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AUTHOR	Gollattscheck, James; And Others
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ABSTRACT

A survey was conducted of selected two-year colleges to gain an in-depth knowledge about the business/industry training programs provided by these colleges and to quantify the efforts of two-year colleges to improve the quality of the work force and the efficiency of public and private enterprises. Study findings, based on responses from 54 of the 72 institutions surveyed, included the following: (1) more than half of the responding institutions served urban areas, while another 35% served suburban districts; (2) half of the colleges reported that more than 50% of their students were enrolled in occupational/technical curricula; (3) urban and suburban institutions reported that 61% to 70% of the credit student population attended part-time; (4) 80% of the colleges offered between 1 and 20 credits for work-related experience; (5) more than 50% of the urban colleges, 33% of the suburban colleges, and 10% of the rural colleges reported that the industries in their areas were international in scope; (6) 42% of the colleges offered educational training programs for military personnel, with college charges for individual contracts ranging from $2,000 to nearly $950,000; (7) the average number of firms involved with industry/college partnership training programs with individual colleges ranged annually from a low of 40 for rural institutions to a high of 530 for urban colleges; (8) during a 1-year period, over 28,000 employees took job-related courses in the responding colleges, with 21,562 of these employees trained at urban institutions; (9) 50% of the urban and suburban colleges and 66% of the rural colleges reported that employees taking job-related courses were fully subsidized by their employers; and (10) over 650 courses/programs were offered by the colleges to local industries, with the majority offered off-campus. Appendices include the survey instrument, a directory of respondents, a list of courses offered by participating colleges to business and industry, and the executive summary of the book, "In Search of Community College Partnerships," by Philip R. Day, Jr. (AYC)

KEEPING AMERICA WORKING PROJECT

INDUSTRY TRAINING INVENTORY

1986

JAMES GOLLATTSCHECK
Executive Vice President and Association Treasurer
JAMES F. McKENNEY
Associate Director, Keeping America Working
JAMES MAHONEY
Director of Data Collection and Policy Analysis

AMERICAN ASSOCIATION OF COMMUNITY
AND JUNIOR COLLEGES
and the
ASSOCIATION OF COMMUNITY COLLEGE TRUSTEES

Washington, D.C.

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FOREWORD

This report presents an analysis of a survey of selected community, technical, and junior colleges in the nation that are active in developing and marketing college/business partnerships. The purpose of the survey was to broaden the knowledge base of the last business/industry survey conducted during 1984. This extensive industry training study provides valuable information for pursuing private sector, congressional, and federal agency support for the expansion of such training programs at two-year institutions.

This project was undertaken in cooperation with the American Association of Community and Junior Colleges (AACJC) and the Association of Community College Trustees (ACCT) in conjunction with the Keeping America Working project. Association staff members James F. Gollattscheck, James Mahoney, Mary Ann Settlemire, Jeannie Hickman, and Valarie L. Brooks were helpful in the analysis and editing stage of the project. Special thanks go to the staff of Dundalk Community College's Office of Institutional Research and Grants for assisting in the project. Thanks, too, go to James L. Smith, Director of Data Processing at Essex Community College, who assisted in the initial analysis of this data.

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James F. McKenney
Associate Director
Keeping America Working

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KEEPING AMERICA WORKING PROJECT
INDUSTRY TRAINING INVENTORY
1986

EXECUTIVE SUMMARY

An inventory of selected community, technical, and junior colleges, in cooperation with the American Association of Community and Junior Colleges (AACJC) and the Association of Community College Trustees (ACCT), was conducted to gain an in-depth knowledge of business/industry training programs provided by these colleges. The results of this study supplement earlier work completed by the senior author and provide additional insights into the dimensions of community, technical, and junior college partnerships with local business and industry.

Survey results also help to quantify more specifically the extent and range of efforts conducted by local two-year colleges that are designed to improve the quality of the work force and the efficiency of public and private enterprises. The highlights of the findings are presented below.

General Notations

- The overall response rate was 75 percent, with 54 out of 72 selected colleges responding to the inventory.

- More than half of the responding institutions serve urban areas, and 35 percent serve suburban districts. Half of the responding institutions reported that more than 50 percent of their students were enrolled in occupational/technical curricula. Urban and suburban institutions

reported that 61 to 70 percent of the credit student population were part-time and the same percentage range applied to students who were employed. Only one-third of all students in these institutions were under the age of 21.

- Almost all institutions reported participation in work-related programs for which students were awarded academic credit. The participation rates varied from 28 percent in National Guide for Training Program to 90 percent participation in cooperative education.

- Eight out of 10 institutions reported offering between 1 and 20 credits for work-related experience.

Corporate Organizational Profile

- More than half of the urban institutions, one-third of the suburban institutions, and just over one-tenth of the rural institutions reported that the industries located in their areas were international in scope. The same proportional distribution was reported for national and regionally based corporations.

Military Contracts

- Forty-two percent of all institutions reported that they offered educational training programs for military personnel. Of these, 58 percent of urban, 30 percent of suburban, and 17 percent of rural institutions engaged in such training activities. College charges for individual educational training contracts for military personnel training programs varied from $2,000 to nearly $950,000.

Business/Industry/College Collaboration

- The average number of firms involved with industry/college partnership training programs with individual colleges ranged annually from a low of 40 for rural institutions to a high of 530 for urban institutions.

- Over 28,000 employees took job-related courses in one year in the responding colleges. An overwhelming majority (21,562) of these employees were trained by urban institutions.

- Half of the urban and suburban institutions and two-thirds of rural institutions reported that employees taking job-related courses were fully subsidized by their employers.

- Fifty-eight percent of all institutions reported that companies granted work-release time for their employees who took courses through the colleges.

Course/Instructional Profile

- Over 650 different courses/programs were offered by the colleges to employees of their area industries.

- Eighty-seven percent of the institutions reported offering the courses/programs either at the plant or on the college campus. The majority were offered off-campus.

Training Involving JTPA and Other Outside Funding

- Nearly 20,000 people participated in JTPA-supported and other outside funded training programs provided by the colleges.

- Ninety-six percent of the participants in these programs attended urban and suburban institutions.

- Nearly $15 million was received by the colleges to support the training program. About three-fourths of this amount came from JTPA. Urban and suburban institutions shared almost equally 96 percent of the JTPA funds.

TYPICAL COLLEGE PARTNERSHIP BY LOCATION

Below are sketches of typical urban, suburban, and rural colleges and their partnerships based upon the data collected through this survey.

A. College Data	Urban Colleges	Suburban Colleges	Rural Colleges
1. Credit headcount	10,000	10,000+	1,000-5,000
2. % credit headcount in occupational/technical	40	40	14
3. % ethnic minorities	30-40	10-20	10-20
4. % part-time students	30-40	30-40	50-60
5. % employed	30-40	30-40	50-60
6. % female	51-60	51-60	41-50
7. % students between 22-40 years old	43-70	33-60	33-60
8. Noncredit headcount/% in technical education	5,000+/20	1,000-5,000/40	1,000/20
9. Number of technical education degree programs	40-60	30	30-40
10. Technical education curriculum advisory committees	yes	yes	yes

B. College/Business Partnership Detail	Urban Colleges	Suburban Colleges	Rural Colleges
1. Most popular business-selected courses	-office occupations -electronics -management -accounting -data processing -industrial management	-office occupations -electronics -management -accounting -data processing -industrial management	-office occupations -electronics -management -accounting -data processing -law enforcement
2. Most popular special program partnerships	cooperative ed., nonapprenticeship	cooperative ed., apprenticeship, non-apprenticeship	cooperative ed., apprenticeship, nonapprentice-ship, military
3. Average number of partnerships annually	30	15	6-7
4. Average number of employee-students yearly	2,000	270	270
5. Company funding for programs/release time (rt)	full funding/rt	full funding/no rt	full funding/rt
6. Sources of training equipment and curriculum material	college for both	company equip/college material	company for both
7. Sources of training faculty	college faculty	noncompany, pt faculty	college faculty
8. Credit toward AA/certificate for training prog.	yes	yes	no
9. Average number of JTPA programs annually	/-8	4-5	3
10. Average number of students/JTPA program	530	105	75
11. Average size of JTPA grant/contract	$34,638	$77,360	$7,500

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INTRODUCTION

In a recently published report by the Carnegie Foundation, Higher Education and the American Resurgence, Frank Newman commented that in "every region of the country, states are struggling to bolster their economies. More than 30 state commissions have reported their findings. The same themes run through these reports. The time has come, they say, to:

- Accelerate economic growth and job information
- Attract advanced technology industry
- Improve elementary and secondary education in order to improve the skills of the work force
- Invest in the research universities in order to improve the research base and the numbers of technically trained graduates
- Create links between business and the colleges and business and the schools." (Newman, 1985)

What has become obvious is that the educational system has become a central focus of concern and a major element of a renewed strategy that attempts to improve our competitive position in the international marketplace. Each component within the national education system has its important function and role to play. Dale Parnell, president of the American Association of Community and Junior Colleges (AACJC), suggests that until recently one of the least recognized (and consequently undervalued) components in this system was the community, technical, and junior college network that exists nationwide.

"The community, technical, and junior colleges have a special role to play in the economic vitalization of the United States. Their mission places them squarely in the service of local communities -- their businesses, their public agencies, their schools, and their cultural and social groups and organizations. For years they have provided education, technical assistance, and community service programs designed to meet the needs of the communities. In the last few years, when the central issue in the nation was the economy, the colleges redoubled their efforts to work with local employers (both public and private) to train employees to handle new machines, new processes, and new jobs; the colleges increased their education and training services for government agencies and other public enterprises; they offered a variety of technical assistance to the districts they serve; [and] they coordinated their academic and training programs with those offered by area high schools. In so doing, they established themselves as significant participants in the economic development plans of local communities." (Day, 1985)

How significant this role has been and will potentially be had not been systematically researched on a national level until the study entitled In Search of Community College Partnerships was completed. The results of this study confirmed the fact that community colleges have been and are currently playing a major role in economic development at the local, state, regional, and national levels. Over 770 institutions responded to this study and

provided specific information on programmatic, structural, and organizational trends relating to businesses and high school partnerships. A copy of the executive summary of this study is included in the Appendix of this report. (See Appendix A.)

While providing us with valued information, the study had some limitations given its scope and timetable. It did not give us specific information on the details of operationalizing the linkages, ways to make them work effectively, and the impact (positive or negative) that they had on the local colleges and the communities served by these institutions.

In an effort to broaden the knowledge gained by the community college partnership study, an in-depth follow-up inventory of selected institutions was conducted by Dundalk Community College for AACJC/ACCT during 1985. It was expected that this study would provide more "details" about these current trends. When coupled with the comprehensive view of business/industry/college partnerships generated by the first study, it provides invaluable information for current practitioners and assists AACJC/ACCT in their pursuit of national, state, and local support for education/training and other funds.

Specific areas addressed in this follow-up survey were:

A. General and Demographic Information on Both Credit and Noncredit Students
B. Technical and Vocational Programs
C. Transfer Programs

D. Community Economic Profile

E. Corporate Organizational Profile

F. Military Contracts

G. Business/Industry/College Collaboration

H. Course/Instructional Profile

I. Training Involving JTPA Funding

It also was expected that a thorough evaluation of this study would assist AACJC/ACCT to determine future direction and requirements for technical assistance that could be provided by these Associations.

METHODOLOGY

Study Population

The study population consisted of 72 selected community, technical, and junior colleges across the United States. The selection of the colleges was based on geographic and racial distribution as well as the degree to which business/industry partnerships existed among the colleges. A concerted effort was made to choose a sample of colleges with strong reputations in business/industry collaborations. Most of the colleges had participated in the previous AACJC/ACCT sponsored national study (Day, 1984).

Additionally, several institutions were included in the study that had not participated in the earlier effort. In such cases, the inventory and cover letter were mailed directly to the college president. The president also received follow-up phone calls to reinforce the importance of the inventory.

After a follow-up mailing and telephone call, usable returns were received from 54 out of 72 colleges. This gave a return rate of 75 percent. A listing of respondents is given in Appendix B.

Survey Instrument and Procedure

The inventory was developed by AACJC and the staff of Dundalk Community College (see Appendix C). The inventory consisted of items concerning enrollment, demographic and programmatic areas, community economic profile, corporate profile, and employment data. These items were not included in a previous survey (Day, 1984). The inventory was mailed to the business/industry coordinators who had completed the 1984 survey with a cover letter from the president of AACJC explaining the study and asking their cooperation and assistance in completing the inventory form.

Data Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, and Brent, 1975, and Nie and Hull, 1981). Responses were cross-tabulated with respect to the primary location of the college: urban, suburban, and rural. Also, the overall frequency of responses was obtained. A few cases in each analysis had to be discarded due to missing data.

FINDINGS

GENERAL

Apart from the institutional identification and the name of the staff person completing the survey, the general informational category included such areas as enrollment, sex, race, age, and employment for both credit and noncredit students. In terms of the original inventory pool the breakdown was as follows:

Urban - 51%

Suburban - 35%

Rural - 14%

The breakdown of responding colleges was as follows:

Urban - 47%

Suburban - 40%

Rural - 13%

The urban colleges responded at a lower rate than their composition in the original pool, while suburban institutions responded at a 5% higher rate than their representation in the original selection.

TABLE 1
CREDIT HEADCOUNT ENROLLMENT BY LOCATION
(IN PERCENT)

HEADCOUNT	URBAN	SUBURBAN	RURAL	AVERAGE
501 - 1,000	-	4.8	-	1.9
1,001 - 5,000	24.0	28.6	85.7	32.7
5,001 - 10,000	12.0	23.8	-	15.4
Over 10,000	64.0	42.8	14.3	50.0
TOTAL	47.2	39.6	13.2	100.0
NO. OF RESPONDENTS	25	21	7	53

CREDIT ENROLLMENT

Headcount

One-half of all responding institutions reported a headcount enrollment of over 10,000 (Table 1). Nearly two-thirds of urban institutions, 43 percent of the suburban institutions, and 14 percent of rural institutions enrolled over 10,000 students. An overwhelming majority (86 percent) of rural institutions had headcount enrollments of between 1,000 and 5,000. The disparity in these figures again points to the basic difference in the three communities. Urban and suburban institutions in this sample were comparable in terms of size than rural colleges.

Full-Time Equivalent (FTE)

In terms of full-time equivalents (FTEs), over one-half (52 percent) of all urban institutions, about a third (35 percent) of suburban, and less than a fifth (17 percent) of rural institutions reported credit FTEs of more than 5,000 (Table 2). Less than half of the suburban institutions had less than

3,000 FTEs. As might be anticipated, only about one-fourth of the urban institutions registered less than 3,000 FTEs. Again, these figures reinforce the size differential among the three types of community colleges. Size and the composition of that size can be an important variable in terms of the symbiotic relationship that is possible between a college and its community. The FTE range for urban institutions was between 1,500 and 27,000; for suburban institutions, it was between 600 and 13,000; and for rural institutions the range was between 1,000 and 6,100 FTEs.

TABLE 2
CREDIT FTE ENROLLMENT BY LOCATION
(IN PERCENT)

FTE	URBAN	SUBURBAN	RURAL	AVERAGE
1 - 1,999	9.5	30.0	33.3	21.3
2,000 - 2,999	14.3	15.0	33.3	17.0
3,000 - 4,999	24.0	20.0	16.7	21.3
5,000 - 9,999	28.4	20.0	16.7	23.3
10,000 - 14,999	14.3	15.0	-	13.0
15,000 - 19,999	-	-	-	-
Over 20,000	9.5	-	-	4.1
TOTAL	44.5	42.5	13.0	100.0
NO. OF RESPONDENTS	21	20	6	47
FTE RANGE	1,526-27,142	614-12,758	1,038-6,086	-

TABLE 2A

CREDIT HEADCOUNT ENROLLMENT

URBAN INSTITUTIONS

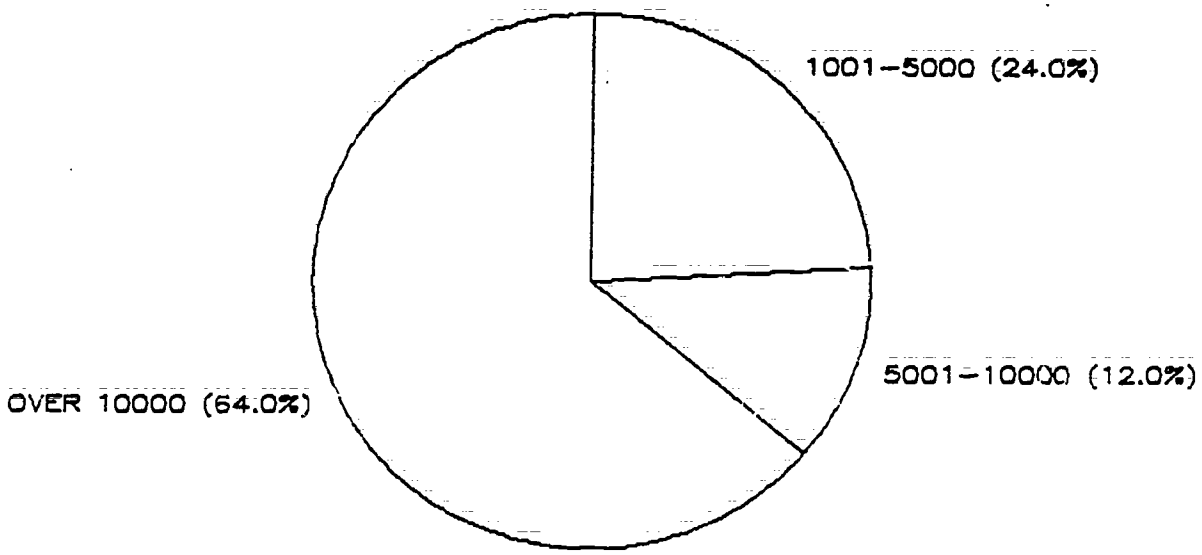


TABLE 2B

CREDIT HEADCOUNT ENROLLMENT

SUBURBAN INSTITUTIONS

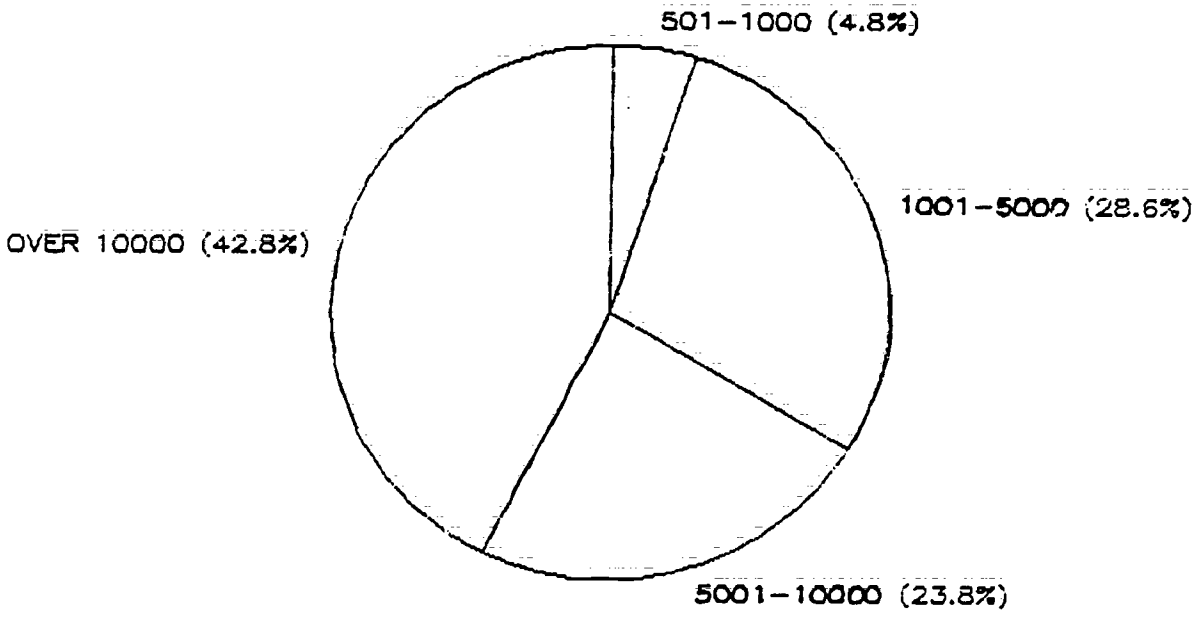


TABLE 2C

CREDIT HEADCOUNT ENROLLMENT

RURAL INSTITUTIONS

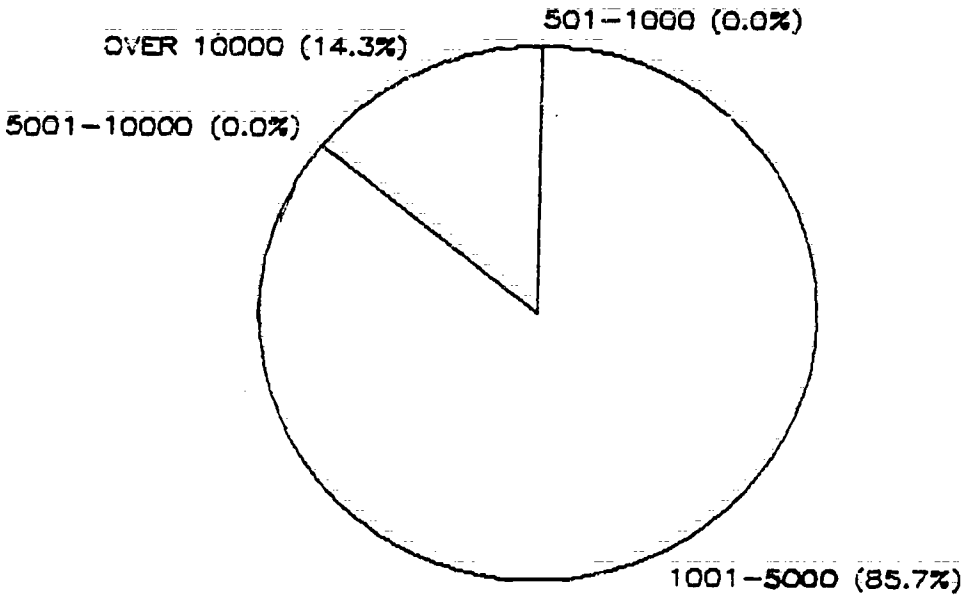
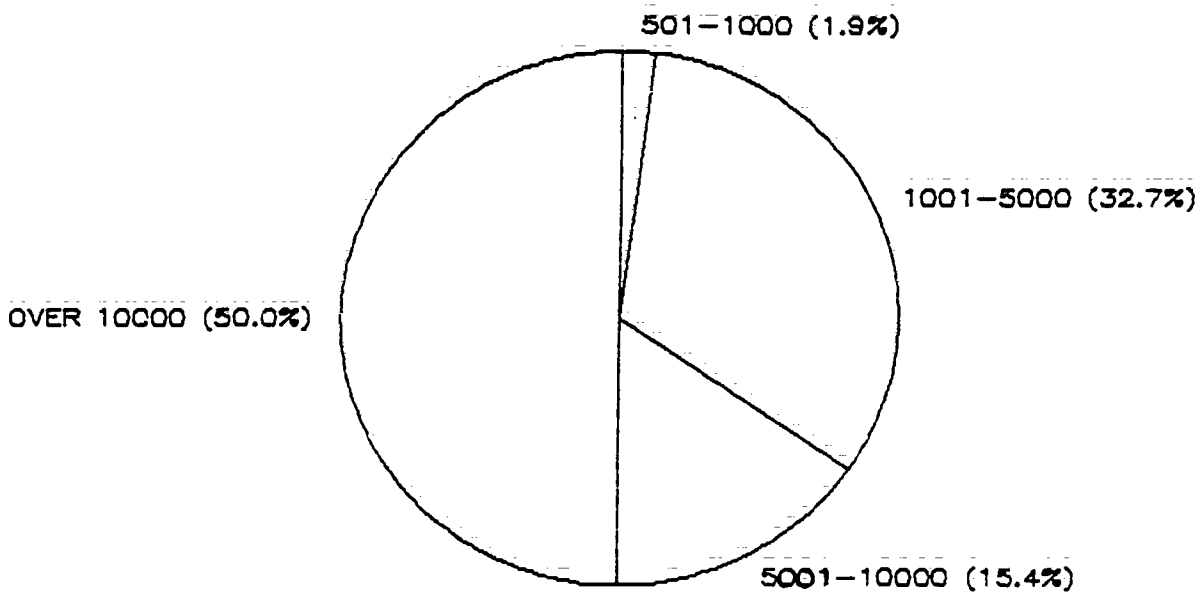


TABLE 2D

CREDIT HEADCOUNT ENROLLMENT

ALL INSTITUTIONS



Enrollment in Occupational/Technical Courses

Over one-half of all responding institutions reported that more than 51 percent of their student bodies had enrolled in occupational/technical courses (Table 3). According to the survey, more students in suburban and rural institutions were taking occupational courses than those enrolled in urban institutions. It appeared that the students in the urban institutions were more liberal arts and transfer oriented than those in other institutions.

TABLE 3
PERCENT OF CREDIT STUDENTS TAKING OCCUPATIONAL COURSES BY LOCATION
(IN PERCENT)

PEPCENT	URBAN	SUBURBAN	RURAL	TOTAL
1 - 20	-	5.0	14.3	3.9
21 - 30	16.7	5.0	-	9.8
31 - 40	12.5	5.0	14.3	9.8
41 - 50	29.2	20.0	14.2	23.5
51 - 60	16.6	25.0	28.6	21.6
Over 60	25.0	40.0	28.6	31.4
TOTAL	47.1	39.2	13.7	100.0
NO. OF RESPONDENTS	24	20	7	51

Enrollment by Race

The racial distribution among rural and suburban institutions was somewhat similar. In these institutions, Caucasian students comprised between 81 and 90 percent of total credit headcount, Black and other racial groups ranged from 1 to 10 percent each (Table 4). In urban institutions, between 61 and 70 percent were Caucasian, between 11 and 20 percent were Black, and the remaining were distributed among other racial groups.

TABLE 4

CREDIT ENROLLMENT BY RACE BY LOCATION

(IN PERCENT)

PERCENT	URBAN	SUBURBAN	RURAL	TOTAL
Caucasian	61 - 70	81 - 90	81 - 90	71 - 80
Black	11 - 20	1 - 10	1 - 10	1 - 10
Hispanic	1 - 10	1 - 10	1 - 10	1 - 10
Native American	1 - 10	1 - 10	1 - 10	1 - 10
Asian American	1 - 10	1 - 10	1 - 10	1 - 10
TOTAL	47.1	39.2	13.7	100.0
NO. OF RESPONDENTS	24	20	7	44

Enrollment by Full-Time and Part-Time

About two-thirds of the enrollment at the responding institutions were part-time, according to the survey (Table 5). In rural institutions, part-time enrollment was between 41 and 50 percent compared to between 61 and 70 percent among urban and suburban institutions.

Employment

Nearly two-thirds of the student bodies in the institutions reporting (16 of 53) were employed (Table 6). Responding colleges reflected a student employment rate that was a mirror image of full-time/part-time status. The overall employment rate among the students in urban and suburban institutions was between 61 and 70 percent, while among the students in rural institutions it was between 41 and 50 percent. Of those who were employed, more than half (56 percent) were employed part-time. A higher percentage (61 - 70) of students in urban institutions were employed full-time than those in suburban (41 - 50 percent) and rural (31 - 40 percent) institutions.

TABLE 5
CREDIT ENROLLMENT BY STATUS BY LOCATION
(IN PERCENT)

STATUS	URBAN	SUBURBAN	RURAL	TOTAL
Part-time	61 - 70	61 - 70	41 - 50	66.9
Full-time	31 - 40	31 - 40	51 - 60	33.1
TOTAL	50.0	39.6	10.4	100.0
NO. OF RESPONDENTS	24	19	5	48

TABLE 6
CREDIT STUDENT EMPLOYMENT BY LOCATION
(IN PERCENT)

EMPLOYED	URBAN	SUBURBAN	RURAL	TOTAL
Total employed	61 - 70	61 - 70	41 - 50	66.3
Full-time	61 - 70	41 - 50	31 - 40	44.3
Part-time	41 - 50	41 - 50	51 - 60	55.7
TOTAL	50.0	37.5	12.5	100.0
NO. OF RESPONDENTS	8	6	2	16

Enrollment by Gender

The overall enrollment of women in the responding institutions was slightly higher than males. Nearly 51 percent of the student bodies was female and 49 percent male (Table 7). Among rural institutions, the

percentage of male students was higher (51-60 percent) than female students (41 to 50 percent). Alternatively, the percentage of females was higher at urban (51-60) and suburban sites (51-60).

TABLE 7
CREDIT ENROLLMENT BY GENDER BY LOCATION
(IN PERCENT)

SEX	URBAN	SUBURBAN	RURAL	TOTAL
Male	41 - 60	41 - 50	51 - 60	49.2
Female	51 - 60	51 - 60	41 - 50	50.8
TOTAL	49.0	37.3	13.7	100.0
NO. OF RESPONDENTS	25	19	7	51

Age Distribution

Only one-third of all credit students were under 21 years of age (Table 8). Nearly 40 percent of the students attending the community colleges were between the ages of 22 and 30 years. Students under 21 who were enrolled in rural institutions constituted between 41 and 50 percent of the total enrollment of those colleges.

The average age of urban students was 29 compared to 28 years for suburban and 27 for rural students. The larger percentage of students under 21 in rural institutions tended to lower the overall average age of the student. Many students in urban and suburban areas often attend colleges to update skills or change careers, which might explain the age differences. On the

other hand, one could anticipate a more traditional approach in a rural setting where college pre-work education/training would be generally considered the last stop in the educational ladder.

TABLE 8
AGE DISTRIBUTION OF CREDIT STUDENTS
(IN PERCENT)

AGE INTERVAL	URBAN	SUBURBAN	RURAL	TOTAL
Under 21	21 - 30	21 - 30	41 - 50	31.0
22 - 25	21 - 30	11 - 20	11 - 20	24.0
26 - 30	11 - 20	11 - 20	11 - 20	15.0
31 - 40	11 - 20	11 - 20	11 - 20	15.0
41 - 50	1 - 10	1 - 10	1 - 10	5.0
51 - 60	1 - 10	1 - 10	1 - 10	5.0
60 & Over	1 - 10	1 - 10	1 - 10	5.0
TOTAL	54.5	36.4	9.1	100.0
NO. OF RESPONDENTS	24	16	4	44
AVERAGE AGE	29	28	27	28

NONCREDIT ENROLLMENT

There were six items pertaining to the noncredit area. For the most part, the information for these items was not furnished by the institutions. Except for headcount enrollment and enrollment in occupational courses, the items were either left blank or noted "Not Available." It appears that institutions did not document their noncredit activities with the same zeal as their credit

enrollments, probably because the funding mechanism of public institutions places credit courses at a distinct advantage in terms of state funding. However, it is important to note that the enrollment future lies in the noncredit area, especially for training.

Noncredit Headcount

More than half of all institutions reported a noncredit enrollment of 5,000 or fewer (Table 9). Three-fourths of rural institutions reported an enrollment of 1,000 or less. In contrast, more than half (57 percent) of urban institutions had noncredit enrollment of more than 5,000. One-quarter of all urban institutions had noncredit enrollment over 15,000.

TABLE 9
NONCREDIT HEADCOUNT ENROLLMENT BY LOCATION
(IN PERCENT)

INTERVAL	URBAN	SUBURBAN	RURAL	TOTAL
1 - 1,000	4.3	17.6	75.0	15.9
1,001 - 5,000	39.2	52.9	-	40.9
5,001 - 10,000	26.1	17.6	25.0	22.7
10,001 - 15,000	4.3	-	-	2.3
15,001 & Over	26.1	11.9	-	18.2
TOTAL	52.3	38.6	9.1	100.0
NO. OF RESPONDENTS	23	17	4	44

Noncredit Enrollment in Occupational/Technical Courses

Just over one-third of all institutions reported that between 10 and 20 percent of their noncredit student body had enrolled in occupational/ technical courses (Table 10). All rural institutions reported noncredit enrollment in this range (10-20) percent. Nearly 50 percent of the urban and 25 percent of suburban institutions reported that noncredit registration in vocational courses exceeded 41 percent. About 13 percent of both the urban and suburban institutions reported that over 61 percent of their noncredit students had enrolled in technical/occupational courses. There was no figure for rural colleges in this area.

TECHNICAL AND VOCATIONAL PROGRAMS

The institutions were asked to respond to five questions under the technical and vocational programs. The questions pertained to: numbers of

TABLE 10
NONCREDIT ENROLLMENT IN OCCUPATIONAL COURSES BY LOCATION
(IN PERCENT)

PERCENT RANGE	URBAN	SUBURBAN	RURAL	TOTAL
10 - 20	33.3	25.0	100.0	36.0
21 - 30	6.7	12.5	-	8.0
31 - 40	13.3	37.5	-	20.0
41 - 50	26.7	-	-	16.0
51 - 60	6.7	12.5	-	8.0
61 & Over	13.3	12.5	-	12.0
TOTAL	61.5	30.8	7.7	100.0
NO. OF RESPONDENTS	15	8	2	25

programs offered, industrial advisory committee for degree programs, programs enrolling greatest numbers of employees from given firms, information on work-related experience, and the maximum number of credits allowed for such work-related experiential learning.

Occupational Programs Leading to AA Degree or Certificate

Fifty-one percent of all institutions reported offering up to 30 different degree programs. More than one-half of all responding urban institutions reported that they offered over 41 different degree programs, while only one-fifth of suburban and rural institutions offered this number (Table 11). In contrast, nearly 40 percent of suburban and rural institutions reported offering between 1 and 20 programs, and 13 percent of urban institutions offered programs between this range.

TABLE 11
OCCUPATIONAL PROGRAMS LEADING TO AA DEGREE BY LOCATION
(IN PERCENT)

NUMBER OF PROGRAMS	URBAN	SUBURBAN	RURAL	TOTAL
1 - 20	13.0	38.1	40.0	26.5
21 - 30	21.7	33.3	-	24.5
31 - 40	13.0	9.5	40.0	14.3
41 - 50	13.0	4.8	20.0	10.2
51 - 60	39.1	14.3	-	24.5
TOTAL	46.9	42.9	10.2	100.0
NO. OF RESPONDENTS	23	21	5	49

Fifty-four percent of the responding institutions reported offering between 1 and 20 certificate programs (Table 12). In contrast, only 27 percent of the institutions offered degree programs in this range. About 8 out of 10 of the suburban and rural institutions reported offering between 1 and 30 certificate programs, while 2 out of 3 of the suburban institutions offered programs in this range.

Again, the data support the notion that the urban institutions, in either degree or certificate programs, are responding to their employer diversity with a program diversity to match. However, the important item in this section is the institutional flexibility represented by all the respondents in terms of certificate programs. These institutions are providing the shortest turn-around time possible for student and employer alike when it comes to pre-service or on-the-job education. Institutions in the 1-20 program range are offering certificates at almost double the rate for the same range in

TABLE 12
OCCUPATIONAL PROGRAMS LEADING TO CERTIFICATE BY LOCATION
(IN PERCENT)

NUMBER OF PROGRAMS	URBAN	SUBURBAN	RURAL	TOTAL
1 - 20	41.7	68.4	20.0	54.2
21 - 30	12.5	10.5	60.0	12.5
31 - 40	12.5	5.3	-	8.3
41 - 50	12.5	10.5	20.0	12.5
51 - 60	20.8	5.3	-	12.5
TOTAL	50.0	39.6	10.4	100.0
NO. OF RESPONDENTS	24	19	5	48

degree programs. This may be one of the critical reasons why the number of students in the 22-40 age bracket is so high. Certificate programs represent a "no frills" approach to education that appears to be the desired option for the older student.

Industrial Advisory Committees

An overwhelming majority (94 percent) of the institutions reported that they had established industrial advisory committees for their degree programs (Table 13). Among these, urban and suburban institutions reported having a higher percentage (95 to 96) of program advisory committees than institutions located in rural areas (83 percent).

Programs Enrolling Greatest Number of Employees from Given Firms

The most popular courses reported by the colleges (based on highest enrollment levels) were electronics and data processing. In each case, six institutions listed the courses as ones requested by the businesses and

TABLE 13
DEGREE PROGRAMS HAVING ADVISORY COMMITTEES BY LOCATION
(IN PERCENT)

ADVISORY COMMITTEE	URBAN	SUBURBAN	RURAL	TOTAL
Yes	95.7	95.0	83.3	93.9
No	4.3	5.0	16.7	6.1
TOTAL	46.9	40.8	12.3	100.0
NO. OF RESPONDENTS	23	20	6	49

industries they serve. Again, these data show that the colleges and the students react to the job trends in their communities. The overall attractiveness of electronics and data processing is also a reflection of national trends in these growth areas. The programs varied from the traditional secretarial/word processor training to agri-business, micro-electronics, health sciences, and a variety of industrial training programs. An analysis (by type of institution) to show the most common courses offered to local business and industry revealed the following: (1) rural institutions offered secretarial science, electronics, data processing, law enforcement, etc.; (2) suburban institutions offered electronics, data processing, management, nursing, accounting, mechanical engineering technology, industrial maintenance, etc.; (3) urban institutions offered office occupations, electronics, management, accounting, fire technology, etc. It appears that the most common programs for all three types of institutions were electronics, office occupations (secretarial science), management, and accounting. Appendix D includes a complete list of unduplicated courses offered by the participating institutions.

Question #21 - What occupational degree programs enroll the greatest numbers of employees from given firms? List four or five.

Courses with Highest Employee Enrollments

URBAN		SUBURBAN	
Office Occupations	(4)*	Electronics	(6)
Electronics	(3)	Data Processing	(6)
Management	(3)	Management	(5)

URBAN (continued)

Accounting
Agri-Business
Public Service Institute
Industrial Maintenance
Industrial Electricity
Business Administration
Data Processing
Semiconductor Processing
Wastewater Management
Automotive
Banking
Environmental Health Technology
Diesel Mechanics
Aviation Maintenance
Nursing
Fire Technology
Respiratory Therapy
Drafting
Microcomputer Training

SUBURBAN (continued)

Nursing (4)
Accounting (3)
Mechanical Engineering Technology (3)
Instrumentation (2)
Industrial Maintenance (2)
Computer Science (2)
Logistics
Machine Processing
Automotive
Lift Truck Certification
Electrical Engineering Technology
Police Services
Criminal Justice
Secretarial Science
Machinist
Welding
Tourism

RURAL

Electronics (3)
Secretarial Science (2)
Law Enforcement (2)
Data Processing (2)
Accounting
Mechanical Technology
Business Administration
Nursing
Computer Science
Industrial Management

*Numbers within the parentheses indicate the frequency with which course titles were identified by responding colleges.

Awarding Credit for Work-Related Experience

The institutions were asked to identify their participation in a number of courses on work-related experiential learning. These were: cooperative education, work-study, National Guide for Training Programs, apprenticeship program training, nonapprenticeship industry training, and military training (Table 14). Almost all responding institutions had participated in one, two, or all of the programs. The participation rates among the institutions in these programs varied from as low as 28 percent in National Guide for Training Program to a high of nearly 90 percent in cooperative education. It is interesting to note that apprenticeship programs, nonapprenticeship industry training, and military training are awarded credit at above the 50 percent level by colleges in all areas.

The area of credit for work-related experience is an important indicator of how well institutions are responding to the realities of the older and more experienced student. Credit for work experience is an attempt by colleges to recognize and incorporate the knowledge base of students that is brought to the first registration.

Cooperative Education

- Institutions located in rural areas reported 100 percent participation in cooperative education. Suburban institutions had the lowest participation rate of 81 percent, while urban colleges had nearly 96 percent participation.

TABLE 14

AWARDING CREDIT FOR WORK-RELATED EXPERIENCE BY LOCATION

(IN PERCENT)

PROGRAMS	URBAN	SUBURBAN	RURAL	TOTAL
Coop Education	95.5	81.0	100.0	89.8
Work-Study	38.1	29.4	40.0	34.9
National Guide for Training Program	42.1	12.5	20.0	27.5
Apprenticeship Program Training	47.6	62.5	80.0	56.8
Nonapprenticeship Industry Training	52.4	64.7	80.0	56.8
Military Training	77.3	52.9	83.3	68.9
TOTAL	44.9	42.9	12.2	100.0
NO. OF RESPONDENTS	22	21	6	49

Work-Study

- Just over one-third of all institutions reported participation in work-study programs. Of these, rural institutions had a 40 percent participation rate, urban colleges had a 38.1 percent participation rate, while suburban institutions had a 29 percent participation rate.

National Guide for Training Program

- Urban institutions reported the highest participation rate (42 percent) in National Guide for Training Program. Only 13 percent of the suburban institutions reported participation in this program.

Apprenticeship Training Program

- Over half (54 percent) of all responding institutions reported participation in the apprenticeship training program. The highest participation rate (63 percent) was among suburban institutions and the lowest (48 percent) was among urban institutions.

Nonapprenticeship Industry Training

- Nearly 57 percent of the institutions reported participation in the nonapprenticeship industry training program. Institutions located in rural areas had a significantly higher participation rate (80 percent) than those located in urban and suburban areas.

Military Training

- More than two-thirds (69 percent) of all institutions reported participation in training military personnel. Of these, rural institutions had the higher participation rate (83 percent). Urban colleges reported a 77 percent rate and suburban colleges a 53 percent rate.

Maximum Credits for Work-Related Experience

The institutions participating in work-related training programs were asked to list the maximum number of credits they awarded to students. Eight out of 10 institutions reported offering between 1 and 20 credits for work-related experience (Table 15).

TABLE 15
AWARDED CREDITS FOR WORK-RELATED EXPERIENCE BY LOCATION
(IN PERCENT)

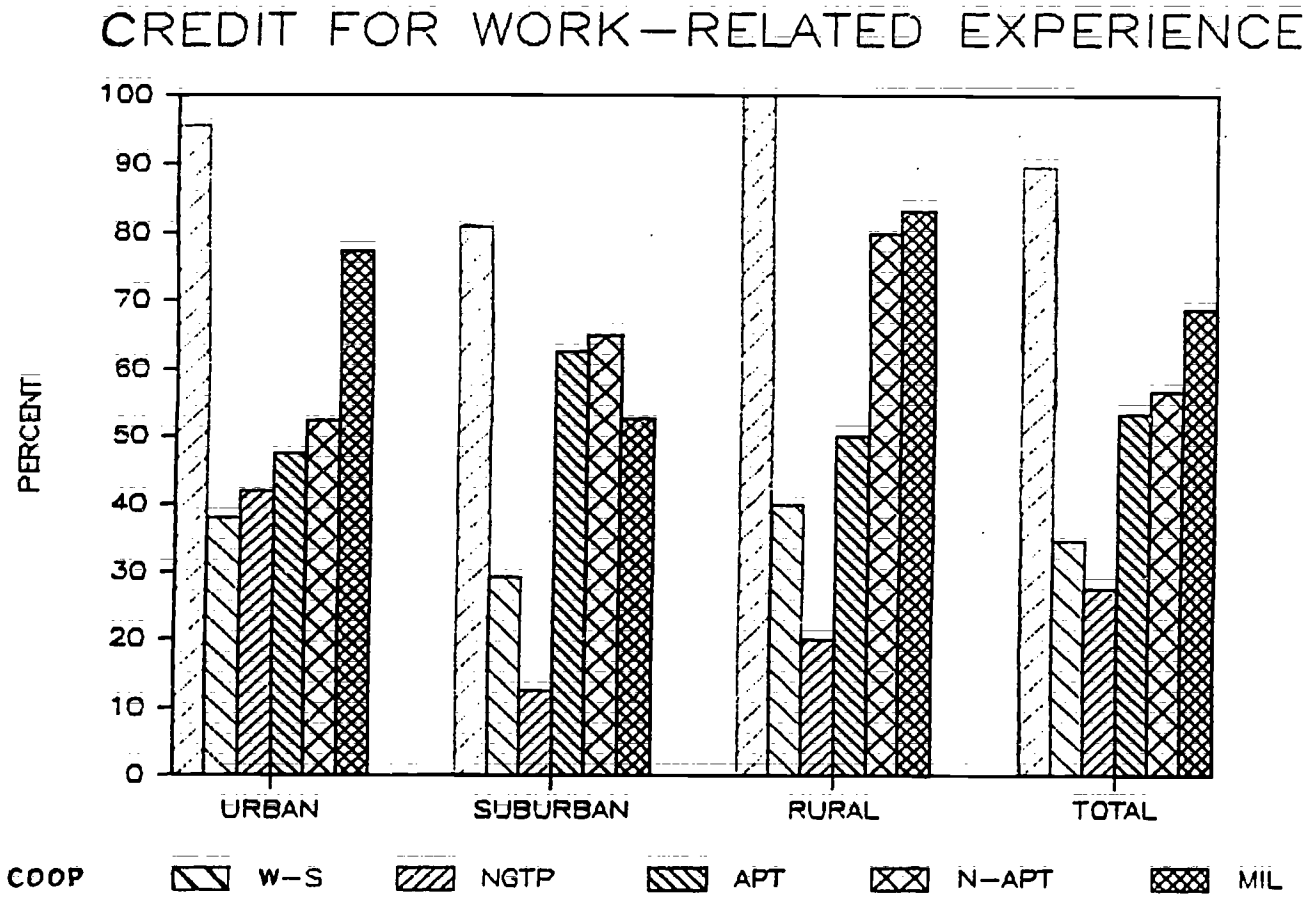
NUMBER OF CREDITS	URBAN	SUBURBAN	RURAL	TOTAL
1 - 10	35.7	50.0	40.0	42.9
11 - 20*	35.7	37.5	40.0	37.1
31 - 40	21.4	-	20.0	11.4
41 - 50	7.1	12.5	-	8.6
TOTAL	40.0	45.7	14.3	100.0
NO. OF RESPONDENTS	14	16	5	35

* No responses in the 21-30 category.

One-half of suburban institutions reported offering between 1 and 10 credits for work-related experience -- the highest level of three sectors. Suburban institutions also led the field in the 41 and 50 credit category for work experience at the 12.5 percent level (Table 15).

It is important to point out that most institutions did not have significant experience with the issue of awarding credit for work-related experiential learning. In most cases, institutions did have a mechanism in place to assess, measure, and award advanced standing credit for work-related or sponsored training. They did not have the capacity to measure the competencies and/or learning that occurred as a result of individual(s) working at particular tasks and transferring that experience into a learning/credit framework.

Table 15A


CREDIT FOR WORK—RELATED EXPERIENCE
PERCENT
100
90
80
70
60
50
40
30
20
10
0
URBAN
SUBURBAN
RURAL
TOTAL
COOP
W—S
NGTP
APT
N—APT
MIL

TRANSFER PROGRAMS

Three questions pertained to Transfer Programs. They were: transfer rate of students to four-year colleges, transfer rate of degree graduates in vocational programs, and the list of transferring institutions.

Transfer Rate to Four-Year Institutions

Nearly 8 out of 10 institutions responded to this item. Of these, over half (52 percent) of them were urban institutions. Nearly one-third of urban and suburban institutions reported between one and ten percent of their students transferring to four-year institutions, while 17 percent of the rural institutions had this figure (Table 16). One-third of the rural institutions reported a transfer rate of over 50 percent.

TABLE 16
TRANSFER RATE TO FOUR-YEAR COLLEGES BY LOCATION
(IN PERCENT)

PERCENT INTERVAL	URBAN	SUBURBAN	RURAL	TOTAL
1 - 10	31.8	35.7	16.7	31.0
11 - 20	18.2	35.7	50.0	28.6
21 - 30	13.6	14.3	-	11.9
31 - 40	9.1	14.3	-	9.5
41 - 50	13.6	-	-	7.1
Over 50	13.6	-	33.3	11.9
TOTAL	52.4	33.3	14.3	100.0
NO. OF RESPONDENTS	22	14	6	42

Voc-Ed Graduate Transfer

The information on voc-ed graduate transfer rate was scanty and unreliable. Only 22 institutions responded to this question. Of these, 13 were urban, 8 suburban, and 1 rural. The transfer rates listed varied from a low of 1 percent to a high of 50 percent. A majority (two-thirds) fell between 1 and 10 percent (Table 17).

Transferring Institutions

A majority of institutions listed the four-year colleges and universities into which their students had transferred. In general, they were in-state, public colleges and universities.

TABLE 17
VOC-ED GRADUATE TRANSFER BY LOCATION
(IN PERCENT)

PERCENT INTERVAL	URBAN	SUBURBAN	RURAL	TOTAL
1 - 10	53.9	87.5	100.0	68.2
11 - 20	23.1	-	-	13.6
21 - 30	-	-	-	-
31 - 40	7.7	-	-	4.6
41 - 50	15.3	12.5	-	13.6
TOTAL	59.1	36.4	4.5	100.0
NO. OF RESPONDENTS	13	8	1	22

COMMUNITY ECONOMIC PROFILE

In an effort to develop a community economic profile, the institutions were asked to describe the sizes, types, and numbers of industries in which they operate. This data was generally impressionistic on the part of respondents as opposed to hard information. It was the rare college that had a realistic assessment of its economic community. Colleges reported unsuccessful attempts at obtaining this type of information from local governments. It seems many local governments do not collect this data.

The types of possible industries listed in the survey were heavy and light industries, high technology, service, retail, and other industries. Over three-fourths of the institutions responded to this part of the survey. Of these, 51 percent represented urban institutions, 39 percent suburban, and 10 percent rural institutions (Table 18).

TABLE 18
ECONOMIC/INDUSTRIAL COMMUNITY
IN WHICH THE COLLEGE OPERATES BY LOCATION
(IN PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Heavy Industry	51.2	39.0	9.8	100.0
Light Industry	52.4	35.7	11.9	100.0
High Technology	52.5	35.0	12.5	100.0
Retail	50.0	38.1	11.9	100.0
Service	100.0	0.0	0.0	100.0
Other	50.0	38.1	11.9	100.0
TOTAL	51.2	39.0	9.8	100.0
NO. OF RESPONDENTS	21	16	4	41

Just over one-half of urban institutions, two-fifths of suburban, and one-tenth of rural institutions reported having heavy, retail, and other industries in their service areas. Fifty-two percent of urban, 36 percent of suburban, and 12 percent of rural institutions reported having light industry and high technology firms. Only urban institutions reported having service related industries.

It appears that the service areas of urban institutions have a higher concentration of all the above types of industries. In contrast, just over one-third of suburban and one-tenth of rural institutions reported having all but service industries in the areas in which they are located. Regarding the absence of service industries in suburban and rural settings, it is very tempting to speculate that this is a reflection of a misunderstanding on the part of the respondents. Intuitively, the expectation is to find some level of service industry in all communities.

Heavy Industries

The institutions were asked to indicate the number of employees engaged in heavy industries and the number of such industries. Nearly 57 percent of all respondents reported that their area heavy industries employed over 3,000 workers (Table 19). Nearly one-third of urban, one-half of suburban, and three-fourths of rural institutions reported less than 3,000 employees in the heavy industries located in their area.

TOTAL NUMBER OF EMPLOYEES IN HEAVY INDUSTRIES BY LOCATION
(PERCENT)

CATEGORY	UPBAN	SUBURBAN	RURAL	TOTAL
Total	45.9	43.3	10.8	100.0
Number of Respondents	17	16	4	37

TOTAL NUMBER OF HEAVY INDUSTRIES BY LOCATION
(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	59.3	29.6	11.1	100.0
Number of Respondents	16	8	3	27

TABLE 19
NUMBER OF EMPLOYEES IN HEAVY INDUSTRIES BY LOCATION
(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL
Over 3,000	64.7	56.3	25.0	56.8
2,000 - 3,000	11.8	12.5	-	10.8
1,000 - 1,999	5.9	-	50.0	8.1
500 - 999	11.8	25.0	-	16.2
100 - 499	5.9	-	-	2.7
Under 50	-	6.3	25.0	5.4
TOTAL	45.9	43.3	10.8	100.0
NO. OF RESPONDENTS	17	16	4	37

In terms of the number of heavy industries, half of the urban institutions and one-third of each suburban and rural institution reported over 20 such industries in their service area (Table 20). In short, the majority of all respondents listed significant concentrations of heavy industry within their service area.

TABLE 20
NUMBER OF HEAVY INDUSTRIES BY LOCATION
(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	50.0	37.5	33.3	44.4
10 - 19	-	12.5	66.7	11.2
5 - 9	12.5	-	-	7.4
None	25.0	50.0	-	29.6
Other	12.5	-	-	7.4
TOTAL	59.3	29.6	11.1	100.0
NO. OF RESPONDENTS	16	8	3	27

Light Industries

One-half of urban and suburban institutions and one-fifth of rural institutions reported that the light industries located in their area employed a total of over 3,000 workers (Table 21). Sixty percent of rural institutions had light industries in their area that employed fewer than 500. In contrast, one-third of urban and one-fifth of suburban institutions reported that the total work force employed by light industries was fewer than 500.

TABLE 21

NUMBER OF EMPLOYEES IN LIGHT INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL
Over 3,000	50.0	57.1	20.0	48.7
2,000 - 3,000	-	7.1	-	2.6
1,000 - 1,999	5.0	14.3	20.0	10.3
500 - 999	5.1	-	-	5.1
100 - 499	20.0	14.3	20.0	17.9
50 - 99	5.0	7.1	20.0	7.7
Under 50	10.0	-	20.0	7.7
TOTAL	51.3	35.9	12.8	100.0
NO. OF RESPONDENTS	20	14	5	39

All suburban, two-thirds of urban, and one-half of rural institutions reported having more than 20 light industries in their service area (Table 22). As in the case of heavy industry, light industry was well represented in the districts of responding institutions from all geographic areas.

TABLE 22

NUMBER OF LIGHT INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	62.5	100.0	50.0	70.4
10 - 19	25.0	-	-	14.8
5 - 9	-	-	50.0	7.4
1 - 4	6.3	-	-	3.7
None	6.3	-	-	3.7
TOTAL	59.3	25.9	14.8	100.0
NO. OF RESPONDENTS	16	7	4	27

High Technology Industries

Nearly two-thirds of urban and one-third of suburban institutions reported the presence of high technology industries employing more than 3,000 (Table 23). All rural institutions reported that the high technology industries in their service districts employed fewer than 500 workers.

TOTAL NUMBER OF EMPLOYEES IN HIGH TECH INDUSTRIES BY LOCATION
(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	54.1	32.4	13.5	100.0
Number of Respondents	20	12	5	37

TOTAL NUMBER OF HIGH TECH INDUSTRIES BY LOCATION
(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	57.1	28.6	14.3	100.0
Number of Respondents	16	8	4	28

TABLE 23

NUMBER OF EMPLOYEES IN HIGH TECH INDUSTRIES BY LOCATION
(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL
Over 3,000	65.0	33.3	-	45.9
2,000 - 3,000	-	8.3	-	2.7
1,000 - 1,999	15.0	25.0	-	16.2
500 - 999	-	16.7	-	5.4
100 - 499	5.0	16.7	20.0	10.9
50 - 99	10.0	-	60.0	13.5
Under 50	5.0	-	2.7	5.4
TOTAL	54.1	32.4	13.5	100.0
NO. OF RESPONDENTS	20	12	5	37

One-third of all responding institutions reported having more than 20 high tech industries in their areas (Table 24). All rural institutions reported one to four high technology industries in their areas. One-half of suburban and one-third of urban institutions had more than 20 high tech industries. The data, in this case, support information from other sources that high tech industries are not the nation's dominant economic force.

Service Industries

Nearly two-thirds of urban and suburban institutions that responded to the survey reported the existence of service industries that employed a total of over 3,000. A majority (61 percent) of rural institutions reported the existence of such industries with total employment under 100 people (Table 25).

TABLE 24

NUMBER OF HIGH TECH INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	37.5	50.0	-	35.7
10 - 19	31.3	-	-	17.9
5 - 9	-	12.5	-	3.6
1 - 4	31.3	25.0	100.0	39.3
None	-	12.5	-	3.6
TOTAL	57.1	28.6	14.3	100.0
NO. OF RESPONDENTS	16	8	4	28

TABLE 25

NUMBER OF EMPLOYEES IN SERVICE INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL*
Over 3,000	63.6	71.4	-	57.1
2,000 - 3,000	9.1	-	33.3	5.5
1,000 - 1,999	5.0	7.1	-	5.1
500 - 999	5.0	-	-	2.6
100 - 499	10.0	28.6	20.0	10.9
50 - 99	10.0	-	20.0	7.7
Under 50	10.0	7.1	40.7	11.1
TOTAL	51.3	35.9	12.8	100.0
NO. OF RESPONDENTS	20	14	5	39

* Figures in this column have been rounded off.

TABLE 26

NUMBER OF SERVICE INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	81.8	66.7	33.3	70.0
10 - 19	9.1	16.7	-	10.0
5 - 9	-	-	66.7	10.0
1 - 4	-	16.7	-	5.0
None	9.1	-	-	5.0
TOTAL	55.0	30.0	15.0	100.0
NO. OF RESPONDENTS	11	6	3	20

Like high tech industries, service reflects the results of other studies. The nation is rapidly increasing the number of service industries in urban, suburban, and rural settings. This study shows that the only major difference in setting is the size of the industry. Rural locations will have fewer service industries with fewer employees.

TOTAL NUMBER OF EMPLOYEES IN SERVICE INDUSTRIES BY LOCATION

(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	51.3	35.4	12.8	100.0
Number of Respondents	20	14	5	39

TOTAL NUMBER OF SERVICE INDUSTRIES BY LOCATION

(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	55.0	30.0	15.0	100.0
Number of Respondents	11	6	3	20

Retail Industries

Retail industries with more than 3,000 employees were located near a majority (57 percent) of urban and suburban institutions that responded to the survey (Table 27). Eighty percent of rural institutions reported their area retail industries employed fewer than 500 workers.

Over three-fourths of all urban and suburban institutions reported that more than 20 retail industries were located in their service areas (Table 28). Among the rural industries, 60 percent reported having over 20 retail industries and the remaining (40 percent) reported between 5 and 9 such industries in their areas.

TOTAL NUMBER OF EMPLOYEES IN RETAIL INDUSTRIES BY LOCATION
(PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL
Total	52.5	35.0	12.5	100.0
Number of Respondents	21	14	5	40

TOTAL NUMBER OF RETAIL INDUSTRIES BY LOCATION
(PERCENT)

CATEGORY	URBAN	SUBURBAN	RURAL	TOTAL
Total	53.3	30.0	16.7	100.0
Number of Respondents	16	9	5	30

TABLE 27

NUMBER OF EMPLOYEES IN RETAIL INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN	RURAL	TOTAL
Over 3,000*	57.1	57.1	20.0	52.5
1,000 - 1,999	9.5	14.3	-	10.0
500 - 999	9.5	14.3	-	10.0
100 - 499	9.5	-	60.0	12.5
50 - 99	-	7.1	-	2.5
Under 50	14.3	7.1	20.0	12.5
TOTAL	52.5	35.0	12.5	100.0
NO. OF RESPONDENTS	21	14	5	40

* No responses in the 2,000-2,999 category.

TABLE 28

NUMBER OF RETAIL INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	75.0	77.8	60.0	73.3
10 - 19	6.3	-	-	3.3
5 - 9	12.5	11.1	40.0	16.7
1 - 4	6.3	11.1	-	6.7
TOTAL	53.3	30.0	16.7	100.0
NO. OF RESPONDENTS	16	9	5	30

Other Industries

Over one-half of all urban and suburban institutions reported other industries in their service areas employing a total of over 3,000 people (Table 29). Eight out of 10 rural institutions reported the existence of other industries that employed a total of fewer than 500 persons.

TABLE 29
NUMBER OF EMPLOYEES IN OTHER INDUSTRIES BY LOCATION
(IN PERCENT)

NUMBER OF EMPLOYEES	URBAN	SUBURBAN*	RURAL	TOTAL
Over 3,000	60.0	50.0	20.0	51.3
2,000 - 3,000	-	7.1	-	2.6
1,000 - 1,999	5.0	7.1	-	5.1
500 - 999	5.0	-	-	2.6
100 - 499	10.0	28.6	20.0	17.9
50 - 99	10.0	-	20.0	7.7
Under 50	10.0	7.1	40.0	12.8
TOTAL	51.3	35.9	12.8	100.0
NO. OF RESPONDENTS	20	14	5	39

* Figures in this column have been rounded off.

Nearly 90 percent of the urban and suburban institutions reported the presence of more than 20 other industries in their localities. Rural institutions indicated that the rate of "other industry" incidence for the over-20 category was 60 percent (Table 30).

TABLE 30

NUMBER OF OTHER INDUSTRIES BY LOCATION

(IN PERCENT)

NUMBER	URBAN	SUBURBAN	RURAL	TOTAL
Over 20	88.2	90.0	60.0	84.4
10 - 19	-	10.0	20.0	6.3
5 - 9	5.9	-	20.0	6.3
1 - 4	5.9	-	-	3.0
TOTAL	53.1	31.3	15.6	100.0
NO. OF RESPONDENTS	17	10	5	32

CORPORATE ORGANIZATIONAL PROFILE

More than half of all urban institutions that responded to the inventory reported that the industries located in their areas were international in scope (Table 31). Just under one-third of the suburban institutions reported their service area industries were international. Only 13 percent of the rural colleges said their local industries were international in scope. The same proportional distribution holds true for national and regionally based corporations. Seventy-one percent of the urban institutions said their local industries were subsidiaries of national or regional firms, while 24 percent of the suburban and 6 percent of the rural institutions reported that their industries did business beyond their immediate geographical areas.

TABLE 31

CORPORATE ORGANIZATIONAL PROFILE BY LOCATION

(IN PERCENT)

OWNERSHIP	URBAN	SUBURBAN	RURAL	TOTAL
International	56.3	31.3	12.5	100.0*
National	52.6	36.8	10.5	100.0*
Regionally Based Corp.	52.0	36.0	12.0	100.0
Subsidiary	70.6	23.5	5.9	100.0
Other	60.0	40.0	-	100.0
TOTAL	52.0	36.0	12.0	100.0
NO. OF RESPONDENTS	13	9	3	25

*Figures have been rounded off.

MILITARY CONTRACTS

Fewer than half (42 percent) of the institutions reported that they provided formal educational training programs for military personnel (Table 31). Fifty-eight percent of the responding urban institutions said they were engaged in formal educational training for service personnel. In contrast, 30 percent of suburban institutions and 17 percent of rural institutions had engaged in such training activities.

Size of Military Contract

The institutions participating in the educational training programs for military personnel were asked to indicate the dollar value of contracts with the military. Only 11 urban and 2 suburban institutions responded to this item (Table 32). The contract amount of urban institutions varied from $2,000 to nearly $950,000, with an average award of $152,000. With respect to the suburban institutions, one received $10,000 and the other, $696,290 (Table 33).

Nearly three-fourths of all urban institutions had military contracts ranging from $10,000 to $1 million. One institution had received a contract from the military of nearly $1 million. The stated value of these military contracts indicates that viable training/education relationships do exist between the colleges and the military.

TABLE 32
FORMAL EDUCATIONAL TRAINING FOR MILITARY SERVICE PERSONNEL BY LOCATION
(IN PERCENT)

TRAINING	URBAN	SUBURBAN	RURAL	TOTAL*
Yes	58.3	30.0	16.7	42.0
No	41.7	70.0	83.3	88.0
TOTAL	48.0	40.0	12.0	100.0
NO. OF RESPONDENTS	24	20	6	50

* Figures in this column have been rounded off.

TABLE 33
SIZE OF MILITARY CONTRACT BY LOCATION
(IN PERCENT)

AMOUNT	URBAN	SUBURBAN	RURAL	TOTAL
$ 1,000 - 9,999	27.3	-	-	23.1
10,000 - 19,999	-	50.0	-	7.7
20,000 - 49,999	18.1	-	-	15.4
50,000 - 99,999	27.3	-	-	23.1
100,000 - 199,000	9.1		-	7.7
200,000 - 499,999	9.1	-	-	7.7
500,000 - 999,999	9.1	50.0	-	15.4
TOTAL	84.6	15.4	-	100.0
NO. OF RESPONDENTS	11	2	2	13

BUSINESS/INDUSTRY/COLLEGE COLLABORATION

The colleges were asked to furnish information on industries operating within their service areas with which they had a collaborative arrangement. Among the data requested were: name of firm, number of employees, employees enrolled in job-related courses, nature of training support, number of courses offered, source of equipment and instructional materials used in the training program, instructors used in the courses, credits applicability, training involving JTPA, number of programs offered, and funding. The response to this section of the survey was uneven. Some institutions provided detailed information on the above items, while others indicated that such information was unavailable. The ability of many institutions to assess, critique, and promote their business/industry activities is critically handicapped by inadequate data collection at the local level.

Partnership Training

Thirty-six of the 58 institutions responded to the industry/college partnership training survey. This yielded a response rate of 62 percent. The number of firms involved in such training programs varied from 40 (5 percent) for rural institutions to 530 (69 percent) for urban institutions (Table 34). A total of 732 companies had a collaborative arrangement with the 36 colleges. These colleges were involved in the training of over 28,000 employees who were taking job-related courses. Nearly 50 percent of the urban institutions trained 84 percent of the total number of trained employees reported by all institutions.

TABLE 34

PARTNERSHIP TRAINING BY LOCATION

COLLEGE LOCATION	COLLEGES		FIRMS		EMPLOYEES IN JRC*	
	NO.	%	NO.	%	NO.	%
Rural	4	16.67	40	5.08	1,805	6.38
Suburban	11	30.56	167	25.69	2,939	10.38
Urban	19	52.77	530	69.23	23,562	83.24
TOTAL	36	100.00	737	100.00	28,306	100.00

* Job Related Courses

Training Support

Nearly one-half of the urban, half of the suburban institutions, and two-thirds of rural institutions reported that the employees of their companies were fully subsidized by firms when the employees registered in job-related courses (Table 35).

TABLE 35

TRAINING SUPPORT BY COMPANIES BY LOCATION

(IN PERCENT)

COLLEGE LOCATION	FULL FUNDING	PARTIAL FUNDING	JTPA* FUNDING	NO SUBSIDY	TOTAL	
					NO.	%
Rural	60.0	20.0	10.0	10.0	10	100.0
Suburban	50.0	41.7	0.0	8.3	12	100.0
Urban	46.0	37.5	9.4	6.2	32	100.0
TOTAL	50.0	35.2	5.6	9.2	-	100.0
NO. OF RESPONDENTS	27	19	3	5	54	

* Job Training Partnership Act.

Three institutions (2 urban and 1 suburban) reported no subsidy provided for the employees either by the companies or JTPA.

Work-Release Time for Employees Taking Courses

Over half of all institutions reported that students from collaborating companies received work-release time (Table 36). Among rural institutions, 67 percent said their students were granted work-release time. Sixty percent of the urban institutions and 45 percent of the suburban institutions reported that employees/students received work-release time for their coursework.

Company Recruiters on Campus

The institutions were asked if the company's recruiters had regular interview schedules on their campuses. Among the 16 urban institutions, 7 (44 percent) reported company recruiters having regular interview schedules on their campuses. Among each of 7 suburban and rural institutions, 4 and 3 colleges, respectively, reported having recruiters on their campuses.

TABLE 36
WORK-RELEASE TIME FOR EMPLOYEES TAKING COURSES
BY LOCATION
(IN PERCENT)

COLLEGE LOCATION	WORK-RELEASE TIME PROVIDED		WORK-RELEASE TIME NOT PROVIDED		TOTAL	
	NUMBER	%	NUMBER	%	NUMBER	%
Rural	6	66.7	3	33.3	9	100.0
Suburban	4	44.5	5	55.5	9	100.0
Urban	15	60.0	10	40.0	25	100.0
TOTAL	25	58.1	18	41.9	43	100.0

TABLE 36a

COMPANY RECRUITERS HOLDING INTERVIEWS ON CAMPUS

(IN PERCENT)

COLLEGE LOCATION	RECRUITERS HOLDING REGULAR INTERVIEWS ON CAMPUS		RECRUITERS NOT HOLDING REGULAR INTERVIEWS ON CAMPUS		TOTAL	
	NUMBER	%	NUMBER	%	NUMBER	%
Rural	4	44.4	5	55.6	9	100.0
Suburban	4	57.1	3	42.9	7	100.0
Urban	7	43.8	9	56.2	16	100.0
TOTAL	15	46.9	17	53.1	32	100.0

These data reflect a different aspect of the college/employer relationship. The information suggests that many employers look beyond their immediate customized training needs to the baseline education of new employees. In this sense, the college is performing its traditional pre-employment educational role. One could anticipate that many two-year career curricula are tailored to the local economy and that each curriculum was built with the support of local business/industry advisory councils. The advantage of enhancing the collaboration at both pre- and post-employment levels is that instruction can be mutually reinforcing. Under such circumstances, pre-employment education can benefit from constant employer feedback so that curricula remain current.

COURSE/INSTRUCTIONAL PROFILE

Number of Courses Offered and Course Location

Over 1,000 different courses/programs were offered by the responding institutions to the employees of their local industries. The question was

asked in such a way that it was clear that the course offerings were industry driven. Urban institutions offered a majority (72 percent) of these courses followed by suburban (22 percent) and rural institutions (6 percent).

The institutions also were asked to indicate the location where the courses were offered for the employees. A majority of courses were evenly spread between the plant or the college campus. A small number of courses was offered at other locations. It appears that the classroom follows the student and, according to this data, the plant site is at parity with the campus. Moreover, when in-plant is collapsed with other sites, the campus comes in second (Table 37).

TABLE 37

NUMBER OF COURSES OFFERED AND COURSE LOCATION

COLLEGE LOCATION	NO. OF COURSE TITLES		LOCATION			TOTAL	
			PLANT	CAMPUS	OTHER	NO.	%
Rural	60	6.1	46.1	46.1	7.8	13	100.0
Suburban	218	22.3	45.0	35.0	20.0	20	100.0
Urban	699	71.6	46.4	42.9	10.7	28	100.0
TOTAL	977	100.0	45.9	41.0	13.1	-	100.0

TABLE 37A

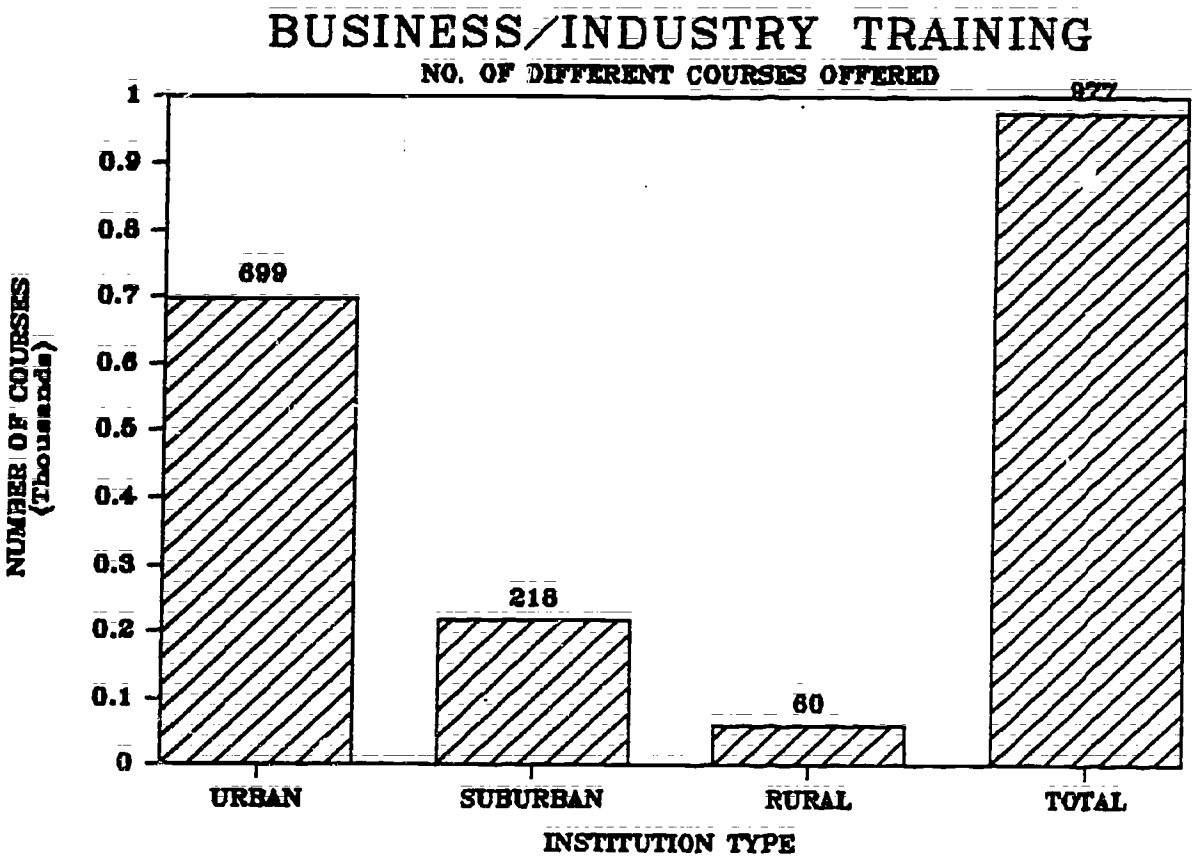
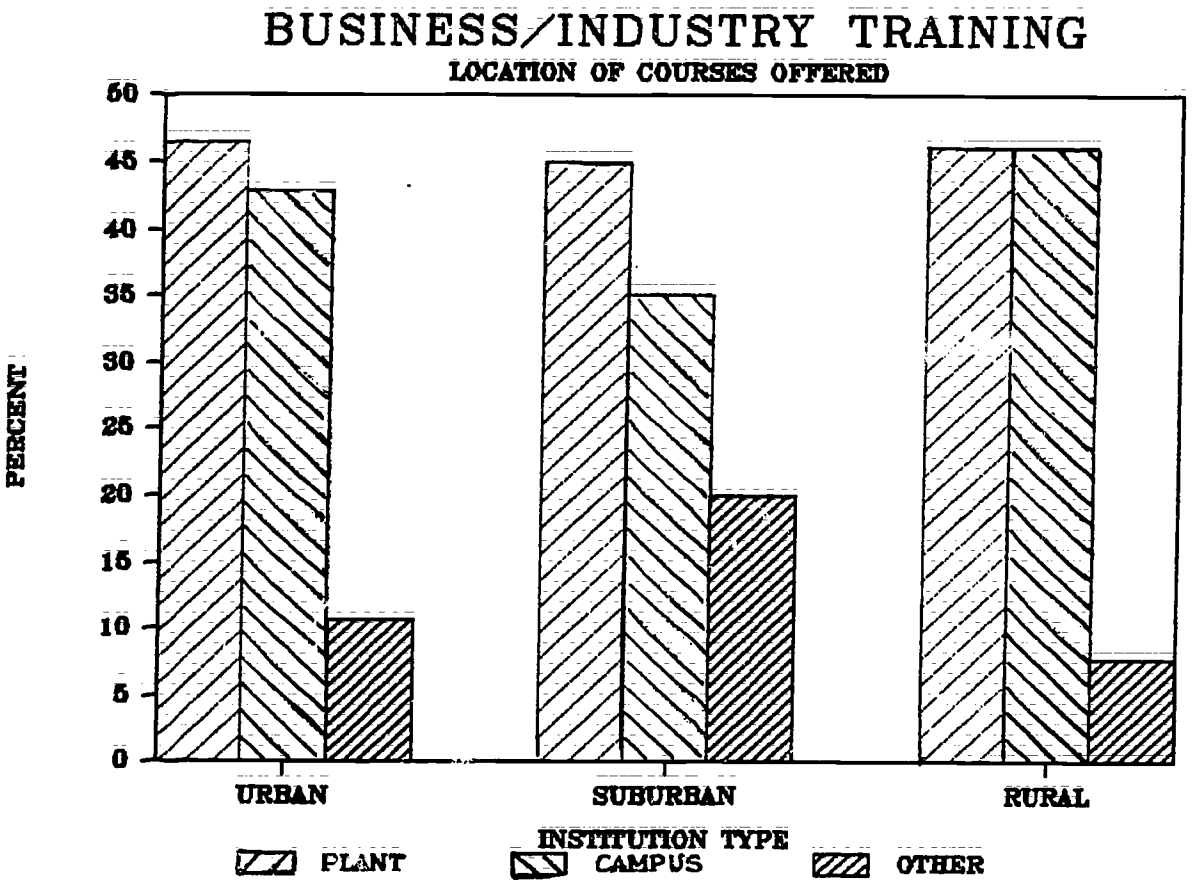

BUSINESS/INDUSTRY TRAINING
NO. OF DIFFERENT COURSES OFFERED
NUMBER OF COURSES (Thousands)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
699
218
60
877
URBAN
SUBURBAN
RURAL
TOTAL
INSTITUTION TYPE

TABLE 37B


BUSINESS/INDUSTRY TRAINING
LOCATION OF COURSES OFFERED
PERCENT
50
45
40
35
30
25
20
15
10
5
0
URBAN
SUBURBAN
RURAL
INSTITUTION TYPE
PLANT
CAMPUS
OTHER

Source of Equipment and Instructional Material Used for Training

The institutions were asked to indicate the sources of equipment and instructional materials used for technical programs. Over half of the rural institutions reported using company equipment (Table 38). Company equipment was used by 45 percent of suburban and 39 percent of urban institutions. Data reveal that the "other" equipment source category becomes a factor in urban settings (15.4%) and suburban settings (11.11%). "Other" sources are in evidence at all settings for instructional material, although, to a lesser degree in rural settings.

With respect to the source of instructional materials used in the classes, 61 percent of the urban institutions, 40 percent of suburban, and 50 percent of rural institutions used the materials developed at their campuses (Table 38).

This data continue to support the notion that rural colleges develop a substantial symbiotic relationship with their local employers. Whether we are addressing equipment or materials, the rural company is more likely to be a partner on equal footing in the education and training of the local work force. Alternately, this relationship diminishes in suburban and then urban sites.

What also is evident from the data is that in urban and suburban sites the short-fall in company contribution is donated by sources other than the colleges. The point is that the education/training being delivered is sufficiently expensive that colleges seek a third partner to defray costs of equipment and/or materials. A future study might seek to find out the identity of the third partner.

TABLE 38

SOURCE OF EQUIPMENT AND INSTRUCTIONAL MATERIALS USED FOR TRAINING BY LOCATION

(IN PERCENT)

LLEGE CATION	EQUIPMENT SOURCE			TOTAL		INSTRUCTIONAL MATERIALS SOURCE			TOTAL	
	COMPANY (%)	COLLEGE (%)	OTHER (%)	NO.	%	COMPANY (%)	COLLEGE (%)	OTHER (%)	NO.	%
al	54.5	45.5	00.0	11	100.0	41.7	50.0	8.3	12	100.0
urban	44.5	44.5	11.0	18	100.0	35.0	40.0	25.0	20	100.0
an	38.5	46.1	15.4	26	100.0	26.1	60.9	13.0	23	100.0
AL	43.6	45.5	10.9	-	100.0	32.7	50.9	16.4	-	100.0
OF RESPONDENTS	24	25	6	55		18	28	9	55	

Use of Instructors

The institutions were asked if the college faculty or company personnel were used to teach the courses. Nearly one-third of all the institutions reported using their own faculty to teach the courses (Table 39). Just over one-fourth of each of the rural (27 percent) and suburban (27 percent) institutions reported using the company personnel. One-fifth of the urban institutions reported using company personnel. Nearly one-third of all institutions reported using part-time noncompany faculty to teach the courses.

Urban institutions lead the other types of institutional categories in providing the requirements of education and training delivery. Urban institutions apparently require less collaborative support from employers as a requisite to providing services. This observation also applies to faculty. Alternately, rural and suburban institutions seek company personnel for instructional purposes at about equal rates.

TABLE 39
INSTRUCTORS USED IN COURSE BY LOCATION
(IN PERCENT)

COLLEGE LOCATION	REGULAR FACULTY	COMPANY PERSONNEL	PART-TIME NON-COMPANY FACULTY	OTHER	TOTAL* NO.	TOTAL* %
Rural	40.0	26.7	26.7	6.6	15	100.0
Suburban**	30.8	26.9	34.6	7.6	26	100.0
Urban	31.4	20.0	34.3	14.3	35	100.0
TOTAL	32.9	23.7	32.9	10.5	-	100.0
NO. OF RESPONDENTS	25	18	25	8	76	

* Multiple responses.

** Figures in this row have been rounded off.

Offering of College Credits and Their Applicability Towards AA Degree

Over half of all the urban and suburban institutions reported offering college credits for the courses taken by employees (Table 40). Forty-three percent of the rural institutions reported offering credits for the courses taken by the students.

When the colleges were asked if the credits could be applied towards associate of arts degrees or certificates, three-fourths of all urban and two-thirds of all suburban institutions reported accepting these credits towards either an AA or a certificate. Fifty-five percent of the rural institutions reported the applicability of credits to other than AA degree or a certificate.

College Credits Offered to Courses

The study indicates that of the 875 courses (duplicate), 498 (57 percent) were checked Yes and 377 (43 percent) were checked No, when asked if college credits were given to those courses.

A note of caution!

The information is misleading. Most of the courses/programs are offered under the Continuing Education Unit. This leads the researcher to think that the students might have received CEUs rather than academic credits.

TRAINING INVOLVING JTPA FUNDING

JTPA Participating Colleges and Number of Programs

The colleges were asked to list the JTPA programs they had offered. Thirty-five of the 58 institutions responded to this item, yielding a 60

percent response rate. Among these colleges, 18 (52 percent) were urban, 12 (34 percent) were suburban, and 5 (14 percent) were rural (Table 41). These institutions reported offering a total of 232 JTPA-sponsored programs. In a breakdown of JTPA programs, nearly 61 percent of the instruction resided in urban institutions, 25 percent resided in suburban institutions, and 14 percent resided in rural institutions. Clearly, JTPA driven instruction is attached to the population centers that are likely to have large numbers of individuals in need of retraining services.

Training Involving JTPA and Other Funding

The institutions were asked to list the number of participants and the amount of JTPA and other funding received for the training programs. According to the survey, a total of nearly 20,000 people participated in the training programs. An overwhelming majority (96 percent) of these participants attended urban and suburban institutions (Table 42).

Total support for the training programs was over $14 million. About three-fourths of this amount came from JTPA. Almost all of this was shared by urban and suburban institutions. Rural institutions shared only 8 percent of the total funding for the training programs. Again, the number of individuals served and dollars involved parallel the data on programs offered. Essentially, urban and suburban institutions in this study are substantially involved with JTPA funded training. (Note: 30 percent of the respondents did not answer this question. It cannot be determined if this lack of response is indicative of an information gap or if it is indicative of no JTPA involvement whatsoever.)

TABLE 40

OFFERING OF COLLEGE CREDITS AND THEIR APPLICABILITY

TOWARDS AA DEGREE OR CERTIFICATE BY LOCATION

(IN PERCENTAGES)

COLLEGE LOCATION	COLLEGE CREDITS OFFERED		TOTAL*		CREDITS APPLICABILITY			TOTAL	
	YES	NO	NO.	%	AA DEGREE	CERTIFICATE	OTHER	NO.	%
Rural	42.9	57.1	7	100.0	22.2	22.2	44.5	9	100.0
Suburban	57.1	42.9	14	100.0	41.2	35.3	23.5	17	100.0
Urban	51.9	48.1	27	100.0	37.5	33.3	29.2	24	100.0
TOTAL	52.1	47.9	-	100.0	38.0	32.0	30.0	-	100.0
NO. OF RESPONDENTS	25	23	48		19	16	15	50	

*Multiple responses.

TABLE 41

TRAINING INVOLVING JTPA PARTICIPATING COLLEGES
AND NUMBER OF PROGRAMS BY LOCATION
(IN PERCENT)

COLLEGE LOCATION	COLLEGES		JTPA PROGRAMS	
	NO.	%	NO.	%
Rural	5	14.29	32	13.79
Suburban	12	34.29	58	25.00
Urban	18	51.42	142	61.21
TOTAL	35	100.00	232	100.00

Another comparison in this area is the differential between urban and suburban institutional program costs and individuals served. The data indicate suburban institutions are receiving more than twice as much "other funding" to serve approximately 7,000 fewer participants. The public contribution in this equation remains about equal. The "other" category consisted of a collapsing of state, local, company, and miscellaneous sources.

INVENTORY ANALYSIS

The data developed from this selected inventory of community, technical, and junior colleges reveal some interesting trends in urban, suburban, and rural settings. In some cases, the comparisons within and among settings are rather dramatic. However, the reader must constantly keep in mind that the number of inventory respondents, as well as the original target population, is

TABLE 42

TRAINING INVOLVING JTPA AND OTHER FUNDING

(IN PERCENT)

COLLEGE LOCATION	PARTICIPANTS		JTPA FUNDING		OTHER FUNDING		TOTAL	
	NO.	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
Rural	742	3.76	$ 154,597	1.48	$ 1,078,764	26.98	$ 1,233,361	8.52
Suburban	5,999	30.41	4,487,327	42.85	1,922,069	48.08	6,409,396	44.29
Urban	12,989	65.83	5,830,072	55.67	997,278	24.94	6,827,350	47.19
TOTAL	19,730	100.00	$10,471,996	100.00	$ 3,998,111	100.00	$14,470,107	100.00
PERCENT	-	100.00	-	72.37	-	26.45	-	100.00

quite small. Hence, generalizing from this data to the entire system of colleges is risky. On the other hand, many colleges chosen to be in the inventory were from bellwether states and localities that have been very active traditionally in employee education/training. Thus, the trends should not be discounted.

Perhaps the most disturbing result of this inventory is the unevenness of data collection activities from the responding institutions. Clearly, the inventory itself was a difficult instrument in that the desired information had to come from a variety of institutional sources. Even so, the reply to many inventory questions was that the data was non-existent or too difficult to obtain. For example, only 30 of the 54 institutions replied to the category of questions on JTPA activities. These activities require minimal accounting. In some cases, institutions stated they were too busy delivering services to be bothered with documentation. Alternately, some institutions went to great lengths to comply with inventory requests. Yet even in some other cases, the data was unavailable. Several institutions went the extra mile by trying to acquire community economic profiles from their local governments only to find that these data were not collected.

The primary concern raised by this range of data collection performance is the inability of the colleges to clearly describe their achievements in the area of employee training and education. The data are apparently there, but not in a tangible form to project a global impact statement. Of greatest concern is the proposition that many colleges and, apparently, some local governments do not have a handle on the important components of the local economy. The lack of such data severely hamstrings any type of comprehensive local economic development activity.

Another case in point with respect to weak data is the information collected on part-time/full-time students, occupational course enrollment and part-time employment. Only 16 institutions could retrieve employment data on their student bodies. This is a critical gap as can be seen from the little data that are available. Approximately 66.9 percent of the total enrollment is part-time and 33.1 percent of the total is full-time. Therefore, the employment data on part-time students (full-time employees) should provide fundamental information to college policymakers with respect to future initiatives and the likely sources of community support. The results of this inventory suggest that many college officials have not placed any importance on the collection of such data.

This lack of data collection provides the reader with two observations. First, this inventory has uncovered a significant problem in spite of the small target population. The colleges are not routinely collecting data on the employer community, on the occupational background of students, or the specific [illegible] college services delivered to the employer community. The uneven nature of the available data means that generalizations based on this inventory must be handled with great care. On the other hand, the available inventory data does have the impact of stimulating the need for further

inquiry in certain areas. The following data analysis also should encourage policymakers to investigate the status of their own institutions on some of these questions.

Urban and suburban institutions are comparable in their number of employed students (61 - 70 percent) while the rural colleges enroll employed students at the 41 - 50 percent rate. Urban and suburban part-time employment figures are roughly equal (41 - 50 percent), while the rural figure is 51 - 60 percent. Full-time employment reveals a figure of 31 - 40 percent for rural colleges and 41 - 50 percent for suburban institutions, while urban figures jump to 61 - 70 percent. The importance of these figures is that they indicate that one-half of the two-year college students in respondent institutions are dividing their attention between work and academics.

However, the figure that captures attention is the urban full-time work category (61 - 70 percent) that matches the urban part-time enrollment (61 - 70 percent). All of these figures, but particularly the urban percentages, may presage a major shift in the whole student culture for two-year institutions. These data seem to indicate that two-year colleges are very involved in the education and training (credit level) of working America. The time may be quickly passing when community colleges can be viewed as other postsecondary institutions -- primarily serving the traditional (18 - 20-year old) student body. The data indicate that urban colleges have, indeed, passed that point and suburban institutions appear to be not far behind. These data confirm information from a variety of sources that indicate that about 75 percent of all credit students are employed. In both cases, two-year colleges are becoming an important pathway to career mobility.

Looking at the data from a different perspective lends strength to other data sources that suggest that two-year institutions are in the midst of a metamorphosis. Inventory information on student age distribution reveals that only one-third of all credit students were under 21 years of age. The average age, respectively, was 29 urban, 28 suburban and 27 rural. Over half of these students were between the ages of 22 and 40 years.

Age Internal	Percentage Total for all settings
22 - 25	24.1
26 - 30	20.9
31 - 40	22.5

The results of these data in urban and suburban settings has some important ramifications for policymakers in academia, corporate offices, and state and federal agencies. Increasingly, the two-year college is becoming the educational institution of choice for the 22-40 year old -- that age bracket that is most upwardly mobile in their occupations. These are not the traditional 18-22 year old college students of 15-20 years ago. Hence, the on-going interdependency of work and education has become more pronounced at urban and suburban community colleges. That is, in these settings a clear linkage exists between education/training and career/human resource development and the contributions of employees to enrollment stability. Moreover, other data from this study indicate that colleges are increasingly benefiting from the private sector through cash, equipment, and materials donations, and even from contributions to faculty development.

If this trend were to hold true throughout the nation it would leave very few areas in two-year colleges safe from alteration, for what the data reveal is the convergence of two very important trend lines into one that has the

likelihood of creating a new synthesis of major importance for the whole nation. We are not just talking about basic changes in a certain stratum of postsecondary institutions to accommodate a new student sub-group. This new student is in the majority, and this student also happens to be the backbone of the economy and the backbone of the tax base. In short, the twin destinies of community colleges and American workers appear to be intertwined in a symbiotic relationship of major proportions. In the words of Dale Parnell, president of the AACJC, "Community colleges could well be on their way to becoming the modern equivalent of the public land grant universities and agricultural extension agencies. They will do for the information age what the land grant universities did for an agricultural and industrial age."

The latter development in American postsecondary education impacted a predominantly agrarian society in such a way as to make the nation the most productive agricultural system in the world. The present challenge facing America is the transition from an industrial economy -- the challenge of maintaining industrial competitiveness and worker productivity in the face of an equally competitive world economy. The data indicated that community colleges are an increasingly critical component in educating Americans for entry level occupations. The data also indicate that the colleges are a critical component in an on-going process of education and training that is necessary for skill maintenance and/or occupational mobility. In short, community colleges appear to be the key educational element in maintaining American economic competitiveness.

Dr. W. Edwards Deming, world-renowned statistical consultant, who after World War II taught the Japanese how to produce high-quality, low-cost products, tells us:

> The community colleges must do it. They are alive to their customers. They are learning how they can help industry in their communities. They must work together because there are a lot of problems that are common to all communities. I believe [they] holds the key to teaching American industry what must take place.

Given the significance of such an alignment of destinies, community, technical, and junior colleges may find it useful to re-think the appropriateness of many of their structures for serving the "information age" needs of employees and employers. For example, the emergence of the older student must raise large questions about the very life cycle and basic operations of the college. Has the Carnegie unit of credit measurement become obsolete for a student body reflecting varying levels of advanced educational and skills development? How and where do college administrators schedule classes to meet the educational needs of the dominant student group? More importantly, who pays for employee training -- the student, the state, the employer, or some combination of the aforementioned? What is the role of financial aid in employee education/training? Does the federal government have a stake in the overall competence of a trained workforce? If so, what are the appropriate roles from the Departments of Labor, Commerce, and Education in facilitating national policy and programs? In short, there are significant emerging issues that will require close attention from policymakers.

As indicated earlier, community economic profile data were difficult to obtain. Many colleges had very little idea beyond rough estimates as to the texture of their economic community. It was the rare college that was able to identify the major employers of their communities let alone employer education

trai ng needs. In this sense, many colleges do not appear to have appreciated the notion that they can play a key ca. nytic role in the economic development of their communities -- a role that places a priority on serving the needs of those already present in the economic community. Such a strategy puts a premium on holding on to what you have. Yet, such a strategy cannot be accomplished without a thorough knowledge of what constitutes the local economic community along with the creation of a needs assessment profile. It was just such a data base that the inventory was attempting to tap. The usefulness of such information can be implied from the results of the inventory.

The rough data submitted by colleges did construct a profile expected in a comparison of rural, urban, and suburban communities. The mass of industry increases with the population. However, all areas seemed to have a mix of employers. It appeared that this mix of employers might be considered a positive attribute in terms of an institutional service strategy. Colleges could use the shopping center approach by allowing large employers to anchor their programs. They could then meld together small employers into various groups based upon common need. Such a strategy could stimulate the needed critical mass for program delivery and it could also maximize the creation and use of faculty, space, materials, and equipment.

Reversing the strategy, a thorough knowledge of the local corporate profile could be the building block for a community college consortia approach to training/education for national/international companies. Colleges with similar programmatic strengths and objectives could market themselves collectively as viable training networks to be used by appropriate national

and regional companies. The Mid-America Training Network (ten Great Lakes community colleges) and the Gulf Coast Consortia (Texas) are good examples of such a strategy. General Motors, Ford, Campbell Soup, and Motorola are but a few of the increasing number of national companies that are eager to use community colleges in their training strategies. Urban, suburban, and rural colleges respectively reported the presence in their communities of national/international employers at the 50 percent, 31 percent, and 13 percent levels respectively. Clearly, the networking potential exists for collaborative training on a large scale across these community-based institutions.

In moving from the realm of potential collaboration to that of actual levels of collaboration the inventory results again displayed a weakness. Only 31 of the 54 institutions responded to questions pertaining to college/industry partnership training. A higher response rate was desirable in order to compare accurately the actual activity level against potential activity level. What the data reveal are a substantial amount of collaboration among all responding institutions. These 31 institutions reported working with 650 firms covering 25,096 affected employees. However, the bulk of the work was being done in the urban setting (450 firms - 20,804 employees). The surprise was that the suburban activity rate was not nearly as robust (167 firms - 2,934 employees). In contrast, the rural respondents only served 33 firms, but those firms accounted for 1,353 employees.

What is striking is the comparison of reported suburban activity level with the suburban economic profile. Notwithstanding the data flaws in the community economic profile, the suburban institutions appear to be operating much below the market capacity of their service areas. Collectively, suburban

institutions reported the existence of economic activity that was comparable to urban sites. For example, suburban/urban comparisons on the number of employees for heavy and light industries tell an interesting story.

Employees in Heavy Industry
(Percentages)

	Urban	Suburban
Over 3,000	64.7	56.3
3000 - 2,000	11.8	12.5
500 - 999	11.8	25.0

Employees in Light Industry
(Percentages)

	Urban	Suburban
Over 3,000	50.0	57.1
1000 - 1999	5.0	14.3
100 - 499	20.0	14.3

In terms of the presence of employees in the high tech, service, and retail industries, the suburban institutions, with one major exception, report the highest levels of employees within their service area. (The exception is high tech industries with over 3,000 employees.) In short, the suburban institutions appear to have substantial growth capacity in the area of contracted employee education and training.

The promise woven into such collaboration is apparent through the data involving training support, work release time, instructional site, faculty, and equipment use. This information reflects a pattern of college/employer relationships that are increasingly symbiotic. First, the importance of training and education to employers is underscored by the indicated financial commitments in the inventory. Full subsidization of job related instruction by employers was reported at the following levels: urban 48.0 percent, suburban 50.0 percent, and rural 62.5 percent. These data imply that training subsidization is well on its way to becoming a formalized strategy to induce employee development. It is noteworthy that the rural colleges in the study benefited at a higher rate than other sites. This may indicate a greater employer reliance on two-year colleges in rural areas.

Easily obscured in this particular data is what appears to be an emerging new consensus on employee (post-service) training as the prime responsibility of the employer. It is in the employer's best interest to maintain a well-trained work force; therefore, it is the employer's responsibility to pay the cost inherent in such an investment. However, this burden is considerably lessened when employers collaborate with public colleges. The full costs of subsidization are reduced with the contribution of public dollars. Increasingly, employee education and training is demanding an employer commitment to a "life-long learning" model in order to maintain competitiveness. With the downturn in traditional student populations, these changes seem to create an optimal climate for the mutual benefit of two-year colleges and employers. The data suggest this scenario is already a strong trend across the nation.

If a future national study substantiated this trend, the implications for decisionmakers could be fundamental. For example, strong national supporting documentation would indicate that America has made a de facto commitment to the concept of employee education and training equal to the historical commitment to education and training. For traditional students, given the population demographics and the technologically driven changes in the workforce, there is good reason to predict that employee education and training could become the dominant force in two-year colleges. This would mean that, in addition to state dollars, educators and employers alike, would have a mutual interest in the status of federal tax credits for employee training. Furthermore, educators might want to give closer scrutiny to their formal structures, which, for the most part, are still shaped to service traditional student populations.

For example, half of the 814 course titles reported in the survey were taught at the plant site for rural, urban, and suburban institutions. When other off-campus sites for employee coursework are added, the campus becomes the preferred site for about a third of the time. Rural colleges are slightly higher on main campus usage. If such coursework represents the wave of the future, then policymakers may want to rethink their campus capital budget. There are other issues and areas to ponder as policymakers begin to fully appreciate the scope of employer/college collaboration.

Again, the data may be a useful glimpse into the future. Over one-half of the employees in the inventory received work-release time. This trend was strongest in urban and rural settings. Acknowledging the fact that we are only talking about five institutions, it is still intriguing to note that work-release time occurred at a 71.4 percent rate in the rural settings. Subsidization and work-release time are substantive comments from those few employers regarding the importance of human resour- ent to their operations.

Additional data reinforce this viewpoint. Respondents indicated that employers were a major source for instructional equipment and instructional material. Again, the rural institutions appeared to reflect the highest degree of collaboration.

	Equipment Source (percent)			Instructional Material Source (percent)		
	Company	Other	College	Company	Other	College
Rural	55.6	00.0	44.4	45.5	9.0	45.5
Suburban	44.5	11.1	44.5	35.0	25.0	40.0
Urban	33.3	22.2	44.5	22.2	16.7	61.1

From the standpoint of equipment, the college contribution is constant through the different sites. However, urban and suburban institutions seem to be better able to find other sources for the provision of equipment. It is not clear what drives the decision to seek "other" equipment sources. Regarding instructional materials, "other sources" remain an important avenue for instructional support. Urban colleges appear to be in a much better position to provide their own instructional materials, but they still seek significant additional support.

Significant private sector contributions also are being felt in the faculty personnel area. Company personnel are used as faculty 25 percent of the time by rural and suburban colleges. Even the urban colleges use private sector instructors for 14.8 percent of their company courses. On the other hand, all institutions reported using part-time noncompany faculty almost equally. This would seem to support a nationwide trend in college staffing to deliver substantial amounts of instruction through part-time faculty. Questions regarding this group remain. For example -- Is this population biased in the direction of occupational/vocational education and training as opposed to traditional transfer curriculums? If so, how many of these instructors come from the private sector?

There is another area of observation regarding the growth in employer/college collaboration. The respondents indicated significant willingness to fashion degree generating credits for employee courses. However, the data in this area revealed a significant difference in the way urban and suburban colleges appl, credit as contrasted to the rural colleges. The former seem more amenable to granting credit for employee education/ training and more amenable to applying that credit to both associate degrees

and certificates. This means that the urban and suburban institutions appear to be more active in applying the traditional collegiate legitimizing function to employee instruction. By extension, it also means that urban and suburban institutions, and to a lesser extent rural institutions, are playing a significant role in moving the associate degree/certificate into the work place as requirements for keeping jobs and advancing in them.

The last item to be considered is the college collaboration generated by the Job Training Partnership Act (JTPA). The overarching impression given by these data is that the responding community colleges (70 percent) are involved in such activity. Clearly, the active institutions in this category are the colleges in the suburban and urban population centers. This is not surprising, but the differential between urban and suburban "institutional program costs" and "individuals served" is intriguing. Suburban institutions received twice as much "other funding" ($1.9 million vs. $997,278) to serve approximately 2,500 fewer participants than their urban counterparts. "Other funding" consisted of collapsing together state, local, company, and miscellaneous categories. Federal dollars received among the institutions in different locations were more in line with one another, but even there the suburban sites received $227,000 more than urban institutions. It would be useful to track these findings in a national study with thought toward sifting out the "other funding sources" category.

In conclusion, the results of this inventory indicate that responding two-year colleges reflect extremely rich and varied experiences with respect to employee education and training. In that sense, the very strength of these institutions, their community orientation, makes them very difficult to

categorize and assess. More importantly, this particular sample of colleges is far too small to risk generalizations for the breadth of the community college field. However, this sample is large enough and contains enough significant institutions to draw attention to some trends and developments. The greatest concern generated from this study is the difficulty in obtaining consistent and qualitative data in this area across institutions. This raises serious questions with respect to a national follow-up. However, the results of this inventory leave no doubt that a follow-up study would be an essential addition to the growing body of literature on college/employer collaboration.

CONCLUSIONS

The present study examined in detail selected community college partnerships with business/industry. No attempt was made to select a representative collection of two-year colleges. The survey confirms the findings of the previous study (Day, 1985) that the nation's community, technical, and junior colleges are working cooperatively with area business/industries to provide general and specialized training programs for their employees. The training needs of a vast majority of area industries are being met through these colleges. For these institutions, an average of 21 companies in colleges service districts had collaborative arrangements with an institution in one year. The extent of this collaboration is confirmed by the fact that almost all institutions had established industrial advisory committees for their degree programs. Also, the institutions work closely with the industries by providing academic credit to employees participating in work-related courses. The companies, in turn, strengthen this cooperation by providing subsidies for their employees and offering plant training sites, instructors, equipment, and instructional materials to the institutions to provide training programs.

OBSERVATIONS

According to the study, successful collaborations between community colleges and business/industry exist today. But there are some concerns with respect to the completion of the inventory. At some institutions, there is a lack of accurate data on noncredit students. The colleges need to refine their methodologies for collecting and maintaining information pertaining to business/industry collaboration.

Aside from the above, there are a number of programmatic recommendations related to community college/business/industry collaborations:

1. Data suggest that a large percentage of institutions work with a number of industries that provide work-release time in order to enhance employee participation in college-sponsored programs. It is recommended that colleges that participated in this type of program should develop close working relationships with local industries.

2. The benefits of using company equipment and materials need to be explored further. In urban and suburban institutions, a higher percentage use their own equipment and materials rather than the company's. It appears that rural community colleges are successful in this regard. A higher level of competition from four-year colleges and universities in urban and suburban areas presents an obstacle for equipment donation from the companies. A well coordinated effort should be put forth to convince companies to share their equipment.

3. Most institutions reported awarding credit for studies completed in work-study, cooperative education, apprenticeship training, and military training programs. In addition to continuing to award credit for these activities, community colleges need to develop a comprehensive plan to mainstream working adults who bring with them a vast portfolio of work-related learning experiences that could be documented and awarded appropriate college credit.

4. The study revealed that a majority of the institutions had established industrial advisory committees for each program. These efforts should be continued and maintained for planning, refining, and accountability purposes.

5. It appears that the heydays of new capital construction for laboratories and instructional classrooms are over. Due to declining enrollments and the resultant availability of laboratories and classrooms, the community colleges should give serious consideration to bringing in employees from industrial sites and providing them appropriate learning experiences.

6. Community colleges need to place strong emphasis on customizing courses and programs for the market rather than simply repackaging existing curricula.

7. Emphasis should be placed on offering courses/programs for both credit and noncredit.

8. The office of business/industry coordinator should be independent of the continuing education unit. In most cases, economic development programs are successful when the coordinator is in direct contact with the college president and when industries recognize that there is a clear and direct institutional contact to accommodate their needs.

9. An integrated student support services system should be developed to effectively serve this new emerging population. The services, among other things, should include assessment, advising, counseling, tutoring, family services, and child care.

10. The results show that the female population is emerging as a new work force in business and industry. The women are entering nontraditional career areas. College staff need to reflect this trend in their services. Further, colleges should develop programs and services appropriate to the population. Colleges should, at the same time, work closely with their employer community to prepare them for entering all phases of the job market.

11. Faculty-industrial exchange programs should be developed to enhance and facilitate program development and faculty development opportunities.

REFERENCES

Action in the States Progress Towards Education Renewal. A Report by the Task Force on Education for Economic Growth. Education Commission of the States. Denver, 1984.

America's Competitive Challenge - The Need for a National Response: The Report in Brief. A Report to the President of the United States from the Business-Higher Education Forum. April, 1983.

Beder, H. and Darkenwald, G., Occupational Education for Adults: An Analysis of Institutional Roles and Relationships. New Brunswick: Center for Adult Development, Rutgers University, 1979.

Bushnell, D., Cooperation in Vocational Education. American Association of Community and Junior Colleges and American Vocational Association, Washington, D.C., 1978.

Campbell, D.F. and Faircloth, D.M., "State Models for Economic Development." Community and Junior College Journal, 52(7): 18-19, 1982.

Day, P.R., "Developing Customized Programs for Steel and Other Heavy Industries." Customized Job Training for Business and Industry, New Directions for Community Colleges, Vol. 48, December 1984.

Day, P.R., In Search of Community College Partnerships. American Association of Community and Junior Colleges, Washington, D.C., 1985.

Eskow, Seymour, "Putting America Back to Work: Phase II." Community and Junior College Journal, 54(3): 12-14, 1983.

Goldstein, H., Training and Education by Industry. National Institute for Work and Learning, Washington, D.C., 1980.

Jackman, M.J.G. and Mahoney, J.R., Shoulders To The Wheel: Energy-Related College/Business Cooperative Agreements. American Association of Community and Junior Colleges, Energy Communications Center, Washington, D.C., 1982.

Mahoney, J.R., Community College Centers for Contracted Programs: A Sequel To Shoulders To The Wheel. American Association of Community and Junior Colleges, Energy Communications Center, Washington, D.C., 1982.

Mahoney, J.R., Putting America Back to Work: The Kellogg Leadership Initiative - A Report and Guidebook. American Association of Community and Junior Colleges, Washington, D.C., 1984.

Newman, Frank, Higher Education and the American Resurgence, The Carnegie Foundation for the Advancement of Teaching, Princeton, New Jersey, 1985.

Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., and Brent, D.H., Statistical Package for the Social Sciences. (2nd ed.) McGraw-Hill, New York, 1975.

Nie, N.H. and Hull, C.H. SPSS Update 7-9. McGraw-Hill, New York, 1981.

"Putting America Back to Work: A Concept Paper." American Association of Community and Junior Colleges, Washington, D.C., pp. 7-8, 1982.

Warmbrod, C.P., "From Fishing Travelers to Power Plants." Community and Junior College Journal, 52(7): 12-14, 1982.

PPENDIX A

Dr. Philip R. Day, Jr., president of Dundalk Community College, Dundalk, Maryland, has over 15 years of administrative and teaching experience within community colleges and higher education in general. He has considerable experience in institutional planning, management, and evaluation activity with particular emphasis on student support systems, innovative and nontraditional delivery systems, instructional design, and program development.

Since July 1, 1982, when Dr. Day assumed his present position, the college has experienced a 60 percent enrollment growth from approximately 2,000 to 3,000 fulltime equivalent students. The increase is due in large measure to the adoption of a comprehensive strategic planning and marketing development process which has enabled the college to focus its resources and to respond to economic and social trends on both local and national levels.

Under Day's leadership, the college has established cooperative ventures with business and industry, including customized training programs with such companies as Bethlehem Steel, General Motors, W.R. Grace, and Eastern Stainless Steel.

Formerly, Dr. Day served as executive director of the New England Consortium of Community Junior Colleges and Technical Institutes at Greenfield, Massachusetts; assistant to the president for planning and development at Greenfield Community College, Massachusetts; dean of student affairs and education services and director of planning, research, and development at the University of Maine at Augusta; and vice president of planning and development and vice president for educational affairs at Piedmont Technical College, South Carolina.

Dr. Day received his doctoral degree in higher and adult education from the University of Massachusetts. Earlier in his academic career he graduated from a comprehensive community college.

Dr. Day has written extensively on community college education

IN SEARCH OF COMMUNITY COLLEGE PARTNERSHIPS

By Philip R. Day, Jr.

American Association of
Community and Junior Colleges
National Center for Higher Education
One Dupont Circle, N.W.
Suite 410
Washington, D.C. 20036
(202) 293-7050
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Executive Summary

A national survey of community, technical, and junior colleges, conducted for the American Association of Community and Junior Colleges (AACJC) and t ie Association of Community College Trustees (ACCT), reveals the nature and extent of partnerships that exist between colleges and two significant community entities: business/industry and high schools. The results of this study provide valuable information that can help determine future program needs and requirements for technical assistance to these organizations.

. Out of the 1,219 colleges surveyed, 770 responded, an overall response rate of 63.2 percent. The highlights of the results are given below.

College Characteristics

- Among the respondents, 78 percent represent community/junior colleges; 14 percent technical colleges; and the remaining represent other types of institutions.
- 55 percent of the respondents are located in urban and suburban areas while 45 percent are located in rural areas.
- 56 percent of the colleges reported they are governed by appointed board members and the remaining 47 percent are governed by locally elected members.

Business, Industry, Labor Council (BIC)

- 41 percent of the respondents have established Business, Industry, Labor Councils on their campuses.
- 76 percent of those who said they have established BICs have done so on a formal basis.
- Nearly one-fourth of the colleges house the BICs on their campuses.
- About one-third of the BICs are funded publicly; one-tenth receive both public and private funding, and over one-half have no funding to support their councils.
- About one-half of all the respondents who reported receiving support receive it from federal and state funding sources; corporations support nearly 17 percent of the councils.

Private Industry Council (PIC)

- Two-thirds of all respondents indicated that they participate in the area Private Industry Council.

Business/Industry Coordination

- Two-thirds of the respondents have appointed business/industry coordinators on their campuses.

Large Private Sector Employer Training

- Nearly three-fourths of all respondents said they offer employee training programs for large private sector employers.
- Nearly 41 percent of all respondents offer customized training; 28 percent provide job-specific training; 14 percent offer generic training; and nine percent provide all three types of training.
- 30 percent of all respondents provide employee training programs for major, local labor unions.
- 78 percent of the respondents reported offering training at plant/business sites.
- 35 percent of the respondents reported contract training as the main source of funding for their cooperative efforts with local business; 31 percent reported income from tuition; 23 percent indicated state grants as a method of supporting these activities; 10 percent of the respondents listed federal grants as a source of support.
- 68 percent of the respondents reported that their training is subsidized by state and/or local funding.
- 26 percent of the respondents provided contract training for the area employment security system.

Public Sector Employers

- Three-fourths of all respondents reported that they offer training for public sector employees. More urban and suburban colleges (80 percent) engage in such training than do institutions located in rural areas (70 percent).
- Nearly one-half of all the public employee training provided by the respondents is for the employees of city and county governments. Training employees of school districts is second (23 percent); 11 percent of the respondents train state government employees.

Small Business Support

- 83 percent of the respondents reported providing small business support beyond traditional credit course work.

- One-third of all respondents who provide support to small business offer it in the form of short-term workshops/seminars; 23 percent of the respondents offer short courses; 19 percent of the respondents offer technical assistance.
- Nearly two-thirds of all respondents reported offering small business support services in credit form.

High School/College Partnerships

- Nearly nine out of ten respondents said they have collaborative arrangements with the high schools in their areas.
- More than two-thirds of the colleges reported offering credit courses to local high school students; one-tenth offer non-credit courses; and over one-fifth reported offering both credit and non-credit courses to high school students.
- 30 percent of the respondents reported having advanced placement programs; 29 percent have articulated some of their courses with the schools; 13 percent share faculties; 11 percent indicated that they have cooperative program enrollments; and 11 percent reported that they share facilities with local schools.

Economic Development Offices

- 80 percent of the colleges reported involvement with local and state economic development offices.
- 52 percent of all respondents reported cooperative programs with both local and state economic development offices; 34 percent reported such relationships with only local offices; and 14 percent reported involvement with state economic development offices only.
- Nearly one-half of all respondents reported providing technical assistance to economic development offices.

APPENDIX B

DIRECTORY OF RESPONDENTS

COLLEGE NAME	RESPONDENT	TITLE
RURAL		
Bay De Noc Community College Escanaba, MI 49829 (906) 786-5802	James Peterson	Dean of Student Services
College of S. Idaho P.O. Box 1238 Twin Falls, ID 83303-1238 (208) 733-9554	N. Robert Wright Jr.	Dir. of Admissions & Rec.
Illinois Central College East Peoria, IL 61635 (309) 694-5436	Dr. Gerald Holzhauer	Dir. Academic Support Serv.
Jamestown Community College 525 Falconer Street Jamestown, NY 14701 (716) 655-5220	Rose M. Scott	Dir. Dev. Center for Bus.
N. Dakota State School Wahpeton, ND 58075 (701) 671-2249	Alvin C. Eckre	Dir. of Admiss. Services
Northern Essex Comm. College 100 Elliott Street Haverhill, MA 01830 (617) 374-0721	Dr. Ann Marie Delaney	Research Director
Williamsport Area Comm. Coll. 1005 W. Third Street Williamsport, PA 17701-9981 (717) 326-3761	Kathryn Marcello	Dir. of Inst. Research
SUBURBAN		
Asnuntuk Comm. College P.O. Box 68 Enfield, Conn. 06820 (203) 745-1603	Brian Rivard	Registrar
Catonsville Comm. Coll. 800 South Rolling Rd. Catonsville, MD 21228 (301) 455-4777	P. Michael Carey	Assoc. Dean-Cont. Ed. Career Prog. & Comm. Services

COLLEGE NAME	RESPONDENT	TITLE
SUBURBAN (cont'd)		
College of Dupage 22nd Street and Lambert Road Glen Ellyn, IL 60137 (312) 858-2800	Gary Rice	Dir. Research and Planning
Community College of Rhode Island 400 East Avenue Warwick, RI 02886 (401) 825-1000	Richard Anderson	Cood. B/I Programs
Dekalb Community College 495 N. Indian Creek Drive Clarkston, GA 30021 (404) 299-4093	Berman E. Johnson	Dir. Research & Planning
Delaware Technical & Comm. College P.O. Box 897 Dover DE 19903 (302) 736-3732	Anthoney Digenakis	Assist. to Pres. for Specialized Training.
Dundalk Community College 7200 Sollers Point Road Baltimore, MD 21222 (301) 522-5709	Dr. K. Rajasekhara	Dir. Research & Grants
Ft. Steilcoom Community College 9404 112th Street East Puyallup, WA 98373 (206) 848-9331	Martin Lind	Coord. of Special Projects
Hagerstown Jr. College 751 Robinwood Dr. Hagerstown, MD 21740 (301) 790-2800	M. Parsons	Dean of Instruction
Henry Ford Comm. College 5101 Evergreen Dearborn, MI 48128 (313) 271-2750	J. Michael Meade	
Mt. Hood Community College 26000 SE Stark Gresham, OR 97030 (503) 667-7312	Barbara Updegraff	
Macomb Community College 44575 Garfield Road Mount Clemens, MI 48044 (313) 285-2052	Edward F. Breen	Dir. of Research

COLLEGE NAME	RESPONDENT	TITLE
SUBURBAN (cont'd)		
Middlesex County College Woodbridge Avenue Edison, NJ 08818 (201) 548-6000	Dr. Madan Capoor	Dir. Research & Planning
Northern Virginia Comm. College 4001 Wakefield Chapel Road Annandale, VA 22003 (703) 323-3129		Office of Institutional Research
Northampton Community College 3835 Green Pond Road Bethlehem, PA 18017 (215) 861-5456	James G. Kennedy	Dir. Research & Planning
Orange City Community College 115 South Street Middletown, NY 10940 (914) 343-1121 X1050	Gail Mee	Dir. Institutional Research
Pima Community College 1225 North 10th Ave. Tucson, AZ 85705 (602) 884-6666	Carl Webb	B/I Coordinator
Pitt Community College P.O. Box Drawer 7007 Greenville, NC 27834 (919) 756-3130	Jack Robinson	Coord. Cooperative Skills
Pueblo Community College 900 W. Orman Avenue Pueblo, CO 81004 (303) 549-3331	Dr. Larry Moorman	Dean of Adult & Cont. Ed.
St. Inst. at Memphis 5983 Macon Cove Memphis, TN 38134 (901) 377-4235	Cheryl A. Bingham	Mgr. Spec. Projects
Westark Community College P.O. Box 3649 Fort Smith, AR 72903 (501) 785-4241	Sandi Sanders	Dir. Continuing Education
URBAN		
Anchorage Community College 2533 Providence Ave. Anchorage, AK 99508 (907) 786-1654	Dr. Loretta Seppanen	Dir. Institutional Research

COLLEGE NAME	RESPONDENT	TITLE
URBAN (cont'd)		
City College of San Francisco 50 Phelan Avenue San Francisco, CA 94112 (415) 239-3000	Larry Broussal Shirley Kelly	Dean-Admiss. & Records Dean of Instruction
Comm. Coll. of Allegheny Co. 800 Allegheny Ave. Pittsburgh, PA 15233 (412) 323-2323	Diana L. Smyrl	Dir. Training & Econ. Dev.
Comunity College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130 (215) 751-8029	Thomas R. Howks	Assistant to President
Community College of Spokane N 1810 Greene Street Spokane, WA 99203 (509) 459-3779	F. Leigh Hales	Assistant Dean B/I
Central Piedmont Comm. College P.O. Box 35009 Charlotte, NC 28235 (704) 373-6633	Otto A. Lockee	V.P. Corp. Services
Chicago City-Wide College 420 N. Wabash Ave. Suite 703 Chicago, IL 60611 (312) 670-0436	Sandra Foster	Executive Dir. B/I
Cuyahoga Community College 700 Carnegie Avenue Cleveland, OH 44115 (216) 348-4776		Institutional Planning & Research
Dallas Cnty. Comm. College Dist. 701 Elm, Suite 200 Dallas, TX 75202 (214) 746-2449	John W. Pruitt	Career & Cont. Ed. Assist.
Eastern Iowa Comm. College 2804 Eastern Ave. Davenport, IA 52803 (319) 322-5015	Gary Mohr/Teresa	E. Iowa B/I Center
El Paso Community College P.O. Box 20500 El Paso, TX 79998 (915) 534-4038	Dr. Josefina Veloz	Dir. Institutional Eval.

COLLEGE NAME	RESPONDENTS	TITLE
URBAN (cont'd)		
Fashion Inst. Tech. 227 West 27th Street New York, NY 10001 (212) 760-7672	Dr. G. Appignani	V.P. for Development
Florida Jr. College 101 West State Street Jacksonville, FL 32202 (904) 633-8284	Dr. James R. Meyers	Dean Occupational Ed.
Honolulu Community College 874 Dillingham Blvd. Honolulu, HI 96817 (808) 845-9122	Walter P. S. Chun	Dir. Special Programs
Kansas Comm. College 7250 State Ave. Kansas City, KS 66212 (913) 334-1100 X165	G. F. Dietrich	Dir. Community Education
Maricopa Cty. Comm. College 3910 E. Van Burek Phoenix AZ 85034 (602) 267-4473	John Lewis	Coord. B/I Training Service
Metropolitan Comm. College 3822 Summit Road Kansas City, MO 64111 (816) 756-0220	Charles F. Henry	Dir. High Tech. Training Resource Center
Metropolitan Tech. P. O. Box 3777 Omaha, NE 68103 (402) 449-8417	Henry Wm. Pliske	Dir. Coll. Planning & Dev.
Miami-Dade Community College 950 N.W. 20th Street Miami, FL 33127 (304) 347-4133	William Succop	Dean-Occupational Ed.
Minneapolis Comm. College 1501 Hennepin Ave. Minneapolis, MN 55409 (612) 341-7022	C. M. Heelan	Assoc. Dean of Instruction
Peralta Comm. College Distr. 333 E. Eight Street Oakland, CA 94606 (415) 466-7314	McKinley Williams	Dir. Research Plan. & Dev.

COLLEGE NAME	RESPONDENT	TITLE
URBAN (cont'd)		
Portland Comm. College 12000 S.W. 49th Ave. Portland, OR 97219 (503) 244-6111	Chris Meyers	Coord. Program Mktg.
Rancho Santiago Comm. College 17th & Bristol Streets Santa Ana, CA 92706 (714) 667-3497	Paul Amorino	Coord. Occ. Ed., Spec.
Sinclair Community College 444 W. Third Street Dayton, OH 45402 (513) 226-2854	Elizabeth Klauk	Dir. Inst. Research & Information Systems
State Tech Inst. at Knoxville P.O. Box 19802 5908 Lyons View Drive Knoxville, TN 37939-2802 (615) 584-6103	Lonnie Butler	Dir. Institutional Research
Valencia Community College P.O. Box 3028 Orlando, FL 32802 (305) 299-5000	Dr. Thomas J. Ridley	Assist. V.P. for Institutional Services

KEEPING AMERICA WORKING INDUSTRY TRAINING INVENTORY

Please contact James McKenney (202) 293-7050 with any questions regarding the survey.

(Please print.)

I. GENERAL

1. Name of college: _____

2. FICE Code No.: _____

3. Name of staff completing this survey: _____

Title: _____

Address: _____

_____

_____

Phone: (_____) _____

II. CREDIT ENROLLMENT (Fall 1984)

5. Number FTE _____ Total headcount _____

6. Percentage (%) of that headcount taking occupational/technical courses _____

7. Enrolled: _____% Total _____% Part-time _____% Full-time

8. Employed: _____% Total _____% Part-time _____% Full-time

9. Sex: _____% Male _____% Female

10. Ethnic: _____% Caucasian _____% Black
_____% Hispanic _____% Native American
_____% Asian _____% Other

11. Age: _____% under 21 _____% 22 to 25
_____% 26 to 30 _____% 31 to 40
_____% 41 to 50 _____% 51 to 60
_____% over 60

12. The average age is _____

III. NON-CREDIT ENROLLMENTS (Fall 1984)

13. Number _____

14. Percent registered in occupational/technical courses _____%

15. Employed: _____% Total _____% Part-Time _____% Full-time

16. Sex: _____% Male _____% Female

17. Ethnic: _____% Caucasian _____% Black
_____% Hispanic _____% Native American
_____% Asian - _____% Other

18. Age: _____% under 21 _____% 22 to 25
_____% 26 to 30 _____% 31 to 40
_____% 41 to 50 _____% 51 to 60
_____% Over 60

19. The average age is _____

IV. TECHNICAL AND VOCATIONAL PROGRAMS

20. Number of occupational programs leading to an associate degree: _____

Number of occupational programs leading to a certificate: _____
Does each degree program have an Advisory Committee from industry?
_____yes _____no

21. What occupational degree programs enroll the greatest numbers of employees from given firms? List four or five.

Program	Firm
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____
e. _____	e. _____

22. What formal arrangements does the college make for awarding credit for work-related experience?

A) Cooperative Education yes_____ no_____

B) Work Study yes_____ no_____

C) National Guide for Training Programs (American Council on Education) yes_____ no_____

D) Apprenticeship Program Training yes_____ no_____

E) Non-Apprentice Industry Training yes_____ no_____

F) Military Training yes_____ no_____

G) Other yes_____ no_____

Identify:_____

_____

_____

If the college does offer credit for work-related experience, what is the maximum number of credits that may be obtained? _____

V. TRANSFER PROGRAMS

23. List the four institutions to which most of the students who are pursuing baccalaureate degrees transfer:
    a. _____
    b. _____
    c. _____
    d. _____

24. Approximately _____ percent of students transferred to 4-year institutions in 1983?

25. Of the total accepted for transfer by 4-year institutions, what number were degree graduates in occupational/technical fields? _____

26. What was the total number of your students transferring to 4-year institutions in 1983, regardless of whether they completed a degree or certificate program with your college? _____

27. Of your current (1984) total student population, how many have completed degree programs already? (If 1984 data are not available, please substitute 1983 numbers.)

Degree	Year
_____ Associate Degree	_____
_____ Bachelor's Degree	_____
_____ Master's Degree	_____
_____ PhD Degree	_____

VI. COMMUNITY ECONOMIC PROFILE

Check the characteristics in each column that best describe the economic/industrial community in which your college operates:

___ Heavy Industry	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None
___ Light Industry	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None
___ High Technology	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None
___ Service	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None
___ Retail	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None
___ Other	___ Over 3,000 Employees ___ 2,000-3,000 Employees ___ 1,000-1,999 Employees ___ 500-999 Employees ___ 100-499 Employees ___ 50-99 Employees ___ Under 50 Employees	___ Over 20 ___ 10-19 ___ 5-9 ___ 1-4 ___ None

B. ORGANIZATIONAL PROFILE

1. Independent local ownership
   ____ Regional based corporate
   ____ Subsidiary
   ____ National
   ____ International
   ____ Etc.

2. Please list at least 3 of the private companies with which you have on-going training programs:

Name of Company	/	Average No. of Trainees/Year
	/	
	/	
	/	

C. MILITARY CONTRACTS

1. Does your college conduct formal educational training for service personnel at any military base(s) located in your service area? yes _____ no_____
   If yes, list base(s):

_____
_____
_____
_____

2. The largest military contract for 1984 was valued at $_____.

Thank you for your assistance. Please return the form to: Dr. K. Rajasekhara, Director of Institutional Research and Grants, Dundalk Community College, 7200 Sollers Point Road, Dundalk, MD 21222

VII. RAW EMPLOYMENT DATA SURVEY

COMPANY: (If company is national or multi-national, give data only for plants and/-or operations within your college district. Please give company's full name and the name and titles of both its principal officer (CEO) in your district and the senior executive in charge of training. If you are a multi-campus district, please provide composite data for all your colleges.)	Number of Full-time Employees	Total Number of Employees	Number of Employees who hold degrees or occupational certificates from your college	Number of Employees currently enrolled in job-related courses in your college	Are the Employees taking job-related courses fully or partially subsidized by the company: Check appropriate box	Does company provide work-release time for Employees to take these job-related courses?	Do the company's recruiters have regular interview schedules on your campus?
Firm _____ CEO _____ Training Executive _____ Phone Number _____					___Fully ___Partially ___No subsidy ___JTPA	___Yes ___No	___Yes ___No
Firm _____ CEO _____ Training Executive _____ Phone Number _____					___Fully ___Partially ___No subsidy ___JTPA	___Yes ___No	___Yes ___No
Firm _____ CEO _____ Training Executive _____ Phone number _____					___Fully ___Partially ___No subsidy ___JTPA	___Yes ___No	___Yes ___No
Firm _____ CEO _____ Training Executive _____ Phone Number _____					___Fully ___Partially ___No subsidy ___JTPA	___Yes ___No	___Yes ___No

(a) Duplicate this sheet as many times as necessary to give your complete list of major employers, per instructions.

(B) For each firm you list, please complete the "course list" which is the second page of the survey instrument.

VIII. COURSE LIST

From preceding page: Firm Number (#)_____ Firm Name_____

List for each firm up to ten courses in which the company's employees are most heavily or most frequently enrolled. List them in descending rank of enrollment and provide current estimates of company's employees enrolled in the course, if such estimates are available. Check more than one response if appropriate.

Course Title	Course location (Company plant, Campus)	Source of equipment (Company, College)	Source of instruction materials.	Instructors used in course.	College credit given.	Credit applies toward two-year degree or certificate
1.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. Personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
2.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. Personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
3.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. Personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
4.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. Personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
5.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
6.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other
7.	___Plant ___Campus ___Other	___Company ___College ___Other	___Company ___College ___Other	___Regular faculty ___Co. personnel ___PT non-Co. fac.* ___Other	___Yes ___No	___Degree ___Certificate ___Other

* Part-time non-Company faculty

(a) Duplicate this sheet as many times as necessary to make your COURSE LIST for each campus.

IX. TRAINING INVOLVING JTPA FUNDING:

JTPA Program Title	Description	Dates	Budget Total $	Budget JTPA $	State	County	City	Company	Other	Number of Participants	Administrative Entity/Unit
1.											

LIST OF UNDUPLICATED COURSES
OFFERED BY PARTICIPATING COLLEGES TO BUSINESS AND INDUSTRY

LOCATION	COLLEGE NAME	COURSE TITLE
RURAL	Bay De Noc Community College Escanaba, Michigan 49829 (906) 786-5802	1. Basic Industrial Hydraulics 2. Blueprint Reading 3. Electrical 4. Interaction Mgmt. Training 5. Shop Math 6. Welding
	College of S. Idaho P.O. Box 1238 Twin Falls, ID 83303-1238 (208) 733-9554	1. Accounting 2. Computer-related courses 3. Economics 4. Marketing 5. Supervision
	Jamestown Community College 525 Falconer Street Jamestown, New York 14701 (716) 665-5220	1. Electric Trouble Shooting 2. First Line Managers 3. Genesis 2000 Training 4. Mig Welding 5. Production Manager Workshop 6. Quality Training 7. Special Woven Workshop 8. Statistical Process Control 9. Supervisory Training Program 10. Three Phase Sewing Project
	N. Dakota State School Wahpeton, ND 58075 (701) 571-2249	1. Computer Programming-BASIC 2. Computer Training 3. Geometric Tolerance 4. Introduction to Computers 5. Plant Maintenance Mechanics 6. Quality Control 7. Welding

LOCATION	COLLEGE NAME	COURSE TITLE
RURAL	Northern Essex Community College 100 Elliott Street Haverhill, MA 01820 (617) 374-0721 X199	1. Cardiovascular System 2. Childrens Literature 3. Computer Literacy 4. Creative Experience 5. Gastrointestinal System 6. Personal Computers 7. Principles of Materials Mgmt. 8. Problems of Early Child Ed. 9. Respiratory System 10. Speech & Language 11. Statistical Quality Control 12. Tech Writing for Professional
	Williamsport Community College 1005 W. Third Street Williamsport, PA 17701-9981 (717) 326-3761	1. A.C. Theory & Applications 2. Arc & Heliarc Welding 3. Auto Air Conditioning 4. Basic Motor Control 5. Basic Sheet Metal Fabrication 6. D.C. Theory & Applications 7. Electric Fundamentals 8. Electric Motor Control 9. Electronics Troubleshooting 10. First Line Supervision 11. Intro. to Microcomputers 12. Intro. to Word Star 13. Lotus 1-2-3 14. Motor Control -2 15. Statistical Process Control 16. Technical Math 17. Technical Physics I 18. Technical Physics II
	TOTAL RURAL	58
SUBURBAN	College of Dupage 22nd Street & Lambert Road Glen Ellyn, IL 60137 (312) 858-2800	1. Accounting for Manager 2. Air Conditioning 3. Allied Health Courses 4. Basic Die Theory 5. Basic Ind. Hydraulics 6. Basic Investment 7. Blueprint Reading 8. Child Care Development 9. Comm. Skills for Managers 10. Computer Basics for Managers

LOCATION	COLLEGE NAME	COURSE TITLE
SUBURBAN	College of Dupage (cont'd)	11. Computer Literacy 12. Conventional Printing 13. Corp. Gamesmanship for Women 14. Effective Leadership 15. Effective Listening for Bus. 16. Electronics Technology 17. English Courses 18. Financial Planning for Women 19. How to Write Winning Reports 20. Increase your Supervisory Knowhow 21. Industrial Physics 22. Industrial Pipe Fitting 23. Intro. to Data Processing 24. Jig & Fixtures 25. Management by Objectives 26. Manufacturing Tech. 27. Mathematics 28. Medical Radiography 29. Medical Terminology 30. Memory Skills 31. Metals Industry 32. Microcomputers 33. Multimedia First Aid 34. Nurses Aid Training 35. Patient Ed. Workshop for Nurses 36. Pediatric Cardio-Pulan. Assess. 37. Physical Asses. of Older Adults 38. Plastic Technology 39. Principles of Marketing 40. Sales Skills Seminar 41. Select Software 42. Shop Math 43. Strength Quality Assurance 44. Success Through Assertive Mgmt. 45. Telemarketing 46. Tool Making Theory 47. Welding 49. Writing for Mgmt. Success 50. Writing for Management
	Dundalk Community College 7200 Sollers Point Road Baltimore, MD 21222 (301) 522-5709	1. Computer Literacy 2. Confined Space Rescue Training 3. Electronics 4. Human Relations 5. Industrial Bearing & Seals 6. Industrial Measurements 7. Inspector Planner 8. Intro. Data Processing 9. Labor Relations 10. Leadership Skills

LOCATION	COLLEGE NAME	COURSE TITLE
SUBURBAN	Dundalk Community College (cont'd)	11. Mathematics 12. Mechanical Drive Components 13. Pipe Fitting 14. Pump Packing 15. Stress Management 16. Supervisor Practices 17. Time Management 18. Welding 19. Writing Skills
	Ft. Steilcoom Community College 9404 112th Street East Puyallup, WA 98373 (206) 848-9331	1. Active 2. Calculus I 3. Computer Architecture 4. Digital Systems 5. Engine Repair Principles
	Mt. Hood Community College 26000 SE Stark Gresham, OR 97030 (503) 667-7312	1. Basic Arrhythmia 2. Blueprint Reading & Sketching 3. COBOL 4. Communications for Supervisors 5. Computer Numerical Control 6. Customer Relations 7. Drug & Alchohol Abuse 8. Elements of Supervision 9. FORTRAN 10. Fire Science Courses 11. Fundamentals of Speech 12. Hardware Overview 13. Intro. to Business 14. Introduction to Computers 15. LOTUS 1-2-3 16. Management Courses 17. Physical Assessment 18. Police Science Courses 19. Presentation Skills 20. Software Overview 21. Stop Smoking 22. Stress Management 23. Written Communication
	Northhampton Community College 3835 Green Pond Road Bethlehem, PA 18017 (215) 861-5456	1. Budgeting 2. Comm. Skills for Managers 3. Effective Supervision 4. Fundamentals of Marketing 5. Planning & Control 6. Principles of Finance 7. Secretarial Effectiveness 8. Telephone Techniques 9. Time Management 10. What Managers Do. 11. Word Processing

LOCATION	COLLEGE NAME	COURSE TITLE
SUBURBAN	Orange City Community College 115 South Street Middletown, New York 10940 (914) 343-1121 X1059	1. Blueprint Reading 2. Computer Literacy 3. Computer Training 4. Manufacturing Operator Training 5. Math Appn. Blueprint Reading 6. Supervisory Training 7. Technical Writing
	Pima Community College 1225 North 10th Ave. Tucson, Arizona 85705 (602) 884-6666	1. Accounting 2. Administration of Justice 3. Astronomy 4. Automotive Technology 5. Business 6. Computer Science 7. Drafting 8. Electronics 9. Engineering Construction Tech. 10. Human Development 11. Management 12. Mathematics 13. Microelectronics 14. Psychology 15. Quality Control Certification 16. Solder Training 17. Speech 18. Tire Science 19. Woodshop 20. Writing
	St. Inst. at Memphis 5983 Macon Cove Memphis, Tennessee 38134 (901) 377-4235	1. A.C. Circuits 2. Air Conditioning 3. BASIC Programming for Tech 4. Basic Math 5. Blueprint Reading 6. Computer Systems 7. D.C. Circuits 8. Electrical Machines & Control 9. Frontline Supervision 10. Human Relations 11. Industrial Electricity 12. Intro. to Electronic Tech. 13. Mechanical Tech Refresher 14. Microcomputer Programs 15. Minicomputer Applications 16. Oral Communications 17. Participative Management 18. Quality Control 19. Solid State Devices

LOCATION	COLLEGE NAME	COURSE TITLE
SUBURBAN	Westark Community College P.O. Box 3649 Fort Smith, AR 72903 (501) 785-4241	1. Advance Electric Circuits 2. Basic Machine Shop 3. COBOL Programming 4. Digital Circuits 5. Electrical Circuits & Components 6. Fundamentals of Electricity 7. Gen. Welding Appln. & Practice 8. Industrial Electricity 9. Industrial Electricity II 10. Machine Setup & Operations I 11. Machine Setup & Operations II 12. Solid State Components & Circuits 13. Systems Design Implementation 14. Teleprocessing Applications
	TOTAL SUBURBAN	168
URBAN	Anchorage Community College 2533 Providence Ave. Anchorage, Alaska 99508 (907) 786-1654	1. Business English Review 2. Interpersonal Skills in Office 3. Stress Management 4. Women in Business & Management
	Comm. College of Allegheny Co. 800 Allegheny Ave Pittsburgh, PA 15233 (412) 323-2323	1. A. C. Circuits 2. Advance Comp. Programming 3. Apprenticeship Training 4. Basic Electronics 5. Basic Welding 6. Combustion Technology 7. Communication Strategies 8. Construction Graphics 9. D.C. Circuits 10. Defining Goals & Objectives 11. Electric Instrumentation 12. Electrical Code 13. Electronics 14. Estimating Construction Charges 15. FCC License 16. Heating & Air Conditioning 17. Hospital Cost Accounting 18. Hydraulics 19. Inservice Training for Mechanic 20. Interviewing Skills 21. Intro. to Computers 22. Keyboard Mastery 23. Management Training 24. Microcomputers 25. Microprocessing 26. Millwright 27. Mine Safety 28. Motivation 29. Motor Winding 30. Multimedia First Aid

LOCATION	COLLEGE NAME	COURSE TITLE
URBAN	Coll. of Allegheny Co. (cont'd)	31. Organizational Conflicts 32. Personal Investment 33. Programmable Controllers 34. Refrigeration & Air Conditioning 35. Scientific Programming I 36. Scientific Programming II 37. Soldering 38. Statistics for Quality Control 39. Strategic Planning 40. Stress Management 41. Team Building 42. Technical Writing 43. Time Management 44. Upgrad Heating, A.C. & Elec. 45. Upgrad Skills of Prod. Workers 46. Welding
	Comm. College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130 (215) 751-8029	1. Accounting Seminars 2. American Sign Language 3. Assertiveness for Managers 4. Basic Expository Writing 5. Business Communications 6. Comm Skills for Ward Clerks 7. Communication Skills 8. Customer Relations 9. Data Entry Tech. 10. Driver/Passenger Skills 11. Manaement Training 12. Medical Terminology 13. Overview of Gerentology 14. Secretarial Development 15. Security Training 16. Word Processing
	Comm. College of Spokane N. 1810 Greene Street Spokane, WA 99203 (509) 459-3779	1. Basic Electronics 2. Blueprint Reading 3. Business Correspondence 4. Conducting Effective Meetings 5. Hydraulics 6. Interpersonal Relations 7. Keyboarding 8. Library Tech. 9. Production Inventory & Control 10. Statistics for Engineers 11. Stress Management 12. Supervisory Training 13. Teamwork in Organizations 14. Technical Writing 15. Television Prod. Tech. 16. Visual Media Tech. 17. Welding 18. Written Communications

LOCATION	COLLEGE NAME	COURSE TITLE
URBAN	Central Piedmont Comm. Coll. P.O. Box 35009 Charlotte, NC 28235 (704) 373-6633	1. Blueprint Reading 2. Bread & Roll Cook 3. Communication Skills 4. Food Preparation Training 5. House Keeper 6. Individual Referral 7. Machine Operator 8. Material Handling 9. Packaging/Crating 10. Quality Control 11. Secretarial Training 12. Shop Math
	Cuyahoga Comm. Coll. 700 Carnegie Avenue Cleveland, Ohio 44115 (216) 348-4776	1. Career Skills Development 2. Clerical Training for Dis. Work 3. Job Search Workshops 4. Placement Counseling 5. Training in Office Procedures
	Eastern Iowa Comm. College 2804 Eastern Avenue Davenport, IA 52803 (319) 322-5015	1. Accounting 2. Action Skills for Productivity 3. Air Con. & Refrigeration 4. Assembler I 5. BASIC 6. Comm. Skills for Supervisors 7. Effect. Mgmt. Practices 1,2,3 8. Electronics 9. IBM-PC Orientation 10. Intro. to Business 11. Intro. to Small Bus. Computers 12. Lotus 1-2-3 13. Management & Supervision 14. Welding
	El Paso Comm. College P.O. Box 20500 El Paso, Texas 79998 (915) 534-4038	1. Advanced Maintenance 2. Advanced Management 3. Basic Maintenance 4. Basic Pipe Fitting 5. Basic Trade Math 6. Blueprint Reading 7. Business Law 8. Business Math 9. Consumer Math 10. ESL Literacy 11. ESL Oral Language 12. ESL Writing 13. Intro to Data Processing 14. Intro to Psychology 15. Paint Tech. 16. Personal Discovery 17. Personal Finance 18. Plastic Mold Injection

LOCATION	COLLEGE NAME	COURSE TITLE
URBAN	El Paso Comm. College (cont'd)	19. Precision Instrument Measurement 20. Principles of Management 21. Quality Assurance Technician 22. Sub-Assembling & Deburning 23. Tool & Die
	Fashion Inst. Tech. 227 West 27th Street New York, New York 10001 (212) 760-7672	1. Apparel Manufacturing 2. Apparel Specification 3. BASIC 4. Buyer Training Workshop 5. Fashion Basic Workshop 6. Grooming Workshop 7. Imports Workshop 8. Knit Sweaters Workshop 9. Leather Goods Workshop 10. Management Institute 11. Merchandise Trends Workshop 12. Motion & Time Study Seminar 13. Orientation to Textiles 14. Pattern Making Concept 15. Production Manager Workshop 16. Retail Marketing 17. Retail Math Workshop 18. Special Woven Workshop 19. Textile Apparel Workshop 20. The ABC's of Advertising 21. Visual Merchandising Workshop
	Florida Jr. College 101 West State Street Jacksonville, Florida 32202 (904) 633-8284	1. Auto Machine Shop 2. Blueprint Reading 3. Carpentry 4. Industrial Electronics 5. Industrial Supervision 6. Industrial Safety 7. Machine Shop 8. Millwright 9. Pipe Fitting 10. Pre-employment Training 11. Supervision 12. Welding
	Metropolitan Comm. College 3822 Summit Road Kansas City, MO 64111 (816) 756-0220	1. Advanced Blueprint Reading 2. Advanced Sign Language 3. Allied Health Training 4. Assembler 5. Auditor Training 6. Automated Office Skills 7. Bankruptcy 8. Basic Telecommunications 9. Beauty & Skin Care 10. Blueprint Reading 11. Business Law 12. Business Writing

LOCATION	COLLEGE NAME	COURSE TITLE
URBAN	Metropolitan Comm. Coll. (cont'd)	13. Certified Hotel Administration 14. Certified Medication Tech. 15. Clerical Office Training 16. Climate Control 17. Communication 18. Computer Applications in Bus. 19. Computer Familiarization 20. Computer Literacy 21. Computer Operator's Training 22. Computer Systems Training 23. Computerized Bookkeeping 24. Cost Analysis/Bidding 25. Customer Relations 26. Customized Training 27. Data Entry 28. Dealer Management 29. Dental Assistant Training 30. Distribution Techniques 31. Effective Business Writing 32. Emergency Medication Tech. 33. Employee Development 34. Employee Mgmt. Training 35. Employee Upgrade Program 36. Entrepreneurship Seminar 37. Fast Food Service Training 38. Fire Prevention 39. GM Automotive Familiarization 40. GM Computer Control Systems 41. IBM PC Training 42. Insulin Training 43. Intergraphic Systems 44. International Trade 45. Investing in Oil Seminar 46. Keyboarding 47. Lead Cook Training 48. Letter Writing 49. Litigation, Estate, Probate Law 50. Lotus 1-2-3 51. Machinist Training 52. Management Intership 53. Management Supervision 54. Management Training 55. Manufacturing Process Overview 56. Marketing and Salemanship 57. Medical Transcriptionist 58. Medical Terminology 59. Mgmt LPN Nurses Training 60. Microcomputer Programming 61. Northland Leadership 62. Operating & Profitable Bank 63. Paramedic Workshop 64. Problem Solving 65. Processing Fee for State Fund

LOCATION COURSE TITLE	COLLEGE NAME
URBAN	Metropolitan Comm. Coll. (cont'd)
	66. Production Skills
	67. Proofreading
	68. Report Writing
	69. Retraining of Personnel
	70. Robotic Training
	71. Sales Relations
	72. Salesmanship
	73. Secretarial Training
	74. Shorthand
	75. Sign Language
	76. Social Service Designee
	77. Stress Management
	78. Supervision
	79. Supervisory Training
	80. Supervisory Warehouse Mgmt.
	81. Systems Design
	82. Telephone System Training
	83. Telephone Usage Training
	84. Time Management
	85. Train the Trainer
	86. Training Consultation
	87. Training in Thin File
	88. Training in Wafer Prep.
	89. Venture Captial
	90. Waitress Training
	91. Wang Glossary
	92. Wang Word Processing Training
	93. Women Re-Entry
	94. Word Processing
	95. Word Star
	96. Writing and Speech
Metropolitan Tech. P.O. Box 3777 Omaha, NE 68103 (402) 449-8417	1. Arc, Oxy, & Acetylene Welding
	2. Automatic Transmission
	3. Basic Interior Decoration
	4. Basic Supervision
	5. Boiler Operation
	6. Blueprint Reading & Schematics
	7. Computer Literacy
	8. Computers for Data Entry Instrn.
	9. Electrical Maintenance
	10. Elements of Mechanics & Lubri.
	11. Environmental Controls
	12. Equip. Instln. & Sheet Metal Layer
	13. Heavy Equipment Maintenance
	14. House Keeping Tech.
	15. Industrial Hydraulics
	16. Machine Shop
	17. Nuclear Plant Welding Training
	18. Oral Communication
	19. Piping Systems and Pumps
	20. Plumbing Maintenance

LOCATION COURSE TITLE	COLLEGE NAME
URBAN Metropolitan Tech. (cont'd)	21. Technical Math & Measurement 22. Welding 23. Welding Safety 24. Written Communication
Miami-Dade Comm. Coll. 950 N.W. 20th Street Miami, Florida 33127 (304) 347-4133	1. Accounting Principles 2. Analyzing Financial Statement 3. Banking & Business Courses 4. Business Writing 5. Business/Professional Speaking 6. Comp. Asst. Design Drafting Workshop 7. Computer Literacy 8. Computerized Accounting 9. Condor Programming 10. Conversation 11. Counseling Skills for Managers 12. Credit Administration 13. Cultural Anthropology 14. D-Base II Programming 15. Emergency Medical Technician 16. Financial Services 17. Funeral Services Courses 18. Humanities 19. Improving Employee Performances 20. Improving Mangerial Skills 21. Intro. to Elevator Electronics 22. Introduction to Data Processing 23. Introduction to Electronics 24. Introduction to Engineering 25. Introduction to Microcomputers 26. Lotus 1-2-3 27. Lotus 1-2-3 Advanced 28. Lotus 1-2-3 Intermediate 29. Leadership & Management Skills 30. Management 31. Management Development Program 32. Management Supervision 33. Managing Your Time 34. Marketing/Bankers 35. Medical Terminology 36. Multiplan Processing 37. Nat. Inst. of Food Certification 38. Nursery Principles & Practices 39. Optimum Performance 40. Paramedic Training 41. Pensions & Retirement 42. Perform. Appraisal & Discpl. Action 43. Principles & Practices of Market 44. Principles of Economics 45. Public Speaking Skills for Executives

LOCATION COURSE TITLE	COLLEGE NAME
URBAN	Miami-Dade Comm. Coll. (cont'd)
	46. Statistics for Behaviorial Soc. Sci.
	47. Stress Management
	48. Survey of Management
	49. Symphony Processing
	50. Team Building
	51. Technical Math
	52. The Living Computer
	53. Understanding Motivation & Work
	54. Water Treatment Plant Operator
	55. Writing Development
	Minneapolis Comm. Coll. 1501 Hennepin Ave. Minneapolis, Minnesota 55409 (612) 341-7022
	1. Business Courses
	Portland Comm. Coll. 12000 S. W. 49th Ave. Portland, OR 97219 (503) 244-6111
	1. Business Letter Writing
	2. CPR
	3. Computer Drafting
	4. Coding Medical Records
	5. Correction Case Worker
	6. Customer Relations
	7. Electronics
	8. Emergency Medical Tech.
	9. Fire Arson Investigation
	10. Management
	11. Phlebotomy
	12. Refrigeration
	13. Technical Report Writing
	14. Welding
	Rancho Santiago Comm. Coll. 17th and Bristol Streets Santa Ana, California 92706 (714) 667-3497
	1. Automated Stock Control Clerk
	2. Comm. Skills for Engineers
	3. Computer Aided Drafting
	4. Computerized Machine Operator
	5. Coordinated Design Decision
	6. Diesel Mechanic/Technician
	7. Materials Requirements Planning Optr.
	8. Senior Test Technician
	Sinclair Comm. College 444 West Third Street Dayton, Ohio 45402 (513) 226-2854
	1. Accounting
	2. Business Law
	3. Computer Assisted Design I, II
	4. Computer Concepts
	5. Computer Literacy
	6. Electronic Workshop
	7. Geometric Tolerancing
	8. Industrial Managememt
	9. Marketing
	10. Management Principles
	11. Portfolio Development
	12. Rapid Editing
	13. Stress Management

LOCATION	COLLEGE NAME	COURSE TITLE
URBAN	State Tech Inst. at Knoxville P.O. Box 19802 5908 Lyons View Drive Knoxville, TN 37939-2802 (615) 584-6103	1. Accounting 2. Basic Electricity 3. Blueprint Reading 4. D-Base Programming 5. Digital Electronics 6. Electrical Maintenance 7. Electronics 8. Financial Management 9. Gearing Maintenance 10. Hydraulics I, II, III 11. Introduction to Microcomputers 12. Mechanical Maintenance 13. Shaft Alignment
	Valencia Community College P.O. Box 3028 Orlando, FL 32802 (305) 299-5000	1. Accounting 2. Accounting 1 & 2 3. Business Math 4. Communications 5. Comp. Prog. for Severely Disabled 6. Computer Literacy 7. Congestive Heart 8. Credit Union Operations 9. Critical Care Nursing 10. Data Processing 11. Dealing with Angry Customers 12. Death/Dying 13. EKG Monitoring/Interpretation 14. Elected Officials Instruction 15. I.V. Therapy 16. Infection Control 17. Interviewing & Documenting 18. Keyboard Mastery 19. Keyboarding 20. Mastery Teaching 21. Management Communications 22. Performance Appraisals 23. Principles of Economics 24. Report Writing 25. Salesmanship 26. Stress Management 27. Supervision 28. Supervisory Skills for Gov't Employees 29. Time Management 30. Typing Skills 31. Word Processing
	TOTAL URBAN	426
	TOTAL ALL COLLEGES	652