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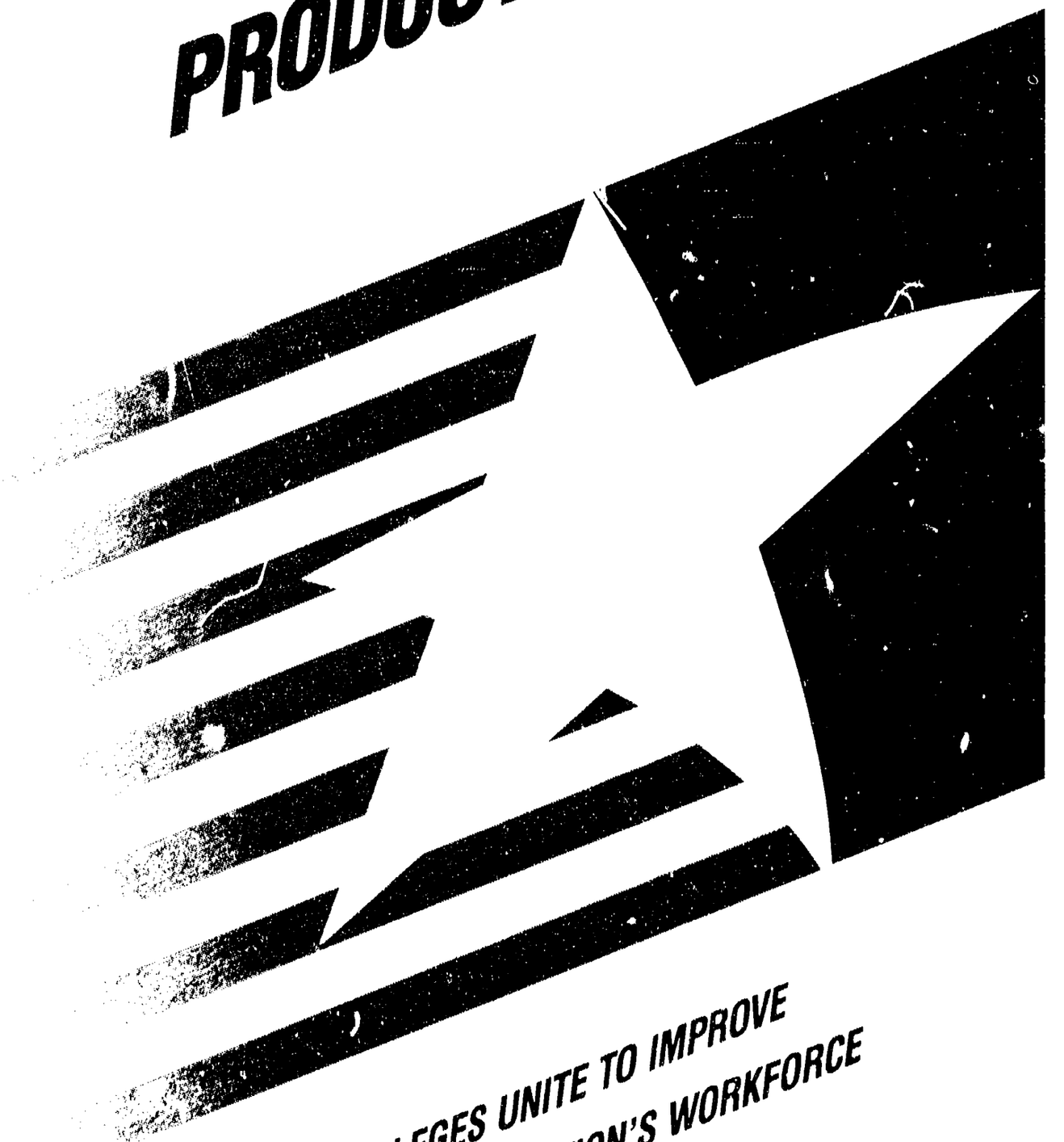
ABSTRACT

The Productive American Project was initiated by the National Council for Occupational Education to explore human resource issues related to productivity and competitiveness, and the role of two-year colleges in human resource development. The results of this project are presented in two reports. The first monograph provides a discussion of several issues related to productivity, including: (1) global economic competition; (2) the need to increase the nation's production of quality goods and services; (3) the improvement of productivity by upgrading the quality of the current workforce through retraining and recruiting, educating, training, and placing new and nontraditional workers; (4) special populations that comprise the emerging workforce and their educational and training needs; (5) the strengths of two-year colleges that are applicable to human resource development; (6) a strategic model for training the new workforce; and (7) model two-year college programs. The second monograph reviews current public policy issues related to the role of two-year colleges and workforce productivity. Federal workforce training programs summarized in the second report include the Job Training Partnership Act, the Carl D. Perkins Vocational Education Act, the Job Opportunities and Basic Skills Act, the Worksite Literacy Program, the Cooperative Education Act, the Federal Student Aid Program, and State Job Training Programs. A series of recommendations conclude the report, including those directed toward two-year colleges and their national organizations and toward the U.S. Department of Labor. The executive summary highlights the various issues and recommendations discussed in the first monograph. (JMC)

THE NATIONAL COUNCIL FOR
OCCUPATIONAL EDUCATION AND THE
AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES
PRESENT

PRODUCTIVE AMERICA



TWO-YEAR COLLEGES UNITE TO IMPROVE PRODUCTIVITY IN THE NATION'S WORKFORCE

EXECUTIVE SUMMARY

The National Council for Occupational Education

and the

American Association of Community and Junior Colleges

Present

PRODUCTIVE AMERICA

TWO-YEAR COLLEGES UNITE TO IMPROVE PRODUCTIVITY IN THE NATION'S WORKFORCE

EXECUTIVE SUMMARY

January 1990

FOREWORD

Improving Productivity

The **Productive America** project was undertaken by the National Council for Occupational Education (NCOE) in recognition of the great importance to the nation of improving productivity in the workforce and of the special role that two-year colleges and technical institutes play in this effort.

NCOE

Organized in 1975, NCOE brings together close to 500 community colleges with intensive programs in occupational education. NCOE is affiliated with the American Association of Community and Junior Colleges, the national education group which represents approximately 1,300 two-year colleges.

Task Force

NCOE formed the Human Resource Development/Productivity Task Force in 1987 to focus attention on the issues of productivity. The Task Force has received financial support for this project from the Employment and Training Administration of the U.S. Department of Labor.

Two Reports

The results of the **Productive America** Project are documented in two reports. Monograph I provides a discussion of quality productivity; the various measures of productivity, highlighting human resource productivity; the potential contribution by two-year colleges; the special populations that comprise the emerging workforce and their special needs; and concludes with a series of recommendations directed at those institutions which desire to strengthen their role in building America's competitiveness by training the workforce of tomorrow. Monograph II examines public policy issues related to the role of two-year colleges and workforce productivity.

Executive Summary

This Executive Summary highlights the various issues and recommendations discussed in Monograph I.

Disclaimer

The views in this study are solely those of the authors. No opinions, statements of fact, or conclusions contained in this document can properly be attributed to NCOE or its contracting agencies.

EXECUTIVE SUMMARY

America has been blessed with creative, aggressive leadership, both in its political and in its business/industrial arenas. From early on, it has been the land of opportunity for free enterprise and a home to inventors, researchers and entrepreneurs.

Having survived numerous major warfare conflicts, a great and devastating depression and several recessions, America was still not prepared for the infringement of third-world countries on its international and domestic markets. German automobiles, chemicals and machinery; French pharmaceuticals; Japanese electronics and automobiles; and Korean steel were just the beginning of the global competitive crisis America now faces.

Competitive Advantage Relinquished

Economists posited any number of plausible reasons for the diminution of U.S. economic strength. Commonly cited warning signals included:

* weakening trade position
* low rates of savings and investment
* noncompetitive relative wages
* erratic exchange rates
* more confident, facile competitors
* waning relative productivity

The last factor, declining rates of productivity relative to gains logged by global competitors, has been tagged as the area where corrective action can be implemented most effectively with maximum impact.

During the 1980s, the U.S. consumed $1 trillion more than it produced, tripling the national debt, and leaving taxpayers with a $165 billion annual interest tab which almost equals the national budget deficit. (1) Payback requires one of two solutions: reducing our standard of living or increasing production.

Underlying Causes

In a nation dedicated to the business of business, how could these symptoms have been ignored or denied?

Perhaps the underlying cause was a **sense of complacency** with a system which yielded one of the highest standards of living in the world.

Perhaps it was a form of **economic isolationism** brought on by the inherent difficulties of operating in foreign markets.

Perhaps it was **consumption-driven**, with the desire to consume today overwhelming the need to save for tomorrow.

Perhaps it was a **management philosophy** which rewarded short term profits at the expense of long term capital investment.

Perhaps it was the natural outgrowth of a **"disposable" society**, where quality is forfeit to convenience.

Productivity Depends On People

To regain its competitive ranking, the U.S. will need to produce more quality goods and services by relying on the increased output of a more highly skilled workforce. Achieving this ambitious goal will demand far-reaching systemic changes affecting the manner in which we recruit, educate and train workers, backed by investment in curricula, equipment and facilities.

The productivity chasm is wide and deep. In the post World War II era, the U.S. logged in with a 129 percent output per hour increase. In absolute terms, an improvement. Reviewed in relative terms, next to the 1,624 percent output spike achieved by Japan in the same time period, an unbelievable loss.(2)

The solution for improved quality productivity becomes increasingly complex when one realizes that the U.S. labor pool is growing at a slower rate than any time since the 1930s.(3) Further compounding the rate of output issue is the composition of that labor pool. Fully 85 percent of new entrants will be non-traditional workers (Asians, Blacks, Hispanics, returning women and immigrants) who bring with them an entire panoply of special needs.(4)

A mechanism must be found to:

1. upgrade the quality of the current workforce; and
2. recruit, train and place new entrants in the workforce.

The Productive America project was proposed to the U.S. Department of Labor as part of the growing portfolio of productivity research. It moves beyond the historical context and explores the realm of corrective and preventive actions which two-year colleges can undertake to help reassert America into the global competitive equation while acknowledging the diversity of its changing workforce.

A Changing Workforce

The workforce will gradually become older, more female, more minority and more foreign-born. Institutional responses will necessarily address language requirements as well as basic competencies when preparing workers.

In turn, the training delivery mechanism will need to be:

* local
* accessible
* affordable
* diverse
* flexible
* market-driven
* responsive

Workforce Readiness

Any examination of human resource productivity will turn to questions of workplace literacy, workforce retraining, job readiness, basic skills, critical thinking and problem-solving abilities. A recent **Chicago Tribune** article (October 29, 1989) placed a $1 billion price tag on the basic education coursework now being provided by business in self-defense.(5)

Industry is not particularly interested in infringing on the territory of educational institutions, but finds itself left with no alternative. R.J. Reynolds learned to educate, then automate, after spending, $2 billion on equipment workers couldn't operate because of poor reading skills.(6)

The Hudson Institute issued an opinion which asserted that simply maintaining the historical U.S. annual growth rate of three percent would require upgrading the skills of 40 percent of American workers.(7)

Roadblocks to Success

Despite the need for all available hands to keep the machinery of the American economy running smoothly, unprecedented barriers stand in the way of many presently employed workers in need of skill upgrading or of potential entrants seeking to gain skills.

The special populations mentioned on page v, which represent the influx of new workers for the 21st century, will encounter many obstacles as they strive for acceptance in the classroom and in the workplace.

Financial pressure stands paramount among the barriers to breach, as financial assistance programs shift from grants to loans and legislative provisions are pruned back.

Family pressures predominate. More than half the students at two-year colleges are women. (8) Many are also single heads of households, charged with the care of children as well as an aging parent. These responsibilities encroach on limited incomes and even the modest tuition and fee structure of two-year colleges must be evaluated from a competitive application standpoint.

Lack of precedent, in the person of a successful role model, also impinges on the ability of a special population member to complete an education or hold a job. What majority populations view as the status quo, may well be the grand exception for a minority.

Transportation issues such as proximity, cost, bus routing, parking and handicapped accessibility impact the decision of special population members to pursue an education or seek a job.

Articulation and counseling The private sector is finding itself cast in the role of both an assessment center and remedial course provider. Individuals, secure in the belief that a high school diploma is indicative of readiness for post-secondary curricula, face a rude awakening as they fall behind in classes and are forced to opt into remedial offerings, or simply drop out.

Lack of Information is inseparable from the issue of **language** as an obstacle. Administrators and faculty must be cognizant of language problems and respond with special materials and interpreters to bridge this barrier to access.

Campus environments work for and against special students. For example, the college campus represents a peer setting for adults returning to earn a GED certificate, and is much preferred over a high school setting. Alternatively, women, minorities and the disabled encounter the same type of presumptions and biases on campus which are associated with gender, race and physical handicaps in the workplace.

Two-Year Colleges Take Lead

Acting on their economic development mission, two-year colleges have made tremendous strides in four functional areas:

1. training for employment
2. workforce retraining
3. education for career advancement
4. business development

This leadership role is facilitated by the organizational design of two-year colleges. They meet every criterion set forth for an ideal training delivery mechanism which would respond to the unique needs of special populations.

As local organizations, two-year colleges mirror the trends prevalent in the local community. Therefore, the student population can stand proxy for general population patterns as well.

* 46 percent of minority students attend two-year colleges
* 42 percent of all Black students attend two-year colleges
* 54 percent of all Hispanic students attend two-year colleges
* 50 percent of all disabled students attend two-year colleges
* 75 percent of students work
* 66 percent of students enroll in occupational or technical courses
* the average age is 29 (9)

With more than 1,300 delivery sites and an open admissions policy, post-secondary colleges and technical institutes are the most accessible educational system in the United States. Local proximity also resolves potential problems involving transportation and accessibility. The community focus and heightened awareness of neighborhood populations can result in simplified paperwork and streamlined admissions procedures which accommodate unsophisticated prospective students.

Community colleges and technical institutes work closely with students beginning at the time of admission to creatively resolve financial difficulties. Options range from work-study programs to internships to full-time positions with supportive businesses.

The distinction between a liberal arts education and an occupational two-year degree continues to fade as two-year colleges evaluate internal and external resources, and create flexible programs which blend private and public sector expertise.

Strong Business Connections

Progressive two-year colleges understand that their mission is entwined with business. In the post-secondary education loop, business/education linkages occur on multiple levels.

Businesses can provide efficient access to potential students; share expertise, equipment and personnel; hire and train students through internship and apprenticeship programs; purchase customized training; provide advance warning of technological trends and employment shifts; and monitor and calibrate the competency standards of the cooperating institutions.

Leaders Set Reform Targets

During 1989, business, education, labor and civic leaders participated in four symposia across the country to address the role of two-year colleges in support of improved productivity. Their collective vision called for some retooling of the two-year college administrative structure and outlined a bold approach toward co-ventures with business.

They recommended that two-year colleges:

* formulate business partnerships
* topple the ivory tower perception
* reach out to special populations
* target occupational clusters and potential career ladders
* adopt holistic counseling approach
* bolster placement efforts
* become agents for change
* think like business people
* augment instructional staff
* update and sensitize faculty
* cut red tape
* step into broker role
* export successful models
* package and market offerings
* occupational graduates as well prepared as transfer graduates
* devise national competency standards

Implementing these recommendations would have the net effect of making two-year colleges more business-like, more proactive, more likely to respond with speed to changes in market conditions, less concerned with issues of bureaucratic stature and more concerned with the student population, more innovative in their use of resources, and ultimately, more effective in reshaping a workforce equipped to create a more Productive America.

FOOTNOTES

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3. ibid., p. 75.

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6. ibid., p. 2.

7. American Society for Training and Development, Training America: Learning to Work for the 21st Century, Alexandria, Virginia, 19891. 16 pp.

8. American Association of Community and Junior Colleges, A Summary of Selected National Data Pertaining to Community, Technical and Junior Colleges, Appendix for AACJC Statistical Yearbook: 1988, Washington, D.C., p. A4.

9. Statistics contained in an unpublished information sheet, "Some Telling Facts About Community Colleges," American Association of Community and Junior Colleges, circa 1986.

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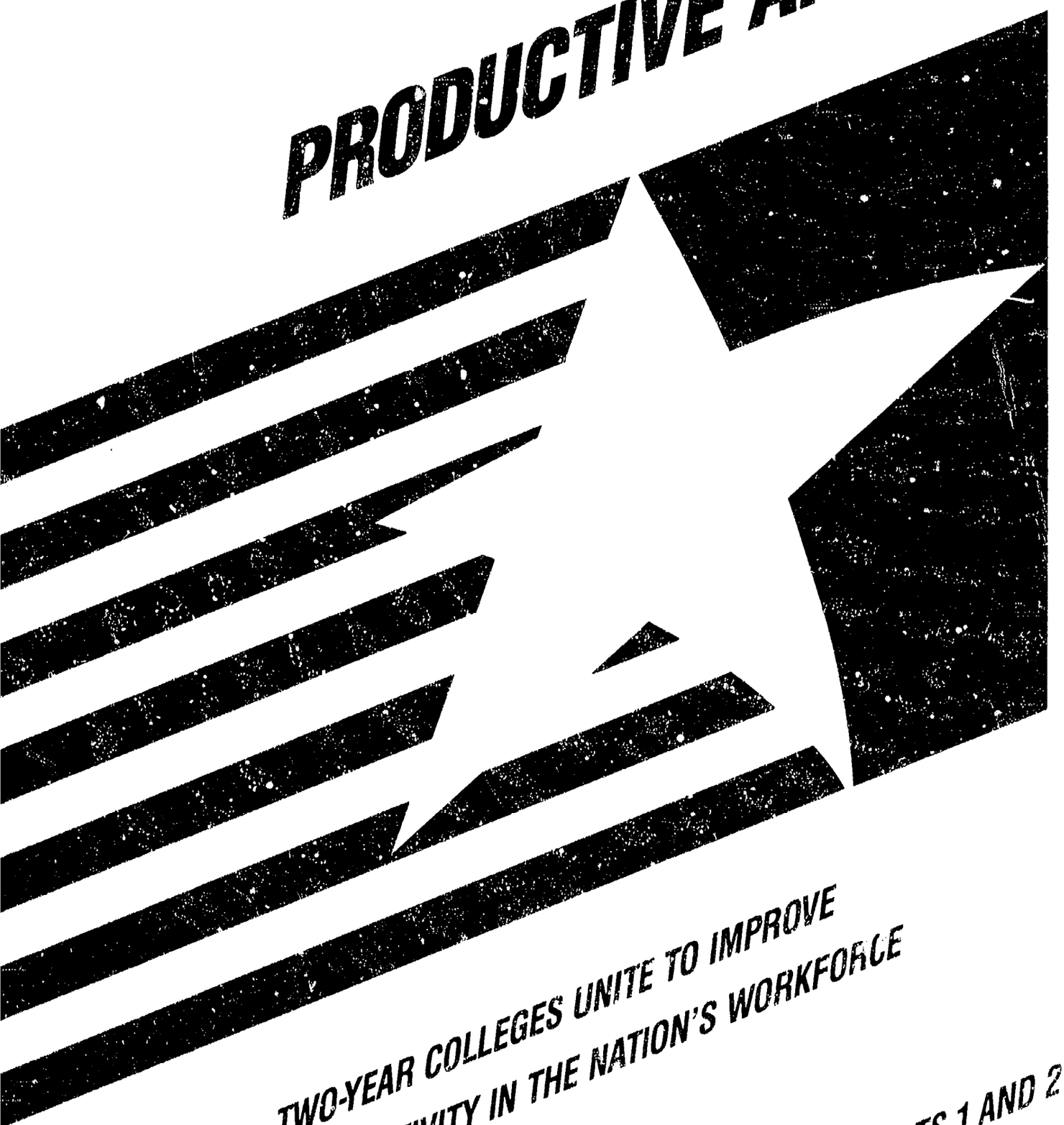

TWO-YEAR COLLEGES UNITE TO IMPROVE PRODUCTIVITY IN THE NATION'S WORKFORCE

REPORTS 1 AND 2

The National Council for Occupational Education

and the

American Association of Community and Junior Colleges

PRODUCTIVE AMERICA

TWO-YEAR COLLEGES UNITE

TO IMPROVE PRODUCTIVITY

IN THE NATION'S WORKFORCE

Report 1

ISSUES AND STRATEGIES

January 1990

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This report is the product of the efforts of many dedicated individuals who contributed long hours toward its completion. The National Council for Occupational Education (NCOE), an affiliate of the American Association of Community and Junior Colleges (AACJC), has a membership comprised of faculty and administrators representing approximately 500 community, junior and technical colleges.

The NCOE membership has a commitment to a comprehensive curricula liberal arts/ transfer education, and a particular interest in the training and retraining of adults who have yet to reach their full potential. This commitment led Dr. Terry Puckett, as then president of the NCOE, to establish a national Human Resource Development/ Productivity Task Force in 1987.

A consensus existed among NCOE members that the growing competitive threat confronting American commerce and industry from foreign shores could only be answered by educating American workers to their fullest potential. Better educated workers, armed with technical competencies, critical thinking skills and ethical values, could reestablish America as a productivity leader.

Acting on this premise, the NCOE Human Resource Development/Productivity Task Force proposed a research project to the U. S. Department of Labor, titled **Productive America,** the project would explore and propose creative ideas for better utilizing the resources of two-year colleges to address the challenge of human resource productivity. The potential contribution of special populations was of particular interest and a focal point of the study.

As co-chairpersons of the project, we would like to thank all the Task Force members who made this report possible, and voice our particular gratitude to four individuals who joined us on the Steering Committee, devoting unlimited time and energy to ensure successful project completion: Sandra Filion Foster of the City Colleges of Chicago, Russell Hamm of the College of Lake County, Diane K. Troyer of El Paso Community College, and Bill Witter of Santa Fe Community College (NM).

Other task force members who contributed insights, program models and personal experiences include: John Blong, Charlotte Lee, and Charles Temple. We received excellent input from James F. McKenney (American Association of Community and Junior Colleges), Frank Mensel (Association of Community College Trustees) and Lloyd Feldman (U. S. Department of Labor) in their capacity as task force liaison.

The project is indebted to several colleges and their representatives who hosted Regional Forums. They include: Dr. Nelvia Brady and Sandra Filion Foster (City Colleges of Chicago), Dr. Daniel LaVista and Russell B. Hamm (College of Lake County), Dr. Alfredo G. de los Santos, Jr. and Dr. John Lewis (Maricopa Community College), Dr. Piedad Robertson and Nancy Keyes (Bunker Hill Community College), Dr. Scott Fisher and Antone Vieira (Fisher College), and Dr. Robert McCabe and Dr. Joanna Passafiume (Miami-Dade Community College).

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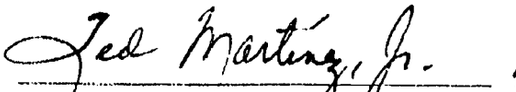

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EXECUTIVE SUMMARY

Urgent National Need To Invest In Human Resources:

New Workers

- Close to 40 million new workers will enter the workforce between now and the year 2000.
- Most of these new entrants will be women, minorities, and immigrants. Many will not have the skills needed for the new jobs.
- As a consequence, the nation needs a significant investment in human resources.
- Working with local communities, two-year colleges can deliver needed education and training to prospective workers.

Current Workers

- Close to 100 million workers, currently on the job, will still be in the labor force by the year 2000.
- At the rates experienced in a recent five-year period, one in every twelve current workers faces the risk of losing his existing job because of changing technology or intensifying global competition.
- The nation's needs for retraining are massive.
- Working with business and industry, two-year colleges can deliver needed education and training to current workers.

Productive America Project

With these key points in mind, the **Productive America** project was undertaken by the National Council for Occupational Education (NCOE) in recognition of the tremendous importance of productivity improvements to our national economic vitality and of the special role that two-year colleges play in the effort to enhance workforce productivity.

NCOE formed its Human Resource Development/ Productivity Task Force in 1987 with the express charge of exploring human resource issues related to productivity and competitiveness, and the role of two-year colleges in human resource development. The NCOE Task Force conceptualized **Productive America: Two-Year Colleges Unite to Improve Productivity in the Nation's Workforce** as a two-part effort:

Report 1

Report 1, "Issues and Strategies," examines the special populations comprising the workforce of tomorrow and proposes alternative structural and program models for two-year colleges to meet special population needs;

Report 2

Report 2, "Federal Workforce Program Policy Issues," reviews current federal legislation and its impact on two-year colleges, and goes on to present recommendations for amending current programs or laws to facilitate increased use of the two-year college delivery system.

Causal Factors

To provide an economic context for the productivity discussion, **Productive America** reviewed the causal factors which have contributed in part to the waning comparative productivity of the U.S.

The deceleration in productivity is attributed to two main factors:

(1) The increasing importance of services in the domestic economy and that sector's disappointing performance, and

(2) The dramatic change in the worker profile toward less experienced, less educated and hence, less productive workers.

Mission

Having identified human resource productivity as an area appropriate for two-year college involvement, **Productive America** examined the role and potential contributions of two-year colleges toward participation in the solution of the problem.

Challenge

The human resource challenge facing two-year colleges can be defined as:

1. Upgrade the quality of the current workforce through retraining, and

2. Recruit, educate, train and place new and non-traditional workers.

Institutional Attributes

In light of the scope and demands of this two-fold challenge, **Productive America** identified the institutional attributes which typify two-year colleges. These colleges have pioneered successful human productivity programs which are effectively meeting the needs of special populations. These attributes are: local, accessible, affordable, diverse, flexible, market-driven and responsive.

Also presented are recommendations for structural, organizational, administrative, marketing and philosophical changes which would reposition two-year colleges vis a vis business, industry and the community-at-large.

Special Populations

Special population groups will play an increasingly important role in the workforce of the 21st century. Chief among these population segments are: immigrants, Blacks, Hispanics, returning women, workers with obsolete or deficient skills (endangered workers), displaced workers, disabled workers, Asians and aging workers.

Barriers to Success

Special population members must surmount formidable obstacles to acquire the education necessary to succeed in the workplace. Barriers include: financial and family pressures, lack of precedent, transportation difficulties, need for personalized counseling, lack of information, language problems and lack of familiarity with a campus environment.

Workforce Productivity Model

Recognizing the unique requirements of special populations, Report 1 introduces a Workforce Productivity Model specifically designed to overcome these barriers to success.

The model embraces a proactive strategy beginning with recruitment, assessment, five educational modalities, monitoring, personal counseling at every step, and ongoing placement activities from internships through full-time employment.

The Policy Perspective

Report 2 of the **Productive America** project reviews current federal legislated and funded programs affecting workforce training, vocational education, worksite literacy and basic skills, against the backdrop of human resource productivity.

Program Review

Productive America summarizes major federal programs which have an impact on workforce productivity. These major programs include: Job Training Partnership Act, Carl D. Perkins Vocational Education Act, Job Opportunities and Basic Skills Program of the Family Support Act of 1988, Hawkins-Stafford Elementary and Secondary Education Act, as well as Titles IV and VIII of the Higher Education Act.

A Better Way

Report 2 concludes with recommendations for program amendments and suggestions for process and procedural changes which would optimize utilization of two-year colleges by means of leveraging available dollars, information and systems across programs, institutions and organizations, capitalizing on economies of scale in workforce recruitment, education/training and placement.

The **Productive America** emphasis on human resource renewal parallels both the role historically assigned to two-year colleges (preparing America's workers) and the NCOE's need to ensure that colleges continue to be positioned to meet their important missions.

Recommendations

A full set of recommendations is found at the end of each report. A few salient recommendations are highlighted in this summary:

Issues and Strategies
Report 1

1. Review the college mission statement and ensure that the responsibility for local workforce development is included.

2. Identify the special populations within the college's district (such as minority, new immigrants, returning women, endangered or displaced workers, disabled workers, etc.) and gather demographic and socio-economic data describing each population.

3. Assess and redevelop current vocational education programs and job training programs to ensure that they directly meet local employer's job skill requirements.

4. Extend college placement office activities to a level where successful students are provided access to real job openings and are directly assisted in obtaining a job.

5. Enlist the support of local commerce and industry as full partners in the establishment of all special initiatives and training programs in order to solve labor shortage problems by pooling appropriate resources.

Federal Workforce Program Policy Issues
Report 2

1. The U.S. Department of Labor should continue to promote a national policy of human resource development.

2. Programs and initiatives from the U.S. Departments of Labor, Education, and Commerce should be integrated and coordinated in the shared pursuit of a world-class workforce.

3. The U.S. Department of Labor should create a Two-Year College Office within its Employment and Training Administration in order to strengthen the even application of the Department's programs and initiatives across the nation's two-year colleges.

4. Two-year colleges, with the U.S. Department of Labor, state government, business, and professional associations should develop specific standards for jobs along with competency tests to measure student progress.

5. The U.S. Department of Labor, the American Association of Community and Junior Colleges through/with the National Council for Occupational Education, should conduct a national "awareness" campaign to identify the workplace problems and challenges that two-year colleges should be able to meet.

And now, it remains for all parties and institutions involved to review these reports' recommendations, spurred on by a sense of urgency to reestablish and reaffirm the U.S. in a role of economic leadership.

For America to achieve this lofty goal, it will be necessary to harness the energy and abilities of non-traditional workers, retrain and upgrade currently employed workers, and reshape vocational and educational institutions and offerings.

The National Council for Occupational Education stands ready to lead the search for solutions to improving the quality of the American labor force, and to further explore issues related to domestic productivity via additional primary research efforts.

SECTION 1.
THE GLOBAL COMPETITIVE DYNAMIC

In this section we examine the confluence of events and factors which conspired to erode America's competitive edge. Marginal incremental losses, through time, have had the additive result of forfeiting the U.S. advantage momentum terms to aggressive competitors such as Japan and West Germany.

The discussion begins with a definition of competitiveness, then reviews four primary measures of competitiveness:

(1) Trade index;
(2) Investment index;
(3) Standard of living index; and
(4) Manufacturing productivity index.

Following the overview of key indices, the narrative summarizes the views of the Hudson Institute, the MIT Commission and the Cuomo Commission on the plight of American productivity.

Two additional influencing factors are presented for consideration: American trade policies and the shift from a manufacturing to a service-dominated economy.

Definition

Authors of *Workforce 2000,* the Hudson Institute view of the world at the turn of the century, define competitiveness: "simply the ability of domestic producers to sell sufficient goods and services outside the country to pay for American imports." (10)

Competitive Indices

Concern over slippage in America's competitive posture prompted formation of the Council on Competitiveness. Working with Wharton Econometrics Forecasting Associates, the Council has developed a "Competitiveness Index" measuring Summit 7 nations' (Canada, France, Great Britain, Italy, Japan, United States and West Germany) performance in four categories (standard of living, manufacturing productivity, investment, and trade) against U.S. performance; and U.S. performance vis a vis the world in the fourth category, trade. (11)

Trade

Results of the second annual index, released in July 1989, were mixed. Export activity increased by 13 points, but these modes gains do not represent a full recovery from the unacceptably high trade deficits of the early 1980s. Meanwhile, reliance on imported goods doubled between 1972 and 1988. (12) See Chart 1.

Investment

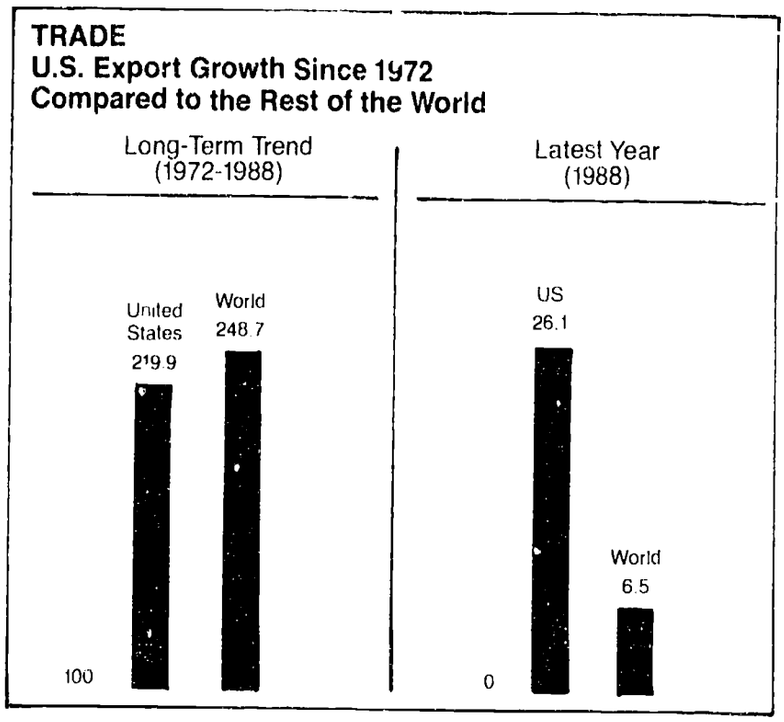
The investment index, a barometer of spending on education, plant and equipment, and research and development shows the U.S. out in front by 2.9 percent. However, in absolute terms, the other Summit 7 countries outspend the United States in all categories except education. In order to subsidize competitiveness-related investments, the U.S. either must increase its savings rate (Japan=28.3; U.S.=14.8) or must allow foreign capital to continue to substitute for domestic funds. (13) See Chart 2.

Standard of Living

Performance on the standard of living index (defined as gross national product per capita) has been disappointing. The U.S. standard, although increasing, did so at a slower rate than the other Summit 7 countries (3.1 vs. 3.8).

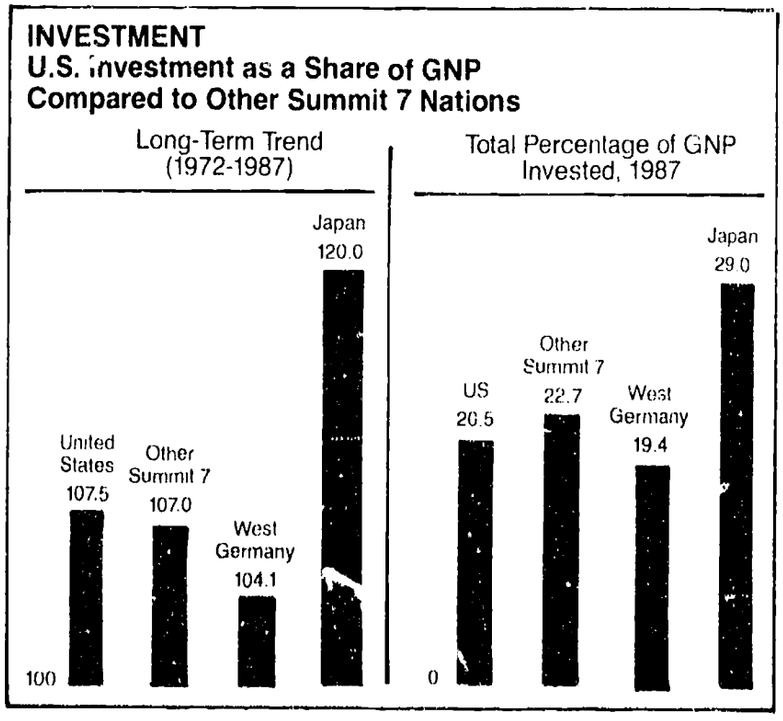
Whereas in 1972 the U.S. enjoyed a standard of living pegged at 22 percent higher, today that differential has been sliced down to 9.5 percent. During the 1972-88 period, the standard of living for other Summit 7 nations grew almost 50 percent faster than the U.S. Japan logged in with a growth rate double that of the U.S. (14) See Chart 3. For American consumers, living is becoming much more expensive.

Chart 1



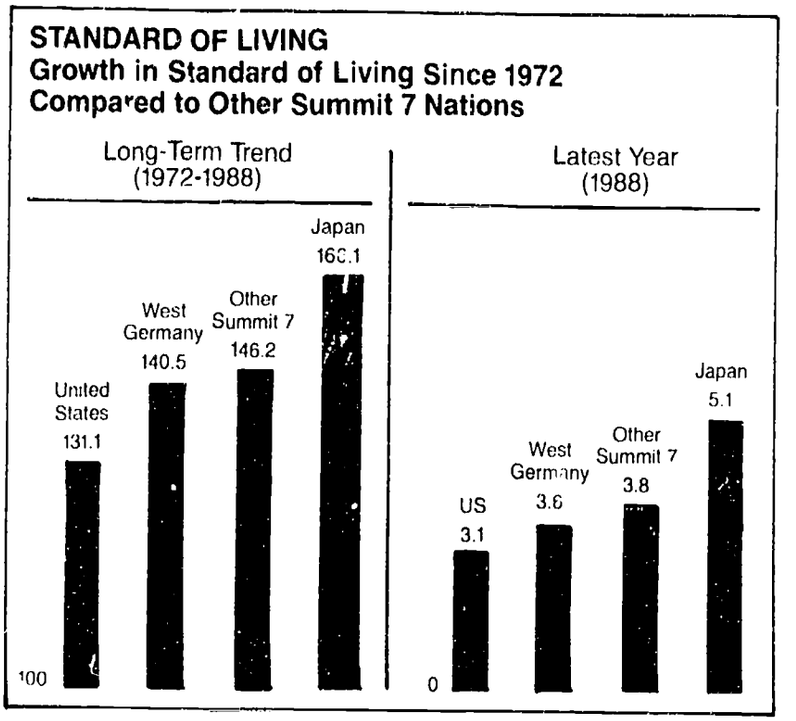
Source: Council on Competitiveness, 1989

Chart 2



Source: Council on Competitiveness, 1989

Chart 3



Manufacturing Productivity

Output per manufacturing sector employee decreased in relative terms by .4 on the productivity front. These findings suggest that our Summit 7 competitors have superior technology, more efficient equipment, or a more highly skilled workforce capable of producing more output per person than their U. S. counterparts.

Historic Rates Falter

The erosion of the historical American productivity lead continues unabated. "In 1972, U.S. productivity was 56 percent higher than Japan's; in 1987, the U.S. advantage was less than 6 percent."(I5) See Chart 4.

> "The key to domestic economic growth is a rebound in productivity, particularly in services.

Hudson Institute

> Throughout the 1970s and early 1980s, the United States managed to sustain a rising standard of living by increasing the number of people at work and by borrowing from abroad and from the future. These props under the nation's consumption will reach their limits before the end of the century: there will be relatively fewer young people and homemakers who will enter the workforce during the 1990s, and the burden of consumer, government, and international debt cannot be expanded indefinitely. If the U.S. economy is to grow at its historic 3 percent per year average, the nation must substantially increase its productivity." (16)

MIT Commission

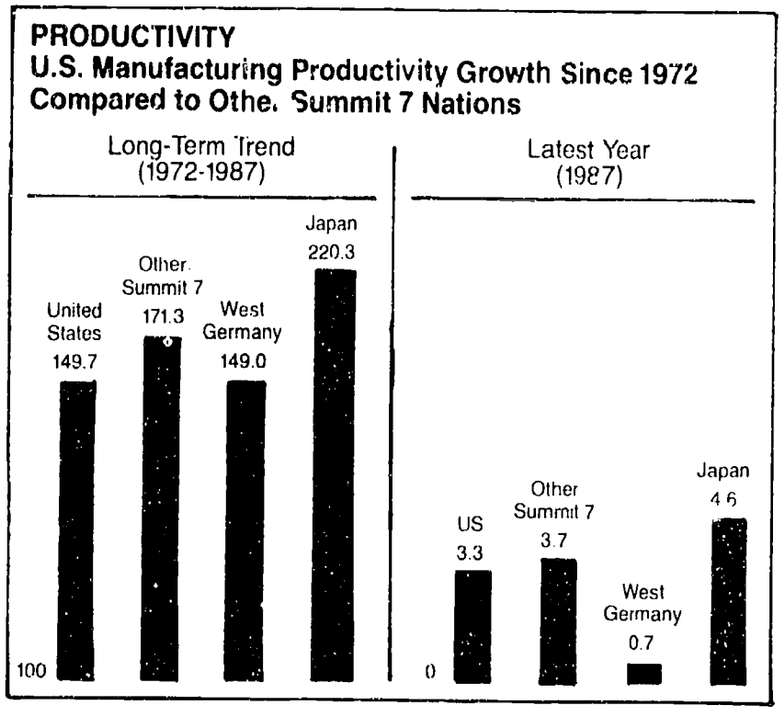
The MIT Commission on Industrial Productivity opens its incisive analysis, *Made in America: Regaining the Productive Edge,* with the succinct statement:

> "To live well, a nation must produce well." (17)

Cuomo Commission

The Cuomo Commission on Trade and Competitiveness, in its recent report on a New American Formula for a Strong Economy, looks at productivity issues from the perspective of a nation's ability to compete in world markets. It concludes:

Chart 4



"America must be competitive to earn, not borrow, its standard of living (18) . . .There is only one way to improve the trade balance while simultaneously maintaining a high and rising standard of living at home. It is by improving the productive performance of the American economy." (19)

Trade Policies

Hudson Institute forecasters projected baseline, high and low growth economic scenarios and arrived at an encouraging conclusion: the U.S. trade balance improves regardless of the differing scenario assumptions. Influencing factors include currency devaluation and productivity gains logged by domestic manufacturers. Moderate scenario projections show black ink on the account ledger, with the U.S. enjoying a $14 billion positive balance of trade. (20)

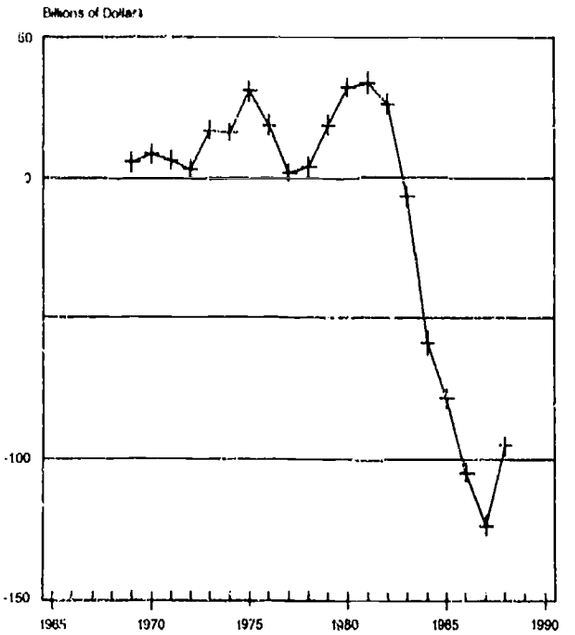
This portrait of a savvy global competitor is a far cry from the dismal performance of the 1975-1985 decade (Chart 5) which culminated in an overall trade deficit of -$140 billion in 1986. Four reasons have been posited for this trade position:

1. Erosion of the once invincible American trade position
2. Exchange rate fluctuations which obscured underlying trends
3. Rising relative labor costs
4. Increasingly tougher competition (21)

As with products and industries, economic development has a life cycle with its own distinct phases: agriculture to manufacturing to services. *Workforce 2000* researchers predict that "service industries will create all of the new jobs, and most of the new wealth, over the next thirteen years." (22)

Chart 5

U.S. TRADE SURPLUS/DEFICIT



Source: Congressional Budget Office

In support of this assertion they state, "where manufacturing produced some 30 percent of all goods and services in 1955, and 21 percent in 1985, its share will drop to less than 17 percent by 2000." (23)

Nine out of every ten jobs added to the U.S. economy from 1982 to 1986 were jobs in service industries. (24)

The shift to a service-based economy will relocate jobs closer to the customer, shorten the workweek, make better use of part-time employees, flatten business cycle volatility, and increase wage differentials between high- and low-value added workers. (25)

The loss of what the Hudson Institute calls "economic sovereignty" came as a shock to American policymakers.

Their challenge in the coming decade will be to effect quick corrections to currency fluctuations, to stimulate development in emerging nations, to support a worker retraining ethic via favorable tax treatment, to counteract inflationary tendencies, and to fight for a strong U.S. trade position.

Having explored the topic of global competitiveness, let us narrow our focus and explore the productivity factor in greater detail.

SECTION 2.
THE PRODUCTIVITY CHALLENGE

In Section 1, the global competitive situation was reviewed, and a number of factors impacting competitiveness were examined. Among these was the issue of productivity.

Waning relative productivity has been identified as one of the overriding contributors to the decline of the United States as an economic power. This section of the report defines productivity, examines common measures of productivity and its component variables, reviews trends in productivity in both the goods and services sector, proposes possible causal factors behind those trends, and assesses the U.S. productivity position vis a vis international performance.

Defining Productivity

Macroeconomics: Theory, Performance and Policy (26), a text written by Robert E. Hall and John B. Taylor, provides a succinct definition of total factor productivity: output per generalized unit of input (such as capital, energy, labor and materials).

Hall and Taylor then discuss labor productivity, a more narrow measure of productivity which focuses on the human contribution to production. (27)

Because labor is the single most important input of total factor productivity, the labor productivity ratio has become a popular substitute, providing a "quick take" measure of productivity.

Ratio

Labor productivity, the ratio of output to employment, is computed by the Bureau of Labor Statistics by dividing real Gross National Product in the business sector by the total hours of work in that producing sector.

In/decreases

When more goods or services are produced without a change in the number of hours of input, labor productivity has increased. If more hours are required to produce the same amount of goods or services, labor productivity has decreased.

People hold the key to improved labor productivity. A literate workforce capable of mastering emerging technologies, techniques and equipment can help America regain its competitive edge.

Labor Force Changes

This paper explores the dilemma facing American enterprise today—while labor productivity takes on increased significance in the competitive formula, the composition of the workforce is changing dramatically.

Management must produce more efficiently using a less experienced and less educated workforce whose unique cultural and ethnic composition requires a new style of supervision.

Performance

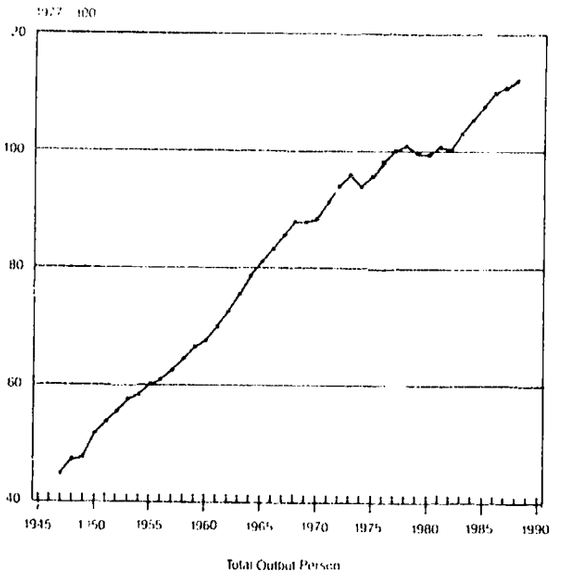
In *Modern Labor Economics Public Policy* (28), Ronald G. Ehrenberg and Robert S. Smith examine the disappointing slowdown in U. S. productivity growth beginning in 1973. Between 1948 and 1973, the private sector registered an annual labor productivity growth rate of almost three percent. From 1973 to 1982, that rate of growth decelerated to a paltry 0.7 percent per year. Chart 6 illustrates trends in domestic productivity, charting gains and losses from 1948-87.

Productivity in U.S. manufacturing has increased significantly since 1982 after a period of slow growth in the 1950s and 1960s, and virtual stagnation in the 1970s. Trends in manufacturing production are shown in Chart 6.

Chart 6

TRENDS IN U.S. PRODUCTIVITY

Index of Output per Hour of all Persons
Business Sector



Source: Economic Report of the President January 1989

The rate of productivity increase in the U.S. had fallen below that of its competitors in the 1950s, 1960s, and 1970s. The situation turned around in the early 1980s. Since 1984 the U.S. has achieved higher average annual rates of increase in output per hour in manufacturing than most of its trading partners, except for Japan and the United Kingdom. The performance of the U.S. for the period 1984-88 compared with that of eleven other industrialized countries is shown in Table A.

While U.S. manufacturing production has surged ahead, production in the service industries is significantly below that of manufacturing, even taking into account problems in measuring output in the services, as also shown in Chart 7. As a larger and larger share of the nation's workers are employed in the service industry, increased production in the service sector is a paramount concern if the U.S. is going to sustain its economic growth and improving standard of living of the people.

International Gains

Turning to an international perspective of manufacturing productivity, we note a disappointing growth rate with respect to our trading partners. *Workforce 2000* reports that:

> "Between 1950 and 1983. . .output per hour of U.S. workers increased by 129 percent. Canadian workers' productivity rose by 215 percent during the same period; the war-ravaged economies of France and West Germany increased output per hour by 458 and 508 percent. Japanese workers increased their output per hour by a staggering 1,625 percent." (29)

U.S. Prices Out of Market

Since productivity is a major factor in determining the price of goods (high productivity results in more goods for less cost/effort, thus enabling a lower market price), America has priced itself out of the market. (30)

Table A

OUTPUT PER HOUR IN MANUFACTURING, 12 COUNTRIES, 1950-1988
AVERAGE ANNUAL RATES OF CHANGE (1)

Country	1950-88 (2)	1950-73 (2)	1973-79	1979-88 (2)	1984-88 (2)
United States	2.7	2.7	1.6	3.4	3.9
Canada	3.4	4.2	2.1	2.2	2.1
Japan	8.2	9.9	5.5	5.8	5.7
Belgium	6.3	6.9	6.0	5.4	3.2
Denmark	3.8	4.8	4.2	1.1	– .5
France	4.9	5.6	4.6	3.1	3.1
Germany	5.3	6.6	4.3	2.6	2.4
Italy	5.6	6.1	5.7	4.1	2.9
Netherlands	5.5	6.2	5.5	3.5	2.4
Norway	3.4	3.9	2.2	2.6	2.1
Sweden	4.2	5.1	2.6	3.0	2.6
United Kingdom	3.3	3.3	1.2	4.7	4.5

(1) Rates of change based on the compound rate method
(2) For Belgium, data relate to 1960-87; for Norway, data relate to period ending in 1987.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Downward Spiral

Increasing productivity would result in fewer production hours which would translate into lower prices, enabling America to better compete globally. If this doesn't occur, Americans will buy less expensive imported alternatives. As a result, the trade deficit will grow, decreased demand for domestic goods will trigger more layoffs and plant closures, and the spiral will continue.

Reasons for Slowdown

One could argue for American productivity supremacy based on absolute versus incremental performance until the late 1970s, when select Japanese and West German manufacturing industries surpassed their U.S. counterparts. At that time, Japanese carmakers produced an automobile using 10-30 percent fewer labor hours than a comparable U.S. operation. (31)

A number of possible causes for the productivity problem have been suggested. Among them: an increase in less experienced workers, "changes in the industrial composition of employment, government mandated investments in pollution abatement equipment (which do not lead to increases in measured output, since the quality of the environment is not measured in Gross National Product), and a decline in the capital/labor ratio that has accompanied a slowdown in normal business investment. With less capital to work with, each unit of labor is less productive." (32)

Service Sector Grows

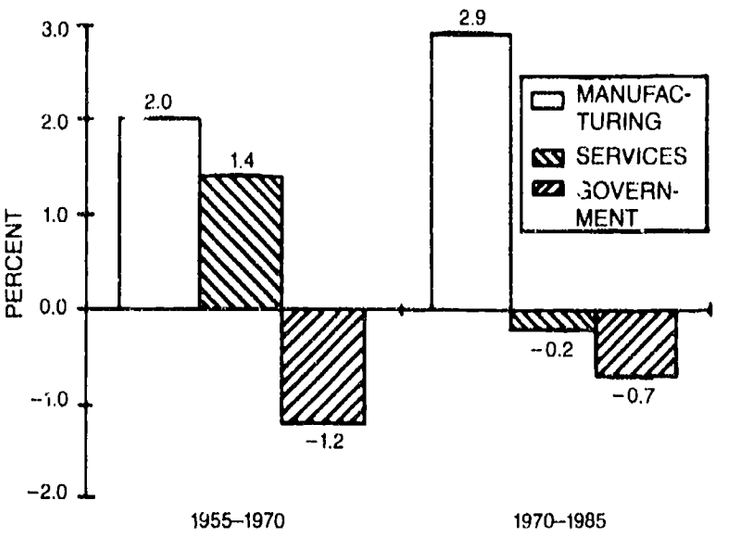
The dramatic shift of employment from manufacturing to service continues. The average annual percentage increase in output per worker in the service sector has decreased as depicted in Chart 7.

Productivity Slows

Because the service sector now represents the dominant component of our workforce, the decline in service sector productivity is of even greater concern.

Chart 7

LOW PRODUCTIVITY GROWTH IN SERVICES HAS SLOWED U.S. ECONOMIC GROWTH



(Average Annual Percentage Increase in Output Per Worker)
Source: Wharton Econometrics, Inc.

Economist John W. Kendrick has also researched causes for a decline in productivity. His article "Service Sector Productivity" in *Business Economics*, (35) references the findings of multiple regression analyses which registered strong positive correlations between specific variables and industry rates of change in productivity since 1948. Those variables include: "average education of workers; the ratio of sales to research and development outlays; changes in research and development ratios; rates of growth of real fixed capital stocks per worker; variability in layoff rates; and economies of scale." (36)

Inversely Related Factors

Further, Kendrick identified a number of variables which are negatively correlated to productivity. Those variables, which tend to move inversely to productivity changes include: "amplitude of cyclical changes in output; average hours worked per week; changes in average hours; . . . Changes in concentration ratios . . ." (37) labor-management relations and changes in worker skill/experience levels.

Causal Factors 1973-85

Reviewing underlying causes for the accelerated general productivity slowdown after 1973, Kendrick listed a number of causal factors which he believes represent a shared view among financial analysts. Those causes include:

1. Accelerating inflation until 1981
2. Erosion of economic profit margins
3. Slower growth of capital/labor ratios
4. Declining research & development ratios
5. Shifts to less energy intensive equipment
6. Changes in labor force composition resulting in reduced average expertise
7. Increased government regulation
8. Recessions in 1973-74 and 1981-82 (38)

Trends in the 1980s

Service sector productivity lagged behind that of goods production during the 1981-85 recovery years. While factory labor productivity rose at a 4.1 percent annual rate during this period, service productivity remained flat at one percent, down from the 1.5 percent annual average growth rate during the 1970s and the 2.3 percent rate established during the 1947-69 period. (39)

Service Productivity Slows

Some segments of the service industry (transportation, finance, insurance and real estate) reported productivity increases, but these effects were swamped by poor performance attributable in large part to:

1. Capital/labor ratio grew significantly less rapidly than in manufacturing
2. Less research and development
3. Less benefit from supplier research and development investments than producers
4. Length of standard workweek declined less dramatically than producers
5. Increased numbers of female (less experienced) workers (40)

Employment Impact

Translated into employment terms, when energy prices jump, companies are likely to decrease their capital stocks and increase employment. Thus, the numerator in the capital/labor ratio becomes smaller while the denominator increases as a result of hiring. The overall effect is a diminishing ratio which implies a diminished productive capacity.

Labor Hoarding

Short-term measures of labor productivity may be misleading as a result of companies which practice labor hoarding. Average productivity will fall in the early stages of a recession because firms with a heavy investment in training will retain specially trained workers rather than resorting to layoffs.

Conversely, as demand begins to increase, these same firms will register a gain in productivity without any related investment in labor, because they have in effect inventoried a supply of trained workers during the downswing. (41)

Services Ameliorate Labor Cyclicality

Geoffery H. Moore, in *Business Economics*, summarizes his view that, "if the private service industries continue to grow faster than goods-producing industries, as the Bureau of Labor Statistics projects to 1995, the trend toward milder declines in total employment is likely to continue also." (42)

Moore credits services with some of the most dramatic secular changes in the character of business cycles: shorter recessions (11 months from 1933-1982 vs. 21 months on average from 1854 to 1929) and longer expansions (49 months vs. 24 months during corresponding time periods). (43)

Shorter Declines

In seven of the last eight cyclical contractions since 1948, as measured by the Bureau of Labor Statistics, declines in total nonfarm employment were nearly one-third shorter at an average of 11 versus 16 months. (44)

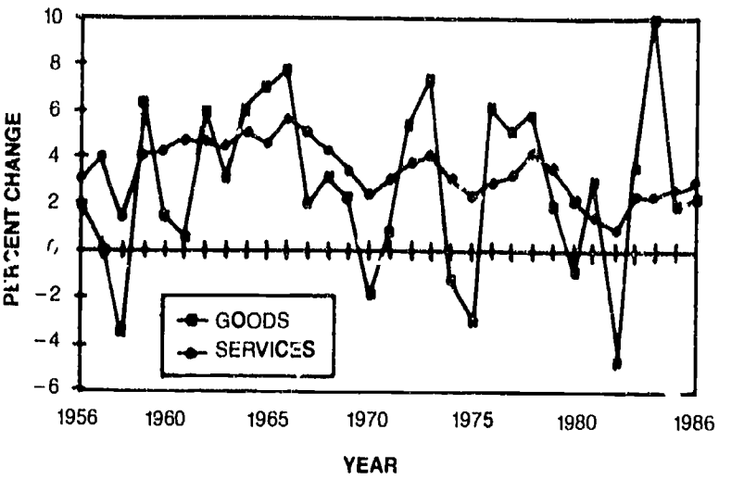
Longer Upswings

Employment upswings were five months longer on average than those of the goods-producing sector in six out of seven periods tracked. (45)

Workforce 2000 concurs with Moore's view, stating that "as services grow above three-fourths of the economy, their balance wheel effect should moderate swings in demand." Chart 8 shows the dampened amplitude of service cyclicality (swings from .9 to 5.7 percent) compared to the wild cycling found in goods production (swings from -4.8 to 10 percent). (46)

Chart 8

SERVICES MODERATE THE BUSINESS CYCLE



Source: Economic Report of the President, 1987

Services were exported at a level of $48 billion in 1986 according to the U.S. Department of Commerce. That figure may understate service exports by as much as 50 percent. Major service exports include: air transportation, computer and data processing, financial services and popular culture/entertainment. (47)

Why Improve Productivity?

"Improving productivity is a necessary ingredient for providing a better life for Americans. Rising productivity reduces inflation and provides the opportunity to increase real incomes. If America had sustained the 3.4 percent annual productivity growth rate it had between 1948-65 the average household would be receiving annually more than $5,000 in additional real income today." (48)

With domestic consumption outstripping production from 1980-89, the expedient short-term solution was borrowing against the future. The result: a $2.9 trillion national debt. (49) Now, in the face of looming debt and a slowly growing workforce, the only practicable long-term solution to this problem (outside of a reduction in our standard of living) rests in achieving productivity improvements.

Service Advantage

The shift from a manufacturing-based to a service-based economy affords the U.S. with unprecedented opportunities for regaining its economic eminence. The shorter declines and longer upswings associated with the service sector combine with increased service exports to provide a solid foundation on which to rebuild.

The unknown in this equation is the human factor. Where will America find its new workers when the labor pool is shrinking? How will current workers cope with the advent of new technologies? Can management adapt to accommodate an influx of workers from non-traditional backgrounds? How will this diverse workforce become prepared for the workplace? Who will be responsible for developing worker skills which match the skill requirements of the jobs of tomorrow?

SECTION 3.
HUMAN RESOURCE PRODUCTIVITY: THE FOCUS

The review of the global competitive dynamic and the productivity challenge in Sections 1 and 2 of this report lead the reader to one logical conclusion: U.S. economic vitality is dependent on improving productivity.

Productivity improvements revolve around two issues.
(1) Technology absorption and
(2) Workforce quality.

For purposes of this report, **Productive America** has chosen to confine its scope to the complex issue of improving workforce quality. We make the assumption that the U.S. has equal access to technology and equipment and the financial resources to secure them, so the issue of technology absorption becomes one of management investment prerogatives.

In this section of the report, we define the two part challenge of improving human resource productivity, describe some of the potential problems in meeting the challenge, review required skills for the workers of tomorrow, and suggest the institutional attributes necessary for a successful outcome.

Dual Challenge

To improve productivity, inputs must be used more efficiently to produce increased output. From the human resource perspective, that means America must improve its labor utilization. Thus we come to the dual challenge of human resource productivity:

1. Upgrade the quality of the current workforce through retraining

2. Recruit, educate, train and place new and nontraditional workers

Jobs Demand More Education

Fast-growing jobs require higher level math, reading and language skills than the declining occupations of today. As a result, the educational delivery system will need to respond to these changing occupational requirements.

Table P, from *Workforce 2000,* projects the rate of growth among various occupations between now and the turn of the century.

A quick perusal of the columns reveals that education is the ticket to success. While the average growth rate across all occupational categories is 25 percent, the fastest-growing occupations have the highest educational requirements: lawyers and judges (71 percent growth rate); natural, computer and mathematical scientists (68 percent); and health diagnosing and treating occupations (53 percent).

Low Skills/Low Growth

Projections forecast a decline among low skill occupations such as blue collar supervisors (-16 percent); agriculture, forestry and fishery workers (-12 per- cent); and machine setters, operators and tenders (-8 percent).

Service occupations are projected to grow 37 percent, close to three times as fast as plant and systems occupations, which are projected to grow 13 percent. (Table B)

Table B
THE CHANGING OCCUPATIONAL STRUCTURE, 1984-2000

Occupation	Current Jobs (000s)	New Jobs (000s)	Rate of Growth (Percentage)
Total	105,008	25,952	25
Service Occupations	16,059	5,957	37
Managerial and Management-Related	10,893	4,280	39
Marketing and Sales	10,656	4,150	39
Administrative Support	18,483	3,620	20
Technicians	3,146	1,389	44
Health Diagnosing and Treating Occupations	2,478	1,384	53
Teachers, Librarians and Counselors	4,437	1,381	31
Mechanics, Installers, and Repairers	4,264	966	23
Transportation and Heavy Equipment Operators	4,604	752	16
Engineers, Architects, and Surveyors	1,447	600	41
Construction Trades	3,127	595	19
Natural, Computer, and Mathematical Scientists	647	442	68
Writers, Artists, Entertainers, and Athletes	1,092	425	3
Other Professionals and Paraprofessionals	825	355	43
Lawyers and Judges	457	326	71
Social, Recreational, and Religioous Workers	759	235	31
Helpers and Laborers	4,168	205	5
Social Scientists	173	70	40
Precision Production Workers	2,790	61	2
Plant and System Workers	275	36	13
Blue Collar Supervisors	1,442	-6	0
Miners	175	-28	-16
Handworkers, Assemblers, and Fabricators	2,604	-179	-7
Machine Setters, Operators, and Tenders	5,527	-448	-8
Agriculture, Forestry, and Fisheries	4,480	-538	-12

Source: Hudson Institute

Post-Secondary Education A Must

The study makes a strong case for education, stating that, "Among the fastest-growing jobs, the trend toward higher educational requirements is striking. Of all the new jobs that will be created over the 1984-2000 period, more than half will require some education beyond high school, and almost a third will be filled by college graduates." (50)

Noting that education is "only a rough proxy for the skills required for employment", the *Workforce 2000* narrative continues: "Ranking jobs according to skills, rather than education, illustrates the rising requirements even more dramatically. When jobs are given numerical ratings according to the math, language, and reasoning skills they require, only twenty-seven percent of all new jobs fall into the lowest two skill categories . . . 41 percent of new jobs are in the three highest skill groups, compared to only 24 percent of current jobs." (51)

These relationships are summarized in Table C. Natural scientists and lawyers, categories highlighted earlier as among the fastest-growing occupations, also have the highest skill requirements at 5.7 and 5.2 respectively. Declining occupations such as machine setters and hand working positions exhibit much lower skill requirements of 1.8 and 1.7 respectively.

Employers Rate Skills

To understand the skills workers need, the logical place to begin is with an understanding of the skills employers want.

Workplace Basics is a two-part study conducted by the American Society for Training and Development and funded by the Employment and Training Administration of the U.S. Department of Labor. In Part 2, entitled "The Skills Employers Want," the report presents a seven-point framework summarizing preferred skills as articulated by employers:

Table C

FAST-GROWING JOBS REQUIRE MORE LANGUAGE, MATH, AND REASONING SKILLS

	Current Jobs	Fast Growing	Slowly Growing	Declining
Language Rating	3.1	3.8	2.7	1.9
Math Rating	2.6	3.1	2.3	1.6
Reading Rating	3.5	4.2	3.2	2.6

Source: Hudson Institute

1. Learning to learn
2. 3 R's
3. Listening and oral communication
4. Creative thinking/problem solving
5. Self-esteem/goal setting-motivation/personal & career development
6. Interpersonal/negotiation/teamwork
7. Organizational effectiveness/leadership. (52)

New Jobs/New Skills

The need for higher order skills is also underscored by David S. Bushnell. In a recent article for Resource Management magazine, Bushnell outlines his understanding of the skills required for the jobs of tomorrow. His nine point listing of worker capabilities reads:

1. Think critically
2. Problem solve (including math)
3. Retrieve information quickly
4. Organize and synthesize
5. Apply (knowledge) to new areas
6. Be creative
7. Listen accurately
8. Make decisions with incomplete data
9. Communicate in many modes (53)

Small Firms

Structural changes in the economy have drawn sharp differences between jobs lost and jobs created. Jobs lost were in large manufacturing firms which produced standard products and required comparatively low levels of education and training. Jobs created tend to be in smaller (under 250 employees) organizations producing value-added products and services using techniques requiring a high level of education and training. (54)

Growing Skills Gap

Businesses report a growing gap between the skills which new entrants bring to the job market, and the skills needed to perform jobs being created.

"The concerns of the business community for a skilled workforce have never been greater than in the 1980s. In survey after survey, employers have identified the need for workers with stronger basic skills to accomplish tasks in the workplace of today and to adapt to the workplace of tomorrow." (55)

Bushnell claims that, while more people are looking for blue collar jobs, jobs are looking for white collar workers in high tech fields. He makes the case that "unemployment today is more the result of a lack of education or job qualifications than a shortage of jobs." (56)

Cross Training Emerges

In the days of the Taylor system production line, workers mastered one discrete task and performed it repetitively. Today, employers train employees across functional lines, providing workers with a more complete understanding of the manufacturing process, while enjoying the benefit of a more versatile labor pool. (57)

Technological advances call for higher skill levels at an increasingly rapid rate of change. With new entrants to the workforce at an all-time low in terms of workplace readiness and literacy, the challenge to educators is immense.

Diverse Workforce

Given the employer view of required skills for employment and advancement, how do workforce characteristics match up?

The American workforce is undergoing rapid changes in age, gender and ethnic composition. Gone is the monolithic, white, male homogeneous labor force with a manufacturing orientation. Effective programmatic responses to the productivity challenge will have to accommodate the diverse needs of a heterogeneous workforce which is aging, growing more slowly, becoming more female, including more minorities, disabled and immigrants, and lacking the skills needed for job security.

Projected Growth

According to U.S. Department of Labor statistics published in November, 1989 (Tables D-1 and D-2), 42.8 million individuals will be entering the workplace between 1988 and the year 2000. This defines the magnitude of the education and training needs facing the nation. Of these 42.8 million new workers, 13.5 million (32 percent) will be white males; 22 million (51 percent) are projected to be women, 32 percent of whom (7 million) will be from minority ethnic groups; and 7.2 million (17 percent) will be minority males.

During this same period of time, 23.4 million people will leave the workforce. By subtracting this figure from the 42.8 million figure of new entrants, the U.S. Department of Labor establishes a NET increase in the labor force of 19.4 million individuals.

Table D-1

PROJECTED GROWTH OF THE U.S. LABOR FORCE: 1988-2000
By Race and Gender
(Thousands)

	1988	+ New Entrants	- Leavers	: Net New Entrants	= 2000
Total	121,541	42,841	23,471	19,470	141,134
White	96,403	28,597	19,393	9,204	105,663
Men	53,287	13,522	11,257	2,265	55,584
Women	43,116	15,075	8,136	6,939	50,079
Black	12,447	5,394	2,429	3,065	15,462
Men	6,217	2,432	1,221	1,311	7,427
Women	6,230	2,962	1,208	1,754	8,035
Hispanic	8,982	6,486	1,145	5,341	14,321
Men	5,409	3,558	681	2,877	8,284
Women	3,573	2,928	464	2,464	6,037
Asian	3,709	2,364	504	1,860	5,688
Men	2,015	1,232	282	950	3,029
Women	1,694	1,132	222	910	2,659

Source: U.S. Department of Labor, Bureau of Labor Statistics
Office of Employment Projections,
Monthly Labor Review, November 1989

Table D-2

PROJECTED GROWTH OF THE U.S. LABOR FORCE: 1988-2000
By Race and Gender
(Percent)

	1988	+ New Entrants	- Leavers	: Net New Entrants	= 2000
Total	100.0	100.0	100.0	100.0	100.0
White	79.3	66.8	82.6	47.2	74.8
Men	43.8	31.6	48.0	11.6	39.4
Women	35.5	35.2	34.6	35.6	35.4
Black	10.2	12.6	10.4	15.7	11.0
Men	5.1	5.7	5.2	6.7	5.3
Women	5.1	6.9	5.2	9.0	5.7
Hispanic	7.4	15.1	4.9	27.5	10.2
Men	4.5	8.3	2.9	14.8	5.9
Women	2.9	6.8	2.0	12.7	4.3
Asian	3.1	5.5	2.2	9.6	4.0
Men	1.7	2.9	1.2	4.9	2.1
Women	1.4	2.6	1.0	4.7	1.9

Source: U.S. Department of Labor, Bureau of Labor Statistics
Office of Employment Projections,
Monthly Labor Review, November 1989

Several reports referenced for this **Productive America** study, erroneously used this 19.4 million net figure as constituting the total population in need of education and training to the year 2000. As the reader can readily infer, the challenge is more than twice as big and it will involve all of the nation's population groups.

Concurrently, labor force growth will slow to a crawl, declining in both absolute and percentage terms through the year 2000, as depicted in Tables D1 and D2.

Major Changes

Later in this report we undertake a detailed demographic analysis of the "New Age" workforce. At this juncture, we present a capsule summary of workforce transition and changes.

1. *The Workforce Matures.* Worker age increases will pace average population age increases, with the median labor force age increasing to approximately 39 by the year 2000. The key to productivity will be keeping these workers current, flexible and dynamic. (58)

2. *Workforce Growth Stagnates.* During the 1990s, the workforce is projected to grow by a mere 1 percent versus a 2.9 percent annual growth rate in the 1970s. The key to productivity will be a shift to more capital intensive production systems. (59)

3. *Women Dominate Workplace.* Almost two-thirds of all women will be employed by the year 2000. The key to productivity will center around more flexible jobs and systemic responses to family issues. (60)

4. *Minorities Enter Labor Force.* Non-whites will be entering the workforce rapidly, doubling their current share in the labor pool to 29 percent. The key to productivity will be training designed to overcome social disadvantages and to prepare workers for viable occupations. (61)

5. *Immigrants Seek Jobs. Workforce 2000* projections show 750,000 immigrants entering the U.S. each year, 25 percent of whom will likely have less than five years of education. The key to productivity will be intensive language and workplace skills training to help immigrants acculturate and meaningful employment. (62)

Associated Problems

Demographic shifts in the U.S. workforce bring with them a set of problems. The shortage of available workers will force employers to tap into non-traditional sectors for workers. As a result, new workers will represent a very different labor pool requiring more pre-employment and on-the-job training than ever before.

Compounding the skills problems are the barriers non-traditional workers face in trying to access educational and employment opportunities. These include language difficulties, child care needs, transportation problems and financial pressures. In Section 4 of this report, special populations and their unique needs are explored in detail.

Profile of a Responsive Institution

Again, we encounter the dual human resource productivity challenge:

1. Upgrade the quality of the current workforce through retraining

2. Recruit, educate, train and place new and non-traditional workers

What attributes would an institution need in order to work with special populations to overcome barriers to success?

Members of the Human Resource Development/ Productivity Task Force posed that question to members of the manufacturing and service sectors, representatives from community colleges and technical institutes having exemplary programs addressing the needs of special populations and business and industry, as well as representatives from governmental groups in a series of regional forums held in Boston, Chicago, Miami and Phoenix.

When findings were synthesized, a consensus opinion emerged which identified the following seven attributes as essential for an institution to assimilate if it is to meet the productivity challenge.

Desired Institutional Attributes

1. **Local**—the institution should be housed and active within a community to ensure that it develops ties to and an understanding of the special populations within its boundaries.

2. **Accessible**—the institution should welcome all candidates regardless of race, gender, religion, income, prior educational exposure, primary language or country of origin. It would deliver education to adults at all levels at locations that are in close proximity to them.

3. **Affordable**—the institution should offer programs at an affordable price so that cost does not become a barrier to potential participants.

4. **Diverse**—the institution should be capable of delivering technical and occupational training as well as the "thinking skills" associated with the more traditional liberal arts education. Such a broad scope of service may include: basic skills, English as a Second Language, general studies, adult education, continuing education, public service offerings, special courses from the humanities and philosophy, and student support services.

5. **Flexible**--the institution should have the ability to draw from a wide array of resources to offer a variety of programs and services tailored to the needs of a particular population segment or of customized training for a business or industry. Additionally, variables such as training site, instructor and time would be modified to best serve participant interests.

6. **Market-Driven**—the institution should be actively involved in business partnerships and economic development programs designed to create an optimal match between employment opportunities and workforce skills.

7. **Responsive**—the institution should be poised to act quickly, surmounting bureaucratic red tape and cumbersome approval channels in an effort to capitalize on emerging market demands which would benefit its community.

SECTION 4.
SPECIAL POPULATIONS/BARRIERS TO SUCCESS

In Section 3, two major human resource productivity challenges were identified:

(1) recruit and train new workers; and
(2) upgrade the skills of the current workforce.

At this juncture, we will make a closer examination of the unique characteristics and needs of the special populations which will comprise the vast majority of new entrants into the labor market. (63)

Special populations include: immigrants/refugees, Blacks, Hispanics, Asians, returning women, dislocated workers, disabled workers, and workers with obsolete or deficient skills (endangered workers).

For each population, pertinent demographic information is presented along with its residential pattern, level of educational attainment, and any unique sociocultural or economic traits. Following this profile of each major subset of the workforce, the paper discusses barriers to success and the challenge these barriers represent to the two-year college system.

Immigrants

During the 1970-80 decade, immigration totaled about 4.5 million. Annual immigration reached a twentieth century peak in 1988 when 643,000 immigrants were admitted to the U.S. Referring to Chart 9 we see the slope of the immigration trend line becoming more steep, in keeping with an accelerating rate of immigration. (64)

Demographics

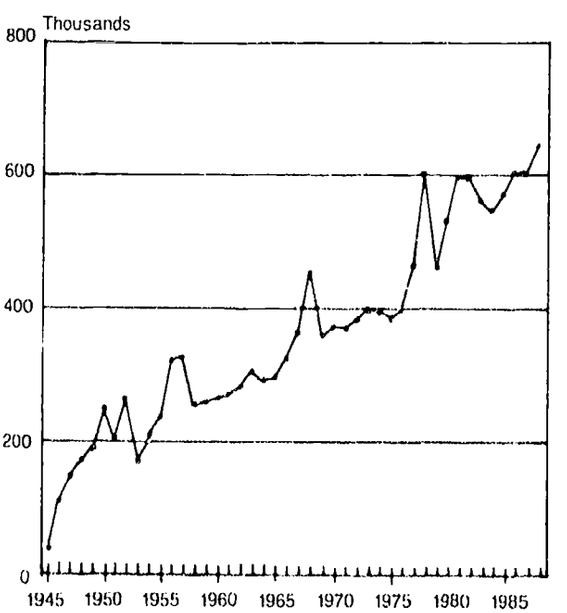
To put the 1988 numbers in perspective, the U.S. absorbed approximately 200,000 immigrants in 1950 and slightly fewer than 400,000 immigrants in 1970. (65)

Labor Force Swells

Looking forward, *Workforce 2000* holds that, if prevailing conditions of the 1970s and 1980s continue, we will see approximately 450,000 immigrants enter annually until the year 2000; adding 9.5 million people to the general population and 4 million workers to the labor force. (66)

Chart 9

TRENDS IN THE NUMBER OF IMMIGRANTS TO THE U.S.
1945-1988



Source: U.S. Department of Justice, Immigration and Naturalization Service, *1985 Statistical Yearbook of the Immigration and Naturalization Service*. September 1986, and unpublished data by country of origin, covering the period from 1945 to 1988, obtained from special computer runs.

Factoring in the impact of illegal entrants swells the number to 750,000 immigrants entering annually until the year 2000; adding 16.1 million to the population and 6.8 million workers to the labor force. (67)

KEY SEGMENTS

Hispanics

It is estimated that fully one-third of legal immigrants to this country are now Hispanic. (68) The long term immigration pattern for the U.S. has been spiked by large numbers of people fleeing Cuba. In 1968, close to 100,000 Cubans were admitted to the U.S., five to six times the previous annual totals; in 1977 about 70,000 Cubans were admitted to this country. (69)

Under the amnesty provisions of the 1986 Immigration Reform and Control Act, almost 2.25 million Hispanics became legal American citizens. (70)

Asians

In the 1980s, close to three million Asians immigrated to this country. (71)

While the number of people coming to America from Europe declined, the number coming from Asia increased dramatically. Asian immigration reached an annual level of 313,000 by 1982 and remained well over 250,000 per year through 1988 as shown on Chart 10.

On the heels of immigration law changes instituted in 1965, the United States experienced a large influx of Asians and Latin Americans. Whether seeking political asylum or pursuing the age old dream of economic opportunity, almost 80 percent of immigrants to this country came from those two regions after 1970. (72)

Africans

To illustrate the immigration patterns exhibited by immigrants from Africa, we refer the reader to Chart 11.

Chart 10

TRENDS IN THE NUMBER OF IMMIGRANTS TO THE U.S.

By Country of Origin
1945-1988

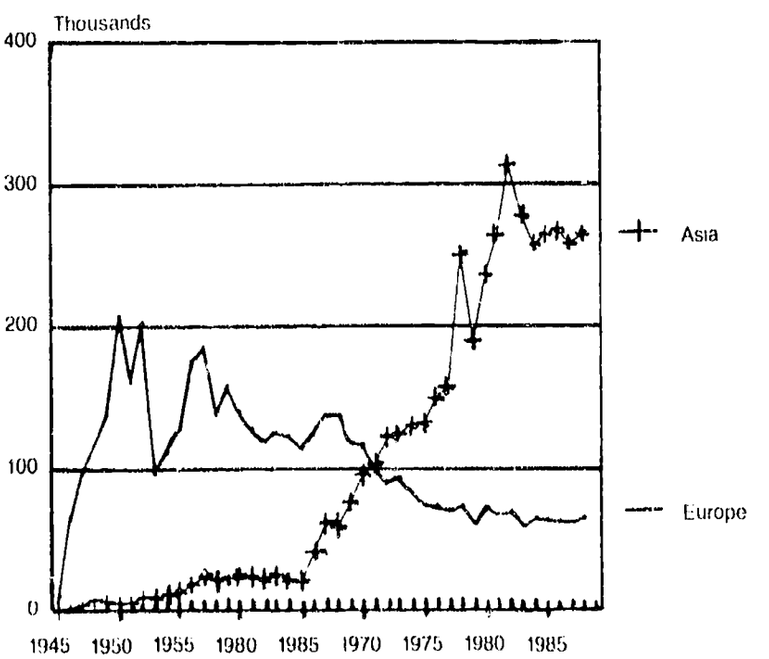
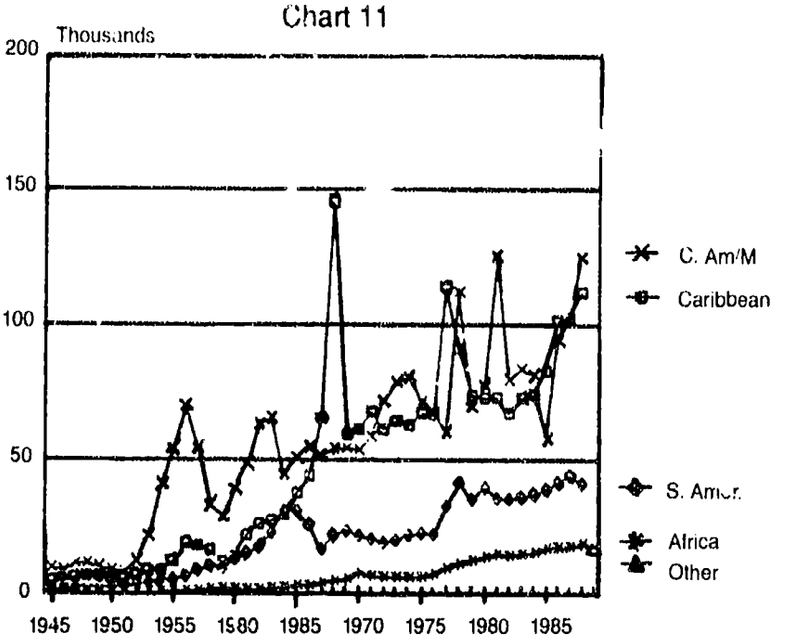


Chart 11



Source: U.S. Department of Justice, Immigration and Naturalization Service, *1985 Statistical Yearbook of the Immigration and Naturalization Service,* September 1986, and unpublished data by country of origin, covering the period from 1945 to 1988, obtained from special computer runs.

Europeans

Recent political events, most notably the official sanctioning of passage through the Berlin Wall on November 9, 1989, presage potentially dramatic changes in immigration. Authorities assert that as many as 1.8 million East Germans, roughly 10 percent of the population, could flee to the West. (73)

Illegal Entrants

When discussing statistics about immigration, it is important to keep in mind the fact that official records can only verify numbers of legal immigrants. The Census Bureau estimates that between 4 and 6 million illegal aliens currently reside in the U.S. In an attempt to measure the rate of increase among illegals, the Council of Economic Advisors developed models which projected an annual increase of between 100,000 and 300,000 people through the mid-1980s. (74)

Refugee Problem

Refugees represent an extremely needy subset of immigrants who have special and pronounced problems when they arrive on our shores. Typically, refugees are forced to flee their countries without the benefit of prior planning. Thus, they depart under the most stressful of circumstances and arrive with broken families, little money and few resources or belongings.

Residential Patterns

States which attract the greatest number of immigrants also appear to have comparatively well-developed two-year college systems. The states with the largest numbers of immigrants in 1988 were:

California	189,000	
New York	109,000	
Florida	65,000	
Texas	43,000	
New Jersey	33,000	
Illinois	28,000	(75)

The top three ranked states accounted for well over half of the immigrants; the six states together accounted for more than 70 percent of the annual total. (76)

Educational Attainment

Research shows that the educational attainment of adult immigrants who entered the U.S. during the 1970s varied widely: 25 percent had just a fifth grade education, while 22 percent were college graduates. This compares with native born Americans as follows: only 3 percent had just a fifth grade education, while only 16 percent were college graduates. (77)

James McKenney of the American Association of Community and Junior Colleges describes community colleges as "today's Ellis Island." A commitment to operating under an "open door" policy has enabled immigrants to access the same array of programming previously available exclusively to American students. (78)

Barriers to Success

Immigrants seeking work are differentiated by their ability to speak and comprehend English, as well as by their education and skill levels.

Language

Language ability impacts the search for a job, housing, shopping, commuting, and virtually every life and work-related experience outside the confines of the family unit. (79)

Linking language to productivity, a recent study suggested that skills already developed by immigrants went underutilized because of an inability to communicate in English. (80)

As would be expected, child immigrants pick up the language more rapidly than adults. While 20 percent of Asian and 40 percent of Hispanic adult immigrants did not speak English after several years in this country, only one percent of Asian and 6 percent of Hispanic children had language difficulties. (81)

Culture

In American culture, an individual is valued for his or her personal achievements. In Asian and Hispanic cultures, the family is valued much more highly than individual achievement. (82)

As a result, immigrants entering the workforce from these family-oriented cultures may face conflicts in trying to reconcile the needs of family and employer.

Differences in culture may result in barriers to success, e.g., individual and family values, a relative sense of time, and eye contact.

Family Pressures

The extensive family support network enjoyed by many immigrants in their native land is lost when they relocate to America. As a result, the full brunt of family care matters falls upon their shoulders impacting the ability to attend a two-year college, to conduct a job search or show up for work reliably.

Financial Strain

Despite the relatively low cost of tuition at two-year colleges, fitting educational expenses into an already strained household budget can prove burdensome.

The Challenge

To effectively serve this population, two-year colleges will need to respond with innovative recruitment and intake strategies designed to minimize language barriers.

Such strategies might include bilingual administrative and instructional staff or aides to facilitate translation of lectures and instructional materials.

Churches and cultural associations have also proven invaluable in marketing programs to special populations. Colleges benefit from the "source effect" of having programs presented by established and respected local institutions.

Additionally, these groups reduce the cost of search to the college by providing an efficient distribution mechanism for recruitment information.

BLACKS

Demographics

Non-whites represent more than 15 percent of the population, more than 20 percent of the labor force, and will account for more than 50 percent of the net new entrants to labor force by the year 2000.

Gender Trends

There are some unique gender-linked employment patterns within the Black community which are worthy of note.

First, Black women are the fastest growing component of the non-white labor force. (83)

Second, by the year 2000, there will be more employed Black women than men in the workforce; this runs counterpoint to the white population where employed men outnumber women by roughly three to two. (84)

A third observation is the fact that the proportion of prime age Black men in the labor force dropped 5 percent from 1970 to 1984, while the number of female-headed Black households increased from 28 to 43 percent. (85)

Most Disadvantaged

Table E summarizes information regarding the relative success of white, Black and Hispanic workers. On every scale measured—labor force participation, unemployment, weekly family employment, poverty level, years of schooling- -Blacks and Hispanics were less successful than whites. On every scale measured but one (education), Blacks were the single most disadvantaged group.

Table E

BLACKS AND HISPANICS ARE MUCH LESS SUCCESSFUL IN THE LABOR MARKET

(1983)

	White	Black	Hispanic
Labor Force Participation	64.3	61.5	63.8
Unemployment Rate	8.4	19.5	13.7
Median Family Employment (Weekly)	$487	$348	$366
Percent Below Poverty	12.1	35.7	28.4
Median Years of Schooling	12.8	12.5	12.1

Source: U.S. Bureau of Labor Statistics, U.S. Bureau of the Census

Workforce 2000 researchers sounded a note of caution, adding:

> "To these statistical indices must be added the extensively analyzed and debated indications of social disadvantage, such as poor performance in schools, greater dependence on welfare, greater incidence of broken families and children born to unmarried mothers, and higher rates of criminal arrest." (86)

Income Levels

Trend analysis is unclear as to whether family income levels are rising or falling among Black families. The ratio of Black to white family income rose from 54 to 61 percent during 1950-70 but receded to 56 percent in 1983. Meanwhile, unemployment rates escalated from 2.1 times white rates (1972-77) to 2.4 times the white rate (1978-83). (87)

Residential Patterns

Housing patterns show pronounced cluster effects: in central cities which are home to 57 percent of all Blacks; and in eleven major market cities, home to 40 percent of all Blacks. Nine of those cities are located in regions with crippled or slow growth economic outlooks. (88)

While a high percentage of Blacks live in inner cities, more than 75 percent of new jobs will be located in suburbs according to the Bureau of Labor Statistics. (89)

Jobs/Skills

The American society for Training and Development (ASTD) discovered a strong relationship between basic skill acquisition and subsequent problems related to employment and economic survival. In the Workplace Basics report of the ASTD, low basic skills were a contributing factor among:

- 68 percent of those arrested
- 85 percent of unwed mothers
- 79 percent of welfare dependents
- 85 percent of high school dropouts
- 72 percent of the unemployed (90)

Outmoded Jobs

Lack of basic skills can be seen as one cause for Blacks being overrepresented among declining occupations. Equal Employment Opportunity Commission data showed that Blacks were 35 percent more likely to work in an occupation scheduled to lose the most workers between 1978-90. (91)

Education

Black enrollment in college has exhibited noticeable cyclicality at four-year increments. First, a dramatic increase of 74,000 students from 1976-80, followed by a 40 percent decrease (31,000 fewer students), and most recently a modest gain of 5,000 students. The net effect is 26,000 fewer Blacks enrolled than during the 1980 peak. (92)

Variations in enrollment at two-year colleges were more pronounced, but resulted in a net gain of 8.6 percent from 1976-86. See Table F.

Barriers to Success

To truly understand the barriers which face both Blacks and Hispanics who aspire to succeed in our society, one must also understand the underlying sociocultural issues which impinge on their world.

Table F

TRENDS IN THE ENROLLMENT IN TWO-YEAR COLLEGES BY RACE AND ETHNICITY
1976-1986

	Percent Increase 1976-1986
Total	20.5
White, Non-Hispanic	16.2
Minority	37.8
Black, Non-Hispanic	8.6
Hispanic	68.6
Asian and Pacific Islander	135.4
American Indian and Alaskan Native	24.4
Nonresident Alien	26.2

Source: Based on data from the U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, *Digest of Education Statistics: 1988*, CS88-600, September 1988. p. 170.

Sociocultural Issues

Again, from *Workforce 2000*:

> "The complex interconnections between employment, education, literacy, cultural values, incomes, and living environments argue that employment problems cannot be solved without also addressing issues of individual and family responsibility. The choices are not simply between on-the-job training and basic skills remediation programs for teenagers, but among investments in child care, pregnancy prevention, welfare reform, big brother programs, and other possible interventions. Before minority unemployment can be significantly reduced, there must be change in the cultural values..." (93)

Child Care

A large percentage of Black females are pregnant by age 20. (94) Thus efforts to acquire skills, complete an education and find a job are further complicated by child care issues such as caretaker availability, costs and proximity.

Financial Pressure

Students who reside in an economically disadvantaged household may find college viewed as an expensive, and unnecessary luxury which would interfere with their short-term earning power.

While two-year college tuitions are comparatively low, and have remained so as a matter of state policy, costs have still outstripped the earning power of students working their way through school. A student earning the minimum wage today would have to work almost twice as many hours to pay for tuition than 20 years ago. (95)

A large percentage of minority students are also low-income students in need of financial assistance. Thus, the availability of financial aid becomes a significant factor in minority enrollment in post-secondary programs helping them prepare for employment. (96)

Role Models

Disadvantaged youth grow up unaware of the protocol associated with the formal work environment. Whereas the middle class population assimilates the rules of the workplace such as punctuality, business etiquette, basic social skills, and a work ethic, through observation of a parent or role model, inner city youth often have no employed role model to emulate.

The Challenge

To effectively serve the Black population, two-year colleges will need to devise support systems which alleviate financial and family burdens.

Regarding child care issues, two-year colleges might consider duplicating trial programs instituted by the private sector, such as the multi-million dollar child care referral service being tested by IBM Corporation. (97)

The two-year college infrastructure may be expanded to include a very active placement office which coordinates full and part-time, permanent and temporary position searches, matching employers with students.

Programs targeting this special population group should consider the addition of an internship component to classroom training, thus providing exposure to the formal work environment as part of the learning experience.

Outreach activities should be directed at attracting more Black men into the educational system to countermand the high and increasing unemployment and drop-out rates.

HISPANICS

Far from being homogeneous, the Hispanic population in the United States is composed of different racial as well as cultural groups. There are Spanish-speaking Blacks, Whites and Native Americans. (98)

Hispanic occupational, income and housing trends closely parallel those of Blacks.

Demographics

Hispanics comprised 4.5 percent of the U.S. population in 1970 and grew to 6.4 percent by the 1980 census. (99) Since that time, the Hispanic population has increased by 34 percent to reach an all-time high of 19.4 million people in 1988. (100)

Concurrent with the increase in absolute numbers, two other trends were observed by the Census Bureau:

(a) A rising level of education among Hispanics; and
(b) A growing number of Hispanic professionals and managers. (101)

Income Levels

Family income for Hispanics fell from 71 to 66 percent that of white families between 1973 and 1983, while the unemployment rate stabilized at 1.6 the rate for whites. (102)

Residential Patterns

Almost half of all Hispanics versus one-quarter of whites resided in central cities (103) As noted earlier in the section discussing the residential patterns of Blacks, this means that those with the poorest skills are also located far away from the remote suburbs where new jobs are available.

Jobs/Skills

Fifty-five percent of all Hispanics in the U.S. reside in California and Texas. (104) Thirty-five percent of Hispanics were employed in declining occupations categorized as "most likely" to lose workers by the Bureau of Labor Statistics. (105)

While the non-Hispanic workforce increased by 10.4 percent during the period of 1980-87, the Hispanic workforce grew by 39 percent to 8.5 million workers during the same period. (106)

Hispanic workers represented less than 7 percent of total employment but almost one-fifth of the total increase in jobs or 2.3 million additional workers. (107)

Although the Hispanic unemployment rate of 8.8 percent is below that of Blacks, it remains 1.5 times greater than that of the general population. (108)

Educational Attainment

Five percent of the total college population is Hispanic. This constitutes a smaller proportion of enrollment than of the domestic population. This holds true despite a more than 60 percent increase (384,000 in 1976 to 624,000 in 1986) in college enrollment. (109)

More than half of Hispanic college students could be found attending two-year colleges, a percentage which has remained unchanged since the National Center for Education Statistics began collecting separate minority enrollment data in 1976. Although the rate at which Hispanics are enrolling in undergraduate programs is increasing at 14.9 percent per annum, the gap between their college-going rate and that of the majority population continues to widen. (110)

By the year 2000, Hispanics will make up 14 percent of the U.S. youth population. That statistic stands as a major challenge to educators since the Hispanic high school drop-out rate is currently 45 percent, and fully 25 percent of Hispanics who do graduate do not have the basic skills needed for employment. (111)

Barriers to Success

Financial Strain

With the decline in average household income for Hispanic families, youth of employable age will continue to feel pressure to forego an education with its concomitant intangible future benefits, in favor of full-time employment with its quite tangible and immediate paycheck.

Role Models

If the trend toward more Hispanic managers and professionals continues, the role model issue may gradually correct itself, with the numbers of successful achievers bearing silent witness to the power of education.

Language

A recent *Business Week* article pointed out that only 60 percent of 25 year-old Hispanics had earned high school diplomas. It speculated that "foreign-born Hispanics often fall behind in the early grades because of language problems, never to catch up." (112)

Transportation

More than half of the Hispanic population resides in two states (Texas and California) which have extensive geographic boundaries and inadequate public transportation.

Lack of Information

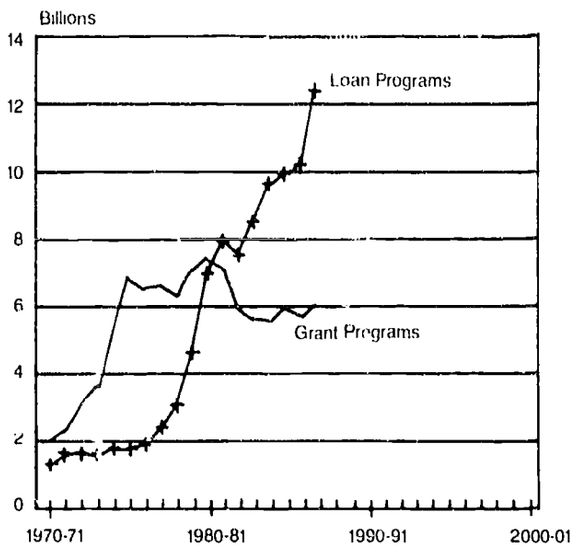
An individual unfamiliar with the college setting, who does not number college graduates among his informal contacts, who has difficulty expressing thoughts in English, may also find himself foreclosed from traditional sources of information about two-year college programs.

The Challenge

Over the last decade, there has been a significant shift of federal student aid from grants to loans, as shown on Chart 12. All of the net increase in student financial aid since 1980 has been in the form of loans.

Chart 12

FEDERAL STUDENT AID:
CHANGING COMPOSITION FROM GRANTS TO LOANS
1970-71 TO 1987-1988



Source: Based on data compiled by Gwendolyn L. Lewis, *Trends in Student Financial Aid: 1980 to 1988*. The College Board, September 1988, pp. 6-7.

Creative Finance

Coupled with tuition and fees which have increased more swiftly than student earnings, the challenge to two-year colleges will be to identify creative ways to make courses affordable. Options might range from the establishment of a below-market rate loan pool funded and managed by local businesses, to the creation of more numerous and more generous scholarship opportunities.

Marketing

Two-year colleges offer a great "product" at a terrific price which everyone is qualified to "purchase".

To carry the marketing analogy further, two-year colleges must learn to "package" course offerings in a manner which is attractive to prospective students and which speaks directly to their needs and concerns.

Needs/Benefits

Elements to consider when "packaging" a course would include: instructor, hours, location, language(s), subject matter, name and benefits from completion. When a product is ready for launch, marketers support the introduction with an advertising and publicity campaign to alert consumers to product availability.

Promotion

Likewise, two-year colleges should go beyond a course catalog, recruiting outstanding alumni and current students to serve as spokespersons in local and student newspaper ads, to be interviewed by print and broadcast media, to speak at local businesses and community centers. Aggressive marketing is designed to convey information in the most efficient and effective manner possible.

Transportation

Three solutions to the transportation problem are: (1) provide transportation by coordinating car pools or bus service; or (2) move the locations closer to students using alternative sites such as office buildings and shopping centers and (3) deploying technology to deliver education at home.

RETURNING WOMEN

Roughly 60 percent of the new entrants to the labor force in the fifteen years leading to the year 2000 will be female.

Demographics

As social taboos against working mothers have toppled, eight million of the 14.6 million women to join the labor force between 1960-1984 were from households with children. The number of married mothers who chose to work during that time period more than doubled from 28 percent to 61 percent. More than half (52 percent) of children under six had mothers who worked. (113)

Income Levels

A Rand projection sees women's comparative wage rates reaching 74 percent of male wages by the year 2000. (114)

Jobs/Skills

Female employment patterns suggest that women still select into "pink collar" occupations, witness the fact that 32 percent of employed women in 1980 were in jobs that were 90 percent female, and where wages typically were 66 percent that of employed men. (115)

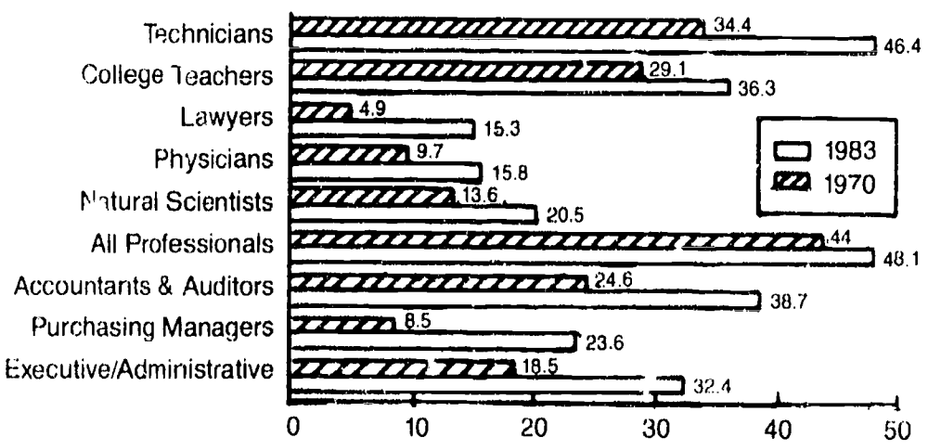
Professional school graduation rates for women also support an optimistic outlook: 45 percent of graduating accountants; 36 percent of new lawyers; 42 percent of business majors; and 36 percent of computer science majors tracked in 1983 were female. (116) This positive trend is further supported by the actual employment patterns tracked in Chart 13.

Educational Attainment

The surge of women returning to college as adults, after years on the home front, is both the result and cause of profound changes in the American society and economy with far reaching ramifications for the educational community. Most of the returning women are taking classes for economic reasons, to prepare for a job after being out of the labor force, to secure a better job, or to improve work skills for the jobs currently held. (117)

Chart 13

WOMEN HOLD A GROWING SHARE OF MANAGERIAL AND PROFESSIONAL JOBS
(Percent Female)



Source: U.S. Bureau of the Census, 1980 Census of the Population, Supplementary Reports; and Bureau of Labor Statistics, "Handbook of Labor Statistics, 1985, Table 18."

Age Increases

Women returning to pursue their higher education as adults accounted for almost 80 percent of the total increase in college enrollment of women from 1975-1985. Women 25 years of age and older accounted for 1.1 million of the 1.4 million total increase in female college enrollments during the ten-year period. (118)

Historical Context

During the late 1940s and early 1950s, twice as many men as women attended college. One compelling reason for this disparity was the ready availability of veteran's education benefits. Despite financial constraints, women began to enroll in college at an increasing pace, resulting in a six-fold hike in the number of women enrolled over the next 30 years. By 1979 the number of women in college actually exceeded the number of men. (119)

The trend continues. By 1987, there were 6.7 million women, almost 800,000 more women than men, enrolled in college. (120)

More than half of the students at two-year colleges are women, and most two-year colleges have responded with programs designed to serve these large numbers of returning women. (121)

Returnee Profile

Dr. Jacquelyn Belcher, former President of the American Association of Women in Community and Junior Colleges, estimates that half of these returning students are women reentering the workforce as displaced workers, displaced homemakers, single heads of households, or women from families which require more than one income to meet rising costs of living. (122)

Barriers to Success

Financial Strain

A smaller percentage of the returning women are eligible for student financial aid than other special populations. Many are part of households with incomes that exceed eligibility limits, and a smaller percentage work at firms which have tuition reimbursement benefits. (123)

Even with the encouragement of their families, returning women may have difficulty finding time to study outside of class because of obligations at work and home.

Respite Care

As the population continues to age, the dependent elderly segment grows steadily. Some form of day or respite care will be required so students can attend classes confident that their parent is in an acceptable setting. (125)

Single Parent Pressures

Significant numbers of women bear primary responsibility for the care of family members. These female heads of households face significant challenges, juggling school, work and children. A woman returning to work may have children at home or be responsible for the care of an elderly parent. An immigrant who wishes to attend school may face the constraint of acting as family interpreter, "on call" as needed despite class schedules.

Child Care

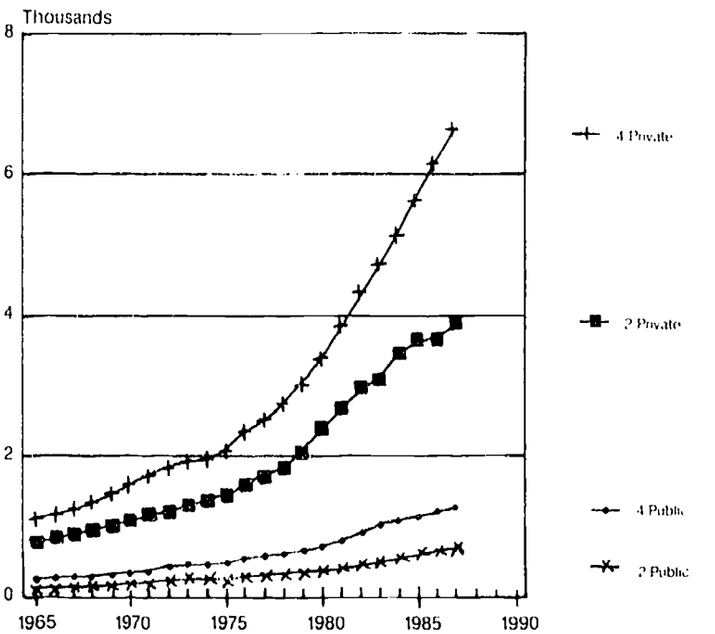
Welfare reforms requiring mothers with young children to enter the workforce will bolster demand for day care while they attend job readiness, basic skills and other classes. (124)

The Challenge

Tuition costs at public two-year colleges, at $700, are just slightly more than half the cost of four-year public college tuitions of $1,300 per year (Chart 14). Tuition dollars, however, represent funds diverted from other applications: home maintenance, health care, food, clothing, child care, car upkeep, etc.

Chart 14

TRENDS IN TUITION AND REQUIRED FEES



Source: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, *Digest of Education Statistics:* 1988 CS-88-600, pp. 251-252.

Financial Aid

Women will also benefit from financial assistance counseling designed to familiarize them with loan and grant availability and application procedures.

Counseling

Women may require counseling to cope with the stress of spending time with their studies, not their children; with applying money toward tuition, rather than something special for the house; with foregoing profitable overtime at work, to attend a class. Counseling should include exposure to non-traditional career options which provide a higher salary. Low cost solutions could include time management seminars and campus-based support groups where peers share their coping techniques.

Child Care

Provisions will need to be made to accommodate child care concerns. Options include: operating an on-campus facility; setting up a computerized care provider referral service; training interested students to participate in a cooperative care network; arranging placement in an existing licensed facility at a reduced rate offered through the college.

ENDANGERED WORKERS

Demographics

Given the slow labor force and population growth rates projected by the U.S. Department of Labor, American industry will be forced to discard its "throw away" attitude toward human resource management. Fewer new entrants to the workforce enhances the value of current employees who may have proven work habits but skill deficiencies. These skill deficient workers are becoming the endangered workers of the 90s.

Unlike displaced workers who lose jobs to plant closings, moves, job abolition or layoffs, endangered workers face a different threat: technological advances which require higher levels of training.

Number Changing Jobs

Markey and Parks found in a 1987 survey that nearly 10 million persons were in different occupations than they held the prior year. The majority had changed voluntarily, citing better pay, advancement opportunity or working conditions as their motivation for switching. Some 1.3 million workers, however, were in different occupations because they had lost their previous job. (126)

Jobs/Skills

According to a survey conducted by the American Society for Personnel (127), technological innovations have outpaced workers with tenure in the labor pool. Yet another employee segment is starting to discover that poor basic skills will hamper any opportunity for career advancement.

Career Ladder

Concurrent with these phenomena is the disappearance of "career ladder" opportunities. Where workers could once aspire to working their way up the ranks through informal on-the-job training, that opportunity is now foreclosed. Along with new technologies have come new organizational structures which clearly demarcate "back office" functions such as clerical and service workers, from "front office" functions such as sales, professional and management positions. (128)

Training

While the need for formalized training to advance becomes more pronounced, fewer employers are in a position to deliver it. The smaller companies which are expected to contribute substantially to new job opportunities often lack the resources to institute formal training programs.

Large Firms Lead

Data show that 200 to 300 large corporations account for more than half of all formal private sector training. (129) The actual number of persons receiving employer training is an elusive statistic given the lack of any systemized recordkeeping and the turnover of businesses and employees.

Sponsored Training

One study commissioned by the Conference Board, a group of business leaders, surveyed companies where 500 or more employees had received formal training in 1974-75. Results showed their training efforts impacted on 6.3 million persons; 4.4 million through company courses offered after working hours; 1.3 million participated in tuition assistance programs; and another 600,000 enrolled in courses through professional/trade organizations or attended corporate-sponsored sessions during working hours. (130)

Patterns/Numbers

In 1980, the National Institute for Work and Learning reported on a study of employer training activities and concluded that less than half of all firms provide formal job training opportunities.

However, approximately 80 percent of firms with more than 500 employees did provide formal training. The percent of workers receiving training annually is roughly 20 percent at large firms and less at small companies. (131)

Outdated Skills

Endangered workers may not be cognizant of the fact that their technical skills are becoming outdated, or that their basic skills need to be refreshed in order to adapt to new technology.

Additionally, skilled workers who spent years acquiring a craft may resent the fact that they have to "start over" just like a new hire.

As with any new undertaking, there is an unspoken fear of failure, apprehension about one's ability to learn and master new operations.

The Challenge

Two-year colleges will need to spearhead an awareness campaign directed at workers in vulnerable occupations. One especially cost-effective way to reach workers is to form alliances with such respected groups as unions or trade associations which already have gained acceptance.

Union stewards and trade association representatives can personally vouch for the programs and encourage people to sign up as a group so they have the comfort of knowing their classmates.

Another way to break down apprehension is to hold classes in a familiar area such as a Union Hall or plant cafeteria.

DISPLACED/DISLOCATED WORKERS

The U.S. Department of Labor defines a displaced worker as an individual who has lost a job because the company they worked for closed down or moved, their job was abolished, work was slack, or a self-employed individual has gone out of business.

Demographics

AFL-CIO estimates indicate that almost two million workers suffer dislocation or job loss every year because of plant closings and mass layoffs. (132) Many of the closed plants are seeking cheaper labor increases to remain competitive in the world market and move to off-shore locations.

Approximately half of those workers are displaced from jobs they have held for three years or more. Roughly two-thirds of displaced workers are men, most of whom are in the prime employment age bracket of 25-54. (133)

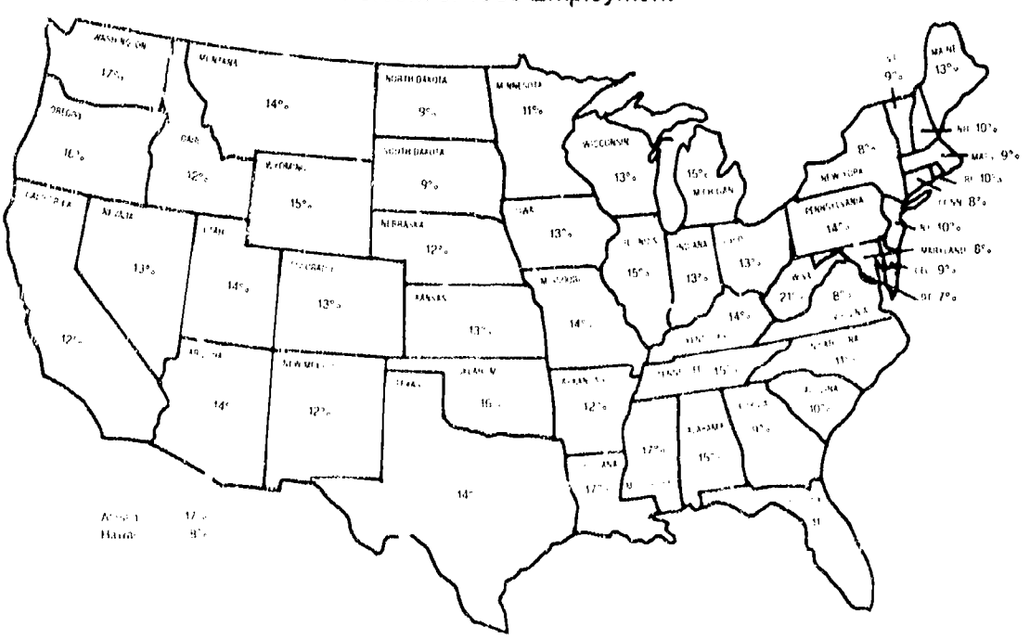
Displacement/ Dispersion

Chart 15 portrays the geographic distribution of displacement by state in 1983. Looking at the cumulative statistics over a five-year period, one out of every twelve workers in the United States at the beginning of 1988 was a displaced worker.

Chart 15

WORKER DISLOCATION

State-by-State Job Loss over a Five-year Period as a Percent of 1983 Employment



Source AFL-CIO based on data from the U.S. Department of Labor Bureau of Labor Statistics

Study

The Employment and Training Administration of the U.S. Department of Labor has sponsored special supplements to the Current Population Survey covering the years 1984 1986 and 1988 to develop information about the numbers of displaced workers, their demographic characteristics, tenure on lost jobs, industry and occupation, as well as the reason for termination. (134)

The detailed analysis included only those displaced workers 20 years of age and over, who had held their jobs for at least three years. These criteria were established because it was judged that such workers would have had greater attachment to their company and more job-specific skills.

Displacement Slows

Findings from the 1988 survey suggest that displacement has slowed in the last two years, basis comparisons with 1986 and 1984 results. The total of 4.7 million workers counted in 1988 represents 400,000 fewer displaced workers than were recorded in the two previous surveys. (135)

Service Losses

Trade and services account for an increasing number and share of lost jobs. Retail trade, finance, insurance and real estate industries registered increases in displacement in 1988 over 1986 and 1984 statistics. (136)

Jobs/Skills

In addition, the reemployment picture has improved. Data available from the 1988 survey show that 71 percent of workers displaced between 1983 and 1987 were reemployed by January 1988. This represents a 67 percent increase over 1986 study findings and a 60 percent increase over 1984 results. (137)

The longest periods of unemployment and the greatest losses were experienced by older, poorly educated, minority blue collar workers who had many years of experience on the job, and whose pre-displacement wages were high.

Important Variables

Reemployment is a function of the interaction of a number of variables including: age, gender, race, education, prior industry and worker wage rates, employment trends in the industry and local economy. (138)

Educational Attainment

Charts 16 and 17 explore the impact of education and gender on displacement. Eighty percent of college graduates displaced between 1981 and 1985 were reemployed by 1986, almost twice the rate at which individuals who only completed eighth grade (41.9 percent) were reemployed.

Displaced workers with little education were almost three times more likely to remain unemployed or to opt out of the labor force altogether.

Men Find Jobs Faster

On the whole, men were reemployed more quickly than women of equal educational attainment, with the exception of college graduates, where gender made no difference. Some college education appears to benefit displaced men more than displaced women as shown by the higher percentage of women unemployed in the college 1-3 years category. (Charts 16 and 17)

Some workers actually benefit from displacement, finding higher paying jobs. Typically, they tend to be younger, better educated, white collar workers in metropolitan areas with increasing employment. (139)

Barriers to Success

There are few critical life events as demoralizing and debilitating as the loss of a job. It destroys self-esteem. It erodes confidence and attacks competency. It impedes the ability to find a new job. It threatens the financial security of the family. It is embarrassing for all members of the family.

Chart 16

EMPLOYMENT STATUS IN 1986 OF WORKERS DISPLACED BETWEEN 1981-1985
By Level of Educational Attainment

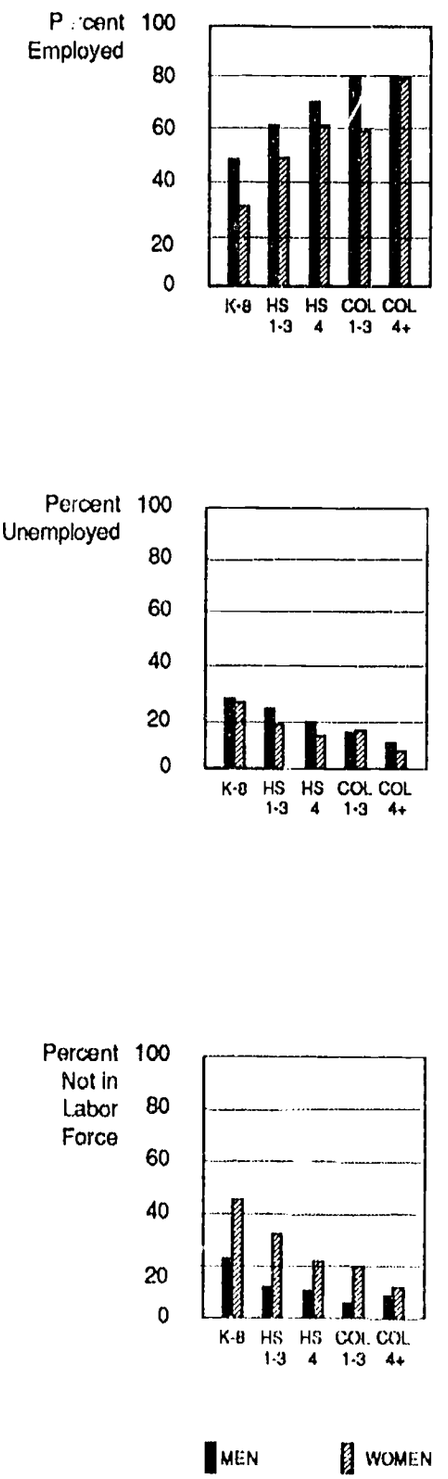
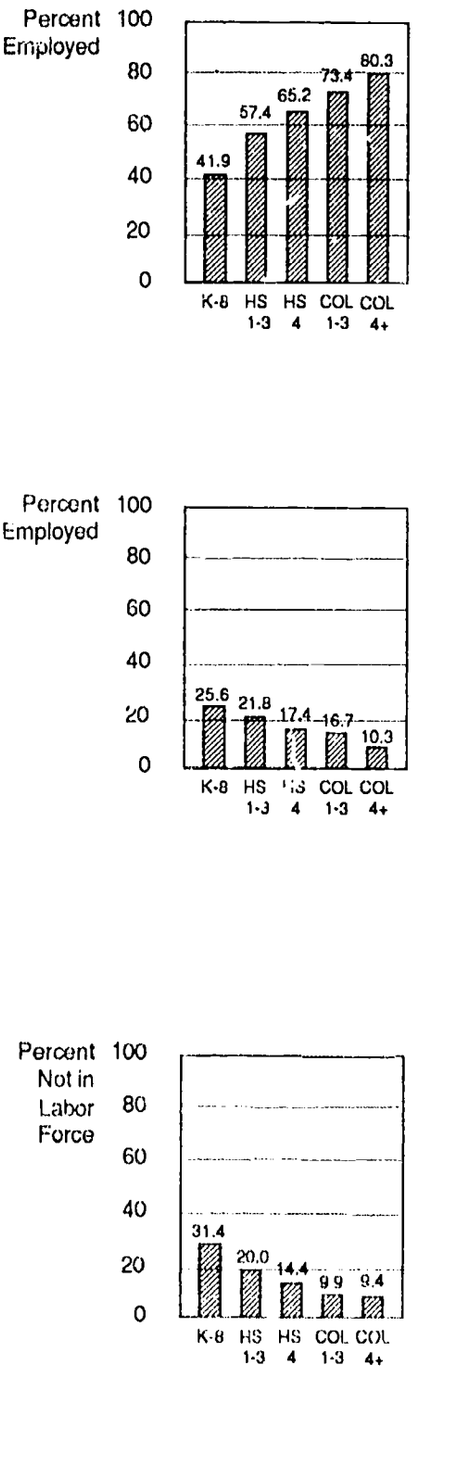


Chart 17

EMPLOYMENT STATUS IN 1986 OF WORKERS DISPLACED BETWEEN 1981-1985
By Level of Educational Attainment



Source: U.S. Department of Labor Statistics, *Displaced Workers, 1981-85*. Bulletin 2289 (September 1987), p. 16.

Often the displaced workers do not possess the basic skills necessary for retraining, particularly for the new technologies.

In addition to the psychological burden, displaced workers may find themselves in the middle of a crippled local economy with any job difficult to come by; or in any dying industry where any job will be short-term.

The Challenge

The laws vary state to state, but almost every jurisdiction requires advance notification of intent to close a plant. By establishing good relationships with economic development officers in their communities, two-year colleges can help ease the trauma of displacement, working with other civic organizations to structure a network of support.

Counseling

Two-year colleges can offer assessment services, outplacement counseling, help with resume writing and interview skills, counsel workers individually on career options available in high growth industries and the courses which will prepare them for new occupations.

Supportive Setting

The campus setting could be made more palatable to these experienced workers by holding classes in evenings or on weekends, and by providing special lounge areas or meeting rooms to promote the exchange of ideas among a supportive group of peers.

Training needs to be extensive, comprehensive (including basic skills) and relevant to the adult worker.

DISABLED WORKERS (PHYSICALLY CHALLENGED)

Disability refers to the physically challenged who have a loss or reduction of ability because of disease or injury, which results in functional limitations in the ability to care for one's person, self-direction, communication, learning, mobility, capacity for independent living, and economic self-sufficiency. (140)

Demographics

As defined above, the number of non-institutionalized work-disabled, per the 1980 Census count, was 12.3 million individuals ages 16-64; 6.4 million men and 5.9 million women. (141)

Definition Broadened

A broader definition of disability, used by some disabled advocacy groups, includes people with epilepsy, people with diabetes, heart disease, cancer, AIDS and alcoholism. Using the broader definition increases the number of American disabled to more than 40 million.

Disadvantaged Too

A 1988 study of young disabled adults found that there are disproportionate shares of racial and ethnic minorities among the disabled. Many of the disabled are also poor, underemployed or unemployed. (142)

Jobs/Skills

Jay F. Rochlin, spokesperson for the Committee on Employment of People with Disabilities, views the demographic trends toward an increasingly nontraditional workforce as a real "window of opportunity" for persons with disabilities. He believes that employers will be more willing to consider hiring the disabled as the available employment pool of traditional workers shrinks. (143)

Options Open

Technological and other support system advances are allowing an increasing number of disabled people to perform jobs that might otherwise have been impossible. Increased financial independence enables these workers to wean themselves from reliance on government aid, family support and jobs in sheltered workshops. (144)

Employment Segregates

There is a "Great Divide" among the disabled between those who work and those who do not. The "Great Divide" was documented in the study "The Forgotten Half", conducted by the Center for the Disabled. Two-thirds of all disabled Americans between ages 16-64 are unemployed. Only 25 percent work full-time, with another 10 percent employed part-time. (145)

Educational Attainment

It is reported that more than half of disabled young people ages 15-24 complete high school, yet close to two-thirds are unemployed. Experts assert that, given proper education and training, more than 75 percent of all disabled individuals could become economically self-sufficient. (146)

School Means Jobs

One key to whether disabled people are able to secure employment is their education. Disabled Americans have far less education than persons without disabilities. Only 25 percent of all adults have less than a high school education or its equivalent; that statistic escalates to 40 percent among the disabled segment of the population. (147)

Barriers to Success

Perhaps the greatest barrier facing the disabled is a perceptual one. Uninformed people may equate a physical disability with a mental one, and in turn assign the physically disabled to menial, repetitive tasks below their capacity.

Members of the majority population are often uncomfortable in the presence of a disabled person. They may relegate the physically disabled to a remote location in the office, or to a job requiring minimal personal interaction. As a result, the physically disabled person becomes more isolated than mainstreamed.

Mobility

Lack of accessible and affordable transportation is a very serious barrier to disabled individuals who have restricted physical mobility. Once at a multi-building or multi-story campus, access issues such as maneuvering crowded corridors, icy or slick access ramps and elevators must be resolved.

Lack of Information

Disabled students often cite the lack of reliable information about vocational rehabilitation programs, transportation services, medical services, housing and independent living centers as a barrier.

The Challenge

To serve this population adequately, two-year colleges may want to begin with a facility assessment to determine just how "user friendly" the campus is to a disabled student. Administration may want to consider hiring an ombudsman for the disabled who could serve as role model, counselor and instructor.

Sensitivity Training

Legislation has mitigated many of the physical access concerns of the disabled, but problems of understanding and acceptance remain. Sensitivity training should be a requirement for instructional staff and administration.

Networking

Financial and career advisors should be well-versed on the latest developments in financial assistance programs for the disabled, as well as the technological breakthroughs which may be opening new career opportunities. They should work closely with the ombudsman to learn about complementary programs in the community for the disabled.

ASIANS

Demographics

Under the parameters comprising a "surprise free" economic growth scenario in *Workforce 2000*, the Asian population in the U.S. will likely double to 10 million by the turn of the century. Observers of recent immigration trends and two-year college enrollment patterns believe that even this seemingly robust estimate may well understate the actual rate of growth.

Given its physical proximity to the Pacific Rim and gateway state stature, more than two-fifths of the population of California will be either Hispanic or Asian by that time as well. (148)

Educational Attainment

Asians account for only 1.8 percent of the population, but their commitment to higher education accounts for 3.6 percent of total enrollment in higher education. (149)

In fact, during the 1976-1986 decade, Asian enrollment in higher education increased 126 percent, from 198,000 to 448,000 students. This compares admirably to the modest 9 percent enrollment increase among white students. (150)

Approximately 40 percent of Asians in college are enrolled in two-year colleges. (151)

Barriers to Success

Problems facing immigrant Asians are detailed on page 20 of this report. The Asian achievements as a people may work against some segments of this group in the form of unduly high expectations, or unspoken resentment associated with Asian acquisitions of U.S. companies, properties and technologies.

The Challenge

Beginning with the intake and assessment process each student should be treated and counseled as an individual, not pre-judged on the basis of ethnic group achievements.

AN AGING WORKFORCE

Demographics

Chart 18 shows the result of baby boomers crossing the threshold into middle-age and subsequent impact on labor force aging. By the year 2000, the median age will be 36, six years older than at any time in American history. Labor force aging will pace that of the general population, with a median worker age of 39 in the year 2000.

Graying

While population growth is expected to be 15 percent between 1986 and 2000, two important working segments will show explosive growth: a 38 percent increase in the 35-47 age category; and a 67 percent climb in the 48-53 age category. (152) In terms of magnitude of effect, growth in these two categories is almost equal to the total labor force increase. (153)

Barriers to Success

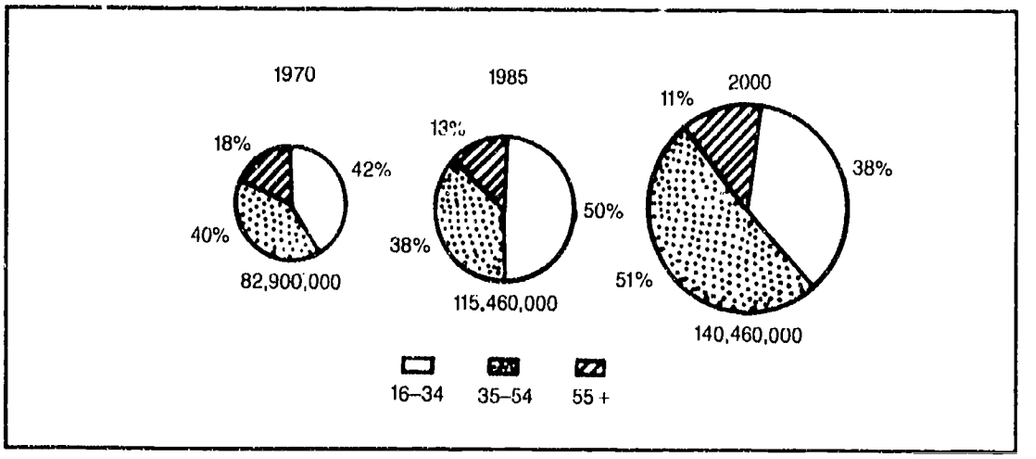
Workforce 2000 raises the spectre of an aging workforce, and questions the ability of older workers to maintain their dynamism, flexibility and willingness to learn. (154)

The Challenge

Contemporaneous with the average worker hitting middle-age, companies are pruning the ranks of middle management and flattening the organization. To benefit from these structural changes, workers will find themselves involved in a learning continuum.

Chart 18

THE MIDDLE AGING OF THE WORKFORCE



Summary

The challenge to two-year colleges will be creating a hospitable atmosphere for older students, sequencing curricula to facilitate professional growth, and maintaining a cadre of well-regarded instructors.

Two-year colleges represent a critical variable in the productivity equation. In a sense, the community college and technical institute represent an early warning system presaging changes in the demographic and employment patterns of their service area.

Their local focus and extensive network of interdependent relationships with manufacturers, service companies, civic groups, industry, cultural and community organizations enable them to reach out to special populations in a credible manner, to assess needs and in turn create substantive programs to meet those needs.

This deep understanding of special populations, when combined with a flexible infrastructure, has resulted in creative programming which opens new career and educational vistas to non- traditional students. In turn, the challenge of leading the productivity charge is forcing two-year colleges to reexamine their traditional mission and role and to rewrite their service charter.

SECTION 5.
STRENGTHS OF TWO-YEAR COLLEGES

Sections 1 through 4 of this report have highlighted the critical challenges faced by the United States in improving human resource development toward improved workforce productivity. As the nation prepares to address these challenges, it is faced with a unique opportunity.

National Imperative

Asians, Blacks, Hispanics, returning women, endangered workers, displaced workers and immigrants increasingly are projected to gain a greater share of the workforce by the year 2000. Many of the members of these populations have real barriers to employment equal to their irate potential. If America is to achieve productivity and compete well in the world marketplace, then, these special populations need assistance in overcoming these barriers.

Pinpointed will be areas where the capabilities of two-year colleges need to be strengthened if the colleges are to play an effective role in workforce development for special populations:

1. Training for employment
2. Workforce retraining
3. Education for career advancement
4. Business development

Mission

Articulated as early as 1922, this three-part mission has become traditional for the two-year college:

1. Preparing students transferring to a four-year academic program;
2. Providing technical education; and
3. Inspiring community service. (155)

Through the years, community colleges have added a fourth distinctive mission statement of their own: to serve the needs of the communities in which they were located, expanding educational opportunities by developing programs for the majority of students who were not seeking a baccalaureate degree. (156)

In 1972, the American Association of Junior Colleges emphasized the service role of the two-year colleges by adding the word "community" to its name, becoming the American Association of Community and Junior Colleges. (157)

Institutional Evolution

At the outset, most two-year colleges were junior colleges. Many of the public junior colleges were originally created as a low-cost strategy for providing the first two years of undergraduate study for a four-year baccalaureate program. The effectiveness of these programs was often measured in terms of the rate at which their students transferred to four-year institutions.

Some of the private junior colleges were finishing schools for well-to-do young women who would become homemakers.

Around 1900, there were only eight two-year colleges with a total enrollment of about 100 students. By the end of World War II, there were 500+ two-year colleges and more than 40 percent of those were private. (158)

Community Colleges

Momentum grew to establish more community colleges in the 1960s, resulting in a 50 percent increase in the number of two-year colleges between 1960 and 1970 and a 300 percent increase in enrollment. (159) Two-year technical institutes were also created by some states to provide post-secondary vocational education.

The movement toward expansion of educational opportunities grew, reinforced by the recommendations of the Carnegie Commission on Higher Education in the late 1960s and the California Master plan for Higher Education in the early 1970s. (160)

Open Access

Open access was a revolutionary idea when the community colleges started opening the doors of education to all qualified candidates regardless of race, religion, or wealth. The baby boom, Civil Rights movement and expanded federal aid for disadvantaged and minority students further spurred the growth of community colleges.

Proximity

Many states set a goal of building community colleges within commuting distance of every potential enrollee. By the early 1980s, California had established a community college within a 50 mile radius of 90 percent of the state's population. (161)

While the rapid expansion mode of two-year colleges has dampened considerably in the 1980s, still about 55 additional two-year colleges were built during the decade of the 80s. Counting branch campuses, there are currently over 1,200 two-year colleges in the U.S., of which about three-quarters are public and one-quarter private institutions. (162)

College Attributes

In the third section of this report, we looked at the human resource development aspect of the productivity challenge and described the characteristics which would be needed by any response entity to be truly effective (page 18). The broadened mission statement of two-year colleges enables these institutions to display all the needed attributes to resolve the human productivity crisis by preparing special populations to step in and contribute to a newly **Productive America.**

As we will illustrate below, two-year colleges are indeed local, accessible and affordable. In addition, two-year colleges have the capability to be diverse, flexible, market-driven and responsive.

Each college will argue that one or more of its programs and services demonstrate some, if not all, of these attributes. To what extent, however, do these component activities contribute to the overall college strategy of service? This question will be examined in some detail.

Local colleges are both community-oriented and community-based. With 1,200 campuses across the U.S., they are the single most accessible network of higher and occupational education facilities. Almost all students can commute to a two-year college from home or work.

The local nature of two-year colleges is extremely important in serving special population members who may not have the means or opportunity to travel long distances for education or training.

For a college to be truly community-directed however, it needs to reach out actively into the community to assess needs and recruit special population members who may be unfamiliar with a campus environment and least likely to seek out needed services.

Accessible

In addition to issues of physical proximity addressed above, two-year colleges have to remove bureaucratic obstacles to accessibility.

Two-year colleges pioneered open admissions for students whose educational preparation proved inadequate for college-level work.

These students whose secondary education may have been incomplete, interrupted, or inadequate in meeting the demands of a changing workplace or in delivering basic employment competencies, can enroll in two-year college and obtain basic education as the first step.

More evening and weekend courses should be incorporated in the two-year college schedule to accommodate employed students. Many students could fulfill course requirements at off-site locations from robotics centers to shopping malls, via distance-learning programs or through telecommunications channels.

Two-year colleges should become active in recruiting special population members, offer non-traditional programs, and employ unique service delivery mechanisms to enhance accessibility, succeed in attracting students.

To ensure that students progress from basic to more advanced courses leading to employment, a comprehensive counseling and service delivery strategy should be developed to ensure that special population students are retained in their program of study.

Affordable

The Chart on page 31 of this report clearly points to two-year colleges as the low cost post-secondary educational alternative.

Financial assistance offices on campus encourage students to apply for grants and loans.

In addition, many colleges operate student placement offices. Capitalizing on ties to local businesses, colleges develop internship and full-time employment opportunities.

Financial assistance is critical if special populations are to succeed. However, two-year colleges must also provide substantive counseling for these students to ensure that academic progress does not lose out to conflicting family and work obligations Poor scholastic performance can endanger financial aid eligibility status, and the part-time student already has access to fewer sources of aid than full-time students.

Diverse

Two-year colleges throughout the country must develop environments designed to assist students with special needs to succeed. Factors range from personalized assessment and counseling services, to on-site child care, to remedial courses, English as a Second Language, General Educational Development (GED) credentialing, readers for the blind, interpreters for the hearing impaired, and special materials for immigrants.

In some cases, special centers have been created for these purposes. Balancing needs for specialized services for targeted students with availability of support services for all students is a delicate issue. The special center may isolate students within the college. Yet, general student services personnel may not be qualified to address special needs.

Flexible

In fulfilling the new economic development portion of their mission, many two-year colleges have adopted new practices. In program development, they tap the knowledge base of industry experts and academicians; instructors are likely to be members of the business community with hands-on experience; for facilities and equipment, programs may be sited at a cooperating business which utilizes modern technology.

These new practices have emerged as innovations, often within specialized economic development or business assistance centers. Two-year colleges differ in the degree to which these practices have infused the overall institution. If business-led programs are isolated within the college, they may have a limited impact on special populations. Colleges also offer flexible enrollment options such as open entry/open exit for immediate access and intensive skill acquisition programs to unemployed adults.

Market-Driven

Many two-year colleges are now applying the principles of needs assessment to local communities as well as students. By tracking economic and technology trends which affect the local community, two-year colleges expand, contract and modify program offerings. Technology-based programs stay current, educational gaps are closed, student placement rates improve, and productivity on-the-job increases as a result of a more compatible match between need and skill.

Two-year colleges differ again in the scope of their market-driven efforts, and the extent to which federal, state and local policies, procedures and agreements enhance or inhibit their ability to change.

Responsive to Commerce & Industry

Many two-year colleges at which economic development initiatives have been introduced, have found that administrative constraints which may restrict the rest of the college's program must be set aside with only one prime directive: get the job done.

These two-year colleges have taken unprecedented steps to respond to business. These range from hiring marketing personnel to the formation of advisory boards which provide business and industry with a voice on issues ranging from curricula to administration.

This ensures that programs are current, provide marketable skills, and hold the confidence of potential employers. Such substantive interface with business provides special population members interested in employment or career advancement with the best opportunities.

Responsive to Special Populations

In some instances, as part of economic development, and in others, as a parallel effort, many two-year colleges have addressed the needs of special populations. This has been achieved by targeted recruitment, assessment, counseling, basic skill development, language skills, training, and job development and placement.

Economic Development

Two-year colleges, where economic development efforts have been undertaken, differ from one another in the extent to which their economic development activities affect either the overall functioning of the college or the needs of special populations. By examining models and component activities of two-year colleges nationally, a four-part economic development model has been constructed. It illustrates the way two-year colleges can and do respond effectively in workforce development and job creation.

Many two-year colleges already recognize the critical nature of America's competitive plight, and have taken the charge of economic development seriously. In some cases, such as the state of Florida, the legislature has formally incorporated economic development to the state's two-year college mission statement. In other cases, college administrators have reached out to the business community with the express purpose of developing programming to facilitate economic development.

Growth Hinges on Skills

A Hudson Institute study estimates that the skills of 25 million American workers must be upgraded by 40 percent by the year 2000 if the country hopes to achieve a three percent growth rate. (164)

Moving from the 1980s to the 1990s, two-year colleges are placing increasing emphasis on their economic development mission. One of the most innovative vehicles two-year colleges have utilized to strengthen linkages with private enterprise is the business partnership.

Business Partnerships

Business partnerships were first proposed as a matter of expediency. During the early 1980s, operating costs for two-year colleges outstripped availability of funds. The ensuing search for alternative sources of revenue redirected the spotlight toward private enterprise. Many local businesses rallied to the cause and agreed to work with their local two-year college to underwrite the development of courses to upgrade skills of their workers.

Custom Programs

Two-year colleges are positioned to place workforce training programs into a stream of lifelong learning. The need of Information Age workers for problem solving and critical thinking skills has blurred the rigid distinction between training and education.

Several business partnerships have been so successful that whole departments, and in some cases whole centers with separate physical plants, have been built in response to market demand.

Resultant non-instructional services found at various two-year colleges throughout the country include: Small Business Development Centers which counsel start-up and expanding small businesses, federal procurement assistance centers, business information clearinghouses and individualized consultation.

Advisory Boards

Informal client meetings have been replaced by more formal and representative advisory boards, where leaders of civic, business, and community-based organizations serve as conduits for community opinion.

As with any complex organizational structure, this participative approach to management yields a number of benefits ranging from quick acceptance of proposed programs, to offers of technical, financial and "in kind" assistance, to a pre-identified body of students.

Table G

MINORITIES IN ADULT BASIC EDUCATION PROGRAMS

	Number (Thousands)	Percent
Total	2,879	100.0
White, non-Hispanic	1,062	36.9
Black, non-Hispanic	517	17.9
Hispanic	901	31.3
Asian or Pacific Islander	375	13.0
American Indian or Alaskan Native	25	.1

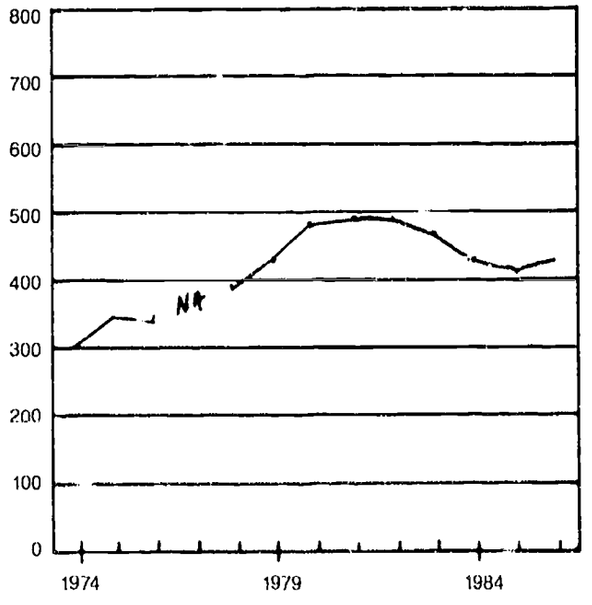
Source: U.S. Department of Education, Office of Vocational and Adult Education, Division of Adult Education

Training for Employment

According to one estimate, 26 million adults need literacy training. In addition, statistics document the fact that well over 20 million American adults of working age have not completed high school. (165) Failure to graduate with good basic skills means these workers are not prepared for the jobs of the future, or for jobs with a future. Almost three million people each year take advantage of adult basic education offerings, and almost 60 percent of these returnees are minorities (Table G).

Chart 19

TRENDS IN THE NUMBER OF GED CREDENTIALS ISSUED 1974-1986



Source: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, *Digest of Education Statistics: 1988*, CS-88 600

GED as Standard

In an attempt to adhere to a national standard of competency, many employers require either a high school diploma or its equivalent from all new hires. This fact drives a substantial number of dropouts into two-year colleges to pursue a General Educational Development (GED) certificate. Since 1971, more than 7 million adults have earned their GED certificates (Chart 19), and in 1988 approximately 737,000 people sat for the examination. (166)

Workforce Retraining

Over 70 percent of the people who will be working in the year 2000 are already employed. (167) The reasons for workforce retraining are compelling and numerous.

They include: displacement due to plant closures or layoffs; shortening product life cycles, scientific and technical advances being incorporated into new products and service, penetration of domestic markets by foreign competitors, and an aging workforce with obsolete skills.

Two-Year College Role

Two-year colleges are best positioned to design, teach or broker-customized job training. The training can be provided on campus or in plant. Courses range from basic skills to occupational training to professional credentialing.

Education for Career Advancement

Also known as occupational education, programs in this area address the needs of individuals who have already identified a high growth industry to enter, or who wish to advance further in their chosen career. A recent sampling of occupational programs ranged from biomedical equipment technology training to robotics maintenance, foodservice technology, photo offset printing technology, travel agent training, air conditioning and heating technology, machine tool technology offerings, finance, and retail management.

Business Development

"In meeting (their) growing responsibility to the employer community, college economic development activities have blossomed into a full array of programs and services in job training, technology transfer, and industrial restructuring." (168)

Economic Allies

In building new businesses, diversifying products and services, and introducing new technologies, more companies now begin their search for allies in economic growth on the steps of two-year colleges. In turn, colleges are responding by entering into new partnerships with industry and government (Job Training Partnership Act), and by offering new products and services. Under the rubric of economic development, community colleges are helping to define job skills and keep employment in their local communities.

Technology Transfer

Increasing the speed of introduction, diffusion and utilization of new technologies is an important component of improving productivity. Two-year colleges accelerate the transfer of technology from the point of development (typically, a four-year institution) to the point of implementation (local businesses) by acting as interpreters and communicators of marketing and technical information.

Dedicated Facilities

On a grander scale, some two-year colleges are moving quickly to build advanced technology centers which provide training in using the newest equipment. These centers tend to specialize in robotics, computer-aided design and manufacturing, statistical process control, electronic information management, and artificial intelligence. (169)

Community College Models

A major purpose of the **Productive America** project was to identify model programs which demonstrate the strengthening and expansion of linkages between business and two-year colleges and ensure that these linkages contribute directly to upgrading the quality of the current workforce and the recruitment, training and placement of new workforce entrants.

This requires that innovative economic development practices become standard operating procedures for the colleges as a whole, and that practices be tailored to meet the needs of special populations.

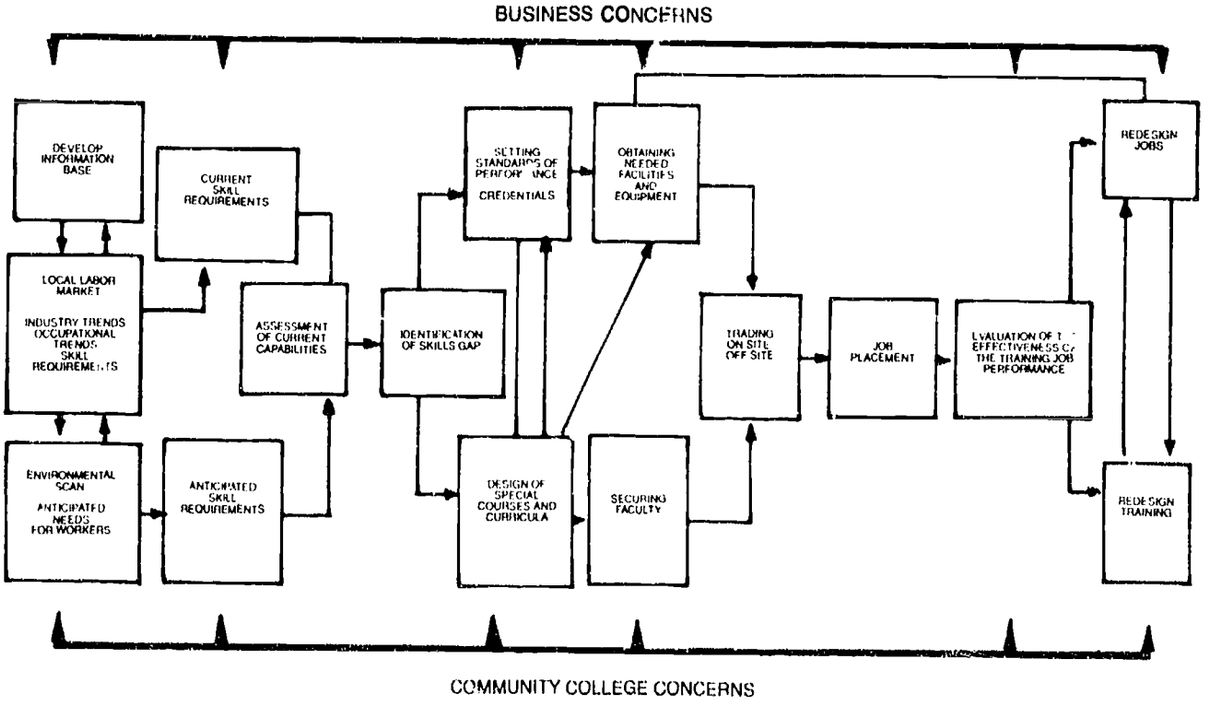
A model for institutionalizing business interaction into the overall college structure follows. Adoption of this model will mean that the traditional academic bureaucracy will be dismantled. It will also create the conditions for two-year colleges to address the needs of special populations on a broad scale. The potential role of two-year colleges in meeting this national challenge and our recommendations for change are presented in Section 6.

BUSINESS INTERACTION MODEL

At the outset, the best workforce programs establish a shared commitment to fulfill a short-term economic development objective such as preparing workers to master a new production process. (Chart 20)

Chart 20

BUSINESS INTERACTION MODEL



Data Base

The next step is to develop a detailed information base, including specifics about the local labor market, industry and occupational trends.

To derive current and future skill requirements, colleges draw on the data base and input from knowledgeable business partners. This step incorporates aspects of strategic planning with the ability to anticipate the employment environment.

Assessment To determine the extent of the skills gap, and how special programming could be most effective, current capabilities of workers and students should be assessed. Findings are then compared with the competencies desired by employers.

Curricula Design Using this analysis and guided by the business advisory council, the two-year college designs special courses and curricula and establishes performance standards for successful completion of education and training programs.

Faculty Instructional staff must then be secured. The search for quality instructors becomes increasingly problematic due to the rapid rate of technological advancement. It can prove difficult to locate an instructor with updated skills and the availability to teach special courses. This often forces the institution to use adjunct faculty, many of whom are active members of the business sector.

Facilities/Equipment Given the high tech requirements of many industries, the cost of establishing a separate training center is prohibitive. An innovative solution which resolves the issues of facilities and equipment is the concept of sharing a plant site or office location.

Training Training then takes place, either in organized classes or in self-paced modules depending on subject matter, facilities and the most effective technique for learning.

Placement There are numerous sequences for training and job placement. In one of the more popular approaches, business recruits new workers from graduates who have already completed courses successfully. Other programs begin with recruitment, then follow with training while students are on the company payroll.

Evaluation As a business initiative, these training programs are concerned with bottom-line results. Evaluation may take place upon placement in a job, with interval follow- up in three months and six months to better assess long-term impacts.

Feedback Both business and the community college then modify the program based on results of the evaluation. Job functions may be reconfigured, curriculum may be modified, recruitment procedures may be revised to fine-tune the program and enhance its effectiveness.

WORKFORCE PRODUCTIVITY MODEL

The productivity problem, at its core, is a people problem. Those people who will comprise the workforce of tomorrow are different from the employees of today, and the nature of those differences carries a productivity ramification. (Chart 21)

Workers for the future will come from special populations which face special barriers to success in education or employment.

Recruitment Attracting non-traditional students will require a proactive institutional response, such as a team dedicated to identifying and convincing people to enroll. Recruiters shoul l be empowered to help prospective students overcome social, financial and attitudinal problems encountered.

Recruiting activities will take place in the home, on an individual basis; through community contacts; through cooperating referral agencies and programs.

Assessment The emphasis during the assessment stage should be on individual attention and counseling designed to overcome possible perceptions of being "judged".

Optimally, assessment would be conducted quickly, would cover current academic skills, interests, and aptitudes would result in a personalized education and career plan. It is important that special population members sense the institutional commitment to their personal and professional growth.

Educational Options

Students select into one or a combination of five alternative educational routes:

1. Developmental basic education—reading, writing, math and problem- solving
2. Language skills—English proficiency
3. Short-term training—immediate use job skills
4. Long-term education—occupational degree or college transfer
5. Pre-employment training—job search and work ethic/expectations.

Students enter the system through the most appropriate alternative, and exit as needed to join the labor force or go on to the university.

Personal Counseling

Again, personal attention from a counselor is imperative. Special students should be continuously monitored and counseled individually to resolve problems as they arise, whether social, financial, legal or academic. The emphasis on personal attention distinguishes this model from precursors.

Placement

Job development entails identifying a job for each student who desires one. Even individuals who have not completed a course of study may have already acquired enough skills to be attractive to an employer.

Life-Long Learning

The goal is to place people into the workforce, and to implement a follow-up program which encourages them to continue pursuing education and training throughout their productive years.

The preceding business interaction model reflects an integrated and comprehensive strategy based upon the best practices found among those two-year colleges throughout the country who have embarked upon these interactive programs.

The proposed model is simple, straight- forward, and incorporates the flexibility and responsiveness necessary to meet the needs of business and industry for quality workers, and of special populations for customized education and training.

Additional steps need to be taken, however, if two-year colleges are to sensitize and tailor their practices specifically for these groups.

Section 6 describes the potential role of two-year colleges as a critical national resource in improving workforce productivity through education and training for special populations and recommendations for change which will activate both the business interaction and workforce productivity models.

SECTION 6.
A STRATEGIC MODEL FOR TRAINING AMERICA'S NEW WORKFORCE

Section 5 of this report presented the two-year college system as a major resource poised to confront the challenges of the human resource productivity problem.

Collectively, two-year colleges have acquired an array of experiences and programs unique in the world of higher education. The very existence of these experiences position all two-year colleges as potentially powerful partners through sharing. In strengthening the current workforce and recruiting and training the new labor pool.

Expanded Task

The challenge and expectations must be understood by personnel at every two-year college, as it is these individuals who will undertake and accomplish such expanded efforts.

Of foremost importance is an understanding by all, that these partnerships with business and industry are not accomplished by forsaking the task of preparing transfer-oriented individuals with the continued excellence for which two-year colleges have earned an impeccable reputation. Rather, colleges are building on their successes, modifying educational systems and experiences to better fit the needs of the non-traditional and special students who must be served.

The Challenge

Once again, the challenge:

> "America needs to remain competitive and can achieve this...only through the participation of highly-skilled and highly-educated workers. Consequently, the potential imbalance between the educational preparation of those entering the labor force and industry's requirements raises another important dimension to an increasing concern." (170)

At the core of productivity is people and with the changing makeup projected for the workforce by the year 2000, many special populations formerly underrepresented in the workforce will find themselves looking at attractive employment opportunities for which they are not prepared. Women, who in 1985 constituted 36 percent of the workforce, are projected to see a share increase to 42 percent; native non-whites from 10 to 20 percent; and immigrants from 7 to 20 percent. (171)

In all likelihood, the jobs into which these populations must enter, will require more skills than they possess, given current preparation systems and trends.
The conclusion is simple: either present workers resolve needed additional skills in an orderly process now and new workers recruited and trained now or American production lines will grind to a halt as the workers are trained on- the-job.

Two-Year College Role

The problems facing each of the special populations, as noted in earlier sections of this report, tend to reduce the effectiveness of traditional two-year college approaches and curricula.

Increasingly, colleges will have to address individual students' social and economic situations. More than before, motivation and confidence-building must be integrated within the curriculum, and students will require more than a standard curriculum.

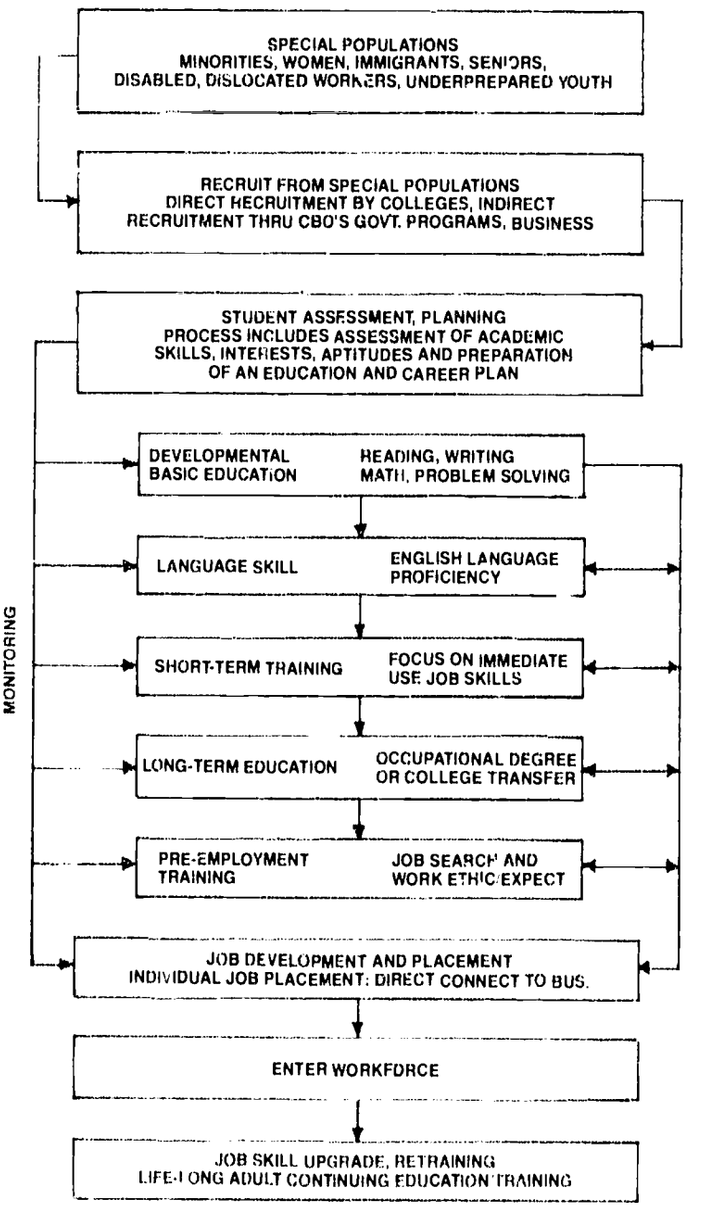
What will be required of a college to meet the challenge? Will drastic and expensive changes be required? Will traditional programs become expendable in the desire to respond to special population training needs? No--colleges will capitalize on their years of successful vocational training and bring into play the potent attributes portrayed in Section 5.

What will be required is a model capturing the essential requirements for serving the ecial populations and preparing them to enter the workforce. The model (Chart 21) consists of four parts:

(1) Recruitment
(2) Assessment and planning
(3) Training and education
(4) Job development

Chart 21

WORKFORCE PRODUCTIVITY MODEL



A MODEL FOR TRAINING AMERICA'S NEW WORKFORCE

Part 1
Recruitment

The recruitment component requires one of the more notable departures from the traditional two-year college system. While recruitment strategies, generally, are more prevalent than in the past for community colleges, this part of the model will require new proactive practices.

Responsibility for recruitment of new workers shifts from employers to the college, or at the least, requires a partnership between them. Attracting women, minorities, immigrants, seniors, disabled persons, underprepared youth, and the underskilled employed and then interesting them in changing their lives through education and employment, is a sizeable demand.

Immersed in the daily crisis of survival, attending school may seem impossible. In short, recruiting from special populations will require an active, even aggressive, institutional program.

Teamwork

A team approach is recommended to identify and locate special populations. Recruiters will need powerful persuasive skills backed by the promise of support systems to convince people to enroll. Recruitment strategies must be based on the needs of special populations and the barriers they face in terms of seeking higher education.

Recruiters should be able to answer tough questions about social and financial issues. Clearly, the college must be prepared to embrace the problems which come with this new population orientation.

Techniques

Techniques to find and reach participants will require partnerships with community-based agencies and organizations which have established links to these constituencies.

Further, businesses in search of new workers should be called on to share the incremental costs associated with building a workforce. Organized labor referrals, home calls, church referrals, ads in local or special interest papers, and personal referrals are examples of the more aggressive approach required to contact these prospective individuals.

Part 2
Assessment and Planning

The assessment stage emphasizes individual attention and counseling designed to overcome possible negative perceptions or judgments. Optimally, assessment would be conducted quickly, utilizing socially unbiased evaluation instruments which establish current academic skills, interests and aptitudes. The result would be a personalized career plan based on a mutually established training plan.

It is important that special population members sense the institutional commitment to their personal and professional growth, and "buy into" this commitment as well.

Part 3
Entry-Level Training and Education

During preparation of the individual's career and educational plan, each based upon current skill levels, will select from one of several tracks:

1. ***Developmental and Basic Education***
   This track must precede all others except language skill training. It focuses not only upon the teaching/learning of reading, writing, arithmetic and thinking skills, but also helps the student learn how to learn. A major departure from current basic skills training is the recommendation made by business people, that basic skills be presented in the medium of the business world, using real business language and problems, for example.

2. ***Language Skill***
   This track is designed to teach the individual English and should be grounded in the words, phrases and vernacular used in the business sector. Language training should be intensive and coordinate closely with other components.

3. ***Short-Term Training***
This track is designed to provide almost immediate job skills so the individual can secure employment. Short-term may mean training of nine weeks to six months in duration. Many excellent two-year career programs might be redesigned into a condensed time period rather than requiring intermittent attendance on a semester basis. Short-term training may need to be open-entry to provide access when students need training rather than in a traditional track.

Quality need not be forfeited when serious attention is given to a new delivery system of established programs. This training track quickly moves the individual to employment and economic survival.

4. ***Long-Term Education***
This track leads to a higher level of education. It is designed for more complex, difficult programs and for studies leading to a degree. These efforts may utilize existing career and occupational programs, or they may involve new programs resulting from partnerships with area businesses for training into specific jobs or management positions.

5. ***Pre-Employment Training***
This experience, offered to all participants, regardless of program, teaches job search skills, explains work ethics and defines employer expectations. It is tantamount to a work acculturation process which enables the individual to achieve a smooth transition into the work world where expectations may be unclear.

Monitoring

Throughout the process, it is essential that the individual be monitored and receive personal counseling. Special population individuals may not possess the skills to solve problems which arise in the social, financial, legal or academic realms. This emphasis on individualized attention is a key point differentiating this model from previous ones.

Part 4
Placement

Job development entails the pursuit of an employment opportunity awaiting the completion of a specific line of education or training. It can take many forms: a promotion at a current employer or a referral to an employer with a vacancy. Successful job development demands an institutional commitment to support the process of forming relationships with community employers for the purpose of identifying employment opportunities for trainees.

Life-Long Learning

An individual will no longer be able to retain employment through a lifetime without ongoing education and training toward increasing one's marketable skills.
The goal is:

(1) to encourage those workers who find career progress blocked or employment jeopardized by a lack of skills to enhance their marketability through education and,

(2) to familiarize special population members with the process of education and training so they will continue to pursue higher learning beyond meeting short-term employment goals.

Participation in life-long learning will enable minorities and other special populations to improve their position in the workforce of the 21st century.

Next Steps

Having defined the competitive challenge and the role awaiting two-year colleges in upgrading worker skills and developing a skilled cadre of new workers, a number of associated institutional issues present themselves.

Some two-year colleges have made tremendous strides in delivering tailored programming and support systems to address the needs of those special populations which will play such a vital role in American productivity.

A successful workforce training model which factors in the needs of special populations was detailed. It encompassed four components: recruitment, assessment, education/training and placement. The major element distinguishing this model from alternatives was the repeated emphasis on individualized counseling.

Effective counseling ensures that special population students can concentrate on their studies, confident that they are following a career plan which reflects both personal aptitudes and market opportunities. It creates an avenue of resolution where the student can weigh conflicting priorities with an objective party.

Two-year colleges and technical institutes must accept this responsibility. Recommendations for meeting the human resource productivity challenge, for modifying ingrained institutional patterns, for outreach to business partners, for serving special populations, are, therefore, delineated in the following narrative.

REGIONAL FORUM RECOMMENDATIONS

The following recommendations represent those emerging not only from the research and analysis of needs, resources and current capabilities of two-year colleges discussed in previous sections of this report, but also from the input, advice, and modifications made by knowledgeable business leaders across the country.

Secondary Research

Members of the National Council for Occupational Education (NCOE) Human Resource Development/Productivity Task Force conceptualized this study as a two-part effort. Sections 1-5 comprised secondary research—a survey of the current literature on topics including the global economy, competitiveness, productivity, special population segments and the role of community colleges.

Primary Research

Sections 6-7 comprised primary research which encompassed such activities as personal interviews with opinion leaders across the country, complemented by a series of four regional forums held in Boston, Chicago, Miami and Phoenix.

Attendees

More than 150 leaders from business, industry, government, and academia convened to explore research outcomes and innovative ways in which two-year colleges could better serve their publics. A list of attendees is included in this report as Appendix A.

Ground Rules

During opening remarks, forum facilitators laid down the ground rules: every aspect of the community college system was open to scrutiny. Their mandate: to rewrite the two-year college mission, if necessary, to enable these institutions to mobilize and reallocate resources as part of a groundswell to strengthen America's position in the global economy.

What follows is a synthesis of consensus recommendations which emerged from these primary research activities. Opinions expressed are those of participants and do not represent any policy, platform or directive of the U.S. Department of Labor.

Policy Barriers

Some barriers to implementation, on a broad scale, of the business interaction and workforce productivity models exist at the federal policy level. Those will be addressed in **Productive America's** Report 2, with recommendations for change at the national level.

Nevertheless, states and local two-year colleges possess both the mission and the resources necessary to substantially rechannel activities toward workforce productivity initiatives.

Uncovered barriers included atiitudes, policies and outdated management practices appropriate to systems serving the 18 year-old dependent student pursuing a liberal arts curriculum in preparation for enrollment in a four-year institution. (172)

Formulate Business Partnerships

Workforce preparation and improvement programs must begin with a clear understanding of demand in the marketplace.

Initiating business partnerships is the critical first step toward improving viability, as private sector partners inject expertise, time, equipment and money into a flagging system. For a partnership to be successful it must be a venture of co-equals characterized by common goals, investment parity and an equal stake in the outcome.

This is not tantamount to asking business for a blank check. Rather, it represents a new perspective for the two-year college, that of investing with a partner in a long range human capital venture

Topple the Ivory Tower Perception

Outreach efforts should take two-year college faculty and staff out of the office and place them into the community and the workplace, where they can learn more about the expectations of employers, as well as the needs and wants of potential students.

While in the field, college employees can become familiar with, and accepted by, business, labor, civic and community groups which may develop into productivity partners and which are repositories of information about the resources and aspirations of target special populations.

Community Involvement

There is no better way to understand a business than to run one, to understand a community than to reside in one.

The next best way to gain credibility is to spend time on the "inside". This may entail observing workers on the job, interviewing employees and managers as they interact and problem-solve in the course of a typical day. It may entail spending evenings at town forums called to discuss local issues and seek out resident opinions.

This "real world" orientation will help to remove the common objection that two-year colleges are too theoretical and too academic to deliver practical solutions.

Target Occupational Clusters and Potential Career Ladders

Members of special populations will come to the two-year college at very diverse education and training levels but with a great capacity to learn and achieve. Sequences of short- and long-term programs need to be developed which take each individual through discrete steps with clear benchmarks of success and rewards in terms of credentials, jobs and upward mobility. Job analysis provides the techniques to define these steps and translate them into curricula which have the full confidence of business and industry partners.

Criteria

Employment potential needs to be reassessed from multiple viewpoints: jobs available now, jobs in growth industries, jobs with career potential and underlying skills needed for jobs. When weighing investment options, two-year colleges should channel funds into programs which prepare individuals for the jobs of tomorrow.

Adopt Holistic Counseling Approach

Section 4 of this report described the special barriers facing Asians, Blacks, Hispanics, returning women, endangered workers, displaced workers, disabled workers and immigrants in preparing for and obtaining employment.

It is imperative that these groups not be isolated or tracked within the two- year college. Instead, the colleges need to adopt a holistic counseling approach which enables students to progress from one benchmark to the next with appropriate support and services.

Counseling should begin with a comprehensive assessment for each new participant during the admissions procedure which measures dimensions including job readiness and social skills. Counselors should be aware of the possibly negative preconceptions employers may have about special populations and prepare individuals with techniques for dealing with these pressures.

Linkages between learning and success should be established by charting alternative career ladders and academic requirements for advancement. Two-year colleges should demonstrate and reinforce that learners are indeed earners and that education is a lifelong activity.

Bolster Placement Efforts

The current vision of occupational education must be broadened beyond the walls of the classroom to encompass practical experience for those who have not worked. Part of the two-year college mission is to move past the theoretical toward the real world of work. A natural outgrowth of heightened business involvement via advisory boards and program partnerships is an improved array of apprentice, intern and other placement opportunities.

Become Agents for Change

If the recommendations outlined above are implemented, two-year college personnel will have a clear and balanced view of the needs and wants of their community, local business and industry, and the special populations in their service area.
This will yield a road map for program design and operation, one which may dictate significant changes in the daily operations of the college.

At the regional forums, business leaders emphatically stated that colleges should become agents for change, become proactive, reach out to business, to current workers, and to the community-at-large with fresh ideas and targeted programs which anticipate evolving technological and socioeconomic trends. All of these parties should be engaged in a dynamic partnership or co-venture which assumes the willingness of the college to respond to identified needs.

Think Like Business People

The time has come for some serious attitude adjustments to bring long-held beliefs about the role of two-year colleges into alignment with the new economic development mission. To succeed with business requires a business-like mentality, a common language, a bottom-line orientation, and a commitment to getting things done.

Decision-Making Authority

Colleges should allow economic development personnel to make decisions, rather than take matters under advisement. Implementing this will necessitate pushing authority further down the hierarchy.

Program results should be tracked and measured, using criteria meaningful to business such as placements, retention and promotion rates, relative wages for program graduates, employer and employee satisfaction levels.

Overhaul Compensation and Incentive Structures

Current standards for performance of two- year college faculty and staff should be adopted to create incentives and reward success in promoting activities which reflect the new economic development mission.

Resolve Turf Battles

The differences between liberal arts and occupational faculty have been duly noted and must be resolved. The solution may result in a dual instructional classification (academic and non-academic), or may yield a blended instructional cadre entitled training consultant.

Augment Instructional Staff

While acknowledging budget and equipment constraints, forum participants concluded that one cost-effective solution to the instructor shortage would be an increased reliance on technological delivery systems.

Technological Time Savers

Videotapes, videodiscs and voice response systems were viewed as particularly appropriate media because their self-paced learning modalities would readily accommodate the widely divergent teaching/ learning needs of special population students.

It was also felt that competent teachers' aides should relieve the burden of rote tasks, leaving instructors free to deliver more personalized attention to students.

Update and Sensitize Faculty

Staff Exchanges

Specific recommendations for keeping faculty updated on rapidly advancing technologies include: supporting subscriptions to trade journals, encouraging attendance at professional and technical meetings, exchanging staff between businesses and colleges for three-to-six month intervals, and placing staff on quality circles at local businesses in an advisory capacity.

Diversity Training

Faculty once comfortable with a homogeneous student body sharing a common language and cultural norms will need to understand the new student and business populations. Cultural diversity and sensitivity training seminars would help circumvent existing and potential problems which are the direct result of cultural differences.

Cut Red Tape

Potential business and industry clients are frequently frustrated by what they perceive to be unnecessary red tape and bureaucratic bumbling. In this case the solution posed is relatively simple—centralize the ir take function and assign an account executive to prospective business partners.

Account Executive

Each account executive is the single contact point for the business or industry, responsible for coordinating all aspects of training from conducting research on the business/industry, needs assessment, curriculum design, instructor selection, site preparation, student recruitment and admissions, program monitoring, placement, and evaluating client satisfaction with the end result.

Step Into Broker Role

Two-year colleges also occupy a bridging position between government funding sources and community and employer beneficiaries. From this pivotal vantage point, the college's economic development specialists can broker program concepts designed to meet the needs of special populations and business with an assist from federal funds.

Although federal funds represent a small share of two-year college resources, they can close critical budget gaps and help leverage other resources for maximum impact.

Typical of such programs is INFAC/Gear, an initiative aimed at bringing computer-integrated manufacturing techniques to the gear industry. In the State of Illinois alone, more than 30 manufacturers will participate in a technology transfer program involving shared instructional materials, physical plant and trainers.

Funding is a blend of monies from the Department of Defense, private sector, State of Illinois, the Illinois Institute of Technology and other universities, as well as the City Colleges of Chicago, a system comprising eight two-year colleges.

Export Successful Models

Virtually every college system participating in the regional forums had enjoyed significant success with their own program. Because each institution acted independently, each also bore the full brunt of start-up costs.

Economies of Scale

Better communication between two-year colleges would allow successful programs to be exported across institutional boundaries.

Rather than reinventing the wheel, two-year colleges would begin to reap economy-of-scale benefits from program sharing.

Package and Market Offerings

Advertise Publicize

In corporate America, when a company redefines its mission, it communicates that message in a number of ways, on a number of levels, to a number of audiences. Once adopted, two-year colleges should follow suit, publicizing their new economic development and productivity focus through a marketing plan which incorporates advertising, direct mail, public service announcements, speaking engagements, press releases, media interviews, open houses, seminar participation and printed collateral material such as capabilities brochures.

Workshops

Colleges unfamiliar or uncomfortable with marketing techniques could attend workshops co-sponsored by the National Council for Occupational Education and/or the American Association of Community and Junior Colleges.

Easy Access

Additional recommendations made by business leaders included structuring the business development efforts so they are perceived as "user friendly" by business.

Many variables must be covered to make this a reality. The college should establish a direct dial telephone number for the one office designated this responsibility. All college personnel, especially those at the switchboard, who may field inquiries should know to whom each inquiry should be referred. The designated office must employ trained and knowledgeable account executives to whom inquiries may be referred and acted upon.

Devise National Competency Standards

Operating under the technology transfer directive, two-year colleges will be developing novel programs which teach new skills for emerging job categories. Business identified a need for the standardization of technology transfer curricula and associated credentialing which would result in a national competency standard. Business also expressed a desire to participate in the development of such competency standards.

Employers could then hire with confidence, secure in the knowledge that graduates from this national network of two-year college technology transfer programs covered the same instructional material, learned the same techniques, and spent appropriate and equal time between the classroom and the laboratory.

CONCLUSION AND RECOMMENDATIONS FOR TWO-YEAR COLLEGES

Conclusion

We live in an information society, where the ability to gather, access, process, store and interpret data is essential to success. To prosper in such a society, individuals will need more than basic skills, they will need to communicate effectively, to think critically, and to problem-solve independently.

While the level of skills required to compete has increased, the level of skills acquired has not kept pace. Many of the new workers will be less experienced members of special populations (women, immigrants, minorities, the displaced and disabled). The result is a glaring skills gap. The remedy is education and training. The optimal delivery system is the nation's two-year colleges.

Two-year colleges and technical institutes are poised to help prepare the workforce of tomorrow. Looking beyond the boundaries of traditional liberal arts education, these institutions can become champions of the productivity quest.

As agents for change, two-year colleges need to seize a leading position on the productivity front—forming cooperative ties with business partners, while recruiting, training and upgrading the skills of their employee base.

The greatest challenge to two-year colleges: reshaping the perception of education and training. It is not just for young people, nor just available in the traditional classroom setting, nor does it stop upon receipt of a degree or certificate.

Education and training are lifelong activities. They are necessary to keep the economy competitive, industry dynamic and the workforce vital, and when associated with two-year colleges, are accessible, affordable, and available at a nearby location.

Now, it is time for two-year colleges to deliver on their potential and promise. Following are some specific recommendations that should assist two-year college programs toward that goal:

Recommendations

1. Review the college mission statement and ensure that the responsibility for local workforce development is included.

2. Identify the special populations within the college's district (such as minority, new immigrants, returning women, endangered or displaced workers, disabled workers, etc.) and gather demographic, socio-economic and other data to determine needs.

3. Establish effective recruitment strategies to enroll individuals from special population into training programs.

4. Establish comprehensive, applied literacy, basic skills, language development and technological preparation programs to assist adult students facing barriers to success.

5. Establish adequate "bridge systems" to assist students to move efficiently from one level of education to the next higher level.

6. Establish effective assessment and counseling systems to provide accurate information and advice used to assist in the preparation of the student's career plan and education plan.

7. Establish effective monitoring, mentoring, and problem-solving systems to assist students in overcoming obstacles that may hinder success at the college.

8. Assess and redevelop current vocational education programs and job training programs to ensure that they directly meet local employer's job skill requirements.

9. Implement condensed, flexibly scheduled, vocational/technical programs which utilize advance adult instructional technology and provide access and shortened training time for adults.

10. Extend college placement office activities to a level where successful students are provided access to real job openings and are directly assisted in obtaining a job.

11. Establish an effective and comprehensive labor market information office or center to monitor the local labor market.

12. Create consortia with local organizations thereby leveraging the resources to maximize the support-effect for students.

13. Establish a "workplace literacy" initiative whereby the college moves into local businesses to teach adult basic education which is relevant to job success and upward mobility in the workplace.

14. Enlist the support of local commerce and industry as full partners in the establishment of all the special initiatives and training programs in order to solve labor shortage problems by pooling appropriate resources.

15. Provide technical assistance to local commerce and industry in need of internal training and development such as train-the-trainer programs to enhance the ability of companies to upgrade their employee's skills.

SECTION 7.
TWO-YEAR COLLEGE MODEL PROGRAMS

Purpose

The models presented in this section have been selected as exemplary programs which demonstrate how two-year colleges have responded to the needs of special populations with innovative and exemplary programming.

By presenting these models, other systems can learn how districts across the nation established business partnerships, conducted market analyses, and pulled components of existing curricula together into unique courses with very specific short-term learning objectives.

Contact information is provided to facilitate additional discussion with course designers and sponsors.

Common Traits

Exemplary programs share several common characteristics:

1. Targeted--programs are crafted in response to the need of a discrete and easily identifiable group such as immigrants, endangered workers or returning women.

2. Cooperative--two-year colleges leverage resources by establishing linkages with area businesses, industry or community groups which can supplement those resources with additional funds, materials, or instructors.

3. Innovative--courses are tailored to the student population which often requires unusual approaches, languages, delivery mechanisms and teaching sites.

HOTEL NIKKO
WORKFORCE TRAINING PROGRAM

Sponsor/Partner

Chicago City-Wide College (CCC) Hotel Nikko

Purpose

The purpose of the joint venture between Hotel Nikko and Chicago City-Wide College was to train workers needed to open the first major new hotel in the Chicago Loop in more than a dozen years.

The Hotel Nikko-CCC program was designed to develop the skills employees required to work in the front office, back office, food service, security, maintenance and all other service and technical jobs at the hotel.

Hotel Nikko initially contacted Chicago City-Wide College for help in achieving its workforce goals utilizing High Impact Training Program Funds which are provided from Illinois State general revenues and are available only through community colleges.

Chicago City-Wide College administered the funds and used them to pay for consultant/trainers for the hotel.

Target Population

There were approximately 10,000 applicants for the new jobs at the Hotel Nikko.

The potential workers available to employ in the hotel service industry are predominantly from special populations. As a consequence, people in the training program were a diverse group including minorities, Eastern European, Korean, Southeast Asian and Japanese immigrants, returning women, displaced workers, disabled persons and mothers on welfare.

Many of the trainees were not high school graduates, could not meet reading and computational requirements, and did not have the basic skills for employment even in entry-level jobs.

Strategies/Operations

The first step in developing the program was to perform a labor force analysis, determining the profile of potential hires and assessing the gap between their skills and those required.

The second step was the cooperative planning and design with Chicago City- Wide College of a training program to develop needed skills.

The third step was to devise operations and training manuals for the endeavor.

The fourth step was to contract with instructors.

Employees were hired prior to entering the training program. Since personal interaction is the hallmark of the hospitality industry, the selection process emphasized social skills, a friendly personality, attitudes, responsiveness and flexibility. Prior experience was not necessary.

The training program placed special emphasis on creating a bond between employee and employer during the training process. Throughout training, the Hotel Nikko took steps to clearly communicate its commitment to the individuals, that "we care about you and are investing in your future. This is not just a chance at a job, we're opening up a career opportunity to you."

Individuals were trained in personal communication skills and team-building, and allowed to put those skills to work by expressing their opinions on ways to improve the training program for future classes.

The courses covered materials ranging from basic skills, communications and appearance to cross-cultural sensitivity. Teaching techniques used included role playing, feedback and the videotaping of typical interpersonal interactions. Team teaching proved very effective, with CCC instructors and Hotel Nikko management sharing the classroom in mutually supportive roles.

Program Impact

Approximately 500 people completed the training program. At the end of six months, 92 percent of the opening staff still worked at the Hotel Nikko, defying the odds in an industry with a 40 to 60 percent first quarter turnover rate.

Critical Success Factors

In the planning, design and conduct of the training program, the mutual respect and cooperation among representatives of the Hotel Nikko, CCC and the outside consultant was imperative.

The caring attitude expressed and continuously reinforced by the Hotel Nikko forged a strong bond between employer and employees, as well as among the employees themselves.

One key to success was the flexibility of Chicago City-Wide College in delivering client-specific training, at client-designated locations, within the very tight time constraints imposed by the hotel's opening date.

The ability to move quickly was important, particularly in situations where differing program component funding cycles required precise coordination.

Outreach techniques and the ability to contact non-traditional worker segments proved essential to identifying prospective candidates.

Students frequently mentioned the Hotel Nikko's willingness to schedule classes at times which accommodated day care and family responsibilities as important.

A "can-do" attitude which treats problems as opportunities is a key factor in program success.

Additionally, the Hotel Nikko offered incentives to employees as a reward for outstanding performance. Six program graduates were awarded trips to the Tokyo Hotel Nikko in the fall of 1989 in recognition of a job well done.

Barriers to Success

At the outset, lack of basic reading skills represented a serious barrier to success.

Individual Barriers

Many program applicants lacked basic social skills such as the art of conversation and the rudiments of personal etiquette. These represent major impediments for positions which require extensive public contact.

Institutional Barriers

Although the need for training has been generally recognized in the industrial manufacturing venue, few programs are available to those seeking careers in service industries.

Overtures were made in an attempt to work with public service agency training programs, but their slow response time precluded participation, given the critical nature of client deadlines. Difficulties in coordinating programs and breakdowns at jurisdictional boundaries caused further difficulties in working with public agencies.

The general lack of information concerning community colleges, their role and programming represented another barrier to employer and employee involvement.

Barriers encountered by Chicago City-Wide College included internal policies which made it difficult to utilize academic faculty for short-term training programs. Faculty availability was constrained by regular course schedules and further limited by a mindset accustomed to traditional schedules, curricula and classroom locations.

Some companies may be willing to access funding available through community colleges, but unwilling to make the necessary changes in their training methods to effectively use those funds. Trainers unfamiliar with the special needs of populations served by the two-year college system may prejudge minority students, and categorize them as failures, rather than work with non-traditional students to assure their success.

From an administrative standpoint, one barrier to success was a cumbersome purchasing procedure which made it difficult to meet expenses in a timely manner.

Budget/Funding

The budget for the four-month long Hotel Nikko-CCC training program, including training and salaries for workers, was close to $1 million. About $900,000 was funded by the Hotel Nikko with the remaining $100, 000 provided by public job training sources.

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LONG BEACH CITY COLLEGE
REFUGEE ASSISTANCE PROGRAM

Sponsor/Partner

Office of Refugee Resettlement
(Washington, D.C.)
Long Beach City College (LBCC)

Purpose

The program is designed to prepare newly arrived refugees for permanent, unsubsidized employment, thus removing them from the welfare rolls.

Target Population

Since 1975, Long Beach has been a major resettlement site for Southeast Asian and Cambodian refugees. It is estimated that 15,000 of the 40,000 Cambodians living in the Long Beach area receive some type of public assistance and thus qualify for this program.

Studies have shown that 70 percent of these refugees have never worked in any formal business environment outside the home and lack the transferable skills necessary for employment in the highly industrialized Southern California area. Sixty-eight percent have no formal education, and of those with some schooling, only 12 percent had more than three years of education.

The U.S. government pays for all resettlement costs for the first two years. It is a condition of this assistance that refugees participate in an employment program.

Time Frame

The LBCC refugee employment project was established in 1980 and has been funded every year since inception. For refugees with children, the project has two years to prepare and find them employment. Single adults or married couples without children have only one year of training before placement.

Getting Started

Long Beach City College submitted a proposal in response to a California State request for proposal and was the successful bidder. A contract was negotiated, and the Refugee Assistance Program began in October 1980. A new proposal has been submitted every two years since then with similar success.

Skill Requirements

The first step for these refugees on the road to a life free of welfare dependency, is a functional knowledge of English. They also need to acquire the basic skills that would help them find a new job with local employers.

Strategies/Operations

Since it was felt that a basic command of functional English was the most essential skill needed, the project concentrated in this area during its early years. Drawing on a highly successful regular college English As A Second Language (ESL) program, a pre-vocational ESL program was designed to help these individuals acquire sufficient English to function in the workplace. Participants were taught English in the context of the work environment, thus allowing them to acquire two skills simultaneously.

Early job placements demonstrated vividly that something more than just classroom instruction was going to be necessary if these refugees were going to keep their new jobs. Culturally-influenced perceptions of time and family responsibility took precedence over the wishes of employers.

Most placements did not last the first week, much less the 90 days required by the project for successful completion. The solution to this problem was the addition of a work experience component to the training cycle.

After the refugees had acquired some proficiency in English, they were placed in six-week cluster vocational ESL classes designed specifically for employment in public non-profit agencies in the greater Long Beach area.

Upon completion of the classes, the students were placed in these agencies and asked to work for no money four hours a day, five days a week. It was here that the refugees acquired the knowledge to function in a formal work environment. Mistakes were tolerated, forgiven and corrected. Both parties benefited from the arrangement with the result that we were able to place some of the refugees in the same agency where they had gained work experience.

Actual vocational skill training was accompanied by arrangements for training in fields where there was a local need and where interest was expressed by the refugees. Training was conducted on-site with foodservice classes held on the Queen Mary entertainment complex or nursing assistants training at various convalescent hospitals

Program Impact

Approximately 2,700 refugees have been served by the program, with slightly more than 1,500 securing positions in unsubsidized employment. The program is ongoing but will soon be replaced by California's new welfare reform program Greater Avenues for Employment (GAIN), which will provide for all welfare recipients the services LBCC has been providing for refugees. Long Beach City College will also be a participant in GAIN.

Critical Success Factors

During the ESL stage of the program, the dedication and ability of instructors has enabled the program to achieve its great success. The teachers have been committed to program goals from the outset, and they have put in long hours on curriculum development and counseling.

The work experience component has been beneficial in that it served as an employment test area where refugees could make cultural and work errors and not worry about losing a job or, more importantly, their livelihood.

Perhaps the greatest single factor in program success was the latitude afforded by outside funding for swift response to problem areas, scheduling conflicts, staff changes and other places which required adjustment.

Because we were viewed by the community as an integral part of the college, we were able to utilize to our advantage more than sixty years of goodwill the college has accumulated in the local area. Many doors were opened to us because the community knew the college and the quality of its programs. We were treated as an equal, if unorthodox, member of the college.

Barriers to Success

Individual Barriers

Again, the lack of functional English by all clients represented a very real obstacle to the ultimate objective of employment. This problem was exacerbated by the lack of formal education and the minimal work experience characteristic of the Asian refugee population background.

Institutional Barriers

No direct line of communication exists between the Department of Social Services, the primary referral agency for refugees, and LBCC.

The relationship with the Department of Social Services (DPSS) was controlled by rules and regulations which made it difficult to receive full and correct information about clients and their status in the larger system. Often, this proved counterproductive, working against a refugee taking a job because of the erroneous fear of negative financial repercussions from DPSS.

Another persistent barrier was racial stereotyping which suggested that all Cambodians (or Asians) were a model of independence, a minority population which was coping fine without help.

This notion was widely entertained by the public, by employers and by faculty unfamiliar with the recent history of Cambodia. We often heard the comment that "all Asians look alike and it is impossible to tell one from another".

Budget/Funding

The annual budget for the program varied from $424,000 to more than $900,000 moving with Federal appropriations and allocations. All funding was provided from Federal sources administered by the Office of Refugee Resettlement.

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INDIAN RIVER COMMUNITY COLLEGE
ENGLISH AS A SECOND LANGUAGE (ESL)

Sponsor

Indian River Community College (IRCC)
State Legalization Impact Assistance Grant
Florida Department of Education

Purpose

The basic components of the program address the areas of literacy, English, and civics for non-native speakers. The two-level ESL literacy component has as its primary objectives:

1. Basic literacy skills
2. Survival skills
3. Introduction to American culture and customs.

Beginning Literacy emphasizes basic literacy in the student's native language. Intermediate Literacy shifts the focus to English. The ESL component consists of four levels of competency- based skills (reading, writing, speaking and listening) in real world situations.

The ultimate objective of the program is to reach out to those groups who might not otherwise have access to educational opportunities and to lower the barriers enabling them to pursue an education based upon individual need.

Target Population

While the ESL program at IRCC serves a heterogeneous population such as college students and professionals from many countries around the world, an increasing number of students are immigrants residing in the U.S. under terms of the amnesty program.

Time Frame

This group comprises Hispanic and Haitian farmworkers and refugees, many of whom are illiterate, pre-literate or semi-literate.

There is no time requirement on the ESL offering. Progression depends on such factors as individual motivation, educational background, and preexisting literacy level. Students who are literate generally can complete the course in one to two semesters. With the assistance of individualized learning labs, students may progress much faster than projected.

Getting Started

To provide effective programming, an assessment must be made of specific community needs. Various ethnic groups may display marked differences in their sociocultural and formal educational backgrounds which would require different approaches. Attention must be paid to such divergent factors as literacy needs, legalization requirements, course accessibility, recordkeeping, intake and testing procedures, curriculum development and instructional personnel.

Skill Requirements

Instructional staff is screened on the basis of formal ESL training, cultural sensitivity, knowledge of a second language, teaching experience with adults, creativity and flexibility. Virtually all instructional aides are bilingual and belong to the ethnic group served by the program.

Strategies/Operations

IRCC has developed a standardized series of procedures for intake and testing, placement, recordkeeping, etc. which is easily replicated. This allows the program to be expanded quickly when necessary.

By reaching out to people in their native language and providing both literacy and ESL within the community, barriers to education are lowered.

Once students have completed the curriculum at outreach programs, they are moved to the college site for further ESL and possible GED preparation.

Program Impact

The Immigration Reform and Control Act of 1986 has given millions of previously illegal entrants the right to live and work in the United States. This has brought an influx of students into Adult Basic Education programs across the country.

The projected figure for the counties served by IRCC is approximately 3,500 eligible legalized entrants (ELAs), some percentage of whom are expected to enter adult education programs within the next five years. During the past academic year, more than 1,600 ELAs and foreign students took advantage of the ESL program.

Critical Success Factors

Indian River Community College has provided for outreach sites within the community, located within walking distance for a large percentage of the immigrant population.

Open enrollment and flexible scheduling of staff and facilities allow IRCC to accommodate seasonal enrollment peaks.

Providing a native language literacy program for the two major population groups, Haitians and Hispanics, has attracted a segment of the population which would have been shut out of the educational process. We have found bilingual instructional aides to be a tremendous asset to the program.

Barriers to Success

The native language literacy program requires trained bilingual instructors and instructional aides who understand the cultural background of clients. In areas where no homogeneous ethnic groups exist, where few native speakers have attained an advanced educational level, or where linguistic diversity within ethnic groups is present, it may not be practical or feasible to develop a native language literacy program.

Individual Barriers

Many of IRCCs students have little formal education and do not understand the process of education. Often, this is accompanied by unrealistic expectations regarding outcomes and required time frames for completion.

As a result, student retention becomes an area of concern. Measuring student achievement in small increments such as completing a level within a course provides benchmarks of success which encourage students to continue.

Institutional Barriers

For many immigrants, the very notion of attending college in the United States, when they have little education in their own country, is a frightening prospect. This perceptual barrier is significantly lowered by placing classrooms out in the familiar boundaries of the community.

Budget/Funding

The State Legalization Impact Assistance Grant (SLIAG) provides retroactive reimbursement for educational services to legalization applicants. In addition, funding is provided by the Community College Funding Program and by the Florida Department of Education, Vocational, Adult and Community Education, Supplemental Adult Education, under Section 341 of the Adult Education Act.

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CUYAHOGA COMMUNITY COLLEGE
PREPARATION FOR TECHNOLOGY

Sponsor/Partner

Cuyahoga Community College
Ohio Bell Telephone Company

Purpose

To upgrade employee skills in preparation for more advanced career and educational opportunities.

Target Population

Management and non-management personnel including employees who belong to the Communications Workers of America union.

Time Frame

Following a four-month test period at the end of 1987, the program has been running continuously. Time limits are only placed on employees seeking college credit.

Strategies/Operations

Preparation for Technology comprises a series of learning programs designed for each individual's specific needs. Using computer technology, employees study on personal time at their own pace.

Subjects range from basic to advanced skills in math, communications, computer literacy and electronics.

The curriculum is structured to prepare employees for enrollment in the Future Tech (associate degree in electronics and telecommunications) program, and for college credit or skills training courses.

There are no academic prerequisites for admission, and each participant is assessed to determine their highest proficiency levels in the subjects covered.

Program Impact

More than 500 Ohio Bell and 100 Ford Motor employees have participated in the program.

The model developed for Ohio Bell in Cleveland has been successfully replicated in Columbus, Dayton and Toledo.

What began as a partnership with Ohio Bell has grown into a full fledged consortium with the shared mission of: (1) providing a vehicle to meet the technology transfer needs of business, industry and government in northeastern Ohio; and (2) providing a skilled workforce which promotes the growth and economic stability of the area.

Additionally, the program model has been exported to the Ford Walton Hills Stamping Plant in Cleveland via a computer networking arrangement.

Cuyahoga Community College credit students are fulfilling requirements in English, mathematics, psychology and physics by tapping into the system.

Critical Success Factors

Working closely with Ohio Bell personnel, the College drew up a list of ten factors which would characterize an ideal program for Ohio Bell employees. As a result of this careful planning, the firm has measured increased motivation among adult learners with 95 percent indicating intent to enroll in other Pre-Tech courses, 90 percent rating the overall resource capabilities as excellent, and 68 percent completing at least one subject area.

Success is based on three major factors:

1. Understanding adult learners and deploying alternative delivery methodology
2. Understanding instructional design and computer-managed learning
3. Understanding by faculty of their new role as managers rather than disseminators of information

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CITY UNIVERSITY OF NEW YORK EXPERIMENTAL HIGH SCHOOLS

Sponsor

New York City Board of Education
City University of New York

Purpose

The experimental Middle College High School seeks to improve the academic performance, self-concept, career planning and higher education options of students who are viewed as "at risk" of not completing high school. Grades 9-12 are included.

The experimental International High School assists students with limited English proficiency to develop the linguistic, cognitive and cultural skills to succeed in high school, college, and beyond. Admissions are open to students who have resided in the U.S. for fewer than four years.

Time Frame

Middle College High School was founded in 1974. International High School was founded in 1985.

Strategies/Operations

Both high schools are housed within LaGuardia Community College providing ready access to all facilities.

Students from International High may register for high school and advance placement, and are guaranteed admission to LaGuardia upon successful completion of the program. Additionally, they participate in intensive English studies and reinforcement activities.

Middle High students may enroll in college courses during junior and senior year. Programs emphasize small classes, intensive daily and group counseling, and three internships which range from hospitals to museums, schools, courts and social service agencies.

Program Impact

Middle College enrollment is 500 students; 400 attend International High. Average daily attendance is 90 percent and the program dropout rate is just 4-5 percent.

Critical Success Factors

Guaranteed access to the full spectrum of services and facilities at LaGuardia, from library to laboratories served as an incentive to students. Participants also enjoyed the exposure to college faculty and the sense of being part of the college community.

Budget/Funding

$12 million from the New York Board of Education, supplemented by a special state appropriation.

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EL PASO COMMUNITY COLLEGE
INMATE VOCATIONAL EDUCATION PROGRAM

Sponsor

La Tuna Federal Correctional Institute
El Paso Community College

Purpose

Provide vocational skill training which would enable inmates to develop skills for employment while accommodating their need for structure on a daily basis.

Target Population

Inmates at the La Tuna Federal Correctional Institute

Time Frame

El Paso Community College has been working with prison administration for the past 17 years to develop a variety of training courses and programs.

Strategies/Operations

The college now conducts five full-time clock hour programs at the prison:

1. Residential building trades and carpentry
2. Automotive repair
3. Radio and television
4. Refrigeration
5. Furniture refinishing

The certificate program fully articulates into AAS plans which can be accomplished upon completion of the prison term.

Given the success of these programs, the prison educational staff is exploring the addition of three new programs:

1. Computer skills training
2. Plastic injection molding
3. Drafting

Inmates are given the opportunity to select a vocational program based on personal interest. Those without an expressed preference are placed in a program based on an evaluation of their past experiences and staff assessment of the individual's ability to succeed in the program.

Program Impact

During the 1987-88 program year, El Paso Community College provided 300 inmates with more than 108,000 contact hours of instruction.

Critical Success Factors

An advisory committee was formed to act as a link between the college, the prison and the community. This committee provides input on curriculum, equipment and facilities, and serves as a conduit for information on current methods and processes in industry.

According to the La Tuna education staff, most federal and state prisons and correctional institutes have an agreement with local community colleges to provide vocational training for their inmates.

The type of programs offered will be influenced by a number of factors:

1. Job market demand for skills
2. Space availability for programs at the prison
3. Reimbursement for costs associated with implementing and maintaining programs such as: tuition charges, tools and equipment, program updates, textbooks, lab costs, space, utilities, hospitality costs for advisory board meetings, and faculty travel to update skills in training areas
4. Availability of qualified faculty willing to work in the prison setting
5. Impact of prison training on the local community.

Barriers to Success

Some individuals within the community may not support the effort to provide training at the prison.

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TOMPKINS COURTLAND COMMUNITY COLLEGE PUBLIC ASSISTANCE COMPREHENSIVE EDUCATION PROGRAM (PACE)

Sponsor

New York State Department of Social Services
Tompkins Courtland Community College

Purpose

To better prepare the students for future employment.

Target Population

Directed at recipients of Aid to Families with Dependent Children, these non-traditional students were primarily women with children who had been unable to enter and retain a job following earlier, short-term training.

Time Frame

The program began in February 1986.

Strategies/Operations

Potential students are referred from the county Department of Social Services and are scheduled for several preliminary visits. The first on-campus experience consists of an interview and placement testing.

The second visit comprises a review of financial aid applications and the placement test results.

The third and final visit affords students the opportunity to enroll in classes and to complete arrangements for support services required.

One of the unique features of this program was its comprehensive approach to remove barriers which might prevent students from succeeding. The needed services included: academic advising, tutoring, consultative or advocacy assistance with child care, ground transportation, food stamps and personal counseling.

Students were also required to take a short course titled "Introduction to the College Experience," designed to provide an overview of the college while functioning as an ad hoc support group where participants could discuss problems and relieve stress.

Students enrolled in the same regular and remedial courses as other college students. The only point of difference was special attention from their counselors, advisors and teachers.

PACE staff members include individuals experienced at crisis intervention and counseling who are capable of resolving the difficulties encountered by these "high risk" students.

Program Impact

Since its inception, the PACE program has assessed 484 referred individuals, admitting 206 to the program. Thus far, only 86 of those participating have chosen to leave the program, and many of those who left did so to pursue employment.

At the present time, PACE serves 101 students, 95 percent of whom are in degree-seeking programs. Eight students have already graduated. Although the numbers speak to the issue of success, observations by staff suggest even more profound changes at work. These comments include enhanced student self-confidence and a greater sense of self-esteem.

Critical Success Factors

The success of this program depends heavily on two sets of factors:

(1) Community college commitment of the necessary resources; and

(2) Funding from social service agencies. Without both, the program would experience severe difficulties, because students need the basic subsistence help to survive.

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FLORIDA COMMUNITY COLLEGE
CARING FOR KIDS PROGRAM

Sponsors

Department of Child Services
Private Industry Council
Housing and Urban Development
Health Rehabilitative Services
Florida Community College at Jacksonville

Target Population

The program is intended for recipients of Aid for Dependent Children who live in the northwest quadrant of the city and who:

(1) Live in subsidized housing
(2) Are 21 years of age or older
(3) Have no more than two pre-school children
(4) Are not planning to have more children
(5) Can pass a background check for all permanent members of the household,
(6) Demonstrate motivation and stability
(7) Express interest in owning a business, and
(8) Are emotionally and physically able to care for a minimum of five children under five years of age.

Strategies/Operations

The Caring for Kids Program addresses the multi-faceted and chronic problem of welfare dependency for the single parent with dependent children under five years of age.

These individuals typically have limited employment-related skills and little job experience. Positions for which they may qualify seldom offer sufficient income and benefits to provide adequate security for dependent children.

In addition, few suitable, affordable, child care options exist, which place children at multiple risk.

Caring for Kids participants receive:

1. 10 weeks of tuition-free classroom training covering every aspect of starting and operating a child care home
2. Paid work experience during training
3. Free textbooks and supplies
4. Free financial and personal counseling including a financial consultant during the first year of business
5. Paid start-up costs including licensing and insurance fees, home renovations and equipment
6. A food program paying $2.21 per day for each child in the day care home
7. Assignment of children to the day care home.

Program Impact

Sixteen students enrolled in the first Caring for Kids class. All enrollees completed the program successfully, and fourteen have opened licensed day care homes. The remaining two graduates are expected to do so shortly.

Critical Success Factors

The Caring for Kids program provides several valuable lessons for other community colleges. First, complex problems such as welfare dependency require a broad coalition of resources for resolution.

Second, human resource development requires a strategy designed to remove barriers to self-sufficiency for the whole individual and family, not just the factors which touch the workplace.

Third, long-term intervention is necessary to insure success. This program included follow-up services for a full year after completion and business start-up.

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STATE TECHNOLOGY INSTITUTE AT MEMPHIS
PROFESSIONAL CAREER ENTRY PROGRAM
(PREP)

Sponsor

State Technology Institute at Memphis

Purpose

The program is designed to remove gender stereotypes about the "woman's place" and other economic barriers which prevent women from entering non-traditional roles.

Target Population

Female single parents and displaced homemakers.

Strategies/Operations

PREP was developed: to motivate women through a personal and career exploration course; to encourage their pursuit of non-traditional higher education; and to support them financially and psychologically during their educational endeavors.

A key platform of PREP has been the provision of support systems and self-development initiatives for students with the potential to succeed in technical and non-traditional careers. To accomplish this, PREP provides child care and transportation while the women are in training.

Another plank in the PREP platform is the concept of networking, where women who have succeeded share their expertise and serve as role models for aspirants. These activities are augmented by counseling and a technical support base to effect a smooth transition from unemployment to school and a successful career.

Upon completion of a five-week basic orientation session, participants are encouraged to improve marketability by pursuing non-traditional technical education.

Program Impact

Activities began in January 1986. For the program year 1987-88, statistics show 203 participants registered for academic classes which represents 90 percent of the initial program goal. This was accomplished while the program was only 75 percent completed. Student evaluations stress the impact of PREP on making career decisions, providing direction and building overall self-esteem and a sense of confidence.

Budget/Funding

Carl Perkins Federal Vocational Education Funds are available to most two-year institutions to support this type of program.

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PROJECT SELF-SUFFICIENCY

Sponsors/Partners

College of Lake County
Catholic Charities of Lake County
Lake County Housing Authority
Illinois Department of Public Aid
United Way of Lake County
U. S. Department of Housing and Urban Development
Local commerce and industry

Purpose

The purpose of Project Self-Sufficiency is to identify, recruit, counsel, train and place in employment single parents who are unemployed or underemployed. It was designed to provide a long-term support system to individuals, most of whom are or were on public aid, that would enable them to secure an education and a job. The net result: achieving economic self-sufficiency.

The key purpose was to blend multiple, and normally independent, social support systems into a comprehensive and complete program to free participants from concern over meeting basic needs long enough to escape permanent financial dependency.

Time Frame

The project was planned and initiated in the fall of 1985 and is ongoing.

Target Population

Participants are single parents who were unemployed or underemployed. Most, not all, were on public aid and a variety of other social programs. Fifty-eight women were selected for the pilot program, and the number of participants now exceeds 100. Applicant screening was developed to help identify individuals with a strong desire to be self-sufficient.

Strategy/Operations

Initial funding came from the Department of Housing and Urban Development through the County of Lake in Illinois. The designated "umbrella" organization was Catholic Charities of Lake County which brought the partner organizations together to form a task force. The target population had been identified by the HUD grant so planning immediately focused on two functions: recruitment and program operation.

Support Mechanisms

All possible social support mechanisms were identified and individuals from those agencies were added to the committee. The HUD funds were used to pay for an individual caseworker, housing certificates and limited program operating costs. All other resources were supplied by the cooperating agencies and organizations within their normal operating parameters.

The support included: a housing certificate for free or almost free housing for an undetermined period of time; food stamps; transportation; child care; counseling, academic advisement and monitoring; assistance in obtaining grants and scholarships leading to free education; emergency assistance for family crises; a phone support system; parenting classes; the development of a new and supportive social network; and social activities.

Entry

Individuals had to apply for the program and demonstrate motivation and desire. This was accomplished by requiring: a written "request for acceptance"; personal references; and participation in a series of interviews. The program began to be viewed as a prestigious one, and there has been no shortage of applicants.

Process Issues

Screening and assessment was conducted by the College of Lake County (Illinois) and individuals were enrolled in two classes that focused on identifying individual personal goals and establishing habits and processes leading to successful completion of classes. Upon completion of the "motivation, interest-identification and skills" program, the individuals were enrolled in normal college programs.

The other support mechanisms were arranged and provided, and an intense monitoring and counseling system began. It continued throughout the program. Upon completion of the program of study, individuals were assisted in finding a suitable job and in making the difficult transition from welfare dependence to financial independence.

College Role

The college provided personnel for planning, client screening and interviewing. Special classes and experiences were offered to students prior to beginning regular classes which helped determine academic and career goals.

Remedial and basic education classes and tutoring were available at all times as was counseling beyond that provided by the program. Through the offices of the college, and using the state and federal grant and scholarship system, all classes for all students were provided at no cost to the student.

Program Impact

Of the original 58 persons who entered the program, only two dropped out. All of the remaining people are currently employed at salaries in excess of $18,000 and are financially independent.

Forty additional people have joined the program and are in various stages of completion. The program is now fully funded by United Way of Lake County with the exception of the cost of support services provided normally by the cooperating agencies and groups. Assisting 56 individuals to move off of welfare represents a savings of more than $2 million. The program exceeded all expectations.

Critical Success Factors

This program succeeded for the following reasons:

1. Members of the organizing committee were decision-makers at their employer organizations and were empowered to make commitments and decisions on the spot.
2. There was the clear realization that individuals on welfare were unable to coordinate and blend all the support services necessary to enable an education to be obtained. Help had to be provided in organizing their lives.
3. A caseworker was necessary to assist in sorting through decision-making for each student and to counsel through family crisis periods.
4. The support was organized for a long-term commitment to education and not for short-term training.
5. Clients/students were mainstreamed in normal college classes rather than isolated in special training programs. This provided access to a new social group oriented toward attaining an education and being successful.
6. The program was based on the demonstrated motivation and desire of individuals who truly wanted to be financially independent. It was a privilege to be in the program.
7. Program members were surrounded by other members, all of whom had the desire to succeed, forming a natural and positive support group.

8. The program addressed individual personal problems and helped build confidence.
9. Success was shared by all cooperating organizations. No politics were involved.
10. The concept of trying to "blend and leverage" resources was successful and utilized fully to meet student needs without dangerously extending any of the cooperating institutions.

Barriers

Individual barriers were obvious: lack of education; long-term dependence upon public aid and the fear of becoming independent; being surrounded by family and friends who were failures and non- supportive; general lack of personal confidence; and being a single parent.

Institutional barriers were of the normal bureaucratic kind and were resolved. No territorial squabbles existed.

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PRODUCTIVE AMERICA

TWO-YEAR COLLEGES UNITE

TO IMPROVE PRODUCTIVITY

IN THE NATION'S WORKFORCE

Report 2

FEDERAL WORKFORCE PROGRAM

POLICY ISSUES

January 1990

REPORT 2
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INTRODUCTION

Since World War II, the United States has witnessed the gradual erosion of its global economic dominance. Theorists have preferred any number of contributing factors:

- Weakening trade position
- Low rates of savings and investment
- Noncompetitive relative wages
- Erratic exchange rates
- More confident, capable competitors
- Waning relative productivity

PRODUCTIVITY EXAMINED

Economists and authorities in related areas such as labor, economic development and competitiveness agree that the decline in the growth of American productivity is foremost among the factors listed above.

Project Focus

Thus, the productivity challenge was selected as the main focus of the **Productive America** project, a joint effort of the National Council for Occupational Education (NCOE) and the American Association of Community and Junior Colleges (AACJC).

The **Productive America** emphasis on human resource investment parallels both the role historically assigned to two-year colleges (preparing America's workers) and the NCOE's need to ensure that colleges continue to be positioned to meet their important missions.

Global Position Wanes

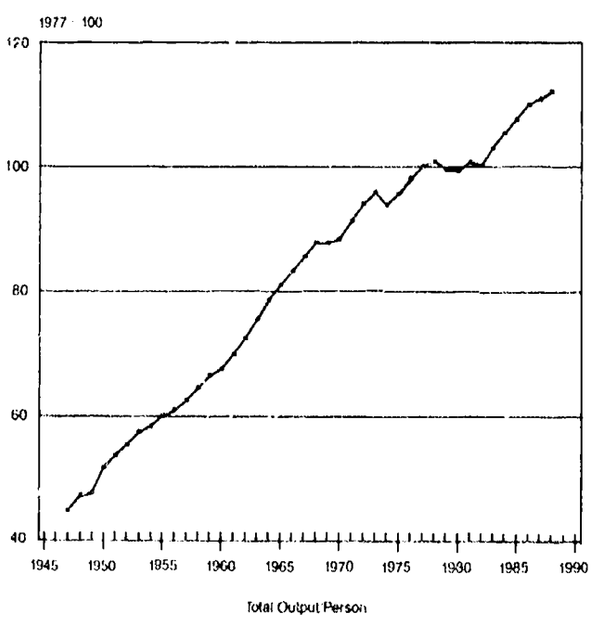
While domestic productivity has been increasing (a 129 percent hike in 1950-1983 output per hour), comparative productivity has fallen dramatically with respect to competitors such as Japan (1,624 percent output jump during the same time period). West Germany (508 percent) France (458 percent) and Canada (215 percent). (1)

Chart 1 illustrates trends in domestic productivity, charting gains and losses from 1948-87.

Chart 1

TRENDS IN U.S. PRODUCTIVITY

Index of Output per Hour of all Persons Business Sector



Source: Economic Report of the President, January 1989.

Productivity in U.S. manufacturing has increased significantly since 1982 after a period of slow growth in the 1950s and 1960s, and virtual stagnation in the 1970s. Trends in manufacturing production are shown in Chart 1.

The rate of productivity increase in the U.S. had fallen below that of its competitors in the 1950s, 1960s, and 1970s. The situation turned around in the early 1980s. Since 1984 the U.S. has achieved higher average annual rates of increase in output per hour in manufacturing than most of its trading partners, except for Japan and the United Kingdom. The performance of the U.S. for the period 1984-88 compared with that of eleven other industrialized countries is shown in Table A.

Table A

OUTPUT PER HOUR IN MANUFACTURING
AVERAGE ANNUAL RATES OF CHANGE[1]
12 Countries, 1950-1988

Country	1950-88 [2]	1950-73 [2]	1973-79 [2]	1979-88 [2]	1984-88
United States	2.7	2.7	1.6	3.4	3.9
Canada	3.4	4.2	2.1	2.2	2.1
Japan	8.2	9.9	5.5	5.8	5.7
Belgium	6.3	6.9	6.0	5.4	3.2
Denmark	3.8	4.8	4.2	1.1	-.5
France	4.9	5.8	4.6	3.1	3.1
Germany	5.3	6.6	4.3	2.6	2.4
Italy	5.6	6.1	5.7	4.1	2.9
Netherlands	5.5	6.2	5.5	3.5	2.4
Norway	3.4	3.9	2.2	2.6	2.1
Sweden	4.2	5.1	2.6	3.0	2.6
United Kingdom	3.3	3.3	1.2	4.7	4.5

[1] Rates of change based on the compound rate method.
[2] For Belgium, data relate to 1960-87; for Norway, data relate to period ending in 1987.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

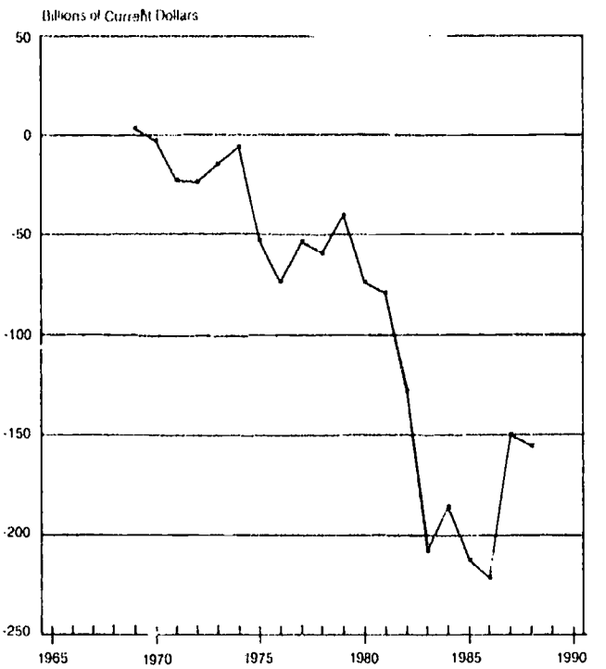
While U. S. manufacturing production has surged ahead, production in the service industries is significantly below that of manufacturing, even taking into account problems in pressuring output in the services, as also shown in Chart 1. As a larger and larger share of the nation's workers are employed in the service industry, increased production in the service sector is a paramount concern if the U.S. is going to sustain its economic growth and improve the standard of living of the people.

Consumption Soars

Though U.S. productivity and production has increased, it has not kept up with consumption. To finance an increasing standard of living, the U.S. has become a debtor nation. The national debt tripled from $909 billion to $2.9 trillion during the 80s decade; consumption outstripped production by roughly $1 trillion. (2) Currently, national debt service is about equal to the over $150 million budget deficit (Chart 2).

Chart 2

U. S. BUDGET SURPLUS DEFICIT



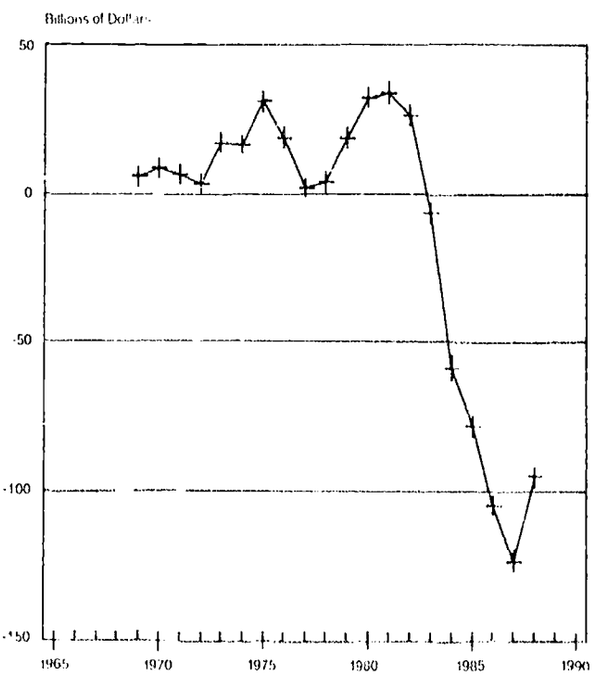
Source: Congressional Budget Office

Trade Deficit

The disturbing pattern of negative trade balances, most pronounced in the 1982-1987 period, is illustrated in Chart 3. Although the 1988-1989 upswing is encouraging in relative terms, it still represents a gross imbalance in export activity and a $100 + billion annual deficit.

Chart 3

U. S. TRADE SURPLUS DEFICIT



Source: Congressional Budget Office

Service Sector Slows

Relative productivity growth declines in large part can be attributed to the shift in the U.S. economic base from a manufacturing to a service-dominated system. Because it plays a lead role in the U.S. economy, the effect of plummeting service sector performance on the productivity front has been amplified.

In 1985, service workers produced thirty percent less than their manufacturing sector counterparts: $28,700 per service worker versus $41,200 for manufacturing workers. (3) During the 1981-1985 recovery years, service productivity remained flat at one percent while factory labor productivity rose at a 4.1 percent annual rate. (4).

A Changing Workforce

Any serious exploration of productivity must begin with an examination of the most important component of productivity: labor. In its landmark study Workforce 2000 (5), the Hudson Institute cited two overriding factors contributing to the productivity dilemma:

- The U.S. labor pool is growing more slowly than at any time since the 1930s.
- The composition of the labor pool is changing, becoming older, more female, more minority and more "foreign-born." New workers will be drawn from populations which traditionally have been underskilled, underprepared and less educated.

PRODUCTIVE AMERICA PROJECT

Two-Part Effort

The **Productive America** project was undertaken by the National Council for Occupational Education (NCOE) in recognition of the tremendous importance of productivity improvements to our national stature and of the special role that two-year colleges play in the effort to enhance workforce productivity.

NCOE formed its Human Resource Development/Productivity Task Force in 1987 with the express charge of exploring human resource issues related to productivity and competitiveness, and the role of two-year colleges in human resource development. The NCOE Task Force conceptualized **Productive America: Two-Year Colleges Unite to Improve Productivity in the Nation's Workforce,** which resulted in two reports:

Report 1

Report 1, titled "Issues and Strategies," examines the special populations comprising the workforce of tomorrow and proposes alternative structural and program models for two-year colleges to meet special population needs;

Report 2

Report 2, titled "Federal Workforce Program Policy Issues," reviews current federal legislation and its impact on two-year colleges, and goes on to present recommendations for amending current programs or laws to facilitate increased use of the two-year college delivery system.

Productive America has been funded by a grant from the U.S. Department of Labor as part of its growing portfolio of original research into the issue of labor productivity.

Business Speaks Out

Business involvement has been an important aspect of this project. More than 150 private sector representatives attended Regional Forums held in Boston, Chicago, Miami and Phoenix, providing insights into their current and future training needs, and suggestions for enhancing the relationship between business and two-year colleges.

Recommendations

Specific recommendations arising from these Regional Forums suggest that two-year colleges should:

- Formulate business partnerships
- Topple the "ivory tower" perception

- Reach out to special populations
- Target occupational clusters and define potential career paths
- Adopt a holistic counseling approach
- Bolster student placement efforts
- Become agents for change
- Think like business people
- Overhaul compensation and incentive plans
- Resolve internal turf battles
- Augment instructional staff
- Update and sensitize faculty
- Cut the red tape
- Step into a brokering role
- Export successful models
- Package and market offerings
- Devise national competency standards
- Prepare both occupational and transfer graduates especially in the general education area

TWO-YEAR COLLEGE MISSION

Workforce Preparation

Since their founding, two-year colleges have seen their mission evolve, reflecting the needs of the nation and its workforce. Today, two-year colleges have an equal commitment to liberal arts/transfer education, to occupational and continuing education, and to the training and retraining of adults who seek to acquire or upgrade employable skills.

Suitability of Two-Year Colleges

With more than 1,200 delivery sites and an open admissions policy, two-year colleges and technical institutes are the most accessible educational system for the emerging workforce of the 21st century. Two-year colleges are particularly able to effectively prepare special populations to become productive members of the future workforce.

By the year 2000, fully 87 percent of net new entrants to the workforce will be non-traditional workers, defined as Asians, Blacks, Hispanics, returning women, and immigrants, who bring with them an entire panoply of special needs. (6)

College Challenge

Thus, two-year colleges face the dual challenge of human resource productivity:

1. Upgrade the quality of the current workforce through retraining, and
2. Recruit, educate, train and place new and non-traditional workers.

In retrospect, it appears as though the evolution of two-year colleges, with its emphasis on individualized student attention and commitment to the local community, was carefully drawn to shape institutions capable of fulfilling this dual challenge in addition to its broader mission.

INSTITUTIONAL ROLE

Attributes

Two-year colleges and technical institutes tend to display all of the desired attributes which characterize an institution capable of serving the needs of non-traditional students from diverse population groups. These attributes are:

- **Local** — almost all students can commute from home or work;
- **Accessible** — open admission policies coupled with evening and weekend hours have removed bureaucratic barriers for many students;

- **Affordable** — two-year colleges are the low-cost post-secondary educational alternative;
- **Diverse** — special services ranging from personalized assessment and counseling to English as a Second Language and readers for the blind provide a supportive student environment;
- **Flexible** — from instructional staff to delivery sites and technologies, two-year colleges are exploring innovative mechanisms and techniques;
- **Market-driven** — analyzing local business trends enables two-year institutions to anticipate business needs, modify program offerings and develop new curriculum;
- **Responsive** — to special populations and to commerce and industry. The prime directive, whether the subject is curriculum design, student assistance or economic development, is "get the job done."

Proven Track Record

In addition to evidencing the attributes necessary for success, two-year colleges have begun to establish a track record of effectively serving the business community, such as:

1. Training for employment — serving the 20 million American adults of working age without a high school diploma (7);
2. Workforce retraining — 80 percent of the people who will be working in the year 2000 are already employed (8), but will require retraining to stay employed;
3. Education for career advancement — individuals who have identified an industry to enter or who wish to advance further in their career opt for occupational education;
4. Business development — fulfilling their obligation to the employer community, two-year colleges provide job training, technology transfer, industrial restructuring, and general management services to local businesses.

The Policy Perspective

Report 2 of the **Productive America** project reviews current federal policies and programs affecting workforce training, vocational education, worksite literacy and basic skills against the backdrop of human resource productivity.

Program Review

Program summaries describe the beneficiary populations, administrative considerations, impact on the workforce, and the role of two-year colleges in program delivery.

Major programs selected for summarization include: Job Training Partnership Act, Carl D. Perkins Vocational Education Act, Job Opportunities and Basic Skills Program of the Family Support Act of 1988, Hawkins-Stafford Elementary and Secondary Education Act, as well as Titles IV and VIII of the Higher Education Act.

A Better Way

Report 2 concludes with recommendations for program amendments and suggestions for process and procedural changes which would optimize utilization of two-year colleges by means of leveraging available dollars, information and systems across programs, institutions and organizations, capitalizing on economies of scale in workforce recruitment, education/training and placement.

FEDERAL WORKFORCE TRAINING PROGRAMS

THE NEED

Special Segments

The magnitude of our nation's unmet training need is enormous. Table B examines ten important special population segments (employed, underemployed, unemployed and dislocated workers, labor force re-entrants and new entrants, underprepared workers, returning women, the disabled and immigrants) and estimates that between 15 and 40 million people from these groups would benefit from additional training. (9)

Federal workforce training programs were designed by Congress to help these individuals acquire additional training to fulfill their potential as participants in the labor market.

Table B

MAGNITUDE OF THE NATION'S UNMET EDUCATION AND TRAINING NEEDS COMMUNITY COLLEGE MARKET POTENTIAL FOR OCCUPATIONAL EDUCATION 1990

Total U.S. Labor Force Estimate for January 1990: 125 million

Workforce Group	Approximate Group Size: Millions	Percent Needing Training: Range	Calculated Magnitudes: Millions
Current Workforce:			
Upgrading Skills of existing workers:			
10% yearly of total	12	20-50	2-6
Underemployed: 10% of total	12	20-50	2-6
Unemployed	6	20-50	1-3
Dislocated workers	10	20-50	2-5
Re-entrants to workforce	6	20-50	1-3
New entrants to workforce annually	4	20-33	1-1
Underprepared workers: high school dropouts:	20	10-20	2-4
Women entering workforce	9	10-33	1-3
Disabled people of working age	12	20-50	2-6
Immigrants	6	28-50	1-3
Total			15-40

Notes: The total includes double counting of people in more than one workforce group. The purpose of this framework for calculating the order of magnitude of the training needs is simply to indicate that the numbers are potentially large. The framework is intended to serve as a rough starting point for developing more precise estimates.

Source: Carol Frances + Associates, Washington, D.C.

PROGRAM FUNDING

Category Clarification

Human resource spending, as defined by federal budget analysts, represents approximately one-half of the federal budget. Fully 95 percent of this figure, however, encompasses outlays for entitlements of income security, Medicare and veterans benefits. (10)

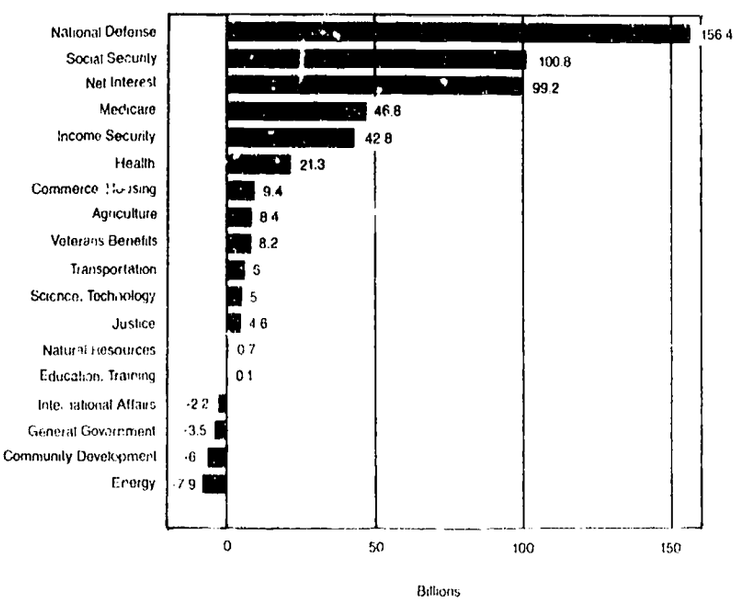
Only five percent of human resource spending, or 2.5 percent of the federal budget, relates to education and training designed to improve human resource productivity. (11)

Investment Priorities

Only $100 million of the $473 billion 1980-1988 budget increase supported education and training programs. (Chart 4) Closer analysis as shown in Chart 5 illustrates that gains in education funding were offset by a greater decrease in training outlays.

Chart 4

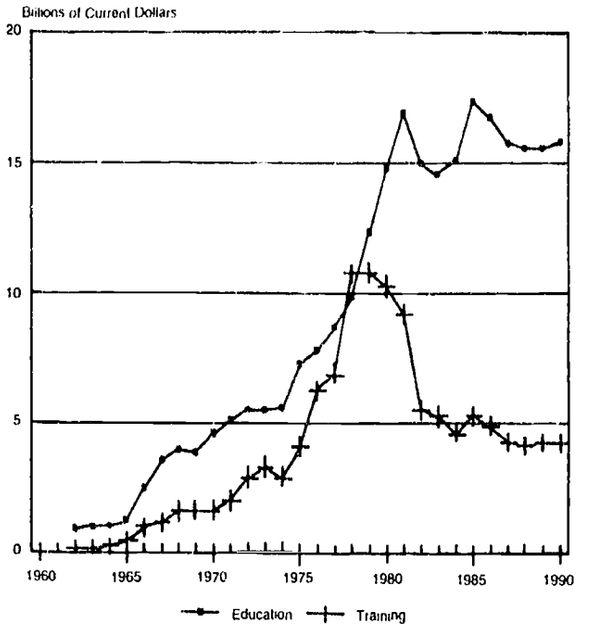
INCREASE IN FEDERAL BUDGET OUTLAYS BY FUNCTION 1980-1988



Source: Based on data from the Budget of the U.S. for FY 1990.

Chart 5

FEDERAL BUDGET ALLOCATIONS FOR EDUCATION AND TRAINING



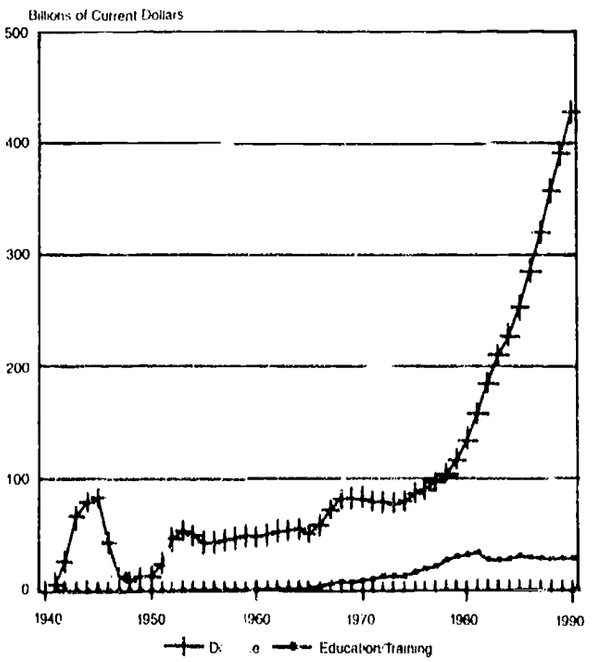
Source: OMB, Budget Tables.

Historical Funding Patterns

Chart 6 is particularly revealing and provides a historical perspective from which to evaluate recent changes in the national agenda. Since 1980, the slope of the defense spending curve becomes increasingly steep, reflecting the rapid acceleration in defense category spending. During the corresponding period, education and training expenditures have remained fairly constant, as reflected in the flat slope of the education/training curve.

Chart 6

FEDERAL BUDGET ALLOCATIONS FOR NATIONAL PRIORITIES



Source: OMB, Budget, Historical Tables.

Two-Year College Potential

While we are not arguing that national priorities are inappropriate, we can urge that monies allocated for human resource development be utilized for maximum impact, and that increased involvement by and reliance on two-year colleges would produce a most positive and significant impact.

Next we review current federal programs and discuss how two-year colleges can be factored into the delivery equation to maximize workforce productivity through training and education.

MAJOR PROGRAM SUMMARIES

The following legislation and programs impacting human resource development and the workforce will be reviewed:

1. Job Training Partnership Act (JTPA)
2. Carl D. Perkins Vocational Education Act
3. Job Opportunities and Basic Skills Program of the Family Support Act of 1988
4. Hawkins-Stafford Elementary and Secondary Education Act
5. Title VIII of the Higher Education Act
6. Title IV of the Higher Education Act
7. Internal Revenue Code — Section 127
8. State Job Training Programs

Job Training Partnership Act (JTPA)

JTPA

The Job Training Partnership Act (JTPA) was enacted as Public Law 97-300 in 1982. It was designed to replace the Comprehensive Employment Training Act of 1973 (CETA) and support year-round programming for unemployed and disadvantaged adults and youth in addition to summer youth programs.

Funding and Administration

JTPA allocates funding to the states using a formula which weights two-thirds on the basis of unemployment and one-third on the number of disadvantaged individuals. States allocate their funds to service delivery areas, and training programs are supervised and administered by the local Private Industry Council (PIC).

In a March 1989 report by the JTPA Advisory Committee (12), it was asserted that current JTPA performance standards favored programs which yielded quick placements at a low cost per student over longer term programming which emphasized basic skills acquisition in an academic environment.

Workforce Impact

Authorities estimate that funding is available to only 1 in 20 of those individuals who meet JTPA eligibility requirements. (13) Given limited funding, programs tend to benefit those easiest to serve, the least disadvantaged components of the target populations. (14) As many as 88 percent of the high school dropouts served by JTPA received no remedial education under the program. (15)

Wages Decrease Since 1970s

JTPA completers earn average wages in the $4.50 to $5.00 per hour range. (16) Even if they successfully secure full-time employment, these individuals may not escape poverty. Taking into account the impact of inflation, wages paid today under JTPA are lower than wages paid the same population under the 1970s precursor program, CETA. (17)

Researchers Sar A. Levitan and Frank Gallo determined through analyses conducted for the W.E. Upjohn Institute for Employment Research, that after inflationary adjustments and translation into constant dollars, current funding through JTPA constitutes a meager 25 percent of the funds available through its predecessor program, CETA. (18)

Few Funds To Two-Year Colleges

Primary research consisting of interviews with two-year college training program administrators and community employers suggests that a comparatively small portion of JTPA funds support programs delivered through the two-year college system.

Reasons cited for this perceived funding imbalance included: the lack of participation by two-year colleges on the local PIC board, resulting in a disproportionate influence among competing agencies; and what was viewed as the "general practice" among PICs of awarding grants to alternative providers.

Strategic Alliances

In many areas, respondents mentioned that community-based organizations were the preferred delivery mechanism, and in response, enterprising two-year institutions have formed strategic alliances with community-based organizations to act as their education and training partner.

Carl D. Perkins Educational Act

The Perkins Act was formulated to promote vocational education programs delivered in a classroom setting, while ensuring that curricula supported the needs of the workforce and promoted economic growth. Known as Public Law 98-524, the Perkins Act was passed in 1984 and is administered by the Department of Education.

A recently appended goal, and one which parallels the mission of two-year colleges, is to provide equal access to these vocational education programs for students who are disadvantaged, disabled or members of a special population.

Administration

The federal government requires that states designate a specific agency to administer Perkins Act funds. Most states assign administrative responsibility to the agency which oversees secondary schools.

Funds are disbursed among service delivery areas in the form of Basic Grants which carry a set-aside clause requiring participation by members of special populations including disabled persons, disadvantaged persons, adults in need of training and retraining, single parents, displaced homemakers, participants in programs designed to eliminate gender bias and stereotyping in jobs, and criminal offenders.

Cutbacks

Vocational education funding has been uneven in the wake of an almost $200 million cutback in 1978 appropriations (see Chart 7). It took eleven years to rebuild vocational education budgets to 1977 appropriation levels.

External Barriers

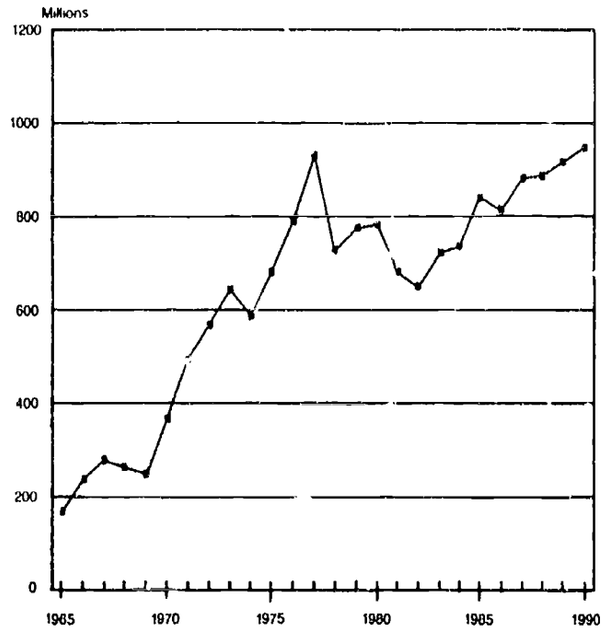
Other potential barriers to participation discovered by NAVE included: program ineligibility, rejection of applications, inability to match, lack of confidence in quality of the match, inability to identify eligible students, inability to identify excess costs, and awards perceived as too small to justify the effort of applying for the program funds (the average award per institution under some set-asides was $3,000). (19)

Two-Year College Participation

A detailed breakout of the postsecondary institution share of federal vocational education basic grants (see Chart 8) reveals that fully half of all state funds in half of the states flow through the postsecondary system. In terms of degree of utilization within states, the range is from a low of less than 10 percent of all funds in one state, to a high of 100 percent of all funds in two states.

Chart 7

TRENDS IN APPROPRIATIONS FOR VOCATIONAL EDUCATION



Source: U.S. Department of Education

National Assessment Completed

In May 1989, National Assessment of Vocational Education (NAVE) mandate contained in the Perkins Act was fulfilled upon publication of a comprehensive assessment of vocational education.

Research evaluated a wide range of topics impacting vocational education including the nature and quality of services delivered to special populations and the implications of recent legislation for vocational education. (20)

Barriers to Participation

Recognizing the importance of special population programs under the Perkins Act, NAVE researchers set about uncovering the real and perceived barriers which precluded eligible institutions from receiving set-asides. Findings differed, often dramatically, by type of institution.

Internal Barriers

Half of respondent postsecondary institutions reported that they "didn't know about" handicapped set-asides; only 7 percent of school districts pleaded ignorance. Thirty-five percent of postsecondary institutions "didn't know about" sex equity fund availability versus 20 percent of school districts. Twenty-nine percent of postsecondary institutions "didn't know about" adult set-asides versus 20 percent of secondary schools. (21)

Set-Aside Use

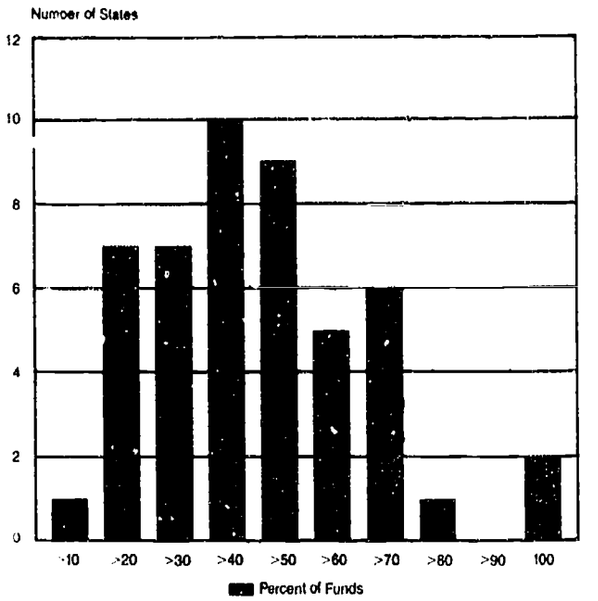
Given their unique ability to recruit and retain students from special population segments, it comes as no surprise that two-year colleges accounted for 20 percent of handicapped set-aside monies and 26 percent of disadvantaged set-asides during the 1986-1987 period. (23)

Flexible Funds Application

Concurrently, two-year colleges received 52 percent of program improvement funds, spending about 80 percent of these more flexible dollars for equipment necessary to effect vocational and career education. (24)

Chart 8

POSTSECONDARY SHARE OF FEDERAL VOCATIONAL EDUCATION BASIC GRANTS



Source: National Assessment of Vocational Education

Level of Funding and Involvement

Working from the data bases assembled during the NAVE research effort, analysts now estimate that almost 85 percent of two-year colleges received funding under the Perkins Act. (25) At approximately $100,000, the average two-year college grant was funded at a level about 20 percent higher than similar grants awarded to technical institutions, four-year colleges and postsecondary area schools. (26)

Job Opportunities and Basic Skills Act (JOBS)

Administration

The JOBS program was authorized under Public Law 100-485, the Family Support Act of 1988, and is the successor to the Work Incentive Program (WIN). JOBS is administered by the Department of Health and Human Services, and is designed to help individuals on welfare acquire the basic skills which lead to employment and economic self-sufficiency.

Funding

Federal funds under the JOBS program are to be allocated to the states by formula and within the states on the basis of a state plan.

Two-Year College Involvement

Lawmakers who shaped JOBS understood the potential contribution of two-year colleges, and incorporated postsecondary education into the program from inception. However, bearing in mind that states administer funds, the language of inclusion bears further scrutiny. States are permitted to recognize postsecondary education as an eligible activity, but are not required to do so.

Worksite Literacy (Hawkins-Stafford Act)

Initially authorized in Public Law 100-418 (Omnibus Trade and Competitiveness Act), Worksite Literacy is now subsumed under Public Law 10-276 as part of the Hawkins-Stafford Elementary and Secondary Education Act.

Funding and Administration

The Department of Education Bureau of Adult and Vocational Education administers the program which received $30 million in funding in 1988.

The Omnibus Trade and Competitiveness Act was a sweeping legislative effort addressing issues ranging from taxes to international finance, from plant closing procedures to pesticide monitoring, from workers' rights abroad to domestic workforce education and training.

The concept driving the Worksite Literacy Program is that of encouraging business/education partnerships through matching grants designed to promote the development of demonstration programs.

Two-Year College Contribution

Worksite literacy is one educational arena where the special attributes of two-year colleges have been well-utilized. Program administrators wisely capitalized on the strong ties between two-year colleges and the local business community; and on the proven experience of two-year colleges in the design of literacy and basic skills programming specific to worksite applications.

Grants Given

During fiscal year 1988, almost half of the 37 workplace literacy grants were awarded to partnerships involving two-year colleges. (27) Although fiscal year 1989 allocations have not been made public, program managers indicate that the trend toward strong participation among two-year colleges will continue.

Need Exceeds Funding

Worksite literacy has been funded at the $30 million level for fiscal year 1990, but adult literacy experts view this effort as falling far short of the demand for such programs if workplace literacy is to become a reality. As shown in Table A, there are an estimated 10 million underprepared workers who could benefit from such training.

The Commission on Workforce Quality and Labor Market Efficiency reports that "literacy programs now serve only 1 to 2 percent of eligible adults." (28)

Cooperative Education Act (Title VIII)

Federal financial support for cooperative education was first included in the Higher Education Act of 1968, as part of the student aid title. Cooperative education was subsequently raised to title status in 1976 and recognized as an independent program and given its own Title VIII.

Funding

Under current provisions, the grants awarded to institutions defray the cost of installing a program, but the educational institutions must utilize their own resources to continue the program.

Dual Modality

Cooperative education programs entail a dual modality — students learn business principles in a classroom setting and then apply those techniques on-the-job in positions created by supportive local employers. There are a number of tangential benefits associated with this type of education, which make it unusually well-suited for two-year college participation:

Students earn as they learn, and the income side of cooperative education would enable more members of special populations to complete their training with less financial sacrifice.

Placement Enhanced

Placement opportunities are greatly enhanced because students, by means of on-the-job exposure, are higher up on the learning curve, possessing proven skills, a work history and familiarity with the company, its personnel and procedures.

Four-Year Schools Favored

Traditionally, cooperative education has been perceived as a program best-suited for four-year colleges where eligible students take an average of five years to complete their education while fulfilling the cooperative education employment obligation.

To date, cooperative education has been funded by Congress, but Title VIII has been the repeated target for repeal during the last few rounds of presidential budget reduction proposals.

Two-Year College Involvement

Statistics tell the tale regarding two-year college participation in cooperative education efforts. Although two-year colleges comprise more than one-third of U.S. institutions of higher learning, they account for only one-quarter of grants awarded in recent years. (29)

FEDERAL STUDENT AID (TITLE IV)

Federal student aid programs were enacted to breach the financial barrier which might otherwise limit access to higher education, particularly among special population groups.

Tuition Rises Faster Than Wages

College tuition hikes have outpaced increases in family student earning power, making federal financial assistance an even more critical variable in the access formula.

A student earning the minimum wage today would have to work almost twice as many hours to pay for tuition as 20 years ago. (30)

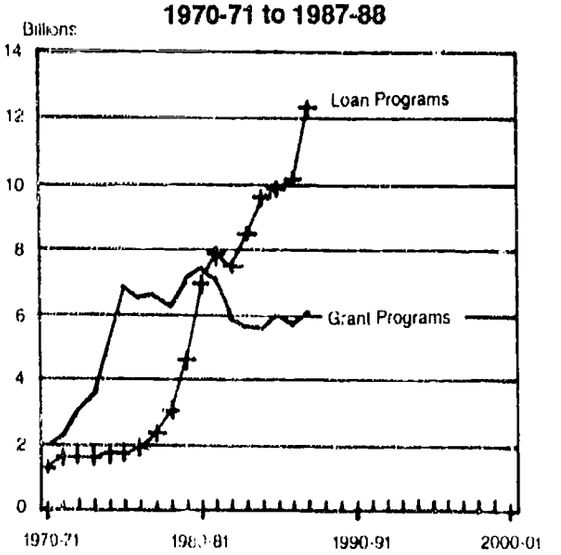
Shift from Grants to Loans

Since 1980-1981, the composition of federal student aid has altered considerably, with a shift in funding from grant to loan programs.

This movement is depicted in Chart 9. Federal grant funding would have to double to re-establish the level of real grant aid at 1980-1981 levels.

Chart 9

FEDERAL STUDENT AID:
CHANGING COMPOSITION FROM GRANTS TO LOANS
1970-71 to 1987-88



Source: Based on data compiled by Gwendolyn L. Lewis. *Trends in Student Financial Aid.* 1980 to 1988. The College Board. September 1988, pp. 6-7.

Further, of the $24 billion that Congress has allocated for federal education programs in the 1989-90 fiscal year, more than $3 billion will be needed to operate the loan program, and almost $2 billion of the $3 billion — the amount needed to pay off defaulted loans — will be a dead loss. Colleges that serve large numbers of students who are at risk financially or academically — mainly the community colleges — have no hope of effectively curbing default rates as long as they have no authority to determine who should receive a loan, as the Stafford Loan program operates as an entitlement (31).

The Biaggi amendment, passed in 1986 broadened the eligibility requirements for student aid programs to include less-than-half-time students. Expanded eligibility now accommodates employed students seeking to upgrade their skills through time.

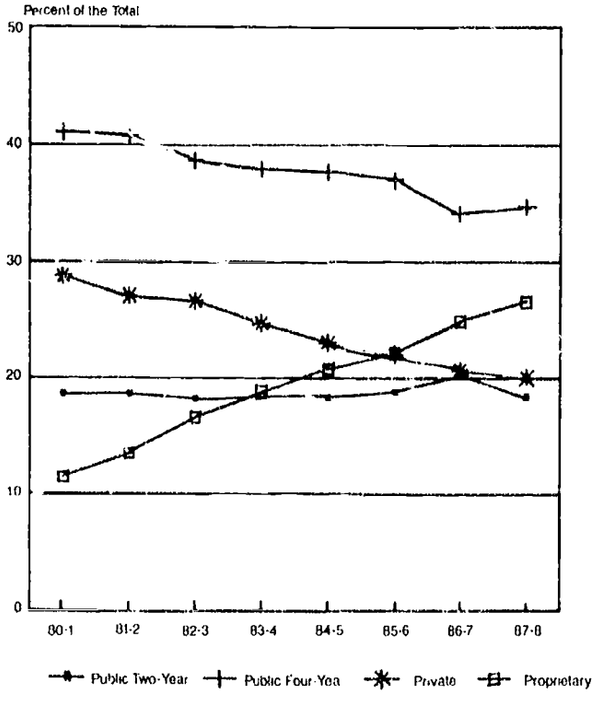
Workforce Impact

Federal student aid programming supports the two key components of the two-year college mission by supporting the costs training of new entrants to the workforce, and most recently, by providing assistance to employed workers seeking to update and expand skills.

In Chart 10, institutional participation in the Pell Grant component of federal student aid is summarized. Two-year colleges appear to be simply maintaining share.

Chart 10

TRENDS IN DISTRIBUTION OF PELL GRANTS BY TYPE OF INSTITUTION



Source: Based on data from College Board

Student Profile Changing

The underlying assumption of the original federal student aid legislation was that beneficiaries would be dependent students of traditional college age (18-24 years), attending four-year institutions in pursuit of a baccalaureate degree.

Those non-traditional students enrolled in occupational programs to develop a specific skill, who do not meet even the expanded eligibility requirements, receive no assistance.

Internal Revenue Code — Section 127

Section 127 of the Internal Revenue Code allows employees to receive reimbursement for undergraduate educational expenses from their employers without having to report the value of those benefits as taxable income.

The tax code provision targets employed individuals who desire to pursue training as a means of career enhancement.

Budget Cuts Threaten Benefit

This program has been under continued threat during the last few years. It has been granted extensions, which are allowed to expire, and then get renewed retroactively. The major point of contention surrounds the nature of program beneficiaries.

Opponents assert that these benefits do not flow to low income, undereducated workers, as originally intended. Proponents, backed by a recently completed study published by the Coopers & Lybrand National Tax Policy Group (32) argue that it is precisely this population which is being served.

Benefits Fairly Distributed

The Coopers & Lybrand study found that this tax code provision distributes funds "in a manner closely paralleling earnings among the labor force as a whole. Benefits do not accrue disproportionately to higher paid employees." (33). More than 70 percent of the beneficiaries earned less than $30,000 per year and 16 percent earned less than $20,000 per year. (34)

Researchers also projected the cost of expanding Section 127 provisions to include graduate studies, and determined that the cost to the Treasury would be slightly more than $100 million in fiscal year 1990. (35)

Two-Year College Involvement

Because two-year colleges are not directly involved in the disbursement of funds or verification of course completion, there is no record keeping mechanism to capture the number of two-year college students taking advantage of Section 127.

State Job Training Programs

Purpose

In addition to federal job training programs, virtually every state has enacted job training legislation. The difference is one of objective. Most federal programs are directed at the needs of special populations. Most state programs are part of a comprehensive economic development strategy, designed to attract new businesses.

Typically, state programs involve customized job training developed through technical institutes, technology centers or community colleges, tailored to the needs of companies relocating to or expanding within the state.

Requirements

To qualify for state-sponsored training, companies are usually required to invest in new or expanded facilities which will create more jobs for the surrounding community. (36)

Upgrade the Skills of Workers

In addition to economic development initiatives benefitting entrants to the workforce, the programs emphasize meeting the challenge of upgrading employed worker skills to accommodate those new technologies needed to remain competitive.

States such as Ohio and Indiana disburse funds to businesses directly, leaving the choice of training provider up to the business. On the other hand, California may contract with an employer, educational institution, or private training entity. Michigan will direct funds to either businesses or individuals. Illinois provides money to individuals.

Novel Administration Approach

Massachusetts originated the concept of by-passing existing agencies and setting up a semi-public, independent organization for the express purpose of supervising job training programs. The resultant entity is the Bay State Skills Corporation (BSCC) that brings industry and educational institutions together, and funds program development to train people for new or upgraded jobs. BSCC takes its charge a step farther, recruiting dislocated workers, the economically disadvantaged, and welfare recipients for training programs.

Other Models

States adopting a modified version of the BSCC model include: Kentucky, Minnesota, Washington and Florida. The Florida Sunshine State Skills Program is run by the State Board of Community Colleges with the Economic Development Advisory Committee functioning in an oversight role.

Two-Year College Involvement

The degree of two-year college involvement in state job training programs is a function of institutional aggressiveness and resources. Reviewing the wide variety in job training program administration, funding and delivery methods, one can intuit that the states are striving to find viable alternatives to traditional educational systems.

PRODUCTIVE AMERICA PROJECT POLICY RECOMMENDATIONS

Purpose

The underlying purpose of the **Productive America** project was to explore human resource development issues related to productivity and global competitiveness, with an emphasis on special populations, and to assess the potential contribution of two-year colleges to the productivity improvement effort.

Research confirmed that the very characteristics which define two-year colleges (local, accessible, affordable, diverse, flexible, market-driven and responsive) position these institutions as the optimal service provider for programs reaching out to members of special populations.

Two-Year Colleges Innovate

Two-year colleges, with progressive leadership, were innovators in the development of programming, curricula, recruitment and support systems designed to benefit special populations. Two-year colleges were in the front ranks of educators who recognized that institutions of higher learning also had an economic development mission.

Many two-year colleges have begun to construct coalitions with other service providers to leverage funds and maximize program impact, and several have sought to participate fully in federal education and training programs targeted at special population members.

Two-Part Effort

Report 1 of the **Productive America** project presented specific recommendations to two-year college administrators for strengthening their workforce education and training programs. In this, the second and final report, specific recommendations are focused on issues of state and national policy.

General Findings

Several general conclusions, or findings, have resulted from the **Productive America** project; along with several specific recommendations.

Paramount is the observation that the United States must build a workforce broadly competitive in a global economy, if the nation is to solve the demographic and economic challenges it faces. In short, the nation must build a **world-class workforce.** These are additional observations.

- A more coherent and cohesive national strategy is needed to expedite the development of such a workforce — this strategy will require a collaborative effort among Congress, the Administration, Commerce and Industry, and education at all levels.
- The U. S. Department of Labor, because of its traditional mission, is the logical choice among federal agencies to lead the coordination and implementation of such a strategy.
- The U. S. Department of Labor should give immediate leadership to a fuller orchestration of existing federal workforce training programs through partnerships embracing public and private educational systems, commerce, industry, labor, small business, etc.
- The national network of two-year colleges and technical institutes can become pivotal to the delivery of training and retraining — this network should be used to a still greater advantage locally, regionally and nationally.

Policy Recommendations

The policy recommendations which follow have been aggregated into three categories:

1. Recommendations for Two-Year Colleges
2. Recommendations for the National Organizations Representing Two-Year Colleges

3. Recommendations to the U.S. Department of Labor

It is the belief of the NCOE Human Resource Development/Productivity Task Force that these recommendations form an excellent core policy which would heighten workforce productivity, equip special populations with the basic and technical skills to achieve financial independence, and effectively leverage available funds through improved coordination among departments, agencies and programs.

CATEGORY ONE: RECOMMENDATIONS FOR TWO-YEAR COLLEGES

1. Review the college mission statement and ensure that the responsibility for local workforce development is included with specific attention to the following;
   a. Workplace literacy should become one of the primary responsibilities of each college.
   b. Education and training systems that facilitate both the creation of well-trained new workers and upgrades the skills of current workers should be created.
   c. Training curriculum and delivery systems should meet directly, skill needs of local employers.
   d. New-worker recruitment and training systems should be designed to quickly move individuals into jobs.
2. Develop records, transcripts, and documentation systems better explaining the technical skills mastered by students.
3. Establish, with other knowledgeable organizations, train-the-trainer centers to assist small- and medium-sized businesses to conduct training at reasonable cost by using their own employees.

CATEGORY TWO: RECOMMENDATIONS FOR THE NATIONAL ORGANIZATIONS REPRESENTING TWO-YEAR COLLEGES

1. The U.S. Department of Labor, the American Association of Community and Junior Colleges, through/with the National Council for Occupational Education, should conduct a national "awareness" campaign to identify the workplace problems and challenges that two-year colleges should be able to meet. This campaign would be oriented toward college administrators, college board members (or those individuals who determine the direction of each college), federal and state agency personnel charged to confront workplace problems, and the private manufacturing and service sector.
2. Initiate national publicity campaigns to promote models that have demonstrated success in recruiting, training/educating and placing individuals in jobs with special emphasis on special populations.
3. Establish (possibly with the U.S. Department of Labor) a more uniform system of documentation or certification of accomplished workplace skills.
4. Two-year colleges, with the U.S. Department of Labor, state government, professional associations and business should develop specific standards for jobs along with competency tests to measure student progress.
5. Two-year colleges should, with appropriate partners (e.g. national labor organizations) launch a national campaign to legitimize and enhance the image of technical and vocational work and careers.
6. Two-year colleges should, nationally, regionally and locally, conduct research to determine the capability(s) of the colleges to meet the workforce problems.
7. Two-year colleges should actively market their workforce training capabilities.

CATEGORY THREE: RECOMMENDATIONS TO THE U.S. DEPARTMENT OF LABOR

1. Programs and initiatives from the Departments of Labor, Education and Commerce should be integrated and coordinated in the shared pursuit of a world-class workforce. An effort should be made to leverage and coordinate all resources whereby an adequate financial base is created to meet key training needs.
2. The Department of Labor should create incentive programs to serve special populations most in need, so that training can be as academic/practical, job site or classroom-based as needed to truly be of service.
3. The Department of Labor should continue to seek agents and initiatives for change in order to stimulate coordination across the various agencies responsible for human resource renewal and to include business and education as also responsible for making change happen. For example:
   a. The Secretary's Innovation Fund
   b. The "LIFT" America Awards
   c. The Commission on Achieving Necessary Skills
4. The Department of Labor should create a Two-Year College Office within its Employment and Training Administration in order to strengthen the even application of the Department's programs and initiatives across the nation's two-year colleges and to serve as an ombudsman for seeking increased involvement of the colleges in all appropriate department initiatives. For example:
   a. Assure two-year college representation on all special national commissions or task forces created to deal with workforce problems. Such as:
      (1) future productivity commissions
      (2) the Workforce Quality Clearinghouse
      (3) the Commission on Achieving Necessary Skills
      (4) all national and regional conferences
      (5) the National Advisory Board on Workplace Training
   b. Work with AACJC and NCOE to discover successful models for workforce training and workplace literacy training and give them national visibility.
   c. Fund "awareness" and research initiatives to determine the capability of two-year colleges to solve workforce preparation problems.
   d. Fund the establishment of communication systems for the transmission of critical commercial/industrial and labor force information via community colleges in concert with the Employment Service.
   e. Determine that two-year colleges should become regional advocates and provide leadership for vocational education.
5. The Department of Labor is urged to use its resources to create and guarantee interlocking, non-duplicative structures between human resource education systems (such as two-year colleges) and training support systems (such as PICs and Human Investment Councils). More pointedly, DOL is urged to seek ways of encouraging increased utilization of two-year colleges by the JTPA system and the JOBS program. For example:
   a. Encourage two-year college representation on all Private Industry Councils.
   b. Establish and maintain a computerized national job search and placement/development network and worker relocation system linking applicants with job opportunities in concert with the Employment Service.
6. The Department of Labor should encourage the location of Job Service Offices on two-year college campuses (where reasonable) as a method of

symbolically connecting the fortunes of employment with education and training.

7. The Department of Labor is urged to actively:
   a. Pursue the creation of tax incentives to encourage employers to support workforce education and training policies and activities.
   b. Ensure increased availability of student financial aid and loans for disadvantaged and lower middle-class students (with the approaching labor/skills shortage the time has now arrived for rethinking student aid policy so that it might impact the labor needs of the country).
   c. Continue to support creative applications of cooperative education, apprenticeship, two-plus-two program models, and other tactics for attracting students into the vocational/technical occupations.
   d. Continue to promote, encourage, and visibly support the massive public and private education/training efforts on behalf of currently employed workers. More pointedly, DOL can publicly recognize private sector use of two-year colleges thereby encouraging use of the colleges.
   e. Ensure that funding for workforce development supports the combination of education and training necessary for an individual to develop full attainment of job skills and job placement.
   f. Encourage the utilization of two-year college as the primary provider of vocational education for adults.

FOOTNOTES

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