh trainees with the private contractor's and subcontractors' work forces--something that had not previously been tried in VICI. Subsequent contractors, more sympathetic to VICI's goals, combined with more experienced HACH staff to work on schedules that would be more conducive to skill development.

The type of work available is usually the primary determinant of skill exposure. If the local decision is to expose trainees to multiple skills and the work available allows it, Cleveland's approach of skill rotation makes the most sense. However, because the Bay Area's work projects were intensive and large enough and required considerable skill repetition, they also allowed sufficient skill practice. Single skill content, such as that done in Dallas, provides the greatest reinforcement. Ultimately, the "best" VICI skills training approach is no different than most other effective skills development approaches: practice, sufficient repetition, building from simple to more complex skills and gaining exposure to bridges between skills.

Classroom Work

Although VICI is designed to teach construction skills on the job, Dallas and the Bay Area included formal classroom training

as part of their local design option. In Dallas, El Centro Job Training Center provided six to eight weeks of orientation and instruction in the trades, which each trainee needed in order to work at the Dallas Housing Authority. The quality of this classroom training was good and instructors were knowledgeable and skilled. Basic math and English skills were incorporated into the curriculum, which was necessary because Dallas recruited without established minimum standards for educational attainment. VICI staff reported that the trainees' average basic skill level was very low.

Cleveland provided no formally structured instruction outside the worksites during the first cycle. However, the coordinator and instructors later decided that the trainees would benefit from more formalized instruction. They designed a curriculum for orientation and general background, including lessons to be used during periods of downtime. Their curriculum employed a mock-up to illustrate carpentry and plumbing principles, the two skill areas in which work in the field was most difficult to acquire. Trainees were not paid for classroom time. The instructors reported that it served as a useful, positive alternative activity when field work was unavailable because the trainees gained exposure and practice in trade areas for which adequate field work was unavailable.

In the Bay Area, the CCC consulted with the Joint Carpenters Apprenticeship Training Council, which worked with the College of Alameda to design a curriculum composed of technical English and math along with construction theory--an approach that follows the apprenticeship model. Attendance at the College was required. Program staff reported--and interviews with six trainees confirmed--that despite the extra time it consumed (unpaid evening classes), trainees liked the additional training. Similar training, though not as structured, was required in the second cycle. But in this case, trainees complained about the additional time requirements, though the vast majority remained in the program.

Houston added a required, up-front four- to six-week classroom training component toward the end of the final cycle. It included instruction in rudimentary electrical work, plumbing, carpentry, window glazing and tiling. Since the classroom training was added after the fieldwork for this report was completed, effectiveness cannot be assessed here. This training was followed by OJT instruction at HACH housing projects.

This demonstration and the Women in VICI demonstrations show that structured, classroom-based instruction augments on-site learning. Therefore, limited classroom training will be required in future VICI programs.

WORK STRUCTURE

Supervision, work production, and appropriate and sufficient work are discussed in the following sections.

Supervision

Supervisors are expected to have technical skills in the crafts they are teaching and the ability to manage, motivate, encourage and inspire program trainees. To that end, the VICI model demands high quality supervision provided by experienced journey-level craftspeople. In localities with a strong union presence, union journeypeople are hired as crew supervisors/instructors. Two sites, Cleveland and the Bay Area, held to that standard. With few exceptions, supervisors in these two sites were committed to the program, took pride in the work, were motivated to train, cared about the trainees and their future prospects, insisted on adherence to workplace rules, and invested in quality work output. In the other two sites, supervisors were not as invested in the program. Some were not sufficiently technically skilled; some did not integrate training with an on-the-job production emphasis.

Instructors in Cleveland and the Bay Area sometimes involved trainees in weekend work they were able to pick up. The trainees were thus able to practice their skills, earn extra money and learn estimating techniques. Relationships between many trainees and their instructors continued beyond the end of the program.

One Bay Area instructor went well beyond his duties. He sometimes interceded with parents to resolve personal problems and he continues to help former trainees find jobs. He has also sponsored several trainees for union membership. Along with the Alameda Building Trades Council, he brought other union members to his project to donate roofing help.

Another first-cycle Bay Area supervisor insisted on highly rigorous workplace rules and standards in order to bring a project in on time. His style initially generated consternation among the trainees, but when the project was finished, the crew installed a plaque inscribed with their names as evidence of the pride they took in their work. Bay Area instructors during the second cycle were also skilled and took a personal interest in the trainees. They voluntarily worked extra hours (unpaid) to aid the program.

Dallas relied on existing housing authority staff to act as supervisors. Despite promises to use only the best tradespeople, the instructors during the first year were frequently not interested in teaching and/or were not sufficiently skilled. As the program matured and the coordinator and DHA administrative staff gained experience in choosing, training and evaluating

supervisors, the quality of supervision improved. However, it was never consistently up to traditional VICI standards because the supervisors were rarely inspirational.

Supervision in Houston was provided by the contractors and varied in quality. Several instructors used the trainees only as gofers and general laborers in the first cycles of the program. These supervisors never brought the trainees into the construction process and did not provide the instruction and guidance the trainees needed in order to learn and contribute to production. Since the supervisors were employed by the contractor, not the program, production usually took precedence over training. For trainees to fully benefit, VICI programs need more of a balance. With experience and contractors more attuned to VICI goals, the emphasis on quality supervision increased and the program improved.

The variation in the supervisor selection process appears to most fully explain why supervisor quality varied as it did. The program operator in Cleveland selected each supervisor individually. The CCC selected many of the Bay Area instructors--primarily the outstanding ones. During the early stages of the programs in Houston and Dallas, supervisors were not so much selected as drafted, though the process in Dallas did improve with time. Not surprisingly, staff selection based on overall program requirements proved to be a major factor in accounting for the difference between good and poor supervision.

Work Production

VICI programs are defined by the nature of the training and the amount of work produced; success cannot be assessed in terms of only one of these goals. In this demonstration, most of the work undertaken in three sites involved housing.

In Dallas and Houston, the work involved public housing. In both sites, administrators in charge of the program were skeptical that unskilled crews of young people could possibly produce work of any real worth to the housing authorities. In both sites, they soon changed their minds. During the first cycle of these programs, both administrators would have gladly abandoned VICI, except for public statements that they would stick with it. By the midpoint of each program, both began talking about the work as an outcome; by the end, both acknowledged that the work accomplished was real, beneficial and valuable.

In all CCC programs, work is the focal point. VICI provided the Bay Area CCC with an opportunity to enhance its skill training activities in the building trades. Among the projects undertaken were the gut rehabilitation of a historic house in the Knowland Park Zoo; the rebuilding of a large, rustic stone and wood potting shed for the East Bay Regional Parks District; the

building of a solar house for Merritt College; and the rehabilitation of a school as the new Bay Area CCC headquarters. Accolades for work performed were received from both the work providers and users of the facilities. Detailed information on the costs and quality of two Bay Area projects are presented in Chapter III.

According to the director in Cleveland; production was not a primary local goal; it was simply the vehicle through which young people were trained. Nevertheless, production must be a VICI goal. Since trainee wages are generated by payment for work produced, obtaining work is a pressing need and customers must be satisfied with the work to pay the bill. So, in fact, production was a major aspect of the program in Cleveland, as it was in the other sites.

All four programs produced a large amount of tangible work. Skeptics became convinced that young people in carefully organized programs can produce. When work production was built in as an integral part of a program, even when it was not a stated goal, benefits were realized. Trainees in all sites talked about the satisfaction of finishing something, especially a project in their own communities.

Since VICI crews in Houston and Dallas were part of larger production efforts, it is difficult to identify precisely what the VICI trainees contributed. In Cleveland and the Bay Area, however, trainee work projects were distinct; specific information about the variety of projects and the type, quality and value of work produced is contained in Chapter III.

Appropriate and Sufficient Work

Since training is done at worksites, the work should contribute to skills development and there must be a sufficient supply of work to keep trainees fully occupied. The sites had varying success in meeting these requirements.

After a slow start in the first cycle, the Bay Area program did an effective job of keeping the trainees working steadily and building their skills. Glitches in that pattern did occur when too many trainees were located at one worksite and some trainees sat idle until the supervisor had time to instruct. This situation did not recur during the second cycle. At one worksite, the Bay Area spent considerable time teaching rudimentary skills, occasionally placing too much emphasis on this approach.

Cleveland experienced considerable difficulty in obtaining sufficient work for the crews, particularly in the skill areas of carpentry and plumbing. Much of the planned work was rendered unavailable by a rigid local interpretation of Davis-Bacon rules that prevented trainee participation. Friendly Inn was forced to

scramble to find worksites. As a result, the program coordinator spent an inordinate amount of time finding work. Turnover in the coordinator position exacerbated the problem; three coordinators, each with a different style, were charged with generating worksites. The Cleveland program was structured to use fees paid by customers to cover trainees' salaries, but all trainees in a crew could not participate in all jobs because many jobs were quite small. Therefore, the crews were typically split so that only a few trainees at a time were working on a given carpentry or plumbing job. Despite the system devised for generating sufficient work, there were many instances in which trainees earned only about a third of a full-time salary in a week.

The unavailability of sufficient work to keep trainees fully occupied also resulted in Cleveland accepting inappropriate work, such as a painting job requiring lettering. Misunderstandings at that job site arose largely as a result of coordinator turnover; this further engendered customer dissatisfaction and loss of program income.

The first set of trainees in Houston was kept busy, but often performed work that was not geared to building skills. HACH intervened to correct the problem and built in a monitoring system that was used effectively with subsequent contractors. Keeping trainees productive was in the best interests of the contractor/employer, since the faster the work was completed, the greater would be the contractor's profit. A major problem, unrelated to VICI, erupted in one of the housing projects, which brought work to a halt one month short of the end of the VICI training period for some trainees and three months short for others. Transportation and scheduling problems precluded shifting the trainees to another housing project, so VICI ended unceremoniously for them. For the majority of trainees, however, there was sufficient and appropriate work.

Trainees in Dallas were kept busy, though not always with tasks that contributed to extensive skill development. Due to time pressure, both in the length of the training cycle and DHA production schedules, trainees who were supposed to be learning how to repair air conditioning units functioned as helpers rather than technicians. In most other skills areas, trainees learned hard skills and were busy and productive. There was no shortage of work.

The programs understood the pivotal nature of this element. With the exception of Cleveland, work projects were managed well and lessons were learned from mistakes. In Cleveland, Friendly Inn recognized the problems and tried to augment training with classroom work (discussed earlier in the report), but could not fully rectify the situation due to lack of alternative worksites. As Friendly Inn saw, it can be very difficult to find sufficient and appropriate work when the program operator does not have

direct access to a ready supply. Based on previous VICI experience, this problem is more easily solved in locations like the Bay Area, where union presence is strong but programs are not subject to the kind of Davis-Bacon³ interpretation by which Friendly Inn had to abide.

JOB PLACEMENT

Table II.5 summarizes the placement rates and other termination information of VICI trainees by site from one to 90 days after departure from the program. Overall, 49 percent of all trainees were placed in employment, entered the military or enrolled in further training. Forty-three percent were placed in jobs related to their VICI training, including those placed in apprenticeship positions. That is, the vast majority (81 of 93 trainees or 87%) of those who were placed accepted positions doing construction-related work. Such a high placement rate in the area of training is an impressive accomplishment.

Fourteen percent of all trainees who completed the training could not be placed in jobs. In Houston, 43 percent of the completers could not be placed in employment. As noted earlier, more than one-fifth (21%) of all trainees were dismissed from the program, including 35 percent of trainees in the CCC-sponsored program. Personal reasons (health and family problems, moving and diminished interest in the program) accounted for the departures of 8 percent of trainees.

Thus, it appears that the VICI program barely achieved its goal of placing 50 percent of trainees. The rate of employment for JTPA participants in programs with training components similar to VICI is 37 percent; VICI rates exceeded that standard. The overall placement rate of 46 percent is comparable to the overall reported rate (51%) for similarly aged youth who were placed through all JTPA programs (National Commission for Employment Policy 1987, p. 209). And the jobs VICI trainees secured paid considerably more than those in the JTPA system.

Effective job placement of program graduates is difficult, but is critical to the success of a VICI program. Over the years, job placement in VICI has taken a variety of forms and in this demonstration, methods again varied. Cleveland's successful approach assigned primary placement responsibilities to a counselor, who received assistance from the coordinator and instructors. This approach was consistent with previous VICI experience that highly competent supervisors will be aware of

³ In Cleveland, the Davis-Bacon interpretation required that trainees be paid wages considerably higher than minimum wage. In all of the other 21 VICI sites, the trainee category has been approved, as needed, under Davis-Bacon rules.

Table II.5

DISPOSITION OF VICI TRAINEES
BY SITE

	Total	Cleveland	Dallas	Houston	Bay Area
Positive Termination	49%	82%	56%	26%	40%
Placement in related area	43	74	49	23	32
Apprenticeship	(5)	(0)	(0)	(2)	(13)
Placement in Other Areas	3	0	2	0	8
Military	1	3	0	2	0
School	2	5	5	0	0
Non-Positive Termination.	51%	18%	44%	74%	60%
Completed Program But Not Placed	14	0	16	43	0
Dismissed	21	8	14	19	35
Departed Personal Reasons	8	10	12	2	10
Other	8	0	2	11	15
TOTAL NUMBER OF TRAINEES	189	39	43	47	60

jobs, know construction foremen and be in a position to vouch for trainee competence. In Cleveland, for example, former trainees continue to rely on their program instructors for advice as they consider job changes; Cleveland achieved an 82 percent positive termination rate and a 74 percent job placement rate.

In the Bay Area, the job placement process was not as well-organized during the first cycle, largely because the CCC traditionally does not emphasize job placement. Recognizing this problem, the CCC undertook an intensive effort to improve placement performance, funding a staff person toward the end of the first cycle who could help one supervisor work on job placement for the 15 most promising (job-ready) trainees. An overall placement rate of 30.4 percent was achieved for all first-cycle trainees enrolled in the program with 12 of the 15 most promising trainees placed in jobs. The staff person remained with the VICI program to raise JTPA funds for the second cycle and serve as a coordinator with job placement responsibilities. A second-cycle placement rate of 73.3 percent shows the value of increased experience in and commitment to the placement process. The first-cycle instructor who assisted in the job placement effort remains in contact with former trainees and offers continuing assistance with job changes. The low overall job placement rate of 40 percent reflects the fact that first-cycle job placement performance was initially slow. Furthermore, the CCC does not conduct follow-up interviews with corpsmembers who leave the program; thus it is likely that some corpsmembers found jobs shortly after leaving VICI. However, that information was not captured. It is important to note, however, that among the CCC trainees who were placed, about a third were placed in apprenticeship programs where they could continue their skills training while working. This proportion far exceeded the performance of any other site.

Placement activities also got off to a slow start in Dallas. The coordinator didn't begin work until several months after the program started, after some trainees had already graduated. With considerable catch-up needed, the Dallas Alliance of Business joined in the placement effort; however, primary responsibility was shouldered by the coordinator. Since trainee job placement was not an assigned responsibility, the role of supervisors was negligible. Efforts were hampered by the local economy, which is still affected by the severe economic recession. Nevertheless, Dallas achieved a 56 percent placement rate.

Houston was more drastically affected by local economic concerns than any other site. Job placement was conducted jointly by SER-Jobs for Progress and the program coordinator. Despite SER's considerable experience in job development and placement and a coordinator who learned quickly, the local economy limited Houston to only a 26 percent job placement rate. Of the remaining 74 percent, 43 percent completed the program but were not

placed and about one-third (32%) were dismissed, left the program for personal reasons or separated due to other causes. Since Houston was an OJT site, it was expected that the contractors would hire some of the trainees. In fact, contractors did hire 11 trainees, or 23 percent.

The low placement rates in the Texas programs were frustrating for both trainees and VICI staff. Both Dallas and Houston administrators believe that, in addition to local economic conditions, low placement rates were the result of the social insulation of public housing. Trainees live and work in the projects and are often reluctant to leave them for jobs outside. This is a vexing problem that has been cited by housing authority administrators across the country and for which no adequate solution has been found.

For example, among the reasons for low placement most frequently cited by Houston program operators was the potential loss of government assistance benefits if trainees accepted a job. This was a particular problem for female participants and for younger trainees who still lived at home. Trainee families' assistance grants would be reduced by the gross amount of wages received in new jobs; food stamp benefits would be reduced and Housing Authority rents would be increased, resulting in a net loss of income for the families of many trainees. The few female participants in Houston with dependent children also risked loss of AFDC benefits because Texas reportedly had no provision for AFDC benefit continuation to households where the mother is newly employed.

Houston program operators underscored the inherent restrictions in placing young trainees. Toward the end of the VICI demonstration, a similar program was established, which permitted somewhat older trainees to enroll. In an analysis of placement rates among participants in the new program, it was discovered that participants who were older than 24 had an 82 percent placement rate, more than three times the placement rate achieved with younger trainees during the VICI demonstration. Overall, the average hourly wage among VICI trainees who were placed was \$5.79. Thus, average wage rates compare favorably with the reported hourly wages of similarly aged youth trained and placed through JTPA programs, whose mean hourly wages were reported to be \$4.15 (National Commission for Employment Policy 1987, p. 214). It is difficult to determine precisely whether this difference is statistically significant without controlling for slightly differing age ranges in the two samples, inflation rates and other factors. However, the fact that post-VICI wages were 40 percent higher than the reported JTPA wage level seems to indicate an important dividend of being placed from a VICI program.

Modest differences were reported among those employed from three of the sites: Cleveland trainees reported hourly wages of \$5.06; Dallas trainees, \$5.31; and Houston trainees, \$4.98. In the Bay Area, however, trainee wages at placement were substantially higher than in both JTPA and other VICI programs--\$7.28 an hour. This large differential may reflect, in addition to program effects, the higher area wage scale.⁴ Contrary to expectations, overall postprogram wages across all sites were higher on average for women (\$6.10) than for men (\$5.70), likely because of the larger proportion of women enrolled in the California program.

ADMINISTRATION AND MANAGEMENT

In this section, administrative and management issues that arose during the demonstration are explored, such as materials and supplies, support services, and the role of the advisory board.

Materials and Supplies

The bane of construction site work is an inadequate flow of materials and supplies. VICI sites can be especially vulnerable, since the programs often do not order materials themselves but rely on work providers. Such was the case in the Bay Area. Early in the program, downtime due to unavailable materials was a recurring problem in the Knowland Park Zoo project. Downtime can be deadly, particularly unscheduled downtime for which staff and trainees must still be paid. Downtime is also antithetical to inculcating a responsible work ethic and creating a sense of teamwork and esprit de corps. In the Bay Area, the instructor used the time to teach math skills and demonstrate construction techniques. The problem was resolved after three months. It cropped up once again with a project at Merritt College that relied on donated materials. Again, the problem was resolved but it again took a few months. The time was used to review skills and technique.

Similar problems were not seen at other sites, though it cannot be said that work never had to be "stretched" because a delivery wasn't due until the next day and work had progressed more quickly than anticipated. Such situations were simply not frequent enough to be significant.

A different difficulty was encountered in Cleveland, where materials were found to be inferior or inappropriate, largely due to the necessity of purchasing inexpensive materials. Many homes were painted as part of a city program for low-income homeowners in which paint was supplied by the city. The VICI painting supervisor warned that the latex paint provided by the city

⁴The Bay Area region has the third highest wage rate index in the nation, following Anchorage and New York City.

wasn't appropriate (he recommended oil-based paint) and that the paint job would deteriorate within two years. It has. Clearly, this kind of situation is beyond the control of the program operator; however, the trainees learned a valuable lesson about using the right materials for a job. A further problem in Cleveland was a lack of supplies due to tight budgets, including scaffolding and spray guns. This was frustrating for the supervisors, but not critical to program operations.

Material and supply flow in Houston and Dallas worked well. This is not surprising, since the program operator in both cases was also the work provider, thereby enabling much greater coordination and precise timing.

None of the problems experienced by the sites was crippling. Like the acquisition of appropriate and sufficient work, the maintenance of material and supply flow can be expedited when the program operator has control over the worksites; however, having these functions performed by the same agency is not imperative.

Support Services

As stated in the introduction to this report, the VICI model does not mandate such support services as child care, counseling, and transportation, though sites are strongly encouraged to provide needed services either directly or through referrals. For female trainees (especially those with children), support services can make a vast difference in their ability to participate in training programs. In sprawling metropolitan areas like Houston and Dallas, transportation/driver education can be a vital determinant of whether a trainee gets a job following training. And for virtually all trainees, counseling can be the make or break element for successful training completion.

All four sites provided counseling through either a counselor to the program, as in Cleveland, or through the coordinator and/or participating organizations, such as SER-Jobs for Progress in Houston and Merritt College in the Bay Area. Some of the counseling in Dallas included intervention with the criminal justice system on behalf of a few trainees with pending court cases that predated VICI enrollment. Supervisors who established mentoring relationships with trainees were an important source of counseling, as often happens in the VICI program crew structure.

In addition to tools, boots and all safety gear, the Bay Area site provided counseling, physical training, driver education, health services, career development information and extensive education enhancement through GED preparation and conducted technical training-related education classes described in the classroom training portion of this chapter. The CCC did not provide child care services. Participation in the available services (standard in some form for all CCC corpsmembers) is

required. This entails substantial time commitments on the part of trainees, since services are most often scheduled before and/or after working hours. While recognizing the benefits afforded by these services, several trainees expressed dissatisfaction with devoting the time that participation required.

Cleveland had a policy of attempting to provide any reasonable service the trainees needed. Child care, health, career development and transportation assistance were frequently used services. Tutoring for apprenticeship entrance tests was also provided, though subsequent confusion over testing dates rendered the effort inapplicable at that time.

The Dallas program expended considerable time and energy to ensure that trainees would receive all possible services. Driver education, child care, basic skills education (see classroom training section) and equipment, such as tools and work shoes, were made available. Houston provided a set of starter tools to all trainees and offered child care and transportation assistance, but trainees did not use these services. If Houston's public transportation system had been routed differently, trainees laid off from one project may have been able to transfer to another, but under the existing system, transportation support was irrelevant.

Advisory Board

While not a mandatory element of the VICI model, the advisory board has the potential to play a vital role. It can be used as a sounding board, a planning body, a problem-solving resource and/or a political leveraging instrument. Establishing an effective board and keeping it alive, however, is a time-consuming task that some program operators considered more trouble than it was worth. Many did not see the board as integral to the overall effort, as was the case in the Bay Area, where no formal advisory body was established. However, the CCC consulted regularly with all key actors in the program during the demonstration. After the demonstration concluded, the CCC decided that a formal board would have been helpful and is forming one for its ongoing VICI operations.

In Houston, the advisory board was convened by the Private Sector Initiatives (PSI) organization with two purposes: determining how VICI could be expanded to other parts of Houston and helping make job connections for VICI graduates. The board met several times, but a combination of changes in PSI staffing and shifting priorities due to the economic downturn put the board on hold. Unfortunately, this happened before any trainees graduated. Had the board remained intact, it is possible that more VICI graduates would have obtained jobs through the efforts of the board. Recently, PSI determined that the board should be reconstituted and reactivated to help plan for project continuation.

Cleveland formed an advisory board, but held only one meeting before the program operator decided that VICI goals could better be achieved by working with board members individually. It appears that this decision may not have been for the best. While we can only speculate on improvements that an active board might have produced, there is reason to believe that Cleveland's two major problems--insufficient work availability and JTPA performance-based contract requirements that penalize programs for attrition--might have been better tackled by a board. The Cleveland VICI program performed well in job placement; the absence of an advisory board did not appear to hurt the program in that area.

Dallas, on the other hand, had an active advisory board, which turned out to be invaluable. During the course of the demonstration, Dallas' JTPA program and the city structure under which JTPA operates experienced a high number of key staff changes; all too often, by the time problems were identified and corrective measures were planned, staff turnover postponed their implementation, thus hindering effective operations. Only the advisory board, which periodically invited an activist representative from the local sponsoring foundation to participate and contribute, was able to provide continuity and support to the program operator. In addition, the board helped with recruitment efforts and served as a forum for solving problems.

Advisory board formation and use was mixed, but showed sufficiently strong potential that inclusion of local advisory boards will be a mandatory element of the VICI model in the future.

INSTITUTIONALIZATION

The factors involved in continuation are complex and go well beyond a demonstration of program success. They may include funding priorities, program image, local political issues, ability of agencies to work together (which is affected by other issues, not just VICI) and participating organizations' missions. Some or all of these factors have influenced the decision about program institutionalization in this demonstration.

While not every good VICI program has been institutionalized--i.e., continued after support by national organizations is withdrawn--more than half of the 22 VICI demonstration programs continued beyond the demonstration period and ten continue to exist today. A major challenge for any successful youth-serving program is whether it can secure support for its continuation. The Houston and Bay Area sites have continued operations; Dallas has concluded its program, but is contemplating reactivation. Only Cleveland has determined that it will be unable to continue its VICI program.

The Dallas program, which may be revived, is an excellent example of a good VICI program that has not continued but has left a legacy. Broader lessons learned from the Dallas VICI experience seem to have promoted institutional changes in attitude. VICI represented a major change in emphasis for the Housing Authority.

Prior to VICI, the Dallas Housing Authority concentrated its time and attention almost exclusively on the physical plant. Getting the facilities in shape, improving maintenance activities and shaping up general management precluded the authority's focusing on the residents' needs beyond safe, decent housing. By the time VICI came to Dallas, sufficient progress had been made to allow expansion of the authority's focus to training and employment activities; VICI served as the vehicle for this expansion. Not only was a large amount of work produced, more than half of employed VICI graduates were able to leave public housing, according to DHA staff. And Dallas was able to show that public housing residents, even those with minimal education, can benefit from a demanding skills training program. Yet the program has not been continued. Relations between some of the participating organizations were strained by the necessity for flexibility in operating VICI and each organization was itself strained by program necessities very different from those to which they were accustomed. After a collective sigh of relief, these agencies are now contemplating a new chapter for VICI in Dallas. The city has expressed interest in reactivating the program because VICI provided a way to reach a population the JTPA program had previously been unable to serve effectively. Whether VICI is or is not reactivated, the DHA is planning to continue its involvement in activities to improve the overall quality of life for its residents.

Cleveland's failure to institutionalize VICI was a disappointment. Despite high job placement rates and the strong desire of Friendly Inn and the JTPA agency to continue operating VICI, the program operator suffered from JTPA payment methods that often cause cash flow problems for small organizations. Ultimately, Friendly Inn decided it could not continue to operate a program as complex as VICI under those conditions. Since the conclusion of the demonstration, the Cleveland JTPA has addressed the problems that produced delay in reimbursement to contractors. Had the program been institutionalized, it would have continued to face the problem of obtaining work. There is no ready solution to this problem for Friendly Inn, whose primary mission is providing social rather than physical services to the community.

The Bay Area program has been institutionalized. The CCC's foray into JTPA collaboration has proved successful; the Bay Area CCC sees in VICI the opportunity for intensified skill training in ways consonant with the corps' mission, producing corpsmembers with marketable skills and enhancing the Bay Area CCC's public

image. The CCC program was also been exploring avenues to link effectively with other organizations in order to broaden its range of services and statewide support.

As the CCC's first attempt to work with JTPA, VICI serves as a model for future collaboration efforts. Because of the VICI experience and related CCC policies, the Bay Area is exploring ways to expand job placement activities to other corpsmembers, has already established a formal advisory board for another project and is currently establishing a formal VICI advisory board. It is too early to tell if the CCC will incorporate specific skills training tied to job placement in other CCC centers. One possibility being discussed is the use of VICI as a reward for corpsmembers who perform well, allowing them to leave the CCC with either a job or an increased likelihood of obtaining a job due to good work habits and specific marketable skills.

Institutionalization of VICI in Houston has proceeded despite the poor job placement results because political support for the program has been strong. The Housing Authority of the City of Houston (HACH) created a nonprofit subsidiary corporation, The HACH Institute, to house VICI and other HACH-sponsored training programs. As in Dallas, the HACH administration had concentrated primarily on the physical improvement and management of its plant. Through VICI institutionalization and the other programs operated under the auspices of the HACH Institute, the Housing Authority is more aggressively attempting to attack the lack of skills and other preparation for work force participation that are characteristic of its residents. Houston has already tried adapting the VICI program to a somewhat older target population-- reportedly with great success. VICI program length has been increased to four months' duration.

Overall, the institutionalization of these VICI sites was carried out with about the same rate of success as seen in previous VICI demonstrations. Given the range of local factors that affect project continuation, we believe this 50 to 60 percent institutionalization rate may represent a reasonable benchmark by which to gauge future demonstration efforts. Given the reduced level of national funding involved, it also indicates that effective strategies for local institutionalization can be devised that go beyond the continued infusion of national monies into local operations.

III. VALUE OF WORK

One of VICI's two major goals is to produce tangible community improvements in housing or public facilities in low-income areas. This chapter discusses some of the physical improvements made during the VICI demonstration and examines selected discrete projects in detail.

Any discussion of work valuation in the VICI program must be set in the context of the work's relationship to VICI's training and placement strategy. The VICI model makes it possible for economically disadvantaged youth to enter the mainstream labor market by improving their work skills and attitudes to work, and by providing connections to employers or hiring halls. The primary training vehicle for accomplishing these goals is paid work rather than classroom study.

THE PURPOSE OF WORK VALUATION

Work valuation places a dollar value on the tangible output of the program. This consists of estimating the production cost as if the work were done by the most likely unsubsidized or "market" source of labor. This dollar value represents a major benefit of the program beyond the value of the training and is an important offset to program cost. By converting the total dollar value of projects to value produced per trainee hour, it is possible to compare the productivity of project workers with that of regular workers. The higher the per-hour value, the more productively efficient the project workers.

In addition to the factors that affect the productivity of most work projects, such as supervision quality, worker morale, and work disruptions, training programs bear the additional cost of trainee learning, some of which shows up directly as a loss of productivity. Thus, the difference between the hourly cost of the market worker and the hourly value produced by the trainee represents two costs, productive inefficiency and training. Training cost is of special interest because, in seeking to manage losses in productivity, project directors must consider the value of the training as manifested in either subsequently improved productivity or an increase in the future earnings ability of the trainee.

PRODUCTIVITY AND VICI GOALS

VICI training seeks improvement in two areas: work attitudes and work skills. To many future employers, developing good work attitudes is more important than skill training. These employers expect to teach work skills when hiring new employees at the apprenticeship or pre-apprenticeship level; however, they view

work attitude as indicative of character. The VICI concept is that work skills and work attitudes are mutually reinforcing: as personal skills develop, attitudes change. A growing sense of efficacy builds pride, and meeting goals as a team builds a sense of interdependence. A finished visible product provides a lasting feeling of accomplishment that reinforces the value of work to each trainee. To be consistent with this view, productivity should be a primary consideration in every training decision. The following principles guide this decision-making process:

- o Skills training has an immediate cost in loss of production; however, the training cost can be recovered if the skills make the trainees more productive; over time, the worksite will benefit from the additional productivity.
- o Inadequate or incomplete skill training will have a cost, but may not result in increased productivity.
- o Skill training that is not immediately applicable to the work at hand is not as easily learned or retained; the loss in production is greater than if the training took place when the skill was needed.

Site Descriptions

Work valuation was conducted in the Bay Area and Cleveland. In the Bay Area, work was performed for public agencies, several California regional park systems and the Knowland Park Zoo in Oakland. Only five projects were undertaken, but all were large-scale--ranging from a house rehabilitation project with more than 14,000 trainee hours to a project that built picnic tables with just under 1,000 hours. The trainees' wages were paid by the CCC.

The Cleveland work projects were more numerous. They were also much smaller, excepting work performed for Friendly Inn Settlement House, the program operator, and one project that continued for two years. Time invested ranged from 374 trainee hours down to 10 hours or less. Work was performed for individuals and organizations who agreed to pay an amount based on an advance estimate made by the program coordinator or an instructor. In most cases, the price was promotional, i.e., below the market rate. These fees were the source of the Cleveland trainees' wages. Projects in both sites are listed by type of work and size in Table III.1.

placement and reduced attrition, placement rates greatly increased.

Cleveland, Ohio

In Cleveland, Friendly Inn Settlement House served as the VICI program operator, conducting two nine-month training cycles with three six- or seven-member crews for a total enrollment of 39 youth. Each crew was to receive three months of training in each of three skill areas: painting, carpentry and plumbing. Trainees were paid minimum wage.

JTPA funds were used to support trainee recruitment, eligibility determination and certification services and to pay the supervisor/instructor salaries. All supervisors were union journeymen referred to Friendly Inn by their locals.

United Way provided funding for a counselor who would be responsible for making referrals to support services, counseling trainees, performing administrative tasks, and doing job development and placement. Local foundation funds supported the program coordinator position. Work projects were provided by a wide range of nonprofit groups (including Friendly Inn), private homeowners and one local business. The trainees' wages were paid by Friendly Inn, which was reimbursed by work providers for work performed.

The Cleveland program's most outstanding feature was its strong commitment to the trainees. Friendly Inn Settlement House, the only social services agency that has operated a VICI program, insisted that the youth receive high quality training and that the trainees be enabled to secure jobs following training. The major difficulty was securing appropriate and sufficient work-sites.

Dallas, Texas

The Dallas VICI program operator was the Dallas Housing Authority (DHA). Unlike the Bay Area and Cleveland programs, whose crews were organized in cycles, Dallas phased in a new crew approximately every two months. While recruitment was originally a City of Dallas responsibility, it soon became a DHA one. Trainees were selected without regard to previous work experience, educational attainment or criminal justice background. During the Dallas demonstration, 43 trainees were enrolled in the VICI program. In a departure from the model, training was five months long, though some trainees continued on for a sixth month. Trainees' wages started at \$4.00 per hour, with some earning raises to \$4.25 and \$4.50 as performance rewards.

Supervision was provided by DHA. In accordance with the model, only the most highly skilled craftspeople were to serve as

Table III.1 (cont'd)

DISCRETE PROJECTS IN THE BAY AREA AND CLEVELAND

PROJECT NAME	OUTPUT	TRAINEE HOURS	% OF TOTAL
CLEVELAND Cycle II			
Furniture Store	Exterior Painting, Repairs	2,851	68.5
House #1	Exterior Painting	325	7.8
House #2	General Repairs (including Painting, Carpentry, Plumbing)	197	4.7
House #3	Paint Exterior	191	4.6
House #4	Replace Porches	132	3.2
House and Garage	Reshingle, Repair Leaks	126	3.0
Settlement House	Interior Painting	92	2.2
House #5	Plumbing	68	1.6
House #6	Plumbing	57	1.4
House #7	Plumbing	24	.6
House #8	Plumbing	21	.5
Garage	Remove	18	.4
House #9	Plumbing	14	.3
House #10	Plumbing	10	.2
Miscellaneous and Uninvoiced Work		38	.9
		<u>4,164</u>	<u>99.9</u>

Project Selection

Nine projects in Cleveland and two projects in California were selected for valuation and analysis. In Cleveland, Friendly Inn requested that several projects be exempted from consideration because of sensitive local issues; another project was exempted because Friendly Inn acted as a subcontractor and there were problems in delineating which organization did what work. The largest remaining projects in terms of trainee work hours were selected. In the Bay Area, the projects selected were the only projects where output could be reliably quantified.

These selection decisions carry inherent bias. By excluding controversial projects in Cleveland, it is certain that the projects with the lowest productivity were eliminated. Conversely, in California, building tables and chemical toilets repetitively on jigs, the work that would likely have been the most productive, was excluded. For these reasons, selected projects are not representative of the sites in a statistical sense and the values for the projects analyzed should not be considered averages of the site work value.

Work Value Analysis

The dollar value of the selected projects was determined by independent estimators who inspected the projects and estimated what the cost of the project would have been had it been built by the most likely supplier. There are three general types of independent estimators: those who sell their estimation skills professionally, those who estimate as a means of securing contracts for their company, and those who are expert in the field but are seldom or never called on to make estimates. The professional estimator is usually the most accurate, though it should be noted that the professional uses cost structures that incorporate union wages and union productivity. Estimators who work for a particular company reflect the cost structure of that company; their estimates must be judged in view of the company's competitive position in the industry. Expert workers are usually only accurate in reflecting their individual productivity and are less credible than either of the estimators whose bids are tested in a competitive market.

Bay Area Work Valuation

In the Bay Area, professional estimators were used to value both projects. The "White House," the largest project in terms of trainee hours, consisted of the rehabilitation of a historically significant house that was to serve as both an exhibit area and an office area. This project was not an attempt at restoration, since modern materials were used throughout. However, the exterior of the house was finished to provide a "historically

compatible" appearance. There were many difficulties in estimating this work; for example, some completed work could not be seen, since structural members were replaced and new footings were installed. Also, the union local provided volunteers to roof the house, and another group of CCC corpsmembers did additional work after the VICI crew had disbanded.

To get the most accurate estimate of work done, without including the output of the non-VICI workers, a professional estimator who could provide a task-by-task assessment was employed. The estimator was a rehabilitation advisor from the City of Oakland's Office of Community Development who was experienced in noting special problems encountered in rehabilitating old houses. His estimates are frequently used by the City of Oakland to determine the reasonableness of contractor bids. Because the extent of the work performed could not be determined from casual inspection, the estimator was conducted through the site by the supervisor who had been in charge of the project. This extraordinary procedure was used because the need to clearly identify the work performed outweighed any potentially biasing effect.

After the non-VICI contribution had been removed, the estimate still included prices for labor and material. To isolate the value of the labor, material costs were subtracted from the estimate. The accuracy of the final labor value estimate relies on the assumption that material cost in the project was substantially the same as it would have been for the alternate supplier.

The second site, Tilden Park Potting Shed, was built using a rustic post and beam construction technique. The park architect added a steel beam in an interior wall of this old style building to bring the building within modern safety standards while retaining its traditional style and charm. The park would likely have employed journeymen carpenters as builders had the project not been undertaken by VICI; however, the superintendent of park construction felt none of his carpenters was sufficiently skilled at estimation to provide a credible price estimate. Therefore, a professional estimator was used. The price estimate for the potting shed reflects labor done by journeymen paid union scale to build the shed to the architect's specifications. As in the White House project, the Potting Shed estimate included both material and labor and the actual cost of material was netted out to isolate the value of the project labor.

Cleveland Work Valuation

The Cleveland work projects consisted of repainting and making minor repairs to apartment units, painting the exterior of houses, patching a roof, reroofing a garage, and tearing out and replacing a porch. The nature of Cleveland's construction trades limited ways in which the work could be valued. Cleveland has traditionally had a segmented construction labor market. Large

public and commercial structures are typically built and renovated by firms who employ union labor. Residential housing is dominated by large, increasingly specialized firms who hire skilled, but usually nonunion, labor. A third distinct segment is composed of builders who concentrate on rehabilitating old structures, remodeling or reroofing homes, and other repair jobs. These builders are the most likely suppliers of repair and renovation work for residential housing, which is the work most typical of the VICI program in Cleveland.

Cost structures used by professional estimators don't accurately reflect the labor costs in this market; therefore, company estimators (contractors) were used. To ensure that the estimates would be competitive and accurately reflect the market value of the project work, two estimators were selected from a list of frequently used contractors compiled by the Greater Cleveland Housing Network. Since both estimators were general contractors, they were able to provide estimates for the wide variety of output reflected in the selected projects. These estimators provided labor estimates that did not include material cost. Since a portion of the material had been donated by the city or supplied by individuals and the cost was not available, this separate labor estimate was crucial.

One estimator was more experienced than the other. While the two estimators were in general agreement on most projects, their estimates for the two projects substantially differed: the repainting of the 61st Street house and the replacement of a porch on Helena Avenue. In both cases, the more experienced estimator noted aspects of the project that were missed by the other estimator--aspects corroborated by information from the project instructors.

Work Valuation Results

Table III.2 shows the estimated value of the labor in the selected projects in the Bay Area and Cleveland. The estimates by the more experienced Cleveland estimator are shown as estimate 1.

These estimates represent the tangible dollar value of the selected projects. They can also be divided by the trainee inputs in order to compare the productivity of the trainees with that of the regular workers.

A number of minor factors should be considered in assessing results. One is that the quantity of materials used in a given project may be affected by the expertise of the workers. It seems reasonable to assume that a greater degree of waste would result from the use of trainees rather than journeyman workers. However, the difference is not likely to be great, except in extreme circumstances. Material costs have been ignored in

Table III.2

VALUE OF SELECTED PROJECTS

<u>Cleveland (labor only)</u>	<u>Estimate #1</u>	<u>Estimate #2</u>
Noah Unit #42	\$ 778	\$ 750
Noah Unit #66	718	775
Noah Unit #83	718	775
Noah Units #6 & 8	1,112	1,150
61st Street House	3,750	2,606
East 147th Street House	1,450	1,500
Adams Street House	400	575
East 120th Street House	1,850	1,900
Helena Avenue House	830	1,500
<u>The Bay Area</u>	<u>Total Price</u>	<u>Labor Only</u>
Botanical Garden Potting Shed	\$44,724	\$19,193
White House Renovation	33,399	11,945

Cleveland, since customers frequently supplied materials for which amounts and prices were not consistently available. In the Bay Area, the professional estimators did not differentiate labor and material cost. To obtain a labor-only cost, the invoiced materials and supplies of the actual projects were subtracted from the total estimated price. If the projects did use more material, it would reflect adversely on the trainees' productivity. The supervisor/instructors at the Bay Area sites say, however, that they believe that material waste was insignificant.

A more substantial issue is the use of equipment to replace labor. The estimator used standard industry practice and the method of operation of the most likely alternate supplier of the output. In most cases, they assumed projects were done using comparable equipment, since VICI crews operated in a production-oriented manner. In reality, crews on the White House project mixed concrete by hand as a training exercise. While small savings on material may have been achieved by buying gravel and cement instead of ready-made concrete, these savings were likely more than offset by the extra labor that was required to mix the concrete.

Furthermore, instructors in the VICI model work alongside the trainees. In a significant sense, the output produced and valued by the estimators is the joint product of the instructor and the trainee. Unfortunately, instructor hours were not recorded in the program records. In the Bay Area, supervisor hours can be estimated with a fair degree of confidence, but in Cleveland, such estimates are purely speculative. For this reason, cost and hours of supervision/instruction have not been included in the discussion of productivity. While not considering these hours will increase the hourly productivity rates, the ratio between projects should not be significantly affected.

Trainee hours were recorded to specific projects at both the Cleveland and the Bay Area sites. In Cleveland, time sheets required trainees to report time spent on specific projects; these hours were verified by their instructor/supervisors. Trainee hours were taken directly from the time sheets for the Phase I projects and from a summary sheet prepared by Friendly Inn's bookkeeper for Phase II. Bay Area trainee hours were recapped from the original time sheets by a CCC clerical worker. Some hours charged to the project in the Bay Area were spent traveling to worksites, filling out time sheets and doing other duties unrelated to work production. Estimates of these hours were based on information from the supervisors/instructors and CCC administrators; no similar estimate was needed in Cleveland.

Since our interest is in the productivity of the VICI workers on the job, estimated administrative hours were deducted to permit cross-project comparisons. Trainee hours and cost-per-project for the 11 chosen projects are shown in Table III.3.

Table III.3

LABOR INPUTS AND COSTS FOR SELECTED PROJECTS

<u>Cleveland</u>	<u>T R A I N E E</u>		
	Compen- sation Rate*	Hours	Cost
Noah Unit #42	\$3.85	152.0	\$ 585
Noah Unit #62	3.85	78.0	300
Noah Unit #63	3.85	82.5	318
Noah Units #1 & #8	3.85	127.0	489
61st Street House	3.85	349.0	1,344
East 147th Street House	3.85	233.5	899
Adams Street House	3.85	126.0	485
East 120th Street	3.85	325.0	1,251
Helena Avenue House	3.85	132.0	508
<u>The Bay Area</u>			
Potting Shed	4.29	2,252	9,667
White House	4.29	13,982	59,983

* This rate includes fringe benefits

PRODUCTIVITY

The simplest method of assessing trainee productivity is to divide trainee hours expended into the alternate price estimate to arrive at a value of the trainees' output per hour. Results of this calculation are shown in Table III.4.

While the calculation is simple, the results provide interesting information. For example, the first NOAH apartment that the Cleveland project painted was #42. The value-per-trainee hour in the subsequent NOAH apartments more than doubled--ranging to \$9.94 per hour. This sharp increase in productivity is almost certainly the result of a quick learning curve. Painting, especially interior painting with a roller, is quickly learned and the later apartments show a level, but higher value-per-trainee hour. The other Cleveland project with a value of less than \$5.00 per hour is the Adams Street roofing project. The project consisted of two parts: a fairly standard job of installing roll roofing on a garage and the unfamiliar task of patching a leak in the valley of a two-story house. The low value is almost certainly the result of the extra time necessary for the trainees to work on the steep roof at an unfamiliar job. Exterior painting projects all fall into a medium-value category, ranging from \$5.85 to \$7.47. Exterior painting represents work that is more difficult to perform than interior painting; this is illustrated by a value of about \$2.00 per hour less than was achieved in interior roller painting.

The Helena Avenue Porch shows the highest value-per-trainee hour. This was one of the last projects finished in Cleveland and its value may have been inflated by instructor labor contribution, since pressure mounted to finish projects before the end of the program. Even discounting that contribution, however, the project would likely have had a high value--for a very interesting reason. The porch replacement technique had been developed by one of the painting instructors who noticed many of the Cleveland area homes had porches with rotted floors and steps and sagging ceilings. He developed a standardized approach to re-tracing the porch roof, replacing the wooden floor and subcontracting for the installation of concrete steps. This standardized approach made it easier to teach the trainees certain productive efficiencies, which is likely to have accounted for the high value of work per hour.

Applying the technique of dividing input hours into the alternate supply price to the selected Bay Area projects shows the two to be in sharp contrast. The Potting Shed shows a value of \$8.16 per trainee hour, while the White House shows a value of \$0.85. Some of this difference can be attributed to administrative problems; for example, work was often held up at the White House to await materials. However, more of the difference would seem

Table III.4

HOURLY VALUE OF VICI TRAINEE OUTPUT
FOR SELECTED PROJECTS

Project	Work	Value Per Trainee Hour
Cleveland^a		
Noah #42	Apartment Painting & Repair	\$4.93
Noah #66	Apartment Painting & Repair	9.94
Noah #83	Apartment Painting & Repair	9.39
Noah #6 & #8	Apartment Painting & Repair	9.06
61st Street	Exterior Painting	7.47
East 147th St.	Exterior Painting	6.42
Adams Street	Roofing	4.56
East 120th St.	Exterior Painting	5.85
Helena Avenue	Porch	11.36
The Bay Area		
Potting Shed	Removal and Replacement	8.16
White House	Complete Rehabilitation	0.85

^a Computed from alternate prices from Estimator #1

to be attributable to the difference in the way each project was approached, with the Potting Shed better conforming to the recommended VICI approach.

First, the crew concept was followed closely at the Potting Shed. The instructor, a carpenter who worked for the East Bay Regional Parks District, insisted that he get the same trainees each day. The White House, on the other hand, combined two crews and the instructors tended to treat trainees as a single group. Turnover was high and trainees would be assigned to different projects on a daily basis. At the Potting Shed, each new procedure was learned on the job. The instructor expected the trainees to work as a unit. At the White House, work would often be stopped when a new procedure was begun and the trainees would watch while it was explained on a black board. Trainees would learn techniques they never had a chance to practice.

Some training sessions at the White House also represented poor investments. For example, when pouring the new foundation, the concrete was mixed by hand as a learning experience. There were no apparent construction advantages, either in quality or authenticity (the original piers were brick), so the additional trainee labor reflects a training cost without a payback. While hand-mixing of concrete illustrates a low tech labor-intensive method substituted for experiential purposes, a second example, in which a portable lathe was used to reproduce spindles for the porch, demonstrates the teaching of a woodworking skill that is little called for in the construction industry and is particularly unlikely to be required of apprentice-level employees.

Trainee Productivity and Regular Workers

Another way to look at the productivity of the trainees is to compare the time they spend to produce the project output with the estimated time that would have been required by a likely alternate supplier.

The advantage of comparing hours rather than price is that differences in wages are disregarded. This eliminates the confounding effect of price differences due not to productivity but to market segmentation. A market barrier exists that prevents a lower cost supplier from competing in a market served by higher cost suppliers. These barriers may be legislative, as in the Davis-Bacon legislation, or may stem from capital and equipment requirements that some firms cannot meet. The disadvantage is that comparing hours also eliminates differences in wages that do reflect differences in productivity.

Compensation rates, based on both wages and fringe benefits, that the most likely alternate supplier craftsman would have used for projects in this analysis are:

All Cleveland -- \$11.36
The White House -- \$10.58
The Potting Shed -- \$19.39

Table III.5 shows that the most striking bit of information is that the Potting Shed's relatively high hourly value (\$8.16) reflects a productivity rate of 44 percent. This comparison with a union carpenter reflects a reasonable degree of productivity (as shown in Table III.4) for newcomers to a complicated craft, albeit newcomers under a skilled instructor.

Comparing this number with the 80 plus productivity of the interior painting (after the first unit showed 43 percent productivity) gives an appreciation of the extent to which the learning curve is more rapid in the simpler, more repetitive tasks involved in painting similar units.

Productivity and Program Wages

A final method we used to evaluate the work was to compare the percentages of productivity with the value-per-trainee hour and the trainee compensation rate. At relatively low rates of productivity, the value produced per trainee hour was adequate to pay trainee wages.

The Cleveland program was designed so that program income, i.e., the fees charged for the work performed, would pay trainees' wages. The workability of this approach depends on accurate estimates and prompt payment; at bottom line, the trainees' production must have a value equalling or exceeding their compensation, i.e., wages plus fringe benefits.

By this measure, the Cleveland program was extremely viable, with every project showing a surplus. As indicated in Table III.6, even the Adams Street roofing project, the least productive project at 40 percent, yielded a value that exceeded the compensation rate. In the Bay Area, where trainee wages were subsidized by the state of California through the CCC, one project showed results similar to those in Cleveland, while the other clearly needed the wage subsidization. One can speculate as to how strongly the need to cover wages from program revenue would have increased productivity at the White House.

Quality Considerations

VICI programs have always insisted on professional quality work and this program was no exception. The weathering that took place during the interval between the project work and the evaluation often made it difficult to determine the quality of the projects; however, the interval did provide an opportunity for valuers to see how durable the work was.

Table III.5

COMPARISON OF HOURLY PRODUCTIVITY BETWEEN
TRAINEES AND LIKELY ALTERNATE SUPPLIER

	Trainee Hours	Est. Alternate Supplier Hours	Productivity by Percentage
Cleveland			
NOAH #42	152.0	66	43%
NOAH #66	78.0	68	87%
NOAH #83	82.5	68	82%
NOAH #6 & #8	127.0	101	80%
61st Street	349.0	229	66%
E. 147th Street	233.5	132	57%
Adams Street	126.0	51	40%
E. 120th Street	325.0	167	51%
Helena Avenue	132.0	132	100%
The Bay Area			
Potting Shed	2,252.0	990	44%
White House	13,982.0	1,128	8%

Table III.6

COMPARISON OF THE TRAINEE WAGE EXPENDITURE
WITH THE ESTIMATED LABOR COST OF THE ALTERNATE SUPPLIER

Project	Trainee Compensa- tion Rate	Trainee Wage Expendi- ture	Estimated Price for Labor	Value Per Trainee Hour
Cleveland				
Noah #42	\$3.85	\$ 585	\$ 750	\$ 4.93
Noah #66	3.85	300	775	9.49
Noah #83	3.85	318	775	9.39
Noah #5 & #8	3.85	489	1,150	9.06
61st Street	3.85	1,344	2,606	7.47
East 147th Street	3.85	899	1,500	6.42
Adams Street	3.85	485	575	4.56
East 120th Street	3.85	1,251	1,900	5.85
Helena Avenue	3.85	508	1,500	11.36
The Bay Area				
Potting Shed	4.29	9,667	19,193	8.16
White House	4.29	57,468	11,945	0.85

Without exception, the work in the Bay Area was praised by both the recipients and the estimators. The White House was periodically reviewed by Oakland building inspectors who found everything in order. The Potting Shed, a building designed for utilitarian purposes, had an exceptionally pleasing design and has fit into its wild surroundings with charm and grace. The estimator said he was highly impressed by the quality of the work, which is unusual for a building of this type.

In Cleveland, an overall quality assessment was more difficult to come by. Most of the work was performed on old houses that needed extensive repair. Very often, the customer was not willing to authorize all the work that was necessary, requiring the crews to use stopgap measures, such as painting over cracked caulking or repairing roofs that should have been replaced.

NOAH hired VICI to redecorate apartments because it had an unusually high turnover in residents and the maintenance staff who would usually do the work were unable to keep up. After inspection of the first completed job, the manager was extremely pleased. She said that the walls were satin smooth and insisted that the maintenance staff observe the crew to see if they could learn to do as well. Since the units had been lived in for two years by the time of the estimate, estimators were not asked to assess quality. The painting job at East First Street was badly flaking in sun-exposed areas. The most experienced estimator felt that the problem was due to the long period between paint jobs. Grime, soot and oil from air pollution had coated the bare wood and prevented the primer from making a bond. Areas where the previous coat was not gone showed the paint to be of good quality and properly applied. The East 147th Street house was done according to specifications and the paint job, even though it was also two years old, looked bright and had adhered well. The paint had been applied over asbestos siding. The work at Adams Street represented the VICI crews' only experience with roofing. The owner was very pleased with the work and said that she would have been unable to get anyone else for a similar price. The East 120th house was painted in 1986; a year later, the owner was still pleased with its appearance and felt the crew did a good job. Estimators noted that the paint was applied well. Although they felt the putty and caulking on windows and cracks was not as extensive as was needed, the work was generally in good condition. The porch that was built at Helena Avenue was praised by both estimators. The design was simple, functional and attractive. The painting was neatly trimmed and the structure fit well into the design of the older house.

CONCLUSIONS

The quality of the work performed by the VICI crews in the examined projects was uniformly high. Pride in good workmanship was consistently communicated to the trainees.

Trainees were clearly more productive in repetitive tasks that enabled them to practice; Cleveland crews, for example, were found to be exceeding productivity levels of 80 percent in interior painting. Conversely, the Potting Shed project demonstrated that it can be cost-effective to teach more complicated skills. Although the overall level of productivity of the trainees was found to be less than 50 percent of that of professional carpenters, the value they produced was almost twice their program wage.

Therefore, while it is advisable for VICI crews to undertake work projects where certain skills are called for repetitively, thus allowing competence and the attendant feelings of efficacy to emerge, it is not necessary to avoid projects that require advanced skills. The higher wage rates of the competitive supplier and progress of the trainee in a production-oriented program should supply a value-per-hour that amply exceeds customary compensation to program trainees.

Unusual projects, such as the roof patch in Cleveland, are probably best avoided. Productivity on such projects is usually low and the result is often a low work value with little gain in usable skills. A similar situation may occur within a larger project. Project managers may have to resist the considerable temptation to teach a unique skill and instead consider the use of subcontractors, who can often provide services more easily and efficiently. An instance where outside assistance was used to good effect was the purchase of concrete steps for the porches in Cleveland. When training is viewed as the primary objective rather than a means to efficient work production, as in the White House project, the effects on productivity are significant and adverse.

Overall, all the projects that were examined produced work of tangible value. Even the project that represented the lowest value-per-trainee hour had a payback of 85 cents an hour, an amount that many manpower programs in the 1970's would have found acceptable. The other projects showed substantial payback and all were more than able to generate sufficient value to cover trainee in-program wages.

IV. CONCLUSIONS AND IMPLICATIONS

The third VICI demonstration was designed to assess how effectively the model can be operated in an environment of reduced national funding for innovative programs. In this chapter, conclusions drawn from the demonstration are discussed, as well as their implications for future action.

CONCLUSIONS

In the course of our analysis of the third VICI demonstration, a series of specific issues relating to the model's replication, implementation and institutionalization have been addressed. Findings on these issues have led to conclusions that go to the heart of determining VICI's feasibility in a changing political and social environment.

Replication

Since this demonstration produced the same strong results that were found in earlier demonstrations, it is clear that replication of the VICI model is feasible in a time of reduced national funding. VICI trainees produced work of tangible value and, in the two sites where we conducted a work value analysis, the dollar value of work produced exceeded wages paid to the trainees. Overall, job placement rates slightly exceeded those achieved in the two previous demonstrations; two sites and one cycle in a third site also exceeded job placement rates produced by the JTPA system. Also, postprogram wages of VICI graduates were 40 percent higher than those of JTPA graduates.

Implementation

In the course of planning and operating their programs, individual sites departed from the prescribed VICI model in a number of ways. Several of these changes worked well.

For example, elimination of minimum education requirements for participation in VICI was done in some sites without adverse effects on job placement, length-of-stay in the program or the quality of work produced. If this approach is undertaken in future VICI efforts, however, we recommend that operators ensure that basic remediation is available through the VICI program, as was done by site operators who eliminated education requirements in this demonstration. This remediation helped compensate for trainees' lack of basic skills at program entry. Achieving the fine balance between skills training and production that is vital to program success becomes even more difficult when basic education is added to the mix; however, if a local goal is to use

VICI to assist young people with low levels of educational attainment, remediation must be included.

Local variations in crew size were also instructive. Ten years of experience with the VICI model has shown that deploying six- to seven-member crews is both cost-effective and well-suited for training and production. The Standard Oil/BP America demonstration disclosed that crews of fewer than three, while allowing more flexibility in selecting work projects, have a negative effect both on training and work volume. Crews of three or four, on the other hand, are optimal for skill acquisition and production, but the cost is prohibitive. Few programs can justify the expense of highly skilled instruction for such small crews.

Classroom training was found to be helpful in augmenting on-site skill instruction; particularly effective are orientation sessions at the beginning of each program cycle and in periods of downtime. Indeed, the potential benefits of carefully structured classroom training are sufficiently strong that it will be incorporated into the VICI model in the future.

Some variations on the model that were attempted proved unsuccessful. Most prominent among these was the use of a private construction contractor to deliver the program, an experiment encouraged by P/PV. This design left program managers with insufficient control over the training process; thus production was achieved at the expense of training. Site personnel worked diligently to overcome this problem, but for a portion of the program, the contractor's demand for production clearly outweighed the program operator's focus on trainee skill acquisition. The program balance had tilted too far toward production.

All sites attempted to integrate men and women in their crew structure; three of the four met or exceeded the goal of 25 percent female participation. While most now accept (at least in the abstract) that women and men can work together in just about any trade or occupation, the idea still meets with resistance in many quarters. The VICI sites proved no exception; overall, however, mixed crews worked effectively. The number and type of problems experienced were relatively small and easy to solve.

The key to local adaptation of the VICI model is ensuring that the dual goals of production and youth development are both addressed. Of the many pieces of the puzzle that planners and operators must juggle when designing and implementing programs, the following three factors emerge as particularly important to effective VICI implementation:

- o Ready access to work projects--When sufficient work is difficult to obtain, site operators face severe problems. Staff must divert their attention from on-site training to focus not only on

locating appropriate worksites but on developing alternative activities for trainees. This often takes the form of classroom training, which is recommended in limited amounts but can dilute the program's intended emphasis on training through work production. Inevitably, questions arise on whether to pay trainees for classroom time and, if so, at what rate. One site in this demonstration chose not to pay trainees for classroom experience, which occasionally resulted in trainees earning only about one-third of a full-time salary. If the program operator does not have a supply of work under its own control, agreements and timetables for work projects must be set well in advance of need.

- o A coordinator or director--Without a specifically designated manager to oversee and coordinate operations, VICI programs can become very complex and management needs can unnecessarily drain a sponsoring organization's staff resources. Support for the coordinating position can be difficult to obtain, since few funding organizations want to pay administrative costs. P/PV's solution to this problem has been to raise funds from local foundations for program administration. Over the course of 18 months or so, VICI programs will mature, allowing sufficient time to find alternative funding for the post.
- o Controlled attrition--Defining an acceptable attrition rate is particularly difficult for a VICI program, due to the dual goals of production and youth development. While high attrition has a deleterious effect on job placement and work production, an effective production philosophy dictates that unproductive and undisciplined trainees be fired. On the other hand, changing trainee behavior through counseling and discipline is a youth development goal that has been proven achievable. High attrition can also have a direct effect on program funding.

One solution to the dilemma may be judicious use of a one- to two-week orientation of unpaid classroom time prior to the start of the first work project. During this period, potential trainees can be screened on the basis of such behaviors as punctuality, attendance, motivation and dependability. This orientation can also serve as a "rite of passage," explaining the program and its standards of acceptable behavior

to the youth. Ultimately, those selected as trainees will have demonstrated their capacity to adhere to worksite standards; also, if problems do arise later in the program, prescreened youth may prove more adaptable to counseling.

This demonstration showed that by maintaining VICI's basic elements and holding firm to the most important principles inherent in the model, there is sufficient flexibility to allow adaptations of the model to local needs and constraints in ways that do not compromise VICI's established level of effectiveness.

Institutionalization

The Standard Oil/BP America VICI institutionalization record is satisfactory, especially when one considers that VICI is an expensive intervention. Two sites in this demonstration institutionalized the VICI program and a third is considering program reactivation.

In the current climate of reduced federal resources, it is more difficult for local communities to undertake new initiatives; however, it is easier for initiatives to continue once their success has been demonstrated.

Over the past ten years, reduced federal resources have shifted the point at which local communities decide to undertake or continue new approaches to solving their problems. When federal monies and foundation funds are available to support the operation of new program strategies, local communities typically invest relatively few resources. Without substantial federal or other types of support for local innovations, however, communities are forced to commit resources during the demonstration period. As a result, communities are wary of trying new approaches, even successful ones like VICI. To overcome this reluctance to commit scarce resources, a community's confidence in program outcomes must be strong.

Once the decision to try a new intervention has been made and a program has proven its value, there may be an even greater likelihood of institutionalization. Because the vast majority of resources have already been marshaled to produce the program's success, continuation is easier than it was when federal dollars supported the lion's share of program costs.

IMPLICATIONS

Over the past few years, public opinion has shifted somewhat from the notion that welfare-dependent or other severely disadvantaged people are unwilling or unable to work. New welfare reform initiatives focus on the idea that disadvantaged people can be

trained, will work hard, and can contribute to the public good. VICI consistently demonstrates the truth behind this notion.

VICI further demonstrates that the public sector is capable of organizing and implementing programs that succeed. However, implementing programs with more than a single agenda requires rethinking of the standard approaches to solving social ills.

Community problems are complex and often interrelated; for example, a neighborhood's deteriorated housing and its low level of employment are clearly related. When social problems are linked, their solutions should be similarly linked. VICI, based on the concept of double social utility, i.e., achieving two social goals with a single coordinated strategy, is such a solution. As public resources become more scarce, strategies designed to deal with more than one concern at a time increasingly make sense. To effectively design and implement such programs, we must view a community's problems as a whole, not as isolated issues.

Addressing community problems more holistically means that each community system--welfare, employment and training, housing, health, and so on--must broaden its perspective on how and why it connects to other systems. Flexibility in using resources within legislative mandates rather than husbanding individual funding sources for narrowly targeted use is essential.

Integrated approaches would greatly facilitate use of double social utility programs like VICI. For example, the JTPA system frequently cites aspects of the VICI model that do not conform to established practices, such as its long training time and high costs. JTPA has the flexibility to designate portions of its program to address such "high-risk" activities; in fact, it is within the JTPA legislative mandate to meet the needs of the disadvantaged unemployed population and coordinate employment and training programs with other systems. But increased private sector involvement has put the JTPA system under tremendous pressure to "produce," resulting in programs that concentrate on "bottom-line" results: high placement rates at very low cost. These are good outcomes, but the price paid for these results is all too often a myopic view of employment and training--one disconnected from broad community interests. Therefore, local programs are often less open to new concepts and experimentation; ironically, this is a problem that private sector involvement was supposed to cure.

Some JTPA systems are, appropriately, willing to try new ideas as long as realistic employment goals are established and met. In the process of joining with other systems (in the case of VICI, housing) ways must be found to satisfy the agendas of the various public funding sources. The Standard Oil/BP America demonstration showed that by requiring adherence to a few core principles while allowing substantial local flexibility on other aspects of

program design, a model program can maintain its integrity and effectiveness and still respond to varying local needs.

Carrying out replication of proven models with this kind of success and flexibility on a larger scale is one of the major issues that must be confronted over the next decade if the lessons of past investments in social experiments are to be used effectively during a period of reduced funding. The recent VICI initiative provides practical lessons and generates optimism about the prospects for successfully replicating VICI on a large scale.