CAREER DEVELOPMENT, PLACEMENT AND GRADUATE SUPPORTS FOR NEW DOL YOUTHBUILD PROGRAMS

The Case for Career Development, Placement and Graduate Supports

Why are these components critical to the DOL YouthBuild model?

- Department of Labor Youth Vision calls for:
  - moving disadvantaged youth into high demand careers serving as a supply pipeline in the nation's knowledge economy;
  - meaningful connections with unions, employers, and community colleges that support access to career opportunities in high growth industries.

- Department of Labor YouthBuild Performance Measures in educational attainment, industry-recognized credential, and placement are indicators that youth are on a career pathway.

- Career Development and Placement represent a pathway out of poverty for young people supported by required graduate services for youth after they leave the program.

- Career Development/Graduate Services places youth on a path of work, leadership and life long learning.

Vision

What would exceptional Career Development, Placement and Graduate Support Services look like?

YouthBuild program designs and implements a comprehensive program-wide career strategy with:

- A coherent program culture
- A systematic approach to preparing young people to establish and implement their own career strategy
- A set of partnerships that promote placement
- Placement and retention supports after the program

There is visible evidence that the program offers consistent opportunities for young people to experience leadership, work, and learning challenges and achievements.

Students experience an increased level of competence and preparedness to take on opportunities after graduation from YouthBuild. This includes accessing community college, apprenticeship opportunities, further vocational education and/or work.

Career Development, Placement and Graduate Services: Questions and Benchmarks for New DOL YouthBuild Programs

Examples of concrete Career Development, Placement and Graduate Services benchmarks a first year program can expect to achieve by the end of Year One if this component is implemented well.

Generative Questions

For Young People

- What kind of work would you like to do after the program is over?
- What would you like to do in the long-term with school and/or work?
- What do you think it would take to move up in your current job?

For the Program staff

- Describe your first job: What was it? What did you learn from that job?
- Given your experience, what do you think it will take to prepare young people for work and learning after the program?
- What kind of support do you think young people will need in order to be successful?

For the Program and the Community

- What entry-level jobs are available in this community or workplace?
- What skills and qualities are needed for these jobs?
- Which of these could lead to careers/college and work?

Concrete benchmarks

- Career competencies are in place and reinforced throughout the program.

- Staff understand the DOL Performance Measures, their role in achieving them and in tracking them through the DOL MIS Tool.

- Staff establish bi-weekly case conferencing sessions to discuss each trainee's progress toward career goals at least once a month.

- The program has established a career development advisory board with contacts to industry and employers.

- Staff implement Individual Development Plans, assessments and one additional building block to prepare individuals.

Frameworks and Principles

What are the core ideas or beliefs underlying the work of Career Development, Placement and Graduate Supports?

4 P's:

- **Program culture** – a consistent, unified, integrated and authentic set of principles, attitudes, rituals and practices that result in effectiveness

- **Partnerships** - a network of essential contacts and relationships that work in supporting young people to access the demand-side of the workforce system where career opportunities exist

- **Preparation** – program creates a comprehensive preparation plan that clears barriers to employment, builds career assets, provides a network of support and increases competence on a wide range of skills

- **Placement** - program is able to meet its goals related to job placement and retention and to accurately document these achievements in the DOL MIS tool

Core Practices for strong outcomes in Career Development, Placement and Graduate Supports

Implement the Career **Building Blocks** for quality career development and strong placement:

Program culture:

- Designate staff for career development and placement
- Orient and train all staff for alignment to Career Development, Placement and Graduate Supports outcomes
- Engage the entire organization in this work
- Introduce career opportunities during recruitment, emphasize it during the program, and support it after graduation

Partnerships:

- Conduct a regional economic analysis and market scan
- Establish agreements with postsecondary institutions
- Systematically reach out to the private sector
- Create an Advisory Board with key contacts
- Build a bridge between the program and the workplace or college

Preparation:

- Create an Individual Development Plan and use it as a centerpiece of career development
- Conduct ongoing assessment to track progress
- Use case conferencing as part of ongoing preparation
- Seek rigorous education outcomes and basic skills development
- Teach transferable skills guided by an employer-responsive curriculum
- Focus students on gaining credentials and certifications
- Offer early, ongoing, positive exposure to the world of work
- Conduct industry-specific skills training

Placement:

- Understand the DOL Performance Measures and the DOL MIS Tool
- Use internships, job shadowing, mentors and other mechanisms to attach young people to the world of work
- Ensure the accurate recording of program exits, placement and retention data
- Conduct ongoing communication with employers, college staff and other training organizations
- Pay special attention to the needs of young people with criminal justice records
- Offer graduate services and programming

Integration with all components

Leadership Development:

- Identify employability skills and transferable skills during workshops with students; brainstorm how those skills might be important to improving the community
- Use community service activities to teach transferable and employability skills
- Ask students to conduct informational interviews with neighborhood non-profit employers
- Provide students with regular, ongoing feedback about their performance in relation to employability and transferable skills; ask students to give each other feedback when appropriate
- Select student representatives to participate on the employee advisory board
- Create an alumni club for ongoing graduate support

Counseling/Case Management:

- Assess students in relation to their progress towards demonstrating employability and transferable skills during case conferencing; identify internal and external barriers to performance and development plans with students
- Conduct case conferencing as one mechanism to assess student progress in relation to employability and transferable skills

Construction:

- Ask sub-contractors to allow students to shadow them at the worksite
- Engage students in experiential learning
- Ask contractors to talk to students about careers in construction
- Engage contractors as potential employers through participation in an employee advisory board or by making a commitment to hire qualified graduates

Education:

- Ask students to write about careers in high demand sectors; use www.careervoyages.gov as a resource
- Conduct tours of post-secondary institutions such as community colleges and technical schools. Ask students to develop interview questions and write a report about the tour
- Connect qualified students to the summer bridge program at your local community colleges
- Ask students to develop a plan for financing additional training after graduation

Resources for this Workshop:

- DOL Youth Vision
- DOL YouthBuild Performance Measures
- DOL YouthBuild SGA: http://www.doleta.gov/grants/pdf/SGA-DFA-PY-08-07_youthbuild.pdf
- Career Development and Retention Strategies for DOL YouthBuild Grantees (PowerPoint presentation created by YouthBuild USA)
- DOL Career Voyages: http://www.careervoyages.gov/
- Opening Career Pathways for Young People (created by YouthBuild USA)
    - Part 1: Preparing for Work in the Twenty-first Century, pages 3-9;
    - Part 2: A conceptual framework**,** pages 13-24;
    - Part 3: Assembling the Essential Building Blocks. Pages 36- 48.
- Education and Earnings – What is the Link? (created by University of Wisconsin Career Services)
- "Young adults are prepared for work, learning and leadership at YouthBuild La Causa," *YouthBuild Innovations*, Issue No. 33
- *YouthBuild Tips* Issue #2: Effective Practices in Job Placement
- "Opportunities for Graduates of a YouthBuild Program," pages 104-108 (created by YouthBuild USA)
- "What Work Requires of Schools – A SCANS Report," (created by DOL)
- "Employing Non-cognitive Variables in Admitting and Advising Community College Students," William Sedlacek et al, University of Maryland.
- A Proposed Framework for Case Conferencing by Marcia Moody (created by YouthBuild USA)
- DOL Community of Practice website: www.workforce3one.org/page/communities

Employment and Training Administration
U.S. Department of Labor

New Strategic Vision for the Delivery of Youth Services under the Workforce Investment Act

Training and Employment Guidance Letter (TEGL) 3-04 was released on July 17, 2004 to all State Workforce Agencies and State Workforce Liaisons.

The TEGL appears here in "booklet format."

Purpose

This TEGL informs states and local areas of the Employment and Training Administration's new strategic vision to serve out-of school and at-risk youth under the Workforce Investment Act (WIA) of 1998.

References

- Title I of the Workforce Investment Act of 1998 (Pub. Law 105-220, 29 USC 2801 et seq.), available at http://www.doleta.gov/usworkforce/
- Final WIA Regulations, 20 CFR parts 652, 660-671 (published at 65 Fed. Reg. 49294, August 11, 2000), available at http://www.doleta.gov/usworkforce/
- Training and Employment Guidance Letter No.20-03, March 25, 2004, FY 2004 Rescissions for WIA Adults and Dislocated Workers; Workforce Investment Act (WIA) Allotments for Program Year (PY) 2004; Additional Funding from Dislocated Workers National Reserve for Adults and Dislocated Worker Activities for Eligible States; Wagner-Peyser Act Final Allotments for PY 2004; and Work Opportunity and Welfare-to-Work (W-t-W) Tax Credit Allotments for FY 2004, available at http://wdr.doleta.gov/directives

Background

The realities of today's global economy make it imperative that publicly-funded workforce systems for youth be demand-driven, and the programs and services made available through that system be aimed at preparing our country's most at-risk and neediest youth for real job opportunities. Despite the billions of Federal, state, local and private dollars spent on needy youth and their families, many out-of-school youth are currently being left behind in our economy because of a lack of program focus and emphasis on outcomes. Well-designed workforce investment programs offer youth who have become disconnected from mainstream institutions and systems another opportunity to successfully transition to adult roles and responsibilities.

VISION:

Out-of-school youth (and those most at risk of dropping out) are an important part of the new workforce "supply pipeline" needed by businesses to fill job vacancies in the knowledge economy.

WIA-funded youth programs will provide leadership by serving as a catalyst to connect these youth with quality secondary and postsecondary educational opportunities and high-growth and other employment opportunities.

The Administration is committed to trying bold, innovative and flexible initiatives to prepare the most at-risk and neediest youth for jobs in our changing economy. The White House Task Force Report on Disadvantaged Youth, released in December 2003, articulated a set of broad goals for disadvantaged youth in the country, including that they "grow up ready for work, college and military service." The report also recommended that youth programs focus on serving the neediest youth, with priority given to out-of-school youth, high school dropouts, runaway and homeless youth, youth in foster care, court involved youth, children of incarcerated parents and migrant youth.

ETA has set an overarching priority for the entire workforce investment system: meet the demands of business by providing adults and youth with the necessary educational, occupational, and other skills training and services needed for high demand occupations in the 21st century. In that regard, ETA has developed a new strategic vision to serve out-of-school and at-risk youth through the workforce investment system. This vision represents new strategies for the investment of WIA resources. The vision's focus on connecting youth with high quality education and employment services can be achieved under current law and reflects the principles articulated by the Administration for the reauthorization of WIA.

ETA's new vision for serving youth will present challenges for how state and local WIA programs interact and link with state and local education and economic development systems. To achieve this vision, ETA will adopt a new strategic approach across four major areas:

- ✓ **Focus on Alternative Education**
- ✓ **Meeting the Demands of Business, Especially in High-Growth Industries and Occupations**
- ✓ **Focus on the Neediest Youth**
- ✓ **Focus on Improved Performance**

This TEGL is meant to provide information to state and local WIA systems on ETA's new strategic vision for serving youth, the proposed focus areas, and the goals and critical strategies that Federal, state and local youth workforce programs should be engaged in implementing for Program Year (PY) 2004.

During PY 2004, ETA will be issuing specific program guidance to states and local areas on implementing the new strategic vision for serving the targeted youth populations.

Critical Strategies

The new vision for serving youth and the following proposed critical strategies will require ETA and state and local workforce investment system leaders to serve as catalysts for bringing together employment, education and economic development. If the vision is realized, state and local workforce investment systems serving youth will be positioned as strategic partners in the development and deployment of the emerging labor force.

Focus on Alternative Education

The No Child Left Behind (NCLB) act holds schools, school districts, and states accountable for student outcomes and requires that students meet standards in core subject areas. The implementation of NCLB has important implications for "second chance" alternative education programs since the public workforce investment system often contracts with these programs to provide educational services to economically disadvantaged high school dropouts and out-of-school youth with basic skills deficiencies, some of whom may have diagnosed or undiagnosed learning disabilities.

Goal: ***ETA is committed to providing leadership to ensure that youth served in alternative education programs will receive a high quality education that adheres to the state standards developed in response to the NCLB legislation.***

In collaboration with the Department of Education, ETA will issue guidance to the workforce investment system on the following:

- A process for the workforce investment system to ensure that any particular alternative education institution receiving WIA youth funds is able to make progress towards the standards for success.
- A model of what constitutes "alternative education programs" that characterizes the various forms/components of these programs required to meet the varied needs of out-of-school youth.
- A description of how alternative education institutions can serve as an integral part of state and local educational systems' success in meeting the goals of the NCLB act.
- Information to help understand how average daily attendance funding applies to the students in alternative education institutions.
- Information to help workforce investment areas understand state NCLB implementation systems and their impact on alternative schools.
- Proven literacy/numeracy strategies targeted to the at-risk adolescent population.

State and local workforce systems are encouraged to partner with public school systems implementing state NCLB requirements around mutually beneficial issues, such as:

- Assisting school districts in meeting their annual yearly progress measures (AYP) by providing high-quality, diploma granting alternative learning environments for youth at-risk of dropping out of school. In this model, average daily attendance funds will follow youth to the alternative program while the youth will remain in the sending school district's count.
- Providing supplemental educational services for Title I schools that do not meet their AYP measures through after-school and Saturday programs.
- Working with alternative schools to establish high quality programs that meet state standards. This may include collaboration between state and local public education systems and workforce investment systems to improve teacher quality, develop flexible funding mechanisms and promote collaborative services.

Local level workforce investment areas are also encouraged to increase their knowledge of alternative education opportunities. This can be done by engaging in a "mapping" of alternative education offerings in the community to be used by both the education and workforce systems to help students make smart choices.

Lastly, WIA youth programs working through the One-Stop Career Center system, should ensure that alternative education institutions have and use information on local workforce training programs and local labor markets, including national electronic tools such as "Career Voyages" (www.CareerVoyages.gov), public and proprietary career information, and state labor market information. Local areas should ensure that alternative education students be exposed to job opportunities in growing occupations, including requirements for further education and training and possible career pathways.

Focus on Business Demands, Especially in High-Growth Industries and Occupations

Goal: ***The investment of WIA youth resources will be demand-driven, assuring that youth obtain the skills needed by businesses so that they can succeed in the 21st century economy.***

Accomplishing this goal will entail three priority areas:

- ETA will provide guidance to the WIA youth system on how to incorporate successful models of employer-driven youth development programs such as SKILLS USA, Jobs for America's Graduates (JAG) and Automotive Youth Educational Systems (AYES) that combine skills training with instruction in employability skills including professional development, community service and leadership.

- ETA will promote strategic partnerships within the workforce system to ensure that resources are invested to effectively help youth gain the skills necessary for jobs and career pathways in high-growth and high-demand industries. WIA funds should be invested based on the skills needs of employers and strategies developed to address those needs. Building connections between the workforce system and community colleges ensures the creation of industry-focused pathways or career ladder programs that are market responsive. Model programs will be developed that demonstrate partnerships between local businesses, local workforce and educational organizations, and community colleges that allow for the rapid development of training curriculum to meet changing workforce demands. Specifically, partnerships developed can identify high-growth high-demand industries and target the appropriate resources for training programs that provide workers, particularly out-of-school youth, the skills required to receive an industry certificate and/or a postsecondary credential.

- State and local professionals in WIA youth-funded programs must be versed on what the high-growth industries/occupations are in their respectable areas what the career pathways are for these jobs, and what options are potentially available for at-risk youth to access these jobs.

  The following Web sites are ETA sources of workforce information:

America's CareerOneStop Portal
http://careeronestop.org

CareerOneStop Portal Links

America's Career Information Network:
www.acinet.org

America's Job Bank:
www.ajb.org

America's Service Locator:
www.servicelocator.org

O*NET OnLine:
http://online.onetcenter.org

Workforce Tools of the Trade:
www.workforcetools.org

Career Voyages:
www.CareerVoyages.gov

In addition, staff should be knowledgeable about youth assessment, development of individual service strategies, integration of needed services, provision of follow-up services, and explicit documentation of services and outcomes. WIA youth professionals should ensure that training funds will be prioritized for eligible youth pursuing high-growth opportunities and that training investments meet industry-specific requirements leading to an industry-recognized credential when appropriate.

Focus on Neediest Youth

The White House Task Force Report on Disadvantaged Youth notes that the Federal government is spending billions of dollars to address the problems of youth. According to the report, youth training funds appear to be focused on ineffective and duplicative practices, and public money needs to be targeted to where it is most needed. The Task Force identified youth in foster care (particularly those aging out of foster care), youth in the juvenile justice system, children of incarcerated parents, and migrant youth as those most in need of services.

ETA is making investments in a number of new initiatives to focus on and develop new strategies for serving these identified populations.

Goal: ***ETA will prioritize investments that serve youth in foster care, those aging out of foster care, youth offenders, children of incarcerated parents and migrant youth.***

- Funds will be used to develop model programs for youth aging out of foster care. Model programs will take a comprehensive approach to serving this population, including basic skills remediation, help staying in school or returning to school, employment, internships, help with attaining a high school diploma or GED, post-secondary vocational training, apprenticeships, and enrollment in community colleges, and four-year colleges.

- ETA will continue to make funds available to help returning youth offenders reintegrate into and become productive members of their communities by providing education, job training, and supportive services such as mentoring and life skills training after their release from correctional institutions. In addition to helping youth attain employment or an education credential, this effort seeks to ensure that returning youth offenders remain crime-free. This initiative will build on strategies that have been the focus of previous pilot and demonstration projects. They include:

  (1) the expansion of partnerships between state and local workforce investment systems and the criminal justice system;
  (2) the use of faith-based and community-based organizations to train and mentor former prisoners; and
  (3) the use of intermediary organizations in connecting employers with offenders particularly in high growth industries.

- ETA, in partnership with the Departments of Education and Agriculture, will develop a model program to provide workforce training, placement services and basic education services for high school completion to out-of-school migrant and seasonal farm worker youth ages 16 to 21. Mentoring is expected to be a significant component of this effort to assist migrant students navigate education and job training and to provide the encouragement, tutoring and assistance these students need to achieve their goals.

Focus on Improved Performance

In order to ensure the success of an increasingly at-risk youth population in the knowledge economy, the workforce investment system must be committed to utilizing the strategies that lead to higher levels of performance and outcomes. ETA will provide the leadership necessary to make this happen.

Goal: ***Key initiatives will be implemented to assure that funding for youth program is performance-based and that systems and programs are focused on outcomes.***

All youth professionals will be expected to be knowledgeable about their local economy (e.g., current status, future projections, high-growth industries, career paths) and One-Stop Career Center professionals will be expected to make the connection to specialized youth programs for those drop-outs that are using core services who are in need of more intensive assistance.

- ETA will support Regional Forums designed to provide the workforce investment system with an overview of the new policy guidance related to services for youth. The Regional Forums will examine changes in legislation, policy guidance, and operational processes that will form a new strategic response to serving youth through the workforce investment system. The forums will target system leaders from the states and will work to align Federal policy with state and local practices.

- ETA will lead the way in establishing better “real-time” data and management systems by incorporating investments made in management information systems into the formula program.

- Following the recommendations of the White House Task Force for Disadvantaged Youth, ETA will work with other Federal agencies to improve the Federal role in helping to understand what works. This entails creating a more consistent set of guidelines for assessing the quality of program evaluations. Protocols will be consistent across agencies and will emphasize random assignment evaluations. A cross-agency research agenda will be created based on large, randomized field trials to test different interventions for serving disadvantaged youth.

- ETA will implement a new core set of common performance measures for youth programs that apply across One-Stop system programs. The implementation of common performance measures across Federal job training and employment programs will enhance the ability to assess the effectiveness of the workforce investment system.

- The new set of common measures for youth programs will include: placement in employment or education; attainment of a degree or certificate; literacy and numeracy gains; and an efficiency measure. The introduction of these new measures for the workforce investment system places a new emphasis on literacy and numeracy gains for youth. It is important that service strategies for youth participants be directly linked to one or more performance outcomes within these common measures. Also, it is important to note that the certificate measure is a demand-driven measure in which certificates are awarded in recognition of an individual's attainment of measurable technical or occupational skills necessary to gain employment or advance within an occupation. These technical or occupational skills are based on standards developed or endorsed by employers.

- Attainment of literacy and numeracy gains is viewed as most appropriate for youth with basic skill deficiencies as determined by a basic skills assessment. The increased focus on literacy and numeracy gains for youth provides an impetus to ensuring that state and local WIA programs incorporate high quality adolescent literacy programs.

Action Required

States should share the information in this TEGL with the local areas.

Inquiries

Questions should be directed to the appropriate regional office.

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DOL YouthBuild Performance Measures

Metric	Definition
Placement in Employment or Education	☐ Placement Goal: 70% of all enrollees are placed in 1st quarter after exit. ☐ Important Notes ■ The denominator includes all enrollees, but the numerator (the successes) **cannot include** any unsuccessful exit. ■ Any student with "exit for other reason*" is removed from calculation
Attainment of Degree or Certificate (includes GED, high school diploma and industry recognized certificate)	☐ Certificate Attainment Goal: 50% of all enrollees attain by 3rd quarter after program exit. ☐ Important Notes: ■ If an "unsuccessful exit" attains one of the above before exiting he/she counts in the numerator (as a success) but he/she does not count in the numerator if it is attained after program exit. ■ Any student with "exit for other reason*" is removed from calculation
Improvement of Literacy/Numeracy Skills	☐ Literacy/Numeracy Goal: 50% of those enrollees assessed as basic skills deficient in literacy or numeracy will rise by one EFL within one year of enrollment. ☐ Important Notes ■ Gain can occur in literacy **or** numeracy ■ Can be an ABE test or an ESL test. ■ If an "unsuccessful exit" attains one of the above before exiting he/she counts in the numerator (as a success) but he/she does not count in the numerator if it is attained after program exit. ■ Any student with "exit for other reason*" is removed from calculation
Recidivism	☐ Recidivism Goal: 20% *or less* of enrollees who were youth or adult offenders at enrollment are convicted of a new crime, or have parole or probation revoked within one year of enrollment. ☐ Important Notes: ■ "unsuccessful" and "exit for other reason*" are removed from the calculation. ■ Program must record that student does not have a recidivism outcome.
Retention (in placement)	☐ Retention Rate: 75% of those who had a placement in the 1st quarter after exit, also have a placement in the 2nd and 3rd quarters after exit. ☐ Important Note: graduate doesn't have to be placed for the entire quarter in any of the quarters. Program must document that they were placed at some point during the quarter.

***Exit for Other Reason:** Participants who are exited as a result of health/medical reasons, family care, moving out of service area, reservists called to active duty, or death.

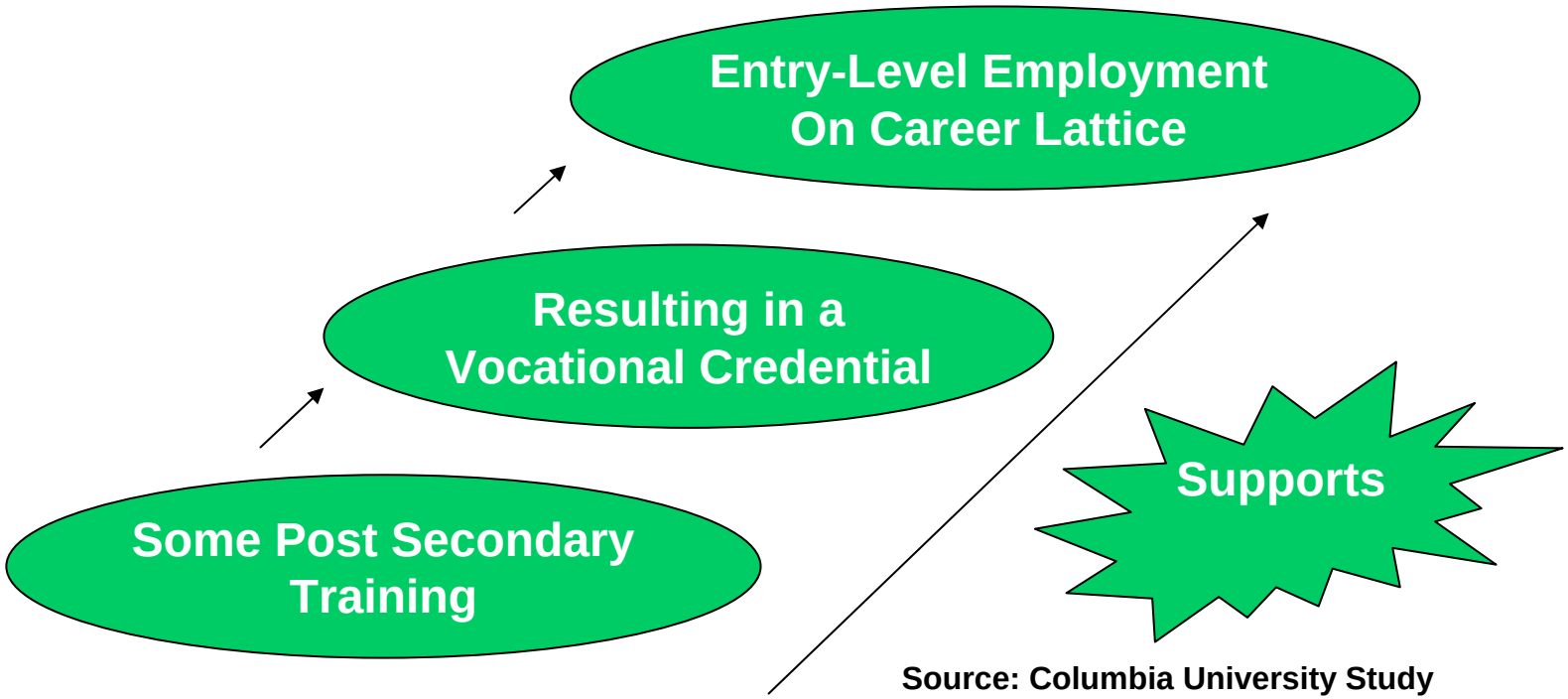
These materials are selected by the workshop facilitator who is solely responsible for the relevance and appropriateness of the content. DOL ETA has not reviewed the materials and does not necessarily endorse the content.

Career Development at a Department of Labor YouthBuild program

Facts and Figures

- In 1950 20% of jobs were considered “skilled”
- In 2005 85% of jobs were considered “skilled”
- Young people today are two times more likely to be unemployed than previous generations
- 70% of jobs today require a post-secondary credential
- Workers with associate’s degree earn more than those with high school credential only and their unemployment rate is 33% lower

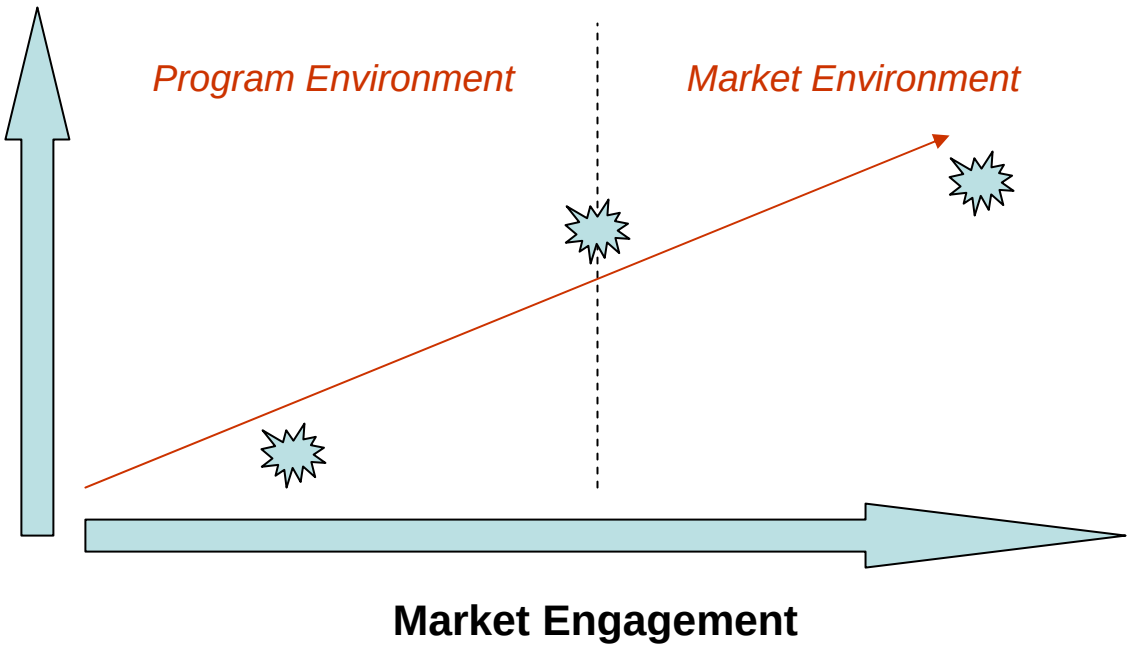
Our Target: A Path from Poverty



Source: Columbia University Study

Our Task: Systematic, Ongoing, Simultaneous Increase in Career Assets and Market Engagement for Each Student

Career Assets
(Mental, emotional,
social, physical)



Goals of Career Development at YouthBuild

All YouthBuild graduates achieves economic security and sustainability

- Every YouthBuild graduate has a career development strategy—not necessarily a specific career or specific job, but a strategy

- Every YouthBuild staff person can describe an effective career development strategy and is focusing youth on career strategies

Defining a Career Strategy

- Student initiated, staff supported
- Early introduction to work life and careers
- Access a network of external partners
- Links to post-secondary education and training
- Harmonize individual needs with employers' needs
- Identify credentials to move up career ladders
- Predict future education and training
- Provide generalized and specific job preparation
- Emphasize literacy, numeracy, technology, and interpersonal skills
- Provides ongoing support and follow up
- Plan for income growth and asset building
- Develop a "first job" entry and exit plan

YouthBuild

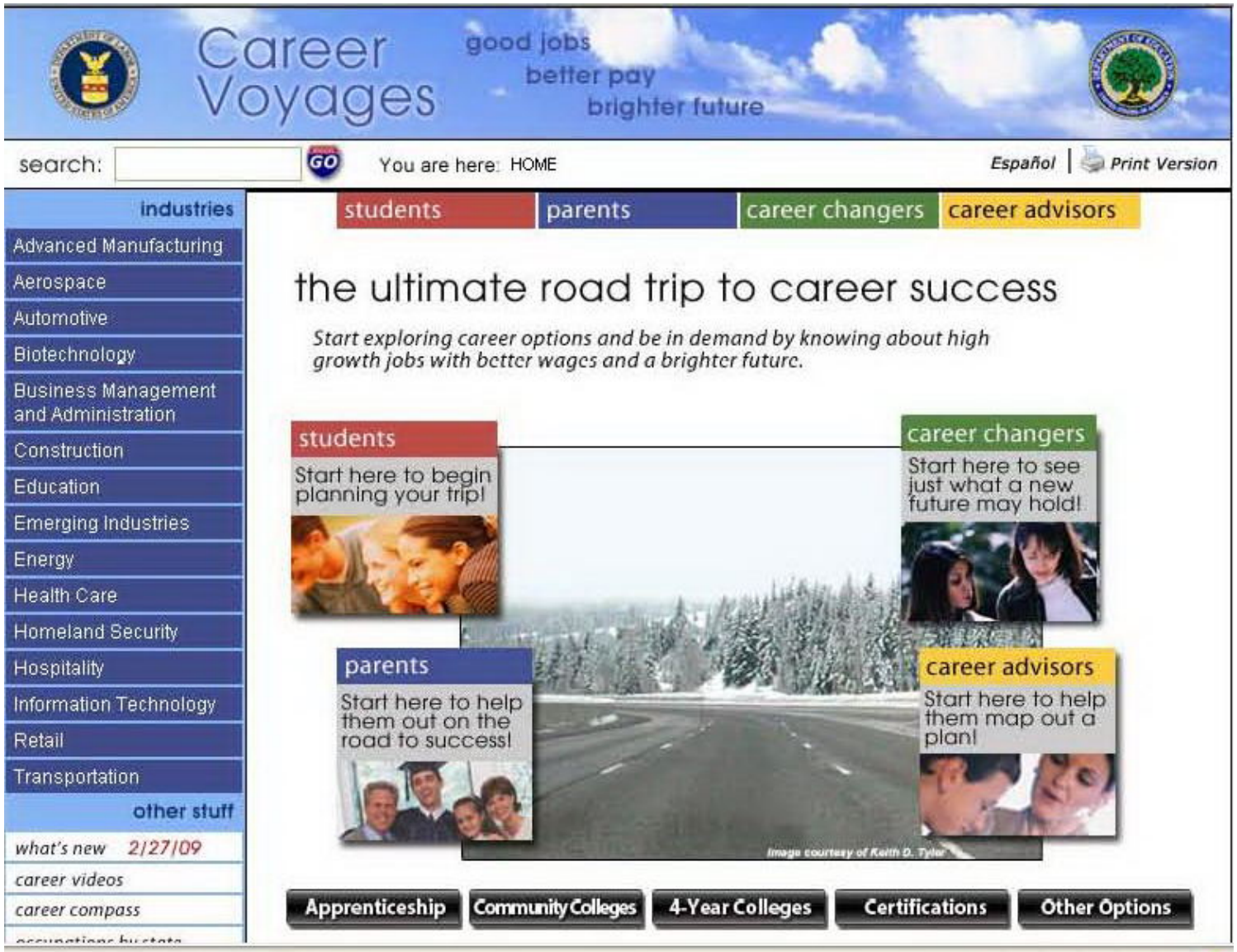
The 4 P’s of Career Development

- Program Culture
- Preparation
- Partnerships
- Placement

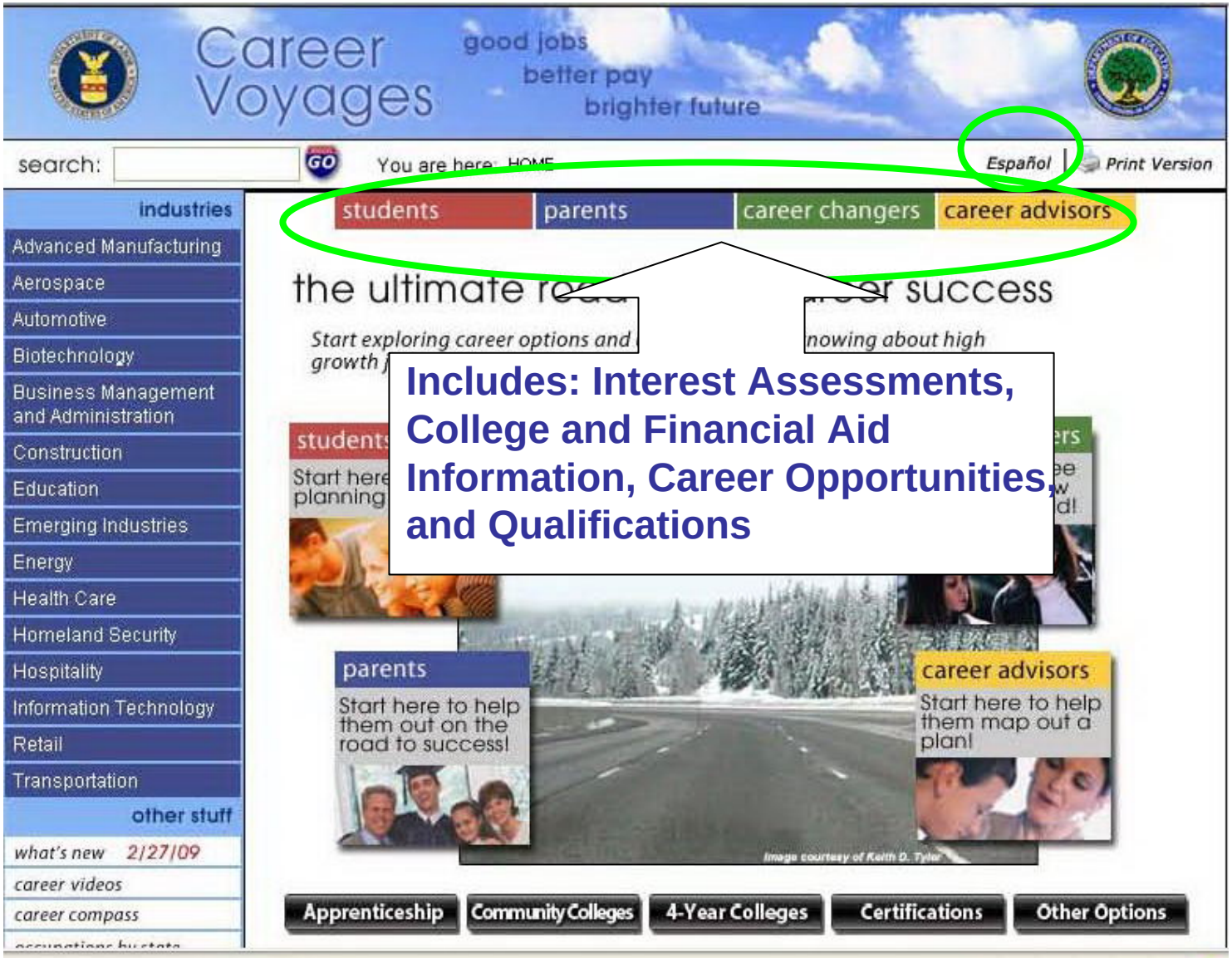
YouthBuild

Career Development Tools: Career Voyages

http://careervoyages.gov



http://careervoyages.gov



Where Demand Will Be

Career Voyages

good jobs
better pay
brighter future

search: GO

You are here: HOME > Students > Where Will the Demand Be?

industries

- Advanced Manufacturing
- Aerospace
- Automotive
- Biotechnology
- Business Management and Administration
- Construction
- Education
- Emerging Industries
- Energy
- Health Care
- Homeland Security
- Hospitality
- Information Technology
- Retail
- Transportation

other stuff

- what's new 2/27/09
- career videos
- career compass

students | parents | career changers | career advisors

Students -
Where Will the Demand Be?

Español | Print Version

In today's world, there are never any guarantees, but some **careful planning** at the beginning of your career search may help lead to a more secure future.

CareerLinks

Let's start by explaining the industries you see on the left hand menu. The chart below shows the industries expected to either **need the most employees** as projected by the Bureau of Labor Statistics or **are evolving** and creating new jobs.

In short, these industries were selected for three reasons:

1. they are projected to add **substantial numbers of new jobs** to the economy or affect the growth of other industries;
2. they are existing or emerging businesses **being transformed** by technology and innovation requiring new skills from workers;
3. they are **economically vital** to the overall health of the American economy

How to Qualify

Career Voyages

good jobs
better pay
brighter future

search: GO

You are here: HOME > Students > How to Qualify for and Get a Job

industries
- Advanced Manufacturing
- Aerospace
- Automotive
- Biotechnology
- Business Management and Administration
- Construction
- Education
- Emerging Industries
- Energy
- Health Care
- Homeland Security
- Hospitality
- Information Technology
- Retail
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Students - How to Qualify for and Get a Job

Career Links

Leave no road unexplored. **Preparation, persistence, and enthusiasm** are important to finding a job. **Education and training** also play a vital role. **Remember:**

the more you learn, the more you can earn.

If you're still in school, the first step is to complete a good course of study. It should give you the knowledge and skills needed to get started. It should also get you ready for any future education you might pursue.

Career Voyages

How Do I Get Started?

- **If you're in high school**, learn about Career Clusters. They might help you determine the best

http://careervoyages.gov

http://careervoyages.gov

Other Options

search: GO

You are here: HOME > Other Options

industries

- Advanced Manufacturing
- Aerospace
- Automotive
- Biotechnology
- Business Management and Administration
- Construction
- Education
- Emerging Industries
- Energy
- Health Care
- Homeland Security
- Hospitality
- Information Technology
- Retail
- Transportation

other stuff

- what's new 2/27/09
- career videos
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- occupations by state
- top 50 occupations
- links
- document library

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Other Options

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Career Videos

Whether you are in high school and trying to plan your future, no longer in high school and in need of some assistance in getting your future on track or just looking for some guidance, there are other options you should consider.

Job Corps is a no-cost education and vocational training program administered by the U.S. Department of Labor that helps young people ages 16 through 24 get a better job, make more money and take control of their lives. At Job Corps, students enroll to learn a trade, earn a high school diploma or GED and get help finding a good job.

National In Demand Occupations

Close Window

Download Data (PDF - 78 KB)
(Right click and select *Save Target As...*)

Advanced Manufacturing - In-Demand Occupations

Career Voyages exists to help you find out which occupations are in-demand. To learn more about how these occupations were selected, click here. (Source: U.S. Bureau of Labor Statistics) [1].

When you first come to this page, the following Advanced Manufacturing-related occupations are sorted by Projected Need for Employees. Notice that, generally speaking, **the more education you have, the higher your wage**.

Page 1 Page 2 Page 3 Page 4 Printer friendly (Display All Pages) Print (This Page Only)

Projected Growth

Wages

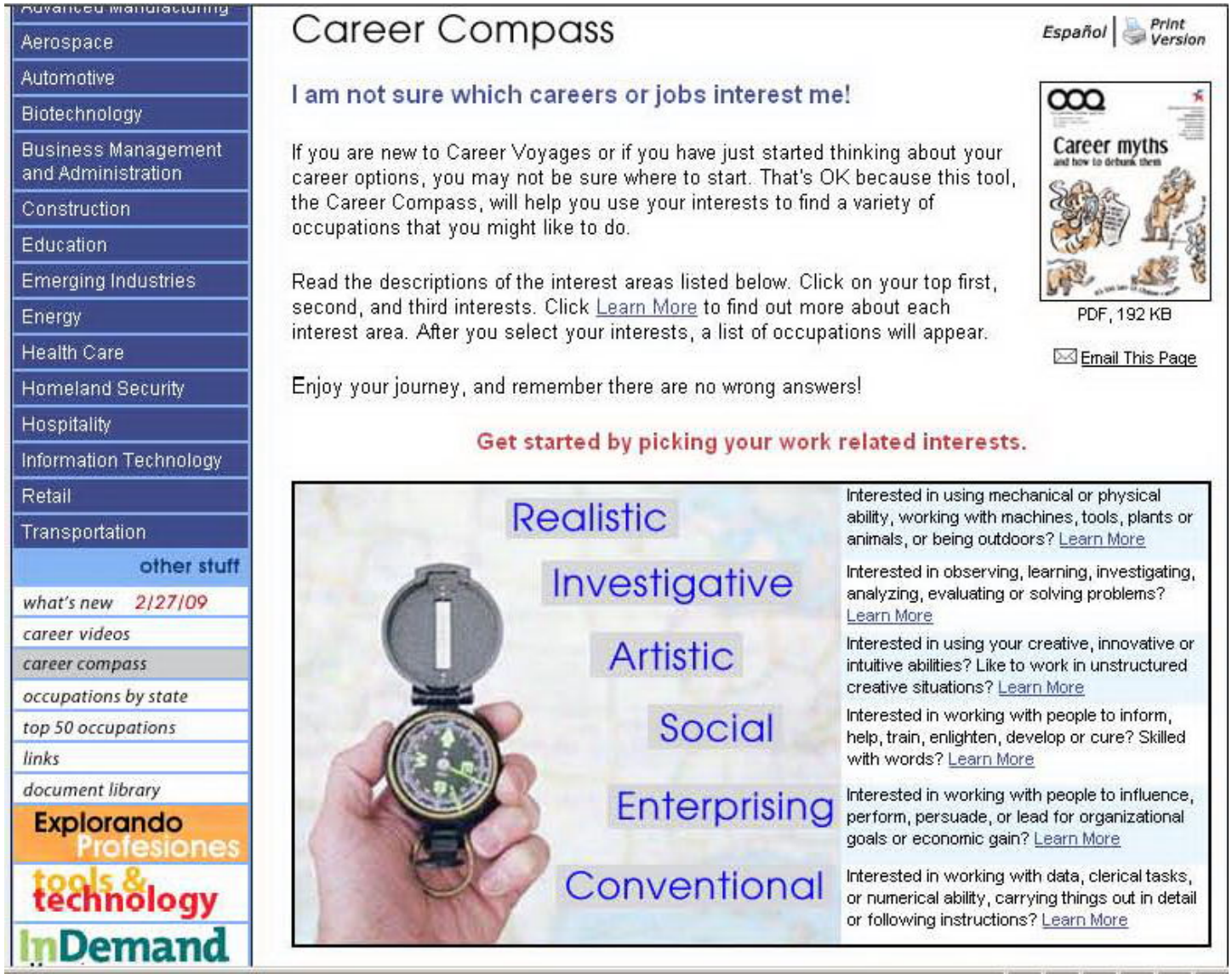
Education Levels

Get Data By State

Job Title Description

Advanced Manufacturing Related Occupations (Sort by Occupation Title / Projected Need)		(2006 - 20)		Bottom 10%		Top 10%	High School or less		College Degree or higher
Team Assembler (Description, State Report)	(Video Not Available)	265,000	0-8%	$8	$12	$19	71%	25%	4%
Maintenance and Repair Workers, General (Description, State Report)	(Video Not Available)	174,000	9-17%	$9	$16	$25	58%	36%	6%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products (Description, State Report)	real View, View	142,000	9-17%	$17	$33	$62	21%	28%	51%
Graphic Designers (Description, State Report)	(Video Not Available)	95,000	9-17%	$12	$20	$35	14%	31%	55%
Industrial Engineers (Description, State Report)	real View, View	89,000	18-26%	$22	$34	$50	8%	19%	73%

Career Compass



Advanced Manufacturing
Aerospace
Automotive
Biotechnology
Business Management and Administration
Construction
Education
Emerging Industries
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Career Compass

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I am not sure which careers or jobs interest me!

If you are new to Career Voyages or if you have just started thinking about your career options, you may not be sure where to start. That's OK because this tool, the Career Compass, will help you use your interests to find a variety of occupations that you might like to do.

Read the descriptions of the interest areas listed below. Click on your top first, second, and third interests. Click Learn More to find out more about each interest area. After you select your interests, a list of occupations will appear.

Enjoy your journey, and remember there are no wrong answers!

Career myths
and how to debunk them

PDF, 192 KB

Email This Page

Get started by picking your work related interests.

Realistic — Interested in using mechanical or physical ability, working with machines, tools, plants or animals, or being outdoors? Learn More

Investigative — Interested in observing, learning, investigating, analyzing, evaluating or solving problems? Learn More

Artistic — Interested in using your creative, innovative or intuitive abilities? Like to work in unstructured creative situations? Learn More

Social — Interested in working with people to inform, help, train, enlighten, develop or cure? Skilled with words? Learn More

Enterprising — Interested in working with people to influence, perform, persuade, or lead for organizational goals or economic gain? Learn More

Conventional — Interested in working with data, clerical tasks, or numerical ability, carrying things out in detail or following instructions? Learn More

Career Compass

http://careervoyages.gov - Holland Code Terms - Microsoft Internet Explorer

View All Interests | Close Window | Print

INVESTIGATIVE
"Thinkers"

I am...	I can...	
inquisitive	think abstractly	work with sci procedures
analytical	solve math problems	use compute
scientific		
observant		
precise		
scholarly		
cautious		
curious		
self-confident		
introspective		
reserved		
broad-minded		
independent		
logical		

http://careervoyages.gov - Holland Code Terms - Microsoft Internet Explorer

View All Interests | Close Window | Print

ENTERPRISING
"Persuaders"

I am...	I can...	I like to...
		make decisions affecting others
		be elected to office
		work on a sales campaign
		start my own service or business
		campaign politically
		have power or status
		use language skills to influence others
		be with leaders

Internet

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View All Interests | Close Window | Print

REALISTIC
"Doers"

I am...	I can...	I like to...
practical	fix electrical things	tinker with machines or vehicles
athletic	solve electrical problems	work outdoors with plants and animals
frank	pitch a tent	be physically active
mechanical	play a sport	use my hands to build things
a nature lover	read a blueprint	tend/train animals
thrifty	plant a garden	work on electronic equipment
curious	operate tools & machinery	work in farming, forestry or fishing
stable		do carpentry work
concrete		
reserved		
self-controlled		
ambitious		
systematic		
persistent		

Done | Internet

Career Clusters

Architecture and Construction Career Cluster
Cluster (Foundation) Knowledge
and Skill Statements

The following Cluster (Foundation) Knowledge and Skill Chai
careers in the Architecture and Construction Cluster. Person
Architecture and Construction Cluster should be able to dem
those found on the Essential Knowledge and Skills Chart. Th
are available in separate documents.

Cluster Topic ACC01 **ACADEMIC FOUNDATIONS:** *Achie skills required to pursue the full rang of opportunities within a career cluster.*

ACC01.01 **Perform math operations such as materials and supplies to complet**

ACC01.01.01 Use basic math functions to complet
Sample Indicators Identify whole numbers, decimals, fractic
Apply basic arithmetic add, subtract, mul
Apply relational (equal, not equal, greate logical expression.

ACC01.01.02 Use geometric formulas to determine structures.
Sample Indicators Calculate areas and volumes of structure
Estimate materials and supplies needed.

ACC01.01.03 Use appropriate formulas to determi
Sample Indicators Calculate percentages/decimals.
Use percentages/decimals to perform m

ACC01.01.04 Use appropriate formulas to determi measures.
Sample Indicators Calculate ratios, fractions and proportion
Use ratios, fractions and proportion mea

ACC01.01.05 Use appropriate formulas to determi spaces and structures.
Sample Indicators Measure dimensions, spaces and structu
Measure dimensions, spaces and structu
Use dimensions, spaces and structures needed.

ACC01.01.06 Conceptualize a three-dimensional f visualize proposed work.
Sample Indicators Build Create three-dimensional form mo

ACC01.02 **Apply principles of physics as the situations to work with materials a**

ACC01.02.01 Apply basic concepts of statics and l
Sample Indicators Use the basic concepts of static and loa

ACC01.02.02 Identify the physical properties prese materials in order to use the material

Architecture and Construction Career C
Cluster (Foundation) Knowledge
and Skill Statements

Sample Indicators Use the basic concepts of phys when working with com

Cluster Topi ACC02 **COMMUNICATIONS:** *Use oral an written communi expressing and interpreting inform on and ideas inclu terminology and information.*

ACC02.01 **Us vocabulary and visu cues commonly use construction to be successful in workplace/job communications.**

ACC02.01.01 Match vocabulary and visual cues to workplace/jobs
Sample Indicators Use correct terminology to convey verbal and visual.

ACC02.01.02 Utilize vocabulary and visual cues in context of desi situations.
Sample Indicators Confirm understanding of verbal and visual instructions.
Ask questions concerning details of instructions.
Perform assignments as requested.

Cluster Topi ACC03 **PROBLEM-SOLVING AND CRITICAL THINKING** *critical thinking skills (analyze, synthesize, and evaluate teams. Solve problems using creativity and innovation.*

ACC03.01 **Create and implement project plans consider resources and requirements of a project/proble realistic planning in design and construction si**

ACC03.01.01 Plan, organize, schedule and manage a project/job and outcome.
Sample Indicators Report results of the project/job.

ACC03.01.02 Manage the schedule of a project/job.
Sample Indicators Identify timeline required to complete a project/job.
Evaluate efficiency and effectiveness of a project/job.

ACC03.01.03 Estimate resources/materials required for a specific
Sample Indicators Estimate correct amount of required resources/materials.
Create a budget.

ACC03.01.04 Use available resources/materials effectively while resolving a problem with a project plan.
Sample Indicators Evaluate waste of resources/materials.
Evaluate necessity for additional resources/materials.

ACC03.01.05 Determine alternative solutions for a specific projec
Sample Indicators Evaluate feasibility of alternative suggestions.
Implement appropriate alternatives.

ACC03.02 **Evaluate and adjust design and construction p schedules to respond to unexpected events an**

ACC03.02.01 Incorporate potential job disruptions into planning ti
Sample Indicators Identify potential events and conditions that disrupt the con
Solve situational problems involved with unexpected event

Architecture and Construction Career Cluster
Cluster (Foundation) Knowledge
and Skill Statements

ACC03.02.02 Adjust project plans and schedules information.
Sample Indicators Modify existing plans to reflect an une
Modify existing schedules to reflect ar
Modify existing budget to reflect unex

ACC03.02.03 Identify and assess critical situatio
Sample Indicators Evaluate potential solutions and deter
Appraise critical situations and implen

ACC03.02.04 Generate a project update that tra events and conditions.
Sample Indicators Present an oral and/or written status r

Cluster Topic ACC04 **INFORMATION TECHNOLOGY:** *technology tools specific to the career create information.*
No additional statements in this topic beyond Cha

Cluster Top ACC05 **SYSTEMS:** *Understand roles within organizations, inter-organizational sys Identify how key organizational syst the quality of products and services and careers.*

ACC05.01 **Comply with regulations and ap and safe workplace/jobsite.**

ACC05.01.01 Identify governmental regulations codes that apply to a given workpl
Sample Indicators Follow governmental regulations and
Follow industry regulations and buildi
Follow jurisdictional regulations and b
Use information given in regulations a
Pass job inspections and comply with
Pass required substance abuse scree

ACC05.01.02 Evaluate workplace/jobsite activiti other applicable safety regulations
Sample Indicators Read and discuss information on OSH
Pass safety inspections and comply w

ACC05.01.03 Use MSDS (Material Safety Data S use and disposal of materials.
Sample Indicators Obtain, understand and follow MSDS
Use materials safely.

ACC05.01.04 Identify workplace/jobsite environ
Sample Indicators Follow safe practices relating to envir

ACC05.02 **Examine how the roles and resp trades/professions work in relat**

Architecture and Construction Career Cluster
Cluster (Foundation) Knowledge
and Skill Statements

ACC05.02.01 Describe how relationships between trades/professions can facilitate smooth workflow and outcome to meet project goals.
Sample Indicators Coordinate work between trades.

ACC05.02.02 Explain how the hierarchy of roles on a jobsite facilitate smooth workflow and outcome to meet project goals.
Sample Indicators Incorporate job functions in the reporting chain of supervision.
Evaluate the safety issues and responsibilities managed by each level of supervision.

ACC05.03 **Examine all factors effecting the project and the planning process.**

ACC05.03.01 Understand social, environmental and political factors that affect the project.
Sample Indicators Label all systems on a set of construction documents.
Discuss the interrelationship of the systems in the built environment.
Use the concept of "Critical Path Method (CPM)" and/or similar sequential methods so that work progresses efficiently.

ACC05.03.02 Understand the context of the projects.

ACC05.04 **Understand and manage union-management relationships and contracts to create a cooperative work environment.**

ACC05.04.01 Analyze a proposed contract in terms of the company's position and union's position in labor contract negotiations.
Sample Indicators Document how quality improves profitability.
Report on issues that affect quality.

ACC05.04.02 Assess situation for compliance with terms of a contract.

Cluster Top ACC06 **SAFETY, HEALTH AND ENVIRONMENTAL:** *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.*

ACC06.01 **Assess and control the types and sources of workplace hazards to ensure a safe workplace and jobsite.**

ACC06.01.01 Demonstrate methods to correct common design and construction hazards.
Sample Indicators Identify and describe common hazards in the workplace.
Identify and describe major sources of information about hazards in the workplace (e.g., Material Safety Data Sheets (MSDS), work procedures, exposure control plans, training materials, labels, and signage).
Identify sources of combustible/flammable materials, fire and emergencies to establish a fire safe environment.
Interpret safety signs and symbols.
Identify methods for disposing of hazardous materials.

ACC06.01.02 Identify types and sources of workplace hazards common to design and construction situations.

ACG06.01.03 Demonstrate personal and group health and safety practices.
Sample Indicators Demonstrate principals of safe physical movement to avoid slips, trips, and spills.

Overview

Anyone working with young people today knows how much they need and want access to career opportunities that draw on their talents, skills, interests, and experience. Young people are eager to take responsibility for themselves and their families, and want to contribute to improving their communities. Meaningful, community-oriented work on career tracks that provide a path out of poverty empower young people to live up to their responsibilities, follow their dreams, and give back to their communities. A billion young people will seek to enter the global workforce in the coming decade, according to the International Labor Organization, and the vibrancy, creativity, generosity, and productivity of these new workers will shape the twenty-first century.

Career development that builds toward economic sustainability for young people who are at risk of being unemployed or underemployed in their prime working years is critically important to our collective well-being. With workers aging out of the workforce in historic numbers, developing the economic potential of young people is an intergenerational obligation that, if left unfulfilled, will have long-ranging negative effects on society. We simply cannot afford to have one of our most vital resources—capable, committed, hard-working young adults—absent from the economic, social, civic, and political processes of our communities.

Young people face a vastly different world of work than their parents or grandparents faced. Gone are many of the entry-level jobs in agriculture and manufacturing that, for generations, gave young people a foothold in the economy. Many of the barriers to getting low-income youth into decent work seem almost insurmountable and render traditional job training and vocational education approaches nearly obsolete. The deep needs of many young people coupled with changing economic forces demand that organizations from the public, private, and nonprofit sectors collaborate in new ways to build bridges between young people and the labor market. Employers need good new workers as urgently as young people need economic

opportunities, but creating the connections between them is more challenging than ever before.

To open career pathways, youth organizations must cultivate strategic partnerships to influence community economic development and job creation, to advocate for their graduates in the labor market, and to shape local policies related to education, training, and workforce development. Young people must learn to think strategically so they can adjust to rapid economic changes and opportunities around them. Schools and youth organizations must provide holistic, comprehensive responses to the many developmental needs of young people—even when career development is the top priority—so they gain not only technical work skills but also the life skills and soft skills so essential for success. In today's workplace, leadership skills, confidence, emotional well-being, reliability, flexibility, good health, and interpersonal abilities are as important as technical capabilities.

With the right preparation and ongoing support, young people can get into good careers that correspond to their interests and talents. Modern industrialized economies around the world offer plenty of entry-level work on career paths in traditional fields such as construction and health care and in new fields such as information technology, bio-mechanics, geo-spatial technology, advanced manufacturing, and "green" industries. Despite this economic promise, there is concern among researchers, economists, educators, policy experts, and youth workers that the gap is widening between these opportunities and the skills of many young people, preventing them from getting into much of the available entry-level work in the modern economy.

The Skills Challenge

In the United States in 1950, 20 percent of jobs were considered "skilled" by the U.S. Bureau of Labor Statistics. By 2005 that number was 85 percent. Computers and telecommunications, multicultural project teams, new decision-making processes, and other changes in the workplace have redefined the skills required of workers. Most jobs today require workers to communicate effec-

tively and problem-solve using advanced technical skills that typically require postsecondary education. Seventy percent of today's jobs, by some estimates, require postsecondary education—that is, education that leads minimally to a professional credential but not necessarily a two- or four-year degree. Many sectors such as auto repair and clerical work that historically offered good entry-level opportunities for low-skilled workers now demand specialized technical training and some postsecondary education. Opportunities in advanced manufacturing are not so much in machine shops and factories but are often in sleek, climate-controlled, high-tech laboratories that require workers with advanced technical skills and postsecondary training. The growing service sectors such as hospitality and health care rely on well-developed interpersonal skills and an orientation toward service.

Further compounding the skills challenge is the increased competition among low-skilled workers that is generated by the global economy. Young people today, especially those with minimal education and training, must now compete with workers from around the world. Who would have imagined a generation ago that telephone operators from the other side of the globe would help service home computers and appliances or that timber jobs in rural communities would vanish as timber companies ship trees overseas for milling?

Reasons for Optimism

Increased global competition also brings positive changes for new young workers. Many employers are in desperate need of reliable, capable workers and are more willing to hire a diverse workforce than ever before. Employers are seeking diversity both to mirror their local communities and to build a workforce with cross-cultural capabilities. If a young person has a career plan; has gained basic knowledge, skills, and credentials; and gets adequate support, then barriers such as race, gender, sexual orientation, physical ability, and other factors are somewhat less likely to be obstacles today than for previous generations.

Also, youth culture, with its attention to electronic communications, digital media, social networking, new technology, marketing, entertainment, multiculturalism, and other social forces, gives young people fluency in the

twenty-first century marketplace and positions them to capitalize on emerging opportunities in the new economy in ways that may be difficult for older workers. Careers in the twenty-first century offer young people many opportunities for safe, meaningful, well-paying work that supports long-term economic well-being and allows them to contribute to the betterment of their families and communities. And while there may be less stability in careers today, there is also more flexibility and more opportunity to pursue work of one's choosing. The good news is that young people who are equipped with strong career management skills will be able to move up income ladders and also will move laterally pursing their interests into new realms that build on their skills, experience, interests, and credentials.

The Essential Role of Continuing Education and Training

This is really a turning point. Some kind of education beyond high school is becoming a universal expectation.

—Travis Reindl, Jobs for the Future, in USA Today

Postsecondary education and training programs, primarily at community colleges, will facilitate much of the career change and advancement that young people experience. The skills and credentials provided by postsecondary education are now more important to the economic prospects of young people than ever before. These educational institutions provide the upgrading of skills that is essential in a dynamic economy, where the demands of work change rapidly. Every young person's career plan must include some contact with postsecondary institutions; otherwise, she or he is likely to miss the training necessary for career advancement. Today more than six million students, nearly half of all college undergraduates, are enrolled in community colleges, according to the U.S. Department of Education. Another five million students are enrolled in workforce training programs at community colleges. For low-income, low-skilled youth, postsecondary education can be a fruitful path to better lives. Between 2004 and 2014, 2.7 million new jobs for carpenters, nurses, customer services representatives, maintenance workers, and other skilled workers will be created that require a postsecondary credential but not a college degree, according to the U.S. Bureau of Labor Statistics.

Most new entry-level jobs with career potential require only a year or two of postsecondary education along with continuing lifelong educational updates and credentialing. In the next decade, wages in the technical professions will, in some cases, surpass those requiring a bachelor's degree.

—The 2010 Meltdown: Solving the Impending Jobs Crisis *(Gordon)*

Fostering **lifelong learning** is a goal for many youth organizations, and increasingly these organizations are forging partnerships with community colleges that provide for college advising, campus visits, enrollment in degree classes while in the youth program, financial aid, and college clubs (peer support) for graduates. Most college students, and especially low-income students, must work while they are enrolled in postsecondary programs.

Fortunately, the skills necessary to be successful in work—time management, team work, computer use, problem solving, research, communication—are many of the same skills required to succeed in higher education. The job of youth programs is to help graduates build these skills along with a support system to balance work and school. Innovative youth programs have increased the success of their graduates in college by sending them in peer support clusters to the same institution.

The Goal of Career Development: Economic Security and Sustainability

Economic security and sustainability means that graduates are in stable housing, are safe, have access to health care, are supporting themselves and their families, and are engaged in activities such as service, worship, recreation, and leisure. More broadly, it also means that graduates have access to savings and credit so that they are able to invest in their future through home mortgages, school loans, business financing, and retirement accounts. Building these long-term assets depends on sustained, well-paying employment over the long term. For this reason, economic sustainability requires that graduates be competitive within the economy over time so they are able to move out of poverty and into productive roles within their communities.

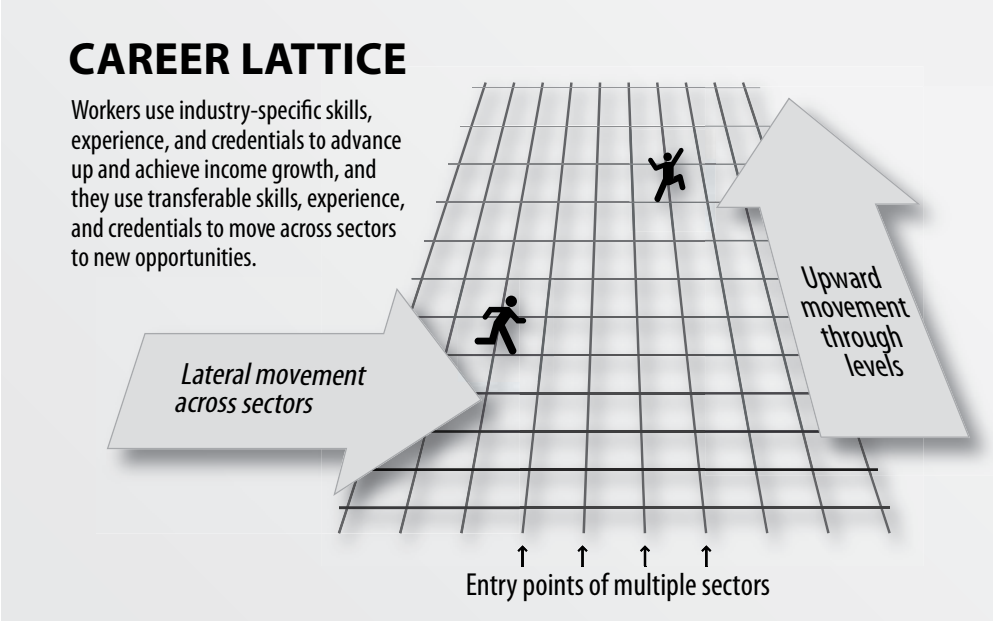
Placing a young person onto a career path that offers economic sustainability is a daunting task. After all, finding a true career can take many years, and most people change careers several times. Youth programs will not necessarily place graduates into careers, but they must ensure that each graduate has **a career strategy**, or a plan, to find and hold meaningful work over her or his lifetime.

According to the U.S. Department of Health and Human Services, in 2008, full-time work at the federal minimum wage earned $13,624 a year, not nearly enough to keep a young family above the poverty line. For a young person to become economically secure, career strategies must seek consistent **income growth**. Studies have shown that workers with some postsecondary training can achieve income growth that will begin to lift them out of poverty. This requires not only the ability to find and keep work but also the motivation, the credentials, and the skills to capitalize on opportunities to move into better positions.

The new definition of "career" focuses less on a progression up a career ladder in a profession or corporation, and more on recognizing opportunities and adapting.

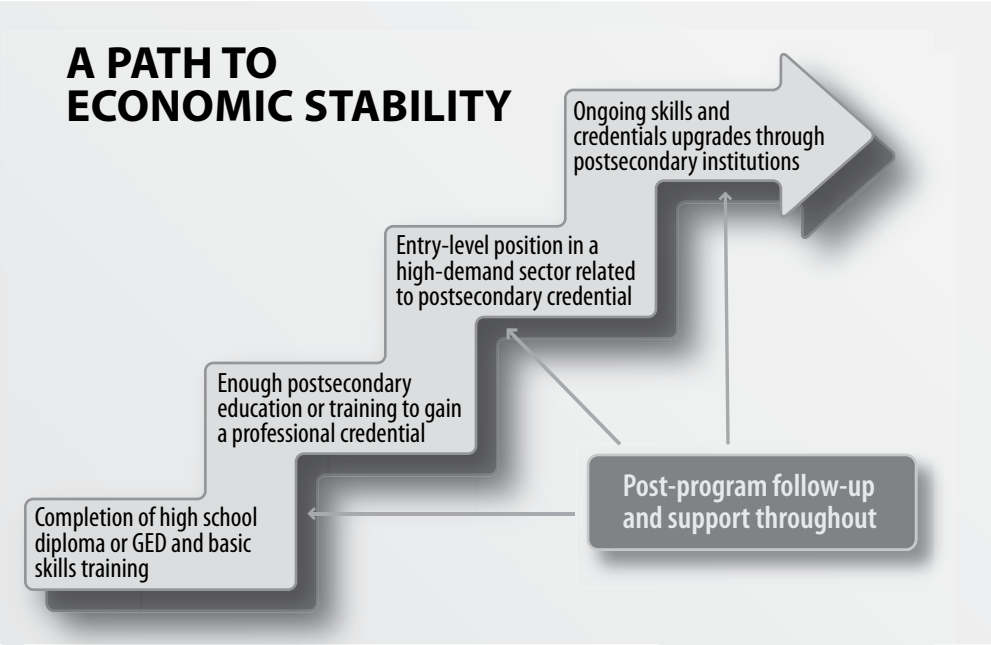
—The 2010 Meltdown: Solving the Impending Jobs Crisis (Gordon)

"Better positions" are not necessarily promotions up a career ladder within a particular industry. Successful graduates will find new opportunities by progressing up and across **career lattices** that allow for both advancement within a particular industry and for lateral changes across sectors. Unfortunately, by contrast, graduates who are placed into low-paying jobs *and* who lack career development skills will, over time, face significant challenges to improving their income, making them vulnerable to long-term poverty and the negative forces of the street.

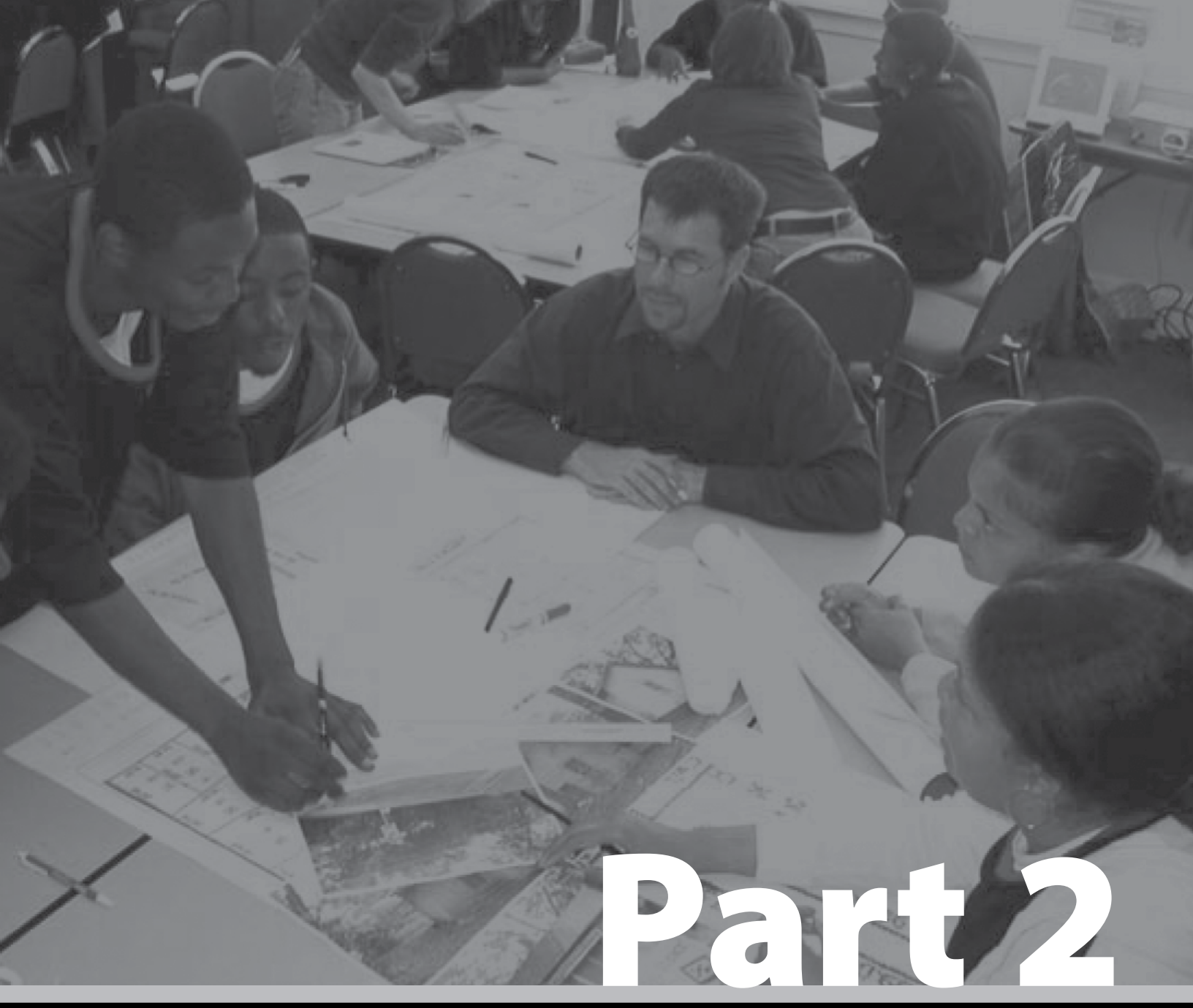


Drawing on research from the community college system[1] on the economic impact of postsecondary education, we can begin to chart a general path out of poverty and toward economic security that is open to many hard-working, low-income, low-skilled young people. While not all young people will follow this pathway exactly, they all will benefit from an understanding of the progression. Therefore, youth programs should keep these steps in mind as they help graduates reach their career goals:

[1] Prince, D., and Jenkins, D., "Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study." Community College Research Center, Teachers College, Columbia University, 2005.



The critical elements in this pathway are worth noting: most important is the completion of a secondary education credential; next is the completion of some postsecondary education or training through community colleges, trade unions, vocational-technical training schools, or other credentialing institutions; third is a job in a high-growth industry; and fourth is the ongoing need for credentials upgrades through additional postsecondary education. Sustaining a student's effort throughout the process is support from the youth program staff, mentors, family, and partner agencies, providing specific services such as child care, transportation, financial aid, counseling, and housing. Additionally, it is important to remember that most students in postsecondary education and training programs must work part-time, and often full-time, while in school.



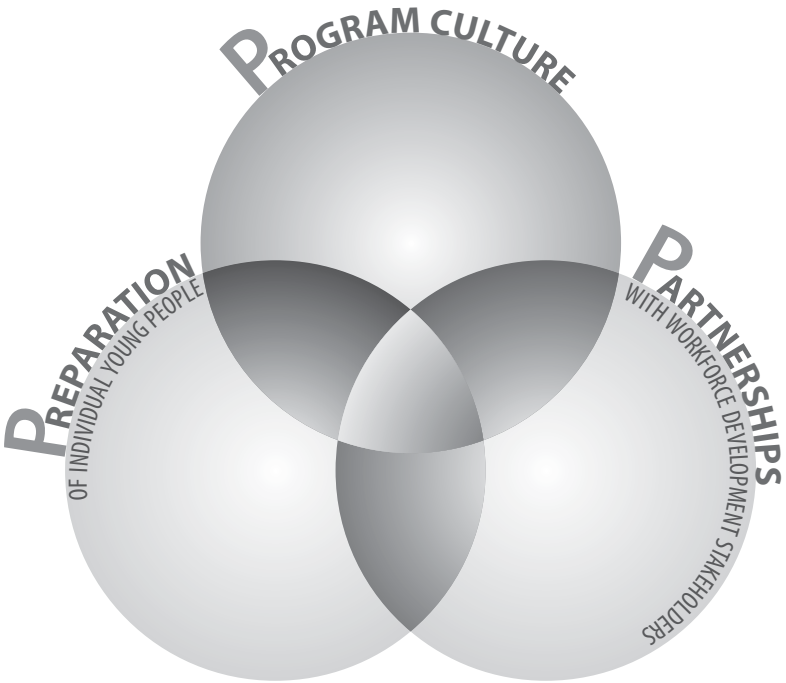
Part 2

A Conceptual Framework for Career Development

Overview

So far, we've examined the environment in which graduates will be pursuing careers and the role of youth programs in supporting those careers. Now we'll look at a conceptual framework—the "Three P's" and "Six A's"©—to support program success.

The Three P's for Career Success



1. Program Culture

Successful youth programs have a distinct culture that supports career development. YouthBuild USA's research identified strong program culture as a critical element for success on many performance measures, including those related to career development. Program culture, interestingly, is not defined as any one particular organization type but rather a consistent, unified, integrated, and authentic set of principles, assumptions, attitudes, rituals, and daily practices that result in effectiveness.

Program culture unifies the entire organization in its orientation toward successful education and career outcomes for graduates so young people feel

that the organization or program has a stake in their future. This culture is reflected in organizational priorities, executive functions, program design, staff roles and responsibilities, recruitment of participants, program activities, daily rituals, the look of the facility, marketing and communication, evaluation measures, and, most important, the experience of young people.

Here are some core principles found in many effective youth programs and that build a culture of success for graduates. You may recognize some of these from your own organization or program:

- **Commitment**—each young person feels the staff is knowledgeable and has a genuine stake in her or his economic success.
- **Respect**—the program respects the needs, concerns, and intelligence of young people.
- **Community Connections**—each young person can see that the program has connections to organizations, networks, and systems that offer real economic opportunities.
- **Ongoing Support**—the program provides consistent and long-term support to make positive change and to overcome barriers to employment.
- **Leadership**—the organization's senior leader advocates for young people in the community, plays a role in community economic development, and influences policy related to education, training, and workforce development.
- **Integration**—career preparation is integrated throughout the program from the first day and attachment to work and postsecondary education is established early in the program.
- **Knowledge and Skill Development**—the program fosters a spirit of lifelong learning and advancement and teaches an array of marketable skills that support career development.
- **Experiential Learning**—young people have well-supervised, engaging, hands-on skills training and work experience that accurately simulates work life.
- **Authenticity**—students participate in work-based learning, and career development activities are driven by both the needs and interests of young people and by current workplace demands.

2. Partnerships with Key Stakeholders

Contacts outside the program are essential to getting young people into the demand-side of the workforce system where career opportunities exist. Establishing these contacts is uniquely the role of the adults working with young people because students typically have little or no access to this realm. Young people, especially low-income youth, often have none of the social networks so essential to career development that more privileged youth and most adults take for granted. These networks built over generations and based on race, class, religion, family, and other affiliations can be nearly invisible to the people who benefit from them. Meanwhile, young people without networks may not know how to begin building such contacts. The youth program, in effect, becomes the wider social network, the "who you know," for its participants. The challenge facing youth programs is that, within a year or less, they must connect each student to a network that more privileged people often spend a lifetime cultivating. In building a network, key contacts for youth programs include:

- Postsecondary education and training institutions
- Industry-supported training and apprenticeship organizations
- Unions, trade associations, and other organizations
- Individual youth-friendly employers
- Employment support services (health care, child care, placement service, etc.)
- Mentors
- Successful graduates from the program

Workforce Development Partners

Youth programs must connect with strategic partners in the workforce development system. This system touches nearly every sector of society and includes a vast array of public, private, and nonprofit organizations providing education, training, research, curricula, credentials, apprenticeships, support services, mentoring, policy development, advocacy, and jobs. Four specific segments of the workforce development system are particularly important to youth development programs:

- Employers, employer associations, and trade groups are important elements of the workforce system. Youth programs must find ways to connect to these organizations because they represent the demand side, the opportunity side, of the workforce development equation.
- Unions and apprenticeship programs are important avenues into the skilled trades and can provide excellent placement opportunities.
- Community colleges and other postsecondary institutions are significant entities within the workforce system, so it is essential youth programs make connections with them as a first step in improving career development.
- Workforce Investment Boards (WIBs) are regional entities that direct federal, state, and local funding to workforce development programs. They also conduct and publish research on these programs and the needs of their regional economy and oversee one-stop career centers, where job seekers can get employment information and connect to programs in their areas. WIBs are important within the workforce system as planners, funders, and coordinators.

To engage successfully within the workforce development system, youth programs need to clearly understand where they fit within the system. Most schools and youth programs are considered "pre-employment" or "pre-apprenticeship" programs. As such, they introduce young people to work life and play an essential role in providing young people with the most fundamental skills for employability. It is the important work of youth programs to focus on social, emotional, and intellectual competencies, including soft skills, leadership development, basic education, emotional well-being, health, and basic technical skills. Young people from low-income communities typically face numerous barriers to success that go beyond the need for technical training. Youth programs are especially well-suited for this type of focus as it requires a nurturing developmental process that supports participants as they overcome obstacles and cultivate essential career skills.

Many employers prefer to provide the technical training, the "hard skills," required of their workers, but these employers typically are unprepared to provide the basic skills preparation needed to introduce minimally skilled, inexperienced young people into the work place. Thus, it is not necessary for youth organizations to provide intensive hard skills training for graduates to

launch successful careers because much of this training can be found through partners such as trade unions.

Community Economic Development Partners

Many successful youth organizations not only partner with workforce development partners but also step into the broader realm of community economic development. These youth programs, frequently tied to larger agencies, possess the leadership, capacity, and resources to influence comprehensive strategies for neighborhood revitalizations and community development that typically include economic development, housing, public safety, education and training, and, of course, workforce development. In rural communities especially, where there is a severe absence of career opportunities, some youth programs have sought to broaden their influence so that they can participate in the actual creation of jobs, labor markets, and entrepreneurial opportunities. While this strategy is ambitious, there are ample reasons for youth organizations to seek this level of influence within their communities if they are seeking to open career pathways for their graduates.

Policy Partners

Youth programs may also seek influence within the policy realm as a strategy to open career pathways. This policy work typically relates directly to community economic development and workforce development, but it is a further example of the ways organizations can support the economic prospects of young people. Involvement in policy development requires strong commitment and engagement from the organization's senior leadership.

3. Preparation of Individuals for Careers

Once an organizational culture focused on career success has been created and a network of external partners has been established, the youth program needs to prepare students for opportunities that have been identified through the partnerships.

> **If you want to get ahead in life, learn to get along with people.**
>
> *—Anthony, 19, YouthBuild Just-A-Start*

The process of preparation must provide a comprehensive response to the various social, academic, emotional, physical, and financial needs of individual young people. When low-income students fail to carry out their career plans, it is not usually because they lack motivation or technical skills; typically, it's because they face other obstacles like behavior problems, lack of transportation, substance abuse, family troubles, shortage of funds, or poor interpersonal skills. Preparation for work life must include a comprehensive plan to clear away barriers to employment, build career assets, provide supports for positive change, create a support network for times of crisis, and increase

competence on a wide range of skills. For the sake of planning this essential aspect of your program, it may be useful to review the five competencies required of workers articulated by the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS):

- Resources: identifies, organizes, plans, and allocates resources
- Interpersonal: works with others
- Information: acquires and uses information
- Systems: understands complex interrelationships
- Technology: works with a variety of technologies

A Dual-Customer Approach

Most youth development activity—education, training, civic engagement, sports and recreation, health care, counseling, service learning, social activities, and religious programs—is not directly connected to economic activity or to the labor market. Rather, it is designed to serve the young person, who is in effect "the customer" of the youth organization.

A "dual-customer" approach goes one step further and incorporates the needs of employers into the preparation of students. This approach explicitly links people who are looking for employment to known employers who are looking for qualified workers to fill job vacancies. In the world of career development, this dual-customer approach provides a business perspective that is sometimes missing from programs designed to serve youth.

The labor market is a supply-and-demand equation with the supply of available workers on one side and the demand for workers on the other. Schools and youth programs typically operate entirely on the supply side of the equation. The term "career development," which focuses on cultivating the potential and well being of individual workers, has traditionally reflected a supply-side orientation. The demand-side perspective is referred to as "workforce development." The goal of workforce development is

Where Are the Careers?

Health care sector is projecting labor shortages for the next two decades.

Construction industry needs 1 million new workers by 2012, a 15 percent increase.

Information technology, the fastest growing sector, will add 632,000 jobs, an 18 percent increase, by 2012.

Retail trade will add nearly 600,000 jobs, a 15 percent increase, by 2012.

Advanced manufacturing will add more than 400,000 jobs by 2012.

Automotive industry needs 240,000 workers by 2012.

—U.S. Department of Labor

to amass the labor necessary to meet the needs of employers and fuel economic activity. However, the goals of career development and workforce development are intertwined since the well-being, satisfaction, and productivity of workers directly affects the productivity of business and industry.

Without direct access to the workforce development system—through partnerships, internships, mentors, and jobs—youth programs can find it difficult to link young people to opportunities in the local economy. This disconnection and isolation from the demand side of the equation has been the failing of many youth employment programs and vocational education systems, hence the call for **"demand-driven"** training.

Most of the demand for workers is in **"high-growth" sectors** such as construction, health care, and information technology. According to the U.S. Bureau of Labor Statistics, between 2002 and 2012, eight of the ten fastest growing occupations in America will be related to health care, such as medical assistants, home health aides, physical therapist assistants, medical records technicians, and physician assistants.

While these are the current sectors experiencing growth, we live in a volatile economy, where specific skills that are needed today may not be those that are in demand tomorrow. For this reason, it is important for programs to keep abreast of changes in employment trends and to focus on basic skills.

Also, the term "sector" typically refers to a large swath of economic activity that can represent many different types of work. For this reason, it is important for youth programs to understand the types of jobs available within sectors. For example, when the U.S. Department of Labor reports that in the coming decade there will be a million new jobs in the construction sector, that projection includes not only trades jobs but also an incredibly wide range of non-trades jobs in real estate, interior decorating, landscaping, transportation, architecture, clerical, and other subsectors that support construction activity. Many of the subsectors include small businesses, which are an excellent source of entry-level work for young people. As youth organizations analyze regional economic trends, it is important to define not only high growth sectors but also subsectors and related small business clusters to identify prospective placements for graduates. And as mentioned above, transferable basic skills give young people the most flexibility in navigating this diverse economic landscape.

Six A's: Essential Strands of Career Development Activity

Woven throughout any effective career development program are six strands of ongoing, simultaneous activity that occur at various levels within the organization. These strands should guide the actions of staff, shape the program curricula, be present for the duration of the program, and be reflected in a wide range of activities within the organization. (Specific activities associated with each of the strands are listed in the *Six A's Program Checklist* in the Resources section of this handbook.) The six strands of activity mostly occur within the Preparation and Partnerships elements of the framework:

Preparation of Individuals for Careers

1. **Assessment** of skills, interests, capabilities, credentials
2. **Alignment** with known opportunities
3. **Asset Building** (skills, knowledge, credentials, contacts, mentors, financial resources)

Partnerships with Key Stakeholders

4. **Access** to systems, networks, institutions, employers
5. **Attachment** to school, work, mentors, and supports
6. **Advocacy and Advising** to provide long-term support for graduates

1. Assessment

A career development plan starts with a solid baseline assessment to identify the student's interests, aspirations, qualifications, and capabilities. If students understand well the gap between their aspirations and their qualifications, they are better focused, better motivated, and ultimately more successful.

It is also essential that ongoing assessment tools be integrated into the program to ensure the student is progressing along the plan. Effective career development planning demands measurable progress along academic, behavioral, and technical competencies. It is critical for both the staff and the young person to remain focused on meeting the benchmarks outlined in the development plan.

2. Alignment

Alignment is an ongoing process of ensuring that a young person is progressing along a developmental plan that increasingly positions her or him for a known opportunity within the local economy. From a programmatic standpoint, alignment must begin with an examination of regional economic data that pinpoints trends in job gains/losses, emerging sectors, community college activities, and other important career-related research. Youth programs that do not design activities in alignment with actual economic information run the risk of misdirecting young people. (Steps for conducting a market scan of the local employment landscape are described later in this handbook.)

Once students have assessed their aspirations, qualifications, and skills gap, they must research careers open to them. Where do they want to target their efforts? At the same time, it is the task of the program staff to seek out realistic career opportunities within the community that are a good match in terms of qualifications and aspirations. Many tools exist that enable students to research their own career interests (see the Resources section of this handbook).

3. Asset Building

What makes one person more competitive than another in the job market? It is the assets that they bring to the workplace. Assets for work are clustered into four categories:

- Physical (car, clothes, tools, books)
- Financial (savings, scholarships, loans, gifts)
- Human (knowledge, skills, attitude, emotional intelligence)
- Social (networks, relationships, contacts, mentors)

Nearly everything a young person experiences in a strong youth program builds assets for career development. It is important for students to become aware of all that they are achieving within the program that can contribute to their work life.

4. Access

Once opportunities have been identified and students are aligned with those opportunities, the program should establish mechanisms that enable students to actually gain access to those opportunities. This is not an easy task, however. Often those in the private sector do not even know about youth programs. Compounding this problem are skills gaps, negative stereotypes of youth, the lack of a social network, and discrimination, which all conspire to prevent young people from gaining access to the labor market. It is critical, however, that these obstacles be addressed and overcome; youth programs that cannot open access to economic partners and opportunities offer limited utility to young people—and quickly lose credibility with students themselves.

Much of the responsibility of opening access outside of the program starts with the executive director, board of directors, or principal. It is the organization's executive staff that must devote time and energy to opening lines of communication, resources, contacts, and opportunities within the community. They need to sit on the boards of Rotary clubs and trade associations and have a seat at the table of a number of relevant local organizations. Members of boards of directors can also play an important role in opening these doors, as can successful graduates.

Everyone involved in a student's individual career plan—the student, the mentor, the case manager, and the employer—has a role in assuring access to opportunities and needs to know what is expected of them. Getting the student into contact with the people and organizations that will eventually play a role in the career plan ensures that everyone, especially the student, has clear expectations.

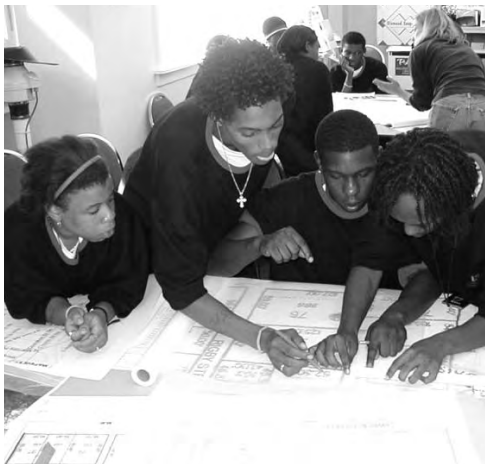
Access also entails formal and informal activities such as inviting employers into the program as guest speakers, bringing union journeymen in as trainers, and creating articulation agreements that provide community college classes to be taught within the youth program. The purpose is to put students into direct contact with the labor market stakeholders and systems to build familiarity and rapport—for both youth and adults—so

A Glimpse of Effective Attachment

Attachment begins with a student's career exploration and interest inventories that highlight areas for further inquiry. With these interests in mind, a student might meet an employer as a guest speaker and arrange for an informational interview and a day with the employer on a job shadow. Eventually, the young person might interview with the employer and apply for an internship. The employer, in coordination with the program staff, might assign a workplace mentor who meets regularly with the student and communicates with the program staff. And, when appropriate, the young person could apply for a job with the employer after the process of building confidence, familiarity, and incremental success.

that there can be a smooth transition from the program to the next step on the career path.

5. Attachment



Once access to external partners and resources has been established for students, there must be a deliberate process of attaching them to those outside contacts. Attachment ensures that the bridge to opportunity is completed for each young person, and it completes the process of transitioning out of the program. Solid attachments are created over time for young people through repeated contacts. For this reason, it is important for youth programs to introduce work experience, employers, unions, colleges, mentors, and other resources early in the program and frequently. When attachment is established incrementally through repeated positive experiences, developmentally appropriate connections are established. Here are several examples of how programs have helped facilitate these attachments:

- Integrating college curricula, college credit, and time on campus into ongoing program activities is an excellent way for young people to build attachment to postsecondary education.
- Integrating both work and school into a student's weekly or monthly schedule can help to firmly establish the bridge out of the program and on to both a job and postsecondary training.
- Introducing employers, union representatives, and mentors early in the program so that students become familiar and comfortable with these key contacts.

6. Advocacy and Advising

Youth workers can become discouraged when they realize that their efforts to get students onto career pathways do not necessarily end on graduation day. Even with good solid attachments to work and postsecondary education, young people typically need a lot of support to overcome the challenges of leaving the nurturing world of the program.

Indeed, the follow-up advocacy and advising that the staff provides to graduates and to employers of graduates is, in some ways, the most important aspect of the career development framework. Graduates can feel overwhelming stress as they pursue their career plans without the daily support of the

program. Juggling work and school, family responsibilities and crises, and other adult concerns without the regular close contact of their peers and the program staff can isolate and demoralize even the best prepared graduates. Youth programs must establish and maintain a high level of engagement with each graduate to provide encouragement, refocusing, problem solving, and other supports.

The program can continue to advocate for its graduates also by helping them understand their responsibilities to employers, mentors, and other career supports. This can help them to set realistic expectations, smooth out problems at work, and ensure that they remain attached to their supports. Some programs such as YouthBuild have set up systems to provide financial support for graduates to weather debilitating crises beyond their control.

A broader interpretation of advocacy relates to the perceptions of young people within the workforce development system and at the policy level. Some youth programs find that workforce stakeholders such as employers, Workforce Investment Boards, or unions do not always embrace them as significant partners. Through outreach, advocacy, and partnership building, the role of youth development organizations can be elevated and more firmly established within the regional workforce system.

Building Blocks for Preparation of Individuals for Careers

The Individual Career Plan: A Centerpiece of Career Development

Every student's aspirations, no matter how ambitious or seemingly far-fetched, should be respected and cultivated *and* should be accompanied by a realistic step-by-step outline of what that student must actually achieve to reach his or her career goal. Students should be encouraged to become passionate about their career ambitions while also gaining the understanding of what will be required of them to realize their dreams.

To help young people establish themselves in a viable, sustainable manner, programs must focus on much more than job, internship, apprenticeship, or training program placement and instead work with young people to create long-term career strategies that reflect a clear understanding of the educational and technical skills necessary to remain competitive.

The first and possibly most important tool a career development program can provide to its young people is help in developing **an individual career plan**—to find and hold meaningful work that fills a need in the community and that meets the immediate and long-term needs of the student. Specifically, long-term strategies—or student career plans—require young people to:

- Identify their interests, capabilities, and qualifications
- Research, identify, and pursue opportunities that align with their interests, capabilities, and qualifications
- Use postsecondary education, training, and credentialing to build qualifications over a lifetime
- Secure, sustain, and change jobs to create a positive work history and income growth

Essential Elements in an Individual Career Plan (ICP)

- **Student directed and staff supported**
- **Introduced early in the program**
- **Reflects the students needs, aspirations, talents, and goals**
- **Identifies specific short- and long-term career targets**
- **Outlines steps to overcome specific personal barriers to employment**
- **Emphasizes the development of basic skills and credentials related to literacy, numeracy, technology, and interpersonal skills**
- **Focuses on asset building and income growth**
- **Identifies specific credentials, training, and future education needed to move up career lattices**
- **Provides access to a network of external partners (employers, schools, mentors, supports)**
- **Establishes links to postsecondary education, training, and financial support**
- **Includes a "first job" entry and exit plan**
- **Plans for ongoing support and follow up**

Youth programs that focus only on placement of graduates in the absence of developing long-term career strategies—or the realities of the job market—are unlikely to achieve the long-term outcome of economic sustainability. Likewise, career strategies that are bound too tightly to a young person's current situation, and the current labor market, are unlikely to be successful in the long run. Instead, career plans need to focus on actions that will help young people attain new skills and experiences that will open doors to new opportunities as they arise.

Ongoing Assessment to Track Progress

The Individual Career Plan gives definition to a young person's career aspirations and strategy, but it is the regular incremental progress toward career goals that really breathes life into the plan and motivates the student to continue working toward long-term goals and aspirations. Assessment—both formal and informal—is essential for staff to monitor the effectiveness of program activities and to make adjustments in time to alter the experience of students. Self assessments by the students themselves are important in both documenting progress and in honestly identifying shortfalls. Young people can be unflinchingly accurate in their self assessments, and this information is invaluable in keeping a young person on a path to success.

Assessments such as the Test of Adult Basic Education (TABE), the National Work Readiness Credential, and the Employment Readiness Scale that identify academic, technical, or attitudinal skills gaps are useful in developing relevant Individual Career Plans and in guiding teachers, trainers, case managers, and counselors in crafting developmental plans for students.

Beyond identifying skills gaps and collecting performance data, assessment can be an important life skill for young people to become familiar with and adept at. Self-assessment is important in the workplace, as is the ability to absorb a supervisor's assessment of one's own performance.

Career Pathways

TIP

Use Work to Draw Young People Back to School

As young people gain experience in jobs, they quickly learn that more training and education translates directly into better work and better income. This wake-up call to the limitations of their own qualifications often can draw young people back into school and training. Consider placing students into internships, job-shadowing, or part-time work early in the program so that they get a taste of work life while there is time in the program to re-engage with academic study.

Seek Rigorous Education Outcomes and Basic Skills Development

Youth programs seeking to put low-income, minimally skilled young people onto career pathways must bring an intense focus on basic education and the fundamental skills required for work. For these young people, gains in literacy, improved math skills, and especially the completion of high school or a GED are the first bricks in the foundation of economic sustainability. For this reason, education outcomes should be a top priority for youth programs. Many young people enrolling in YouthBuild and other youth-serving organizations enter at reading levels so low that completing a GED or diploma within the program cycle is difficult. Graduates who leave youth education and training programs without a GED or diploma should be placed immediately into further education and training that does enable them to complete this essential credential. A viable career strategy simply cannot be launched until a young person has completed her or his secondary education.

The next priority is the development of basic skills that will support a career. A basic skills curriculum should include soft skills—especially transferable skills—and also some basic technical skills that provide at least an introduction to a specific industry. It is not necessary for most youth programs to provide intensive technical skills training because much of this training can be gained later in postsecondary education, union apprenticeships, or in employer-sponsored training. But still an introduction to industry-specific technical skills and experiential training is important in finding a first job.

Teach Transferable Skills Guided by an Employer-Responsive Curriculum

With the data from a market scan and input from key partners, the youth program can convene a specific group of employers that have been identified from promising employment sectors. These advisors can be organized as a focus group or an advisory board to provide advice, guidance, and specific work-related information for the training curriculum. Inviting this input from employers can be one of the first steps in establishing more highly developed partnerships that include internships, workplace mentors, jobs for graduates, and possibly revenue for the youth program.

An employer-responsive curriculum need not distort the values or goals of an existing youth program. It may require a shift in emphasis, however, where certain skills are taught with a focus on positioning graduates for opportunities in a particular employment sector. In fact, this shift in perspective may open opportunities for greater involvement from community businesses and partners.

Here's an example: A typical customer service curriculum for the retail or hospitality industries includes material on effective communication, anger management, problem solving, and leadership development—bedrock skills in any youth program. As youth organizations become reliable partners with the private sector and demonstrate the ability to effectively prepare young people for work, opportunities can emerge for the youth program to negotiate training contracts with employers.

With the curriculum in place, the program's focus should be on skills development, especially measurable skills development that culminates in a work-related credential. While specific technical skills are important for any young person's career advancement, particularly important are transferable skills—that is, basic computation, literacy, computer skills, problem solving, interpersonal communication, leadership ability, reliability, empathy, self-awareness, the ability to manage conflict, and other competencies required in any workplace. Transferable skills are the foundation of both entry-level employment and of career advancement for young people.

Success at work requires many of the same skills needed to succeed in any other aspect of one's life—and many of these basic skills that employers are seeking in workers are routinely taught in schools and youth programs.

Focus Students on Gaining Credentials for Work

Lack of skills, experience, and credentials is an obstacle to career development for any young person. For this reason, much of a program's career development activity should be designed to build a documented history of productivity, competence, and motivation for each young person. In the absence of actual work experience, credentials are an important way for inexperienced young people to document their skills and abilities.

YouthBuild: A Proven Approach to Skills Training

YouthBuild's central focus on construction training is a strong model of an employer-responsive curriculum that teaches transferable skills. YouthBuild graduates can carry many of their skills from the construction site—teamwork, sequencing of tasks, safety, communication, problem solving, math calculations, and leadership, for example—directly into a wide range of career paths. These students can become well prepared for a variety of different careers while studying and practicing within the same training program and curriculum.

Credentials demonstrate discipline, focus, and persistence. Also, they document tangible competence in particular skills. For young people without work experience, credentials create the foundation of their qualifications.

Young people tend to respond well to the tangible, short-term focus required for many credentials, so they can be used throughout the program as motivators. Basic first aid and Occupational Safety and Health Administration (OSHA) credentials, for example, can be gained within the first few weeks of a program and can then encourage young people to start working on more challenging credentials. NCCER or HBI trade credentials, CNA nursing credentials, IT certificates, and many other industry-specific credentials can be completed within the span of most youth programs. A driver's license also is an important career-related credential, especially for young people in rural communities and for young people planning to work in the trades.

Unquestionably, the most important credential for students to complete as part of their career strategies is the GED or diploma. This credential is the cornerstone of any successful strategy for economic sustainability, and, as mentioned earlier, it is imperative that youth programs support students in completing their secondary education credential.

Career Pathways

TIP

Use Leadership Training to Teach Essential Work Skills

Leadership development, central to positive youth development, teaches important skills for work. For example, YouthBuild's emphasis on "taking responsibility" for one's decisions and actions is particularly relevant in preparing young people for jobs. Cultivating young leaders and civic engagement is entirely compatible with the development of well-trained workers who are able to exercise not only political or social influence but also economic influence in their communities.

Career Development for Young People Convicted of a Crime

For young people convicted of a crime, career development requires special attention, knowledgeable staff, and thoughtful approaches. An entire handbook could be devoted to career strategies for these students, and youth organizations need to make specific preparations to properly serve youthful offenders. Below is some basic information to guide the program staff. For more detailed information, see the excellent publication *Going to Work with a Criminal Record* from Public/Private Ventures noted in the Resources section. While it focuses particularly on young fathers with criminal records, it has useful lessons for supporting any young person working to build a life after incarceration.

Young people who have been in conflict with the law face unique challenges to finding a career pathway, but with a strong develop-

mental plan, appropriate employer partners, and lots of support, they can overcome a negative past. A young person with a record must focus intensively on building a new track record of success, productivity, and responsibility. Gaining work-related credentials such as a GED, driver's license, OSHA card, first aid certificate, PACT, NCCER, and other badges of achievement are essential. Logging time in community service and volunteer activities that demonstrate responsibility, leadership, and a work ethic also is important. Mentors who can support students both in the program and after graduation are essential for young people struggling to re-establish themselves in society. Also, graduates must be well prepared to communicate honestly with potential employers and coworkers about their criminal record.

Going to Work with a Criminal Record identifies seven important lessons in building career strategies for youthful offenders:

- **Lesson One: Do No Harm**—Avoid setting graduates up for failure by training them for jobs they cannot legally pursue and sending them to jobs from which they are barred.
- **Lesson Two: Tackling the Conviction Question and Offering Support**—Prepare participants to speak accurately, reassuringly, and as positively as possible when they need to disclose their convictions.
- **Lesson Three: Finding Willing Employers: Market Your Organization as Well as the Job Seeker**—Employers who are hesitant to hire graduates with criminal records may be more open if they can be assured that the youth organizations will stand behind the graduate and be available quickly should problems between the graduate and the employer arise.
- **Lesson Four: Consider Alternative Pathways into the Labor Market**—Permanent employment is the goal, but transitional or temporary jobs can be a first step to steady employment for those returning from prison and who may have scant work experience.
- **Lesson Five: Make Friends with Parole**—Recently incarcerated individuals will enter the program attached to a parole or probation officer. Complying with parole can affect a student's ability to get and keep a job. Get to know parole officers personally, share pertinent information with them, and work together, if possible.

- **Lesson Six: Learn to Navigate the Child Support System**—Noncustodial parents may be reluctant to respond to child support enforcement because of the system's perceived connections to courts, the legal system, or potential incarceration. They may also hesitate to take legitimate jobs knowing that their wages will be withheld to satisfy orders or pay arrearages. The program should support students in confronting their child support concerns and accompanying them to court to help negotiate arrearage repayment terms.
- **Lesson Seven: Take a Close Look in the Mirror**—Staff members may have preconceived ideas or negative attitudes that can affect the type and quality of services they make available to their formerly incarcerated participants. Providing training to discuss the issues that hobble students with a criminal record can both educate and sensitize staff.

Early, Ongoing, Positive Exposure to the World of Work

From the first day of the program, young people should be focused on their economic future and how strategic career development will serve them over their lifetime. A common mistake of youth organizations is to introduce career planning near the end of the program, conduct a few mock interviews, complete resumes, and put students in touch with prospective employers. This last-minute, incomplete treatment of career development doesn't begin to respond to the complexities of today's work world.

Successful youth programs, on the other hand, ensure that young people participate in numerous job shadows, short-term internships or community service, and then a long-term internship, possibly leading to part-time jobs. This early connection to work outside the protected environment of the program enables young people to try out various types of work, practice skills as soon as they are learned, and become familiar with work life. Moreover, the early exposure to the realities of work reinforces the value of the training program and can help attendance and retention.

When a young person is eager to work, is in need of immediate income, or is impatient with a training program, consider placing

the student into an appropriate, well-supervised paid work experience outside the program that satisfies his or her concerns but also reveals the value of the training, counseling, and classroom programs. An early experience of work running concurrently with other program activities can reinforce the importance of the program for the student. For some young people, an early work experience can build a stronger commitment to the overall program once the realities of the work place have been experienced firsthand.

Building a Portfolio of Career Assets

Preparing young people for careers is about building physical, financial, human, and social assets to support their long-term efforts. Career assets can be anything that support finding, keeping, and succeeding in work. It sends a powerful message when students see that all of their achievements within the program—from learning to use a phone book to completing their GED—build a portfolio they can draw on for the career development strategy. Thus, a strong career development program will clearly identify assets necessary for success, will provide numerous opportunities for students to gain assets, will continuously track progress toward goals, and will celebrate achievements to highlight individual gains.

Young people often see their achievements as disconnected, individual events rather than as an interwoven whole, so it is important for the staff to orient students to the idea that their goal is to build a **portfolio of career assets** that can be used later to support further education, training, and work. Young people experience a real sense of accomplishment when they see all their achievements in an ever-expanding portfolio.

Career Asset Portfolios Might Include

- **Self-esteem and self-confidence**
- **GED or diploma**
- **Individual Career Plan**
- **Knowledge, skills, attitudes to support work and school**
- **Contacts with external resources**
- **Mentors**
- **Segal AmeriCorps Education Award, a scholarship, or financial aid**
- **Individual Development Account (IDA)**
- **Savings account**
- **YouthBuild Asset Trust gift**
- **Driver's license and transportation**
- **E-mail account**
- **Hand tools and/or computer**
- **Career credentials**
- **Professional wardrobe**
- **Resume and an interview plan**
- **Peer support**
- **Internship**
- **Job shadow**
- **Leadership training**
- **Communication skills**
- **Positive attitude**
- **Trusted friends**

Industry-Specific Skills Training

Basic education and training in life skills, soft skills, and work readiness competencies make the foundation for any effective career devel-

opment program. With these fundamentals in place, some youth programs, such as YouthBuild, are able to add industry-specific technical training to provide a more comprehensive preparation for careers. If a youth organization has the expertise and capacity to include technical training on an authentic in-program work site, there are great advantages to students. In YouthBuild programs, young people spend half of their time in hands-on, experiential training in the construction trades building affordable housing.

This technical training provides students with an invaluable and authentic introduction to work life and can position them well for careers. A work site that is supervised and managed by the youth program can be a laboratory for young people to experience the realities of work in ways that cannot be taught in a classroom. It imbues a culture of work into the entire program because it places many of the same demands on students that they will experience outside the program, but at the same time provides the support and guidance that young learners need to thrive. Punctuality, productivity, teamwork, safety, problem solving, and planning can be practiced and experienced firsthand on an in-program work site. Meanwhile, the students are learning hard technical skills that can carry them directly into a career following graduation. The construction trades are particularly well suited for in-program work, but YouthBuild programs are also experimenting with health care and information technology training.

YouthBuild's experience has also demonstrated that there are important lessons in experiential technical training for young people not intending to pursue careers in the trades. Many YouthBuild students take their year-long experience building houses and carry the benefits of the training into other careers outside the trades. Increased self-esteem, confidence, stamina, leadership skills, a commitment to service, familiarity with work processes, and a willingness to work hard—cultivated while on the construction site—serve YouthBuild graduates no matter where their career path leads.

Career Pathways

TIP

Make GED or Diploma Completion the Top Priority

No single achievement will affect a young person's economic future more than gaining a secondary school credential. Without it, economic sustainability is virtually impossible. Numerous studies demonstrate that the lack of a GED or diploma vastly undercuts a person's ability to succeed in the economy. All young people must understand the importance of completing this cornerstone of their career development strategy.

From YouthBuild's experience, key elements have emerged for a successful in-program work site where technical skills can be effectively taught.

Work as Community Service—Young people are motivated by opportunities to improve the lives of others and are eager to contribute to their communities. Work sites should be structured around activities such as affordable housing, health care, improving low-income neighborhoods, environmental improvements, recycling, services to children and the elderly and other work that provides tangible benefits to the community. Many YouthBuild programs design work sites as community service under the Corporation for National and Community Service's AmeriCorps program, which enables students to gain education awards while in the program.

Expert Instruction—Technical skills training on authentic work sites must be supervised and delivered by qualified experts who know the standards, expectations, and techniques of industry. To provide safe, proper technical training, the youth program must engage with industry experts. This means hiring technical staff such as master trades workers and certified vocational trainers who may have experiences and expectations that are vastly different from the typical youth worker or teacher. Introducing these experts into the organization and creating a multidisciplinary team requires careful staff orientation, supervision, and professional development for each member of the team. With technical experts as part of the team, the youth program can provide training that leads to industry-recognized credentials for students.

Industry Partners—It is essential that, prior to starting technical skills training or in-program work projects, the youth organization establish strong partnerships with relevant industry partners to ensure that the training meets the standards necessary for young people to connect to potential employers. These connections can provide training material, tools, job shadows, internships, workplace mentors, and jobs to young people. Trade unions, for example, are important partners for many YouthBuild programs.

Work Site Management—Youth organizations need to develop the capacity and expertise to properly manage work sites to minimize liability, sustain productivity, provide an effective training environment, and meet industry

expectations. Developing such expertise might require the organization to hire new staff, establish new systems for monitoring and evaluation, and add new specialized facilities. Proper management of the work site will create an authentic experience for young people that prepares them well for their transition from the program into careers.

Compensation—Young people deserve to be paid for work they perform in the program. Modest pay for in-program work can provide students with much needed financial support along with opportunities to learn about money management, taxes, savings, and the rewards of work.

Plan for Post-Program Graduate Supports

After a youth organization has invested so much into its students during the program, it is important that supports be available as graduates establish themselves outside the program. For many graduates, this transition can be so daunting that they risk returning to some of the destructive behaviors with which they entered the training program. The staff should be alert to warning signs such as absences from jobs or college classes; conflicts with employers, teachers, or mentors; and recurring health problems, depression, and discouragement. Successful young people often emerge as a source of support to friends and family members in times of crisis or financial need. The young person's willingness to respond, whether through generosity or duty, can undermine his or her own progress. These situations deserve special attention from program staff.

There is an array of supports that can be made available to graduates. For example, trusted mentors

Career Pathways

TIP

Provide Career Development Support for the Staff

Teachers, counselors, trainers, case managers, and other youth workers will be more effective in preparing, advising, and supporting young people in career development if they themselves are provided with professional development opportunities and career advising. Few youth workers have engaged in the intensive career development planning proposed in this handbook, so it is essential that they both understand the concepts and benefit from this knowledge by having their own strategy for upgrading skills and credentials, income growth, and career advancement.

that build strong relationships with graduates are invaluable. Likewise, peer support through alumni clubs, peer counseling groups, college clubs, and other graduate organizations are essential in helping young people problem solve, strategize, commiserate, and recharge together. Peer support helps graduates to feel the familiarity, camaraderie, safety, and emotional closeness that they may have felt while in the youth program and can go a long way in protecting their mental health during an extremely challenging period in their lives. Case managers, counselors, career advisors, teachers, trainers, and other program staff who have strong bonds with graduates can be important supports, but, unfortunately, they may be busy with their current students. Still, whatever connections they are able to maintain with graduates will be time well spent.

Support services from partner organizations should be identified for graduates. College advising, mental health counseling, social services, child care providers, and other community-based services can be accessed through the partnerships that the program negotiates as part of its career development strategy.

Career Pathways

TIP

Offer Your Program Services to Employers

Employers increasingly are investing professional development dollars in staff positions above the entry level. As a result, many employers struggle to maintain productive entry-level workers and are faced with the same problems that youth programs are specifically designed to address. Youth organizations can offer employers "work-ready" job applicants along with ongoing support services to ensure that their entry-level workers get the support they need to be successful. In negotiating with employers, it is useful to know their recruitment costs because youth programs can often deliver training and support services to young workers for less than an employer's recruitment costs. Such an arrangement could translate into revenue for the program or other supports such as workplace mentors.

Conclusion

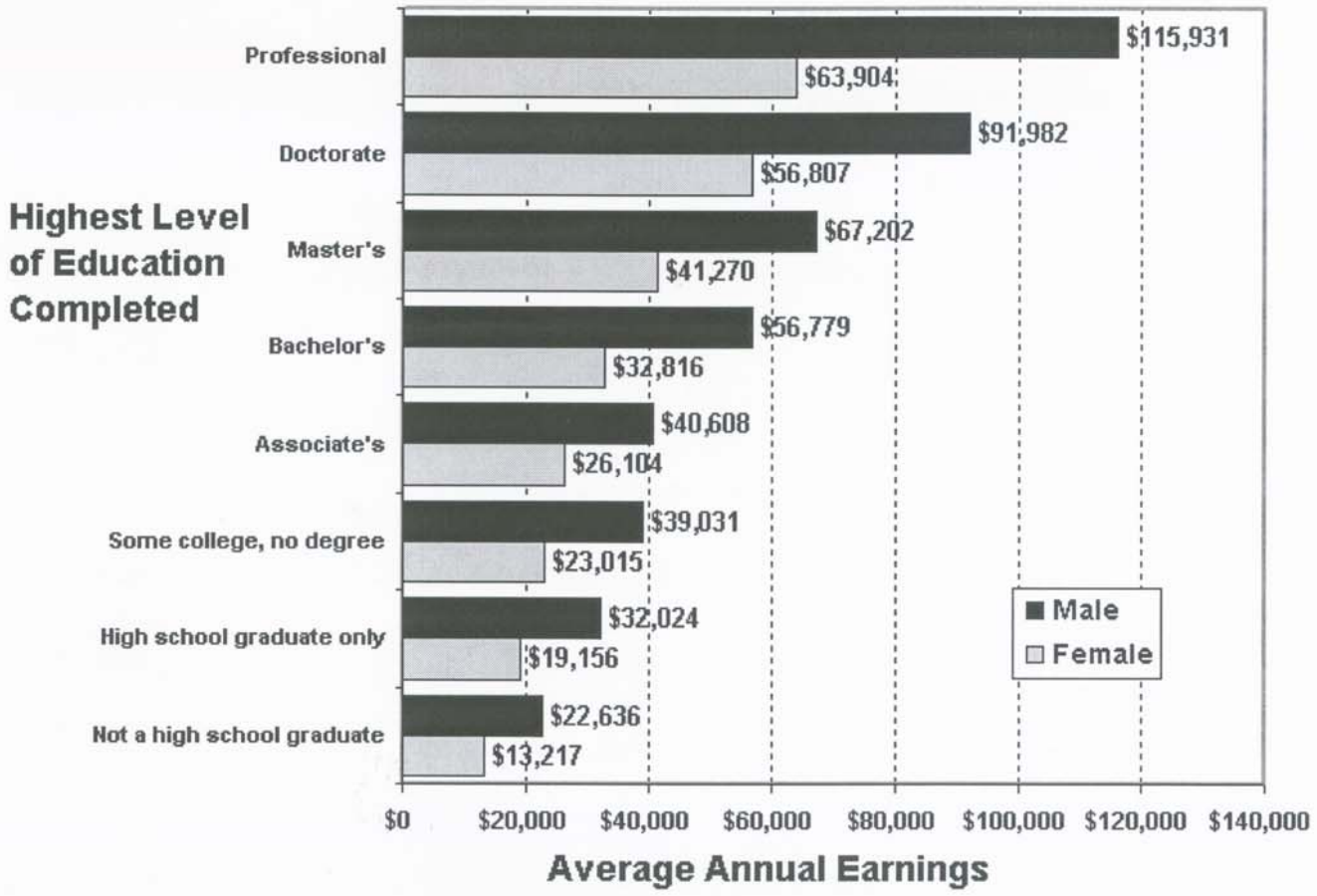
Career development for young people who are at risk of being unemployed or underemployed in their prime working years is critically important to the well-being of our economy and society. With workers aging out of the workforce in historic numbers, developing the economic potential of young people is a generational obligation that, if left unfulfilled, will dangerously undercut society's ability to care for its citizens in the twenty-first century. We simply cannot afford to have one of our most vital resources—capable, committed, hard-working young people—absent from the economic, social, civic, or political processes of our communities.

As a society, we depend on the productivity, creativity, and generosity of our young people, so the responsibility of getting low-skilled youth onto career pathways falls to many organizations in the public, private, and nonprofit sectors. It is not the responsibility of youth organizations and schools alone, and it is not the work of charity. It must be a collective effort that is systematic and strategic. Schools and youth organizations, as advocates for young people, are responsible for building the bridge to opportunity for their graduates by forging partnerships, raising public awareness, informing policy, and managing the processes of preparing young people for work and community life. The private sector also is responsible for building the bridge toward young people by working with youth organizations and public institutions to establish policies, funding mechanisms, training programs, and work opportunities for young people. Public sector institutions must work to sustain a policy atmosphere that supports economic development, workforce development, and education and training for low-income, low-skilled youth.

Fortunately, in today's economy, low-income youth have career opportunities that can lead to long-term economic security and sustainability in meaningful fields of work that do allow them to contribute to their neighborhoods and communities in meaningful ways. But to gain access to these opportunities, and to realize their potential, young people need to gain essential basic knowledge and skills, accompanying credentials, experience, and guidance that adequately prepare them for the demands of the workplace. And, most important, young people need sustained support and encouragement from the adults around them as they seek out their unique place in the economy and society.

Education & Earnings: What's the Link?

Studies repeatedly show that person with the most education report the highest average annual earnings and the latest data from the U.S. Census Bureau confirms this fact. Shown below are averages for men and women by highest level of education completed. Not all persons, of course, who hold advanced degrees report high incomes, and many who left school have high earnings today. But, overall, there is a clear relationship between the amount of schooling and subsequent earnings.



Here are the estimated total lifetime earnings by highest level of education completed:

Not a high school graduate	$766,951
High school graduate	$1,037,759
Some College	$1,267,803
Associate's	$1,331,201
Bachelor's	$1,838,432
Master's	$2,127,947
Doctorate	$3,105,793
Professional	$4,015,613

Source: US Census Bureau, *Current Population Reports,* P23-210, 2002.

Youthbuild Innovations

Creative and Effective Practices from Youthbuild Programs

March 2009 Issue 33

LA CAUSA YouthBuild focuses on asset-based thinking and community partnerships and establishes a consistent track record for post-program placement

Topic areas: career development, leadership development, partnerships, sustainability

"We can hold people accountable because we understand the community issues. The students identify with us and see they can be competitive without changing who they are."
-- Miguel Rodriguez, associate director, LA CAUSA YouthBuild

Editor's note:
The placement of Youthbuild graduates into work, postsecondary education, or additional technical training programs is one of the most important outcomes for local programs. A good graduate-placement record helps ensure the financial stability of the program more since directors can point to tangible results that attract additional public and private investment and, more importantly, obviously benefits the young adults who come to our doors in search of opportunities.

In this article, we feature LA CAUSA YouthBuild in Los Angeles, California. Over the past three years, they have a consistently good track record for placing graduates. The program's three-year average for placement of completers is in the "excellent" category of the YouthBuild USA Affiliated Network Program Performance Standards. The average placement of all students (including non-completers) has also steadily increased over this same period. LA CAUSA YouthBuild describes the secret to their success as a combination of a preparation strategy centered on asset-based thinking and intensive exposure to career options. The program also cites their partnerships with higher education institutions such as the Los Angeles Trade and Technical College.

LA CAUSA's example promotes the idea that encouraging young adults to address historic injustices can positively influence career aspirations and success. Their approach does not ignore the diversity for the sake of efficiently moving their students into the mainstream economy. Rather, it is based on informing students about injustices and encouraging them to recognize their own strengths and the history of their community.
It also cultivates a renewed sense of purpose as the students of LA CAUSA YouthBuild pursue future opportunities for themselves, their families, and the community of East Los Angeles.

Further evidence of LA CAUSA's success is the fact that 40% of their current staff are former YouthBuild graduates who have come back to work at LA CAUSA YouthBuild after a combination of work and educational experiences outside the program.

We had the opportunity to talk to the current staff at LA CAUSA YouthBuild, including Robert Zardeneta, executive director; Miguel Rodriguez, associate director; Rogelio Medina, career developer; and Frank Alvarez, AmeriCorps coordinator. We also spoke with Alejandro Covarrubias, the former executive director of LA CAUSA and now director of graduate and leadership development at YouthBuild USA. Special thanks to Madeline Esposito for researching this article.

To find out more about LA CAUSA's approach contact Robert Zardeneta, the Executive Director,at Robert@lacausainc.org

If you have any comments or ideas for future *Innovations* articles, please contact us at kbank@youthbuild.org

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Program Background
Los Angeles Communities Advocating for Unity, Social Justice, and Action (LA CAUSA) YouthBuild opened in 2003 with the mission of engaging historically disenfranchised young people and their families in the struggle to identify and take action against the injustices that adversely impact low-

income communities of color. Founded by residents living in East Los Angeles, LA CAUSA YouthBuild is dedicated to social justice and higher education for its participants.

LA CAUSA implemented its first Youthbuild project with a $400,000 award from the U.S. Department of Housing and Urban Development (HUD) as a project of Public Allies in Los Angeles in 2003. LA CAUSA was awarded HUD grants in 2004, 2005, and 2006. Most recently, LA CAUSA received a Youthbuild grant from the U.S. Department of Labor (DOL) in 2007. LA CAUSA has also participated in initiatives supported by pass-through grants via YouthBuild USA including the National Direct AmeriCorps program, funded by the Corporation for National and Service; the National Schools Initiative (NSI) sponsored by the Bill & Melinda Gates Foundation; the YouthBuild Green Fellows program, supported by the Wal-Mart Foundation; and the YouthBuild Youthful Offender Project supported by DOL. LA CAUSA has been granting high school diplomas under the John Muir Charter School from 2004 to 2007 and in 2008 under the umbrella of the YouthBuild Charter Schools of California.

The staff at LA CAUSA reflect the ethnic and cultural diversity of their students. Sixty to 75 percent of the staff are Chicano. Most grew up and still live in East Los Angeles. LA CAUSA YouthBuild currently has 47 students, all of whom have the opportunity to obtain a GED or a high school diploma prior to graduating. This article details how they accomplished their placement outcomes through philosophical theory supported by program practices.

Program culture inspires asset-based thinking

"It's a different way of looking at young people--society doesn't look at young people as assets. But our students have excellent ideas and resources they bring into the community," said Miguel Rodriguez, associate director of LA CAUSA. Robert Zardeneta, executive director, said, "Part of our mission statement is to empower young people to become agents of change in their community".

Critical Pedagogy

Asset-based thinking has its roots in a teaching philosophy known as "critical pedagogy," which focuses on raising each student's awareness about the

existence of historic structural inequalities and relating these to students' life experiences. Adherents of critical pedagogy believe that increasing student awareness about these inequities can prepare them to be active, critical risk-taking citizens.[1]

Asset-based thinking challenges students to critically address breakdowns

According to former executive director, Alejandro Covarrubias, LA CAUSA YouthBuild's activities encourage students to think critically about their own experiences and what they can contribute to the program and their community in light of these experiences. "When you ask students why they dropped out of school, they will say 'I f_ _ _ed up,' as if something is wrong with them. Our society promotes this message and our students then internalize it. We teach them to be conscious of this way of thinking, which is called 'deficit thinking.'"

To counter deficit thinking, LA CAUSA staff encourage students to think critically about the types of messages that many institutions such as the Los Angeles public school system and society as a whole have traditionally reinforced. "Why is it that our students come out of a school system that has outdated resources and where many of the teachers are poorly trained? The system has reinforced the false notion that these young people simply by virtue of being poor are not worthy of the investment," Covarrubias observed. "Part of LA CAUSA's work is to bring students to this awareness. An asset-based approach assumes that a student is aware of his surroundings and has something to contribute to correct the issues in the program and in the community. We ask each student to adopt an asset-based approach to life. We ask them to internalize this thinking. When you think something is wrong with you, it limits what is possible. But when you see how society creates inequity, then you can start to address the breakdowns in your life," Covarrubias explained.

Rodriguez added that deficit thinking can lurk behind seemingly positive sentiments, "LA CAUSA staff often challenge students and graduates say when they say things like 'Youthbuild saved my life'. We discourage this way of thinking and speaking. Students save their own lives."

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[1] Giruoux, Henry A. *Teachers as Intellectuals: Toward a Critical Pedagogy of Learning*, Bergin and Garvey: New York, Westport, Connecticut, London, 1988.

Zardeneta presented his view on the asset-based approach in terms of career development, "We have to give students career tools to become self-sustaining. Simply keeping our youth alive and placing them in a program is not enough and it sends a bad message. Enrollment is just the first step. We care about economic sustainability. We are about training people for careers. People that have careers have opportunities to facilitate other people's careers. Getting someone a job just to meet outcomes isn't enough."

Program practices promote asset-based thinking

Community circles provide space for students to tell their own stories and build community

The community circle is an activity that LA CAUSA staff use to bring out issues that students are dealing with. Take for example, the issue of young men not being allowed to see their own children. This is an appropriate topic for the community circle. The circle usually lasts 15 to 30 minutes. "It connects them to real life. We create a space where young people feel safe and supported," said Frank Alvarez, AmeriCorps coordinator and a graduate of LA CAUSA. Staff allow students to express themselves freely while actively encouraging students to express their underlying assumptions, expectations, and perspectives. Staff try to steer the conversation toward using each experience to promote community and they challenge students when they are clearly engaged in self-destructive behavior or thought. The program staff learns what each student needs on a daily basis and integrates this information into the work during the day.

Culturally relevant curriculum validates student experiences

A large part of the educational curriculum at LA CAUSA is culturally relevant. The curriculum is designed to facilitate understanding about the nature of community problems and to promote accountability. The curriculum includes reading culturally relevant books and developing service learning projects that address issue the students care about.

The curriculum includes readings from *The Autobiography of Malcolm X* and *House on Mango Street*, a coming-of-age novel by Chicana writer Sandra Cisneros. The first step is to get students to easily identify with the authors. Making these works culturally relevant entails revealing how these stories relate to the lives, histories, and backgrounds of the students.

Zardeneta talked about the power of these books to illustrate that the LA CAUSA students aren't alone in their struggles. "It's exciting for our students to be able to recognize similar cultural experiences in the assigned text that can be as complex as race and classification themes in Othello, or as simple as identifying with the "smell of warm tortillas" in Cisneros's book. The books help young people fit themselves into a larger world puzzle," Zardeneta continued, "Lots of youth are going through the same experiences. Malcolm X was an intelligent high-achieving student who was told at a young age that he couldn't be a lawyer and that he should focus on another trade. The young people identify with this. Malcolm X was incarcerated. Young people can relate to the books we choose and it tells their stories too. It is not just about ethnicity, but also youth culture."

"Often the ideas expressed in class show up in the community circles each morning. For example in The *House on Mango Street*, the author writes about a young Latina and the challenges she faces, such as living in a packed home or moving from one home to another. When our students read the book, they see they're not alone. Our community circles are guided by community events or personal issues, so often what is exposed in an academic setting shows up in our morning community circle, because it's present and on our student's minds," added Alvarez.

Service learning extends curriculum and promotes accountability
Service-learning programs are another way to encourage students to develop a social justice conscience and learn that they can be agents of change, repairing the very issues that they complain about. LA CAUSA students learn about local and global social-change history to set a context for their own organizing work. They learn about the rich history of community organizing in East Lost Angeles.

LA CAUSA invites leaders of these community movements to speak to the students, and the students learn what LA CAUSA is doing is in the same light.

<u>Community leadership projects promote personal accountability</u>

The Presente Program is one of LA CAUSA's community leadership projects. Partnering with the Los Angeles Youth Opportunities Program, they work with Roosevelt High School, the second largest school in the country with over 5,000 students. This project began because students wanted to understand why high school drop-out rates are so high. Twelve LA CAUSA students designed workshops to critically analyze the situation and understand what school systems can do to address issues associated with poor student attendance. (In Mexico, when a teacher does roll call, students respond "presente")

Zardeneta said, "Our students recognized the need to do their due diligence when preparing their informational workshops because being a credible resource to their peers in high school was paramount. This is accountability".

Another community leadership project is College Application Readiness Training (CART), in which youth organize themselves to set up college resource centers in partnership with a local charter school.

Accountability is a two-way street

Coaching students based on the goals they set for themselves

LA CAUSA staff members believe that students are fully capable of making good decisions, and students are encouraged to create their own goals. Staff members establish coaching relationships with students to support them in achieving these goals. Coaches hold students accountable to their goals and challenge them when necessary. They also provide feedback to students when their behavior doesn't support their goals, which reinforces asset-based thinking. "Students are partners in change. They are not recipients of services," Covarrubias said.

Students hold the program accountable

Sometimes, LA CAUSA's emphasis on accountability can have unexpected results for the program.

Three years ago, three young people were expelled because they were using drugs. The other students organized a walk out because they were uncomfortable with the program's decision. The students were out for two days and gave the staff a list of demands. Rodriguez said "This is exactly what we're teaching them--to be agents of change, practice accountability,

and hold others around them accountable. As staff, we were uncomfortable with their protest and yet this is what we're teaching them!"

The staff negotiated with five student leaders. They discussed their demands with the student leaders and agreed to let the three students stay in the program if they met a three to four step rigorous process. Ultimately two of the three students successfully graduated from the program.

Accountability and cultural relevancy also influence the students' visions of their futures. This is part of what LA CAUSA staff mean when they talk about being accountable to the students, their program philosophy, and methodology of cultural relevancy. Because of the books on their reading list, classroom structure, field trips, and the community leadership projects, students are inspired to start thinking about going to college. Rodriguez described what this looks like in real terms. "The way we set up a classroom isn't traditional. We don't sit in rows; we sit in a circle. We have everyone communicate with each other and face each other. The teacher isn't the only teacher. That's an asset-based approach--everyone brings knowledge and the teacher facilitates the learning process. We take young people to colleges and universities and they participate in college classroom discussions. At these discussion sessions, they see that it's not different from what is done at LA CAUSA."

Zardeneta said, "The classroom feels like college. In high school there's a teacher and students taking notes. At LA CAUSA, the students have a rapport with the teacher. They talk and analyze the text and topics as equals. Our young people are like adults in the classroom. They would feel more uncomfortable going back to a high school class than onto a college class at this point."

Rodriguez adds how LA CAUSA's asset-based approach promotes community connections and a strong sense of identity among the students there. "You will always find someone in East L.A. who knows someone who knows one of us. We have a strong brand and we can hold people accountable. We understand the community issues. The students identify with us and they see they can be competitive in the world without changing who they are."

Internships with nonprofits set the stage for post-program placements

LA CAUSA has an internship program in which potential employer partners, including neighborhood nonprofits, get 200 hours of free work from Youthbuild students in return for participating in an internship program with LA CAUSA.

New students learn to network by visiting local nonprofits

One of the requirements for students completing mental toughness orientation is to conduct interviews with staff representatives from two organizations where they can perform community service. This is often the students' first steps in creating their own social networks.

LA CAUSA students are expected to talk about their aspirations with community leaders and make connections with people who can provide support for future opportunities. "There's a significant difference between a high school graduate who doesn't know how to network and our graduates. Our young people know executive directors of other programs and organizations. They have connections and put high-level administrator names on their resumes. They know who to call and ask for connections when they need them," Zardeneta explained.

Community leadership projects set the stage for internship experiences

In the community leadership projects on Fridays, they are in groups at non-profits doing meaningful work. These projects also serve as internships for the students. "They don't clean windows," asserts Alvarez.

LA CAUSA students are exposed to all organizations that impact their immediate community. They get valuable work experience and mentoring from staff at these organizations that often leads to career placements. A living example of this is the program's current AmeriCorps coordinator Frank Alvarez.

The program staff meet regularly with the staff of each nonprofit where students are place. This ensures that problems or issues can be addressed quickly.

Internships teach additional essential skills

Learning how to leave a work situation

One skill that LA CAUSA students are taught is leaving a work situation in which they're not happy. Rodriguez explained, "We tell the students that they shouldn't kid themselves, if something doesn't work. They are young enough to move on and they are old enough to be critical about what works for them and what doesn't. We tell students not to get a job just for the sake of having a job. Students should be comfortable at the organization where they work. If they're going to move on, they should do so professionally so that they can use the experience on their resumes."

Learning how to organize large-scale events
Organizing large events also helps students learn valuable leadership and organizing skills. LA CAUSA YouthBuild is now known for running one of the largest Martin Luther King service days in the city. "Our students set up huge events that get media coverage and publicity. It's a key leadership and career tool to learn how to organize large-scale events. Our students are in positions throughout the year where they are advising executive directors and other leaders of nonprofits on how to do this kind of service work," Zardeneta explained.

Approach to career development focused on postsecondary education
Career development at LA CAUSA is grounded in the idea that students must have some type of postsecondary education in order to be successful. "It doesn't matter what we're talking about in the career development classes--it all ties back to the student's next step of going to college. In order to have a career you're going to need advanced training," reports Rogelio Media, LA CAUSA's career development coordinator.

LA CAUSA staff also expose students to apprenticeship programs. Media is focused on developing partnerships for internships and on engaging students in thinking about their career strategy over the long-term.

From the beginning, each student develops an individualized learning plan with their case manager and the career coordinator. The career coordinator places students in internships that track to their career interests.

Media's position is funded by a mix of U.S. Department of Labor and U.S. Department of Housing and Urban Development funds.

Because of the social justice perspective embedded in the Youthbuild curriculum, a number of students end up working in the nonprofit sector. Other students have gone on to college or other technical training. Alvarez discussed some of the ways the interests of individual students are taken into account. "One student is at Pasadena College taking art classes. Another student is at East Los Angeles Community College training to be a firefighter. One student wanted to become a truck driver. He now has his license and he and his father work together. We have also set up connections with Public Allies and City Year, two national service programs."

Students receive college credit for leadership development

LA CAUSA has a partnership with Los Angeles Trade and Technical College (LATTC). In this partnership, LA CAUSA staff are considered college professors and all students are co-enrolled at the community college. The leadership training counts towards a community college degree in community planning and economic development. LA CAUSA YouthBuild created its own major. Staff teach courses such as *Introduction to Popular Education and Community Organizing* and *Strategic Media Practices.*

At the end of the latest program cycle, all LA CAUSA graduates left Youthbuild with four to seven community college credits. All were exposed to construction training and courses in the community planning track at LATTC.

AmeriCorps Education Awards help with community college tuition

Because of the emphasis on community leadership projects, there are a number of opportunities for students to earn AmeriCorps Education Awards. As mentioned earlier, Alvarez is a LA CAUSA alumnus and the current AmeriCorps coordinator. He has worked to strengthen and improve the AmeriCorps leadership component and he is currently working on improving community relationships through community leadership projects.

"Last year, we also had an attendance project and instituted a lot of extra service opportunities to make sure that students get enough service hours," Alvarez explained, "Eighteen hundred dollars from the education award goes a long way at LATTC, the local community college."

Media talks about accessing postsecondary education all the time since it's critical to further career development. These discussions inevitably lead to conversations about how to pay for college and other training opportunities.

Ensuring that graduates can access awards is a priority
Alvarez is currently gathering statistics on how many graduates have used or are using their awards from previous years. A key step each student takes before graduating and leaving YouthBuild is creating an AmeriCorps account. "This way they know how to access their award," said Alvarez. He keeps their password on file so they can always easily access their AmeriCorps Education Awards.

Challenges of implementing this approach
The biggest challenge is responding to real-life situations. Zardeneta and Rodriguez discussed the challenging issues they face.

Teen pregnancy is an issue within many YouthBuild programs. LA CAUSA committed to making sure that the pregnant women in their program have meaningful career experiences, so they have developed several work opportunities for them. During one cycle, they developed a relationship with a paint provider using non-toxic paint and created paint crews and interior design crews. They also taught wallpaper installation.

Troubled gang bangers. LA CAUSA intentionally recruits youth in neighborhoods where gangs are prevalent. They recruit during the summer and specifically choose neighborhoods where there are simmering gang issues, which they deal with in a myriad of ways. "First, we tell people YouthBuild is a place for transformation. You can transform who you are now to be who you want to be. If you're from a neighborhood where you're still messing around, then you will need to decide which way you want to go," Rodriguez explained.

They also reinforce that LA CAUSA and the surrounding neighborhood is a place of positivity and that no one is allowed to come around and mess with students in the program. Staff admit that sometimes people come to try to create problems and insist that if students know about gangbanging behavior they alert the staff so the staff can handle it.

The staff talk to the active gang members directly. They talk to them just like they would talk to business owners. It's important to recognize gangs as a part of the community and communicate with them with the same respect as any other community stakeholder. Because of LA CAUSA's roots in the neighborhood older gang members respect the boundaries of LA CAUSA. They in turn can intervene with younger gang members that have issues with youth in the program. "Because we grew up in the neighborhood, we are only a few degrees of separation away from anyone in the community; we know people that know people. We have relationships with the veteran gang members in the neighborhood, so we reach out to them directly. Growing up in the area affords staff the opportunity to do this. " said Zardeneta.

Criminalizing youth is an issue LA CAUSA faces all the time. "It's a big issue. Our youth get pulled over a lot more than other youth. We teach them how to deal with this. We try to limit the number of times cops drive around the program neighborhood, because the cops will stop the youth a lot, which of course infuriates them. When youth do get stopped, the staff try to be there to intervene, but they also are training youth to be facilitators, so they can learn how to talk to police. All students rehearse elevator speeches about who they are and what they are doing. This makes a big difference when interacting with law enforcement officials," reports Rodriguez.

Drug and alcohol addiction is another issue in the LA CAUSA community. The program has handled this by partnering with Management Solutions, a for-profit drug and anger management and family counseling program. This is an important partnership, because they understand the asset-based approach that LA CAUSA promotes. Youth on drug contracts can't do construction so they earn their community service hours at Management Solutions. Students on a drug contract spend time filing, bookkeeping, and doing administrative work.

The staff at Management Solutions trust LA CAUSA students to do paperwork and set up for events, among other jobs. Drug contracts are usually one to two months long. They have one month to get clean. A lot of young people in the program struggle with anger management and substance abuse issues, so they go to Management Solutions for counseling. Although Management Solutions works well with LA CAUSA students, but LA CAUSA finds that sending students outside the program is tough on the students.

For this reason LA CAUSA is considering staff training to include drug- and alcohol-addiction issues.

"Our staff is very creative. We're not chained to our structure. Our youth change and we change with them. We change the model and one cycle may work one way and the next cycle is different depending on who's there," Zardeneta explained.

Alumni staff model success

Eight members of the LA CAUSA staff are Youthbuild graduates. Six are from LA CAUSA and two are from other Youthbuild programs. Six were doing other work before coming back to Youthbuild as staff, including three graduates who worked at for-profit companies. One common theme the graduates on staff talked about was the distance from current participants and professionalism they gained from being away from the program for a period of time, before they returned as staff.

Ricky Martinez graduated from Youthbuild in 2005. He worked in the construction field and when an opportunity came up to be a part of the green building team at LA CAUSA he applied. The experience in the field helped him come back to LA CAUSA and create the distance between him as a student and him as a staff member. The green building team members are second-year AmeriCorps members.

Wilfredo Lara, also a 2005 graduate, applied for a construction trainer position. The time away from the program helped him get the distance from students he needed to be known as staff and not one of the students.

Alfredo Ortega, the alumni coordinator, graduated in 2004 in the first program cycle. This makes a huge difference since graduates from other years often know someone from the first year. This makes finding and maintaining relationships with graduates a bit easier. He left the program for six months, worked at Sears, and then he returned as the alumni coordinator. Alfredo said, "One thing that made a difference is when I left LA CAUSA I was seeing how my life was changing. I knew there was something more in me than working at Sears, but I didn't know what form it would take." When he heard about the alumni coordinator position, he knew that was what he should be doing.

Bea Sweet is case manager. She worked at CCEO YouthBuild where she graduated and at Venice YouthBuild (California) prior to coming to LA CAUSA.

Edwin Cervantes and Jesus Rosales, who graduated last year, are on staff as volunteer coordinator and member of green building team respectively. They both demonstrated high levels of maturity and leadership when they were in the program.

Frank Alvarez graduated in 2004. He worked in the nonprofit field. He established a track record of his own, coordinating and running programs. "I led an upstart program for youth. Understanding the different aspects of running a non-profit was essential for me returning to Youthbuild. LA CAUSA needed someone to step in and do the job. I didn't need to be trained. I was familiar with the organization, understood the position, and I had the experience. I had worked with LA CAUSA when I was at Public Allies since I had to do a weekly leadership program in different Los Angeles neighborhoods. I worked with the person who was in the position here before me. I supervised AmeriCorps members in other contexts, so it was a perfect fit. I had to understand service learning and volunteer engagement, all of which I had done both at Youthbuild, but certainly in my other work before returning to LA CAUSA." Frank plans to further his career by starting a community development corporation in northeast Los Angeles. He's working on his associate's degree and takes college courses every semester.

<u>Advice to other programs</u>

We asked the LA CAUSA staff what advice they would give other programs to generate the kind of results that LA CAUSA gets. Their responses:

1. *Get to know the skill sets of the young people you're working with*. What are your students good at? What do they enjoy doing? Find ways for them to do the things they love.
2. *Avoid the "job conversation".* LA CAUSA doesn't use the term "job readiness" or "getting a job." They talk about career development. As Rodriguez said, "We don't take them to random jobs. We explore career opportunities that are in line with their professional aspirations."
3. *Create an atmosphere for success and community building*. Don't think about the program's outcomes as grant deliverables. If you do, you may

lose the essence of what you're about and how you're supposed to guide and mentor your students.

4. *Develop and maintain as many relationships with potential employers as possible.* This makes it a lot easier to place students in career positions that interest them and it enables them to weather the storms when they don't do well at particular career placements.
5. *Teach social networking skills*, so that Youthbuild graduates can look for work on their own after they leave the program. "The students that don't learn these invaluable skills return over and over again to our program for help in finding work and other life issues they face. We have a handful of students who don't know how to access resources outside."
6. *Be firm*. Don't be scared to say "no" to a young person in the program. Students need to learn how to solve problems on their own and if they do they will be better prepared for life outside Youthbuild. This is key to the transformation of young people. Rodriguez recalled a story of one youth who graduated a while back. He had gotten a job and called wanting to get driven to work, because he had been driven there for his interview when he was in the program. The student was upset, because he wasn't given a ride to get work. He thought the program should provide this service for him.
7. *Establish and enforce a drug policy*. LA CAUSA asks themselves annually "are we effective and does it represent who we are?" Every summer the staff works together and debates whether their drug policy is fair and they sometimes change it. It's a big discussion with staff and they are honest with students about the process. They answer to the students when young people call the staff out about the harsh drug policies. In the current cycle, they are upholding a zero tolerance drug policy. So far they've lost five students out of 70. They do baseline line testing at the beginning, one to two months later and, randomly after that. They teach students to help each other to get off behavior or drug contracts. They tell students that staff have had the same issues in the past. They are open about how hard it is to stay off drugs when others around them are using. Even when they're successful at being drug free, it's tough. The program doesn't have capacity to deal with major substance abuse issues, yet they understand how big of an issue it is for a youth to come forward admitting drug addiction. Because of this dilemma, LA CAUSA is looking into developing a more comprehensive approach to successfully address these issues.

8. *Ensure that young people have space and opportunity to express themselves*. Genuine opportunities for leadership are essential. Maintaining a strong voice where they can affect decisions and influence staff.
9. *Engage youth in creating and leading service opportunities, not just attending them*. The community leadership projects are about students creating resources and training other youth to access higher education. Other youth are working with kindergarteners and teaching them leadership skills about the environment.
10. *Track student program goals to their interests and aspirations*. "The success of the program is centered on what each member's interests are," Media said. Every staff member is connected to placement. When every staffer becomes involved in placement it makes a difference to the member and the partnering agencies. Every staff member has professional networks, which become a big umbrella of resources for our members. "We know people all over, but we also need to maintain relationships with specific individuals at organizations like Job Corps because then it allows our graduates the opportunity to get to the next step in their career."
11. *Emphasize career development and postsecondary education*. Media trains students to invest in themselves. He talked about how some young people would die for the chance to get a loan for a car over getting a student loan. Youthbuild students don't do that, he said. "Investing in ourselves is one philosophy we follow. Learning through internships is an investment in the self. Educational development is an investment in the self. This is a philosophy we promote from day one."

Other Resources from YouthBuild USA

The following materials are available through the YouthBuild USA knowledge bank at www.youthbuild.org

New! ***Opening Career Pathways for Young People: Workforce Development Strategies for Youthbuild programs, Charter Schools,and other Youth Organizations.*** Written by YouthBuild USA under a Technical Assistance Cooperative Agreement with the U.S. Department of Housing and Urban Development. This is available free-of-charge to all HUD-funded grantees.

Rural Youthbuild Fayette County establishes job placement outcomes through pride and partnerships. In **Youthbuild Innovations,** Issue 32

YouthBuild Newark establishes connections with New Jersey Juvenile Justice Commission to support career development efforts and reduce recidivism. In ***Youthbuild Innovations***, Issue 31.

YouthBuild Providence increases educational attainment combines careful selection with enriched educational environment. In ***Youthbuild Innovations***, Issue 28. *Free to download.*

YouthBuild USA Career Development Curricula Review. Written by YouthBuild USA though funding by The Rockefeller Foundation. This is available to order by calling Marcus Johnson-Smith at YouthBuild USA at (617) 741-1200. It costs $6.00.

YouthBuild USA Guide to Expanding Opportunities in Trade Unions. Written by YouthBuild USA through funding by The Rockefeller Foundation. This is available to order by calling Marcus Johnson-Smith at YouthBuild USA at (617) 741-1200. It costs $6.00.

YOUTHBUILD TIPS
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Successful Job Placement of Youthbuild Graduates

Editor's note

Job placement and retention, combined with GED attainment, is an essential benchmark for career development. Placing Youthbuild graduates into jobs is an important first test of a Youthbuild program's effectiveness. Research indicates that early experience with work is a good predictor of future success. Jobs after Youthbuild provide graduates additional real-world work experience that builds their resumes. The jobs can be relatively short-term and are intended simply to support graduates as they prepare for the next steps in their career strategies. Given the turbulent nature of today's economy it is unrealistic to expect young people to stay at their first jobs for a long time. We should expect graduates to use every job to establish an income, build a resume, acquire good references, and use the experiences as springboards for other opportunities. As graduates move up and along their own career paths, we want them to increase their viability in the marketplace.

YouthBuild USA has also found that the development of career-related basic skills is vital in achieving good job placement outcomes. A basic-skills curriculum should include soft skills, as well as technical skills that provide an introduction to at least one specific industry. Though it is not necessary for most Youthbuild programs to provide intensive technical skills training because much of this training can be gained later by way of postsecondary education, union apprenticeships, or employer-sponsored training, an introduction to industry-specific technical skills, plus experiential training, is an important part of finding and keeping a first job.

Youthbuild programs that are most successful in creating placement opportunities for their graduates have clear visions of these outcomes and an understanding of the technical and personal skills graduates need to succeed in them. These visions influence program design. Designing for success ensures that graduates are prepared to find and hold jobs.

In this issue of *Youthbuild Tips* we look at four Youthbuild programs and their strategies and approaches to ensure successful job placements for their graduates.

Please send any comments, questions, or observations about this or other *Youthbuild Tips* to kbank@Youthbuild.org

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From the Field

Youthbuild programs with the greatest success in job placement outcomes share common practices that include aligning a comprehensive career development strategy with the curriculum, acquiring a strong knowledge of local employment needs, and maintaining supportive

partnerships with community agencies. All of these programs connect their students to potential employers during training, focusing on local market needs and demands and ensuring trainees are well-prepared to meet those needs. To meet specialized market demands, some Youthbuild programs have created highly specialized training programs, for example YouthBuild Boston's and YouthBuild Brockton's green building construction techniques

Best Practices in Fayette County, Ohio

With a small staff, CAC Fayette County YouthBuild (sponsored by The Community Action Commission of Fayette County, Washington Court House, Ohio) must maximize the benefits of their strong existing partnerships to accomplish formal job placement and follow-up with graduates. Through the program's partnership with their local One-Stop Career Center, Fayette County YouthBuild students receive a wide range of placement and readiness services including Meyers-Briggs and other personality and work-compatibility assessments, one-on-one career counseling, and a job placement assessment program that matches students with available jobs in surrounding communities.

Fayette County YouthBuild students also receive job placement support through a local staffing agency, Remedy Intelligent Staffing, which assists in placing graduates with jobs in local manufacturing and retail firms. While this Remedy Intelligent Staffing is a for-profit organization, interest in Youthbuild has led them to build a strong and beneficial partnership with Fayette County YouthBuild, and the company has become an important recruitment resource for the program.

Students receive ongoing job readiness training as part of the partnerships with Remedy Intelligent Staffing and the One-Stop Career Center. Students learn how to fill out job applications and find out what employers are looking for in potential employees.

Once students have attained leadership competencies, life skills, and GEDs, they are placed by Remedy Intelligent Staffing for one month. During this period, each student reports to a job coach, a Remedy staff member who mediates any problems between the temporary employer and the student. This arrangement gives students additional work experience before they move on to full-time jobs.

Among the factors for a successful placement is student interest. Remedy provides an in-depth assessment process that determines the best kinds of work and preferred environments for each student. Agency staff spends time with the students to learn about their interests and communicates with Youthbuild staff to find the best fit for each student based on these interests.

Best Practices in Louisville, Kentucky

YouthBuild Louisville, sponsored by Young Adult Development in Action, Louisville, Kentucky, has developed a rigorous program that prepares students for the world of work and careers. YouthBuild Louisville uses the ethic of service and access to construction jobs as just two elements of a much broader approach. Starting with the idea that graduates should be directly connected to future success, YouthBuild Louisville has implemented a comprehensive career development strategy focused on preparing students for their futures. This strategy includes:

- A system of competencies that is driven by the needs of local employers
- A curriculum that encourages students to explore careers as part of the ethic of community service
- A program design that front-loads education to maximize the number of young people who attain GEDs or high school diplomas
- A financial education regimen that provides each students clear financial and educational strategies for advancing in a chosen career area
- A small construction division that provides graduates with immediate work experience with master carpenters

System of competencies
The system of competencies was developed through a series of interviews with potential employers that led to discussions about how these competencies could be taught throughout the YouthBuild program. From these discussions emerged a series of steps that shifted the design of the YouthBuild Louisville program. They focused on a strategy that promoted the relevance of education to work, emphasized postsecondary education, and developed a detailed exit plan for each student. The program even provided an opportunity for a few graduates to work with a construction company sponsored by the program, providing additional relevant work experience.

Career curriculum
YouthBuild Louisville provides its students immediate exposure to their areas of interest by arranging internships and service experiences during the last half of the program cycle and making participation in these experiences a requirement for graduation. Each student involved in internships earns funding for postsecondary education. By participating in the YouthBuild AmeriCorps program, students complete a designated number of hours of community service to receive an AmeriCorps Education Award, which can be used to pay for college or other postsecondary education expenses. While most of these service hours are completed on the construction site, hours in the internship-service experience are also applied toward earning the AmeriCorps Education Award.

Program design
Education is front-loaded in the first three months of the program to ensure that every student has enough time to earn a GED or high school diploma. Their involvement on the construction site begins after their work in the educational component is well underway.

YouthBuild Louisville's entire staff meets with each student individually in the middle of the program cycle to begin setting up an exit plan. The team reviews the student's progress towards achieving work competencies and assesses each student's career interests based on the student's desired community-based internship experiences. The staff team then meets with each student for a conversation that assesses the student's long-term career goals and potential barriers to success in the workplace. The staff develops with each student a career pathway that is tailored to the student's needs. The pathway establishes benchmarks students should achieve at exit and specific markers that they will continue working towards after they leave Youthbuild.

Financial education
After mid-term evaluations, students have one-on-one meetings with a staff member twice a month to map out a specific strategy for their pathways. They focus on personal budgeting and financial management to help them map their expenses and set aside a portion of their earnings for investment in YouthBuild USA's Individual Development Account program. These savings will help them pay for their education, propelling them forward on their chosen career path. The focus on financial management and personal budgeting also helps the students understand how much money they will need to live the life the want.

The program alumni coordinator works with students on resume writing, interview skills, and job placement. The program also helps students with social service issues. YouthBuild Louisville believes that such painstaking details are key to student success over the long term. As YouthBuild Louisville's executive director explains, "Any decision that we make has to have a positive impact on the career prospects of the student. Everything we do has to be filtered through that lens. If all the staff understand the students' goals, and if we are all clear about this, then everyone is working towards the advancement of the students."

Best Practices in New England
To enhance employment opportunities for Youthbuild graduates in New England, YouthBuild Boston, Massachusetts and YouthBuild Brockton (sponsored by Old Colony YMCA, Brockton, Massachusetts) have made green building and energy-efficient construction part of their construction and training curricula. While the majority of contractors providing this kind of expertise are select outfits that market to wealthy homeowners, the demand for green building know-how is on the rise. As YouthBuild Boston's construction trainer explains, "While the cost of green materials and technological systems are nearly the same as conventional materials, there are a limited number of people who actually know how to build with these systems. With global warming and rising energy costs, cities that want to mandate green building will be at a loss because there simply aren't enough skilled installers. We are giving our students this experience, and our graduates are now in demand."

Youthbuild students aren't the only ones taking advantage of this training. YouthBuild Boston works directly with the local carpenters union's apprenticeship training program and its apprentices. The union sends apprentices to YouthBuild Boston to get training in green-building skills; these apprentices work side-by-side with YouthBuild Boston students. This collaboration increases YouthBuild Boston's construction capacity and facilitates personal relationships that often result in opportunities for graduating students. The program is also developing a curriculum in conjunction with the United Brotherhood of Carpenters and Joiners of America's International Training Center in Las Vegas, Nevada.

These specialized programs offer Youthbuild graduates significant income and job growth opportunities. As a YouthBuild Boston staff member observes,"We have graduates making $36,000 a year. They will probably make $100,000 within the next few years. Because of their green building experience, they have an edge in the marketplace."

Best Practices in Los Angeles, California

LA CAUSA YouthBuild in Los Angeles, California has a consistently good track record of placing graduates. A combination of preparation centered on asset-based thinking, intensive student exposure to career options, and a partnership with the Los Angeles Trade and Technical College has led to their success.

Asset-based thinking

Asset-based thinking is based on the teaching philosophy of critical pedagogy. Critical pedagogy focuses on raising each student's awareness about the existence of historic and structural inequalities and encourages students to think critically about their own experiences and what they can contribute to the program and their community in light of these experiences. A large part of LA CAUSA YouthBuild's educational curriculum is rooted in critical pedagogy and designed to promote student accountability.

Exposure to career options

LA CAUSA YouthBuild staff believe that students are fully capable of making good decisions, and students are encouraged to set their own goals. Staff members establish coaching relationships with students to support them towards achieving these goals. Coaches hold students accountable to their goals, and challenge them when necessary.

As part of LA CAUSA's efforts to place students, the staff created internships with local groups. The employers partnering with LA CAUSA YouthBuild get 200 hours of free labor, after which LA CAUSA asks employers to hire students if they did well and followed the company's rules.

Partnership with community college

LA CAUSA YouthBuild has established a strong partnership with Los Angeles Trade and Technical College. Through this partnership, LA CAUSA staff are considered college professors and all students are co-enrolled in the community college. LA CAUSA YouthBuild students earn four to seven community college credits and gain exposure to construction training and courses in the urban planning track of the college.

How They Did It: A Sample of Effective Practices

What each of these best practices have in common is a program well-informed about employment needs in their communities and opportunities for engagement with potential employers as part of the Youthbuild curriculum. While each program responds to the unique needs of its students and marketplace, the following are common and effective practices:

- Align the curriculum's critical workplace competencies required of students with the demands of employers
- Use critical workplace competencies as a working checklist of job-preparation goals and hold staff accountable for helping students achieve every one of them
- Develop and implement a comprehensive career development approach
- Develop internship opportunities for students to participate in during their training.
- Know which community resources are available to tap for support for student job readiness and placement
- Communicate with potential employers to determine market needs.

- Be proactive about training programs that will meet the needs of future markets in the local area
- Develop partnerships with trade unions and apprenticeship training programs to provide potential opportunities for graduating students
- Coach students through their first job to help them understand the role of this job within their broader career development plan
- Advise students on leveraging financial assets like the AmeriCorps Education Awards and Individual Development Accounts (IDAs) to pay for post-secondary and vocational training opportunities.

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organizations providing GED education in a manner consistent with graduate needs.

Higher education information, counseling, and guidance can also be provided. Community resources, college-based assistance for financial aid, and special academic preparation services can be found at schools that graduates want to attend, and cooperative arrangements can be established between those schools and the Youthbuild program. Therefore, when graduates decide to seek postsecondary education opportunities, a support system will be available. For students already attending college, special tutoring or support groups are also appropriate.

Job Placement and Career Counseling

Youthbuild helps graduates obtain and keep a job and helps them choose a career if they are still unsure of what they want to do. This can include job support groups for dealing with the difficulties young people may have on the job; career counseling; counseling about how to keep a job or obtain a new job; maintaining a job listing and database; providing help with resume writing and interviewing skills; goal setting for work and career; and job placement. Most of the above simply continue processes which were begun during the program.

Support Services

Graduate resources should continue to address the personal and emotional issues of the young people. A variety of support services should be offered or referrals should be arranged, including but not limited to:

- Regular peer support groups for parents, fathers who take responsibility for their children, recovering addicts, aspiring entrepreneurs, mothers, or other subgroups
- Individual counseling on emotional issues
- Referrals to helpful outside agencies or people
- Mentorships
- Assistance in accessing legal, health, housing, mortgage loans, or other services
- Assistance in filing taxes

Leadership Development

Leadership opportunities enable graduates to continue "to take responsibility to make things go right for their lives, for their families, for the program, and for the community." These opportunities are often the incentive for following through on other responsibilities. Opportunities might include doing local advocacy for Youthbuild or other community issues; getting involved in community service; serving on a board of directors for Youthbuild or another community agency or serving on a mayoral advisory committee; joining a local political campaign; doing

community organizing around a pressing issue; becoming skilled facilitators in workshops which are then offered to schools and community groups; networking with other local young adult leadership organizations to build alliances and work on joint projects; being "ambassadors" to other youth organizations; and making media appearances. Through this type of activity, the graduates continue a level of civic engagement that strengthens their communities and themselves.

Social Life

A positive social environment helps young adults avoid the problems of a negative life style. Since their jobs are new, graduates are in lonely positions. They need to have regular events with familiar people who are going through similar experiences. Drug- and alcohol-free events can be planned. Bowling, dances, roller skating, beach parties, barbecues, group attendance at concerts, talent shows, and fundraisers are just a few ideas, many of which are being done at local sites.

Small Business Development

The program can provide training, technical assistance, and seed money to graduates who desire to start their own businesses. This is a more ambitious and risky venture that requires its own planning and program development if business success is the goal. There are local resources in most cities and several national training organizations with local affiliates who can give guidance and training. The National Foundation for Teaching Entrepreneurship, or NFTE, located in Washington DC is an excellent resource. (212-232-3333 or email: NFTE@msn.com) The Small Business Administration of the Department of Labor also provides information and assistance on small business development and has field offices in many cities. Check to see if there is a local office near you, and inquire about training services or guest speakers.

Alumni Club

The above activities are led by staff. An alumni club, much like a college alumni group, is organized and led by graduates, with a staff support person. The members decide on its activities, raise most of its own money, and often represent the Youthbuild program in the wider community. For example, they might decide to focus on doing community service, sponsoring social activities as part of the graduate resources program, lending a hand in tutoring incoming Youthbuild students, or organizing a youth conference.

These components work together to provide a context of support for the graduates. For example, if a graduate is involved in continuing GED preparation and is coming to some of the social events, it's likely she will get interested in some of the leadership activities and participate in the alumni club. If young people are coming to a support group, they are more likely to set higher goals for themselves in work and education.

A Vision of Graduate Resources

What follows is a hypothetical vision of a well-developed Youthbuild graduate resources program. It assumes ideal conditions such as adequate funding, a connection to the first-year program, sufficient staffing, a variety of well-conceived and implemented components, commitment from the board, staff, and participants, and a strong connection with the local community.

This vision also assumes that the program has been in operation for at least two years. No Youthbuild program has incorporated all of the elements below. It is intended to create a picture and illustrate what is possible. Your program may not achieve all this, but it is meant to give you some ideas.

A Vision of Graduate Resources at "Youthbuild Anytown"

"Youthbuild Anytown" has been in existence for two-and-a-half years. Currently, there are 35 participants and 54 graduates from the previous two cycles. Six months into the program, the trainees are preparing for what comes after graduation. They were told at the beginning of their orientation that their contact with Youthbuild does not need to end with graduation because there is a second phase of Youthbuild specifically for graduates and that Youthbuild has a slogan, "Once in Youthbuild, always in Youthbuild."

Of the 54 graduates, about 36 regularly participate in graduate activities. The program is deliberately designed to be flexible enough to accommodate graduates at their various levels of time and interest. Before they graduate, all participants are thoroughly and frequently briefed about the opportunities and services of the graduate resources program. After graduation, graduates receive regular mailings about graduate activities and personal phone calls to see how they are doing and to invite them to use the graduate resources program.

Some graduates utilize the graduate education resources. For example, some graduates who did not obtain the GED while in the program come back for regular prep classes. They help each other study and arrange to take the tests on the same day for mutual support. Other graduates have decided to go on to higher education and get help visiting local community colleges or universities and filling out the admissions and financial aid forms. Others have been in college for several months and need tutoring or encouragement. Older college students have been enlisted as volunteers to tutor the Youthbuild graduates. The education component has also built relationships with the local trade schools which are eager to accept serious Youthbuild graduates and help them find financial aid if needed. Occasionally, a course is offered through the graduate resources program taught by a board member, staff, or community person. Graduates have been able to take classes in basic accounting, word processing, and parenting skills.

Since the most important need of most graduates is continued employment, the graduate program puts major emphasis on job resources. There is a job bank, which is a regularly updated list of jobs available. The bank also includes employers who have hired Youthbuild graduates in the past. The graduate program's job developer is available to talk with graduates who lose jobs. In this case, the job developer helps graduates determine why and to see if there are things they can do in the future to avoid a similar situation.

Graduates can use computers to revise their resumes or write cover letters to prospective employers. Graduates can use the program's computers to access Internet job listings. Concurrently, the job developer networks with a wide range of employers to secure commitments for job slots for Youthbuild graduates. The program may also offer training certification courses in lead abatement, asbestos removal, and toxic waste handling.

The graduate program has a small business incubation project. An experienced staff person provides technical assistance, training, and support for graduates who want to start their own businesses. There is a revolving loan fund and a seed money grant pool to provide some start-up capital. So far this project has helped launch three successful businesses: a home daycare business, a floor polishing business, and a house painting company.

Many graduates find the personal counseling and social services essential. A counselor is available to help a graduate through a crisis, act as a sympathetic listener, be an advocate with the welfare or justice system, or assist in finding better housing. The counselor is someone the graduates knew when they were participants, so trust and confidence has already been established.

Some graduates also maintain the support groups which began during the program cycle. There is a support group for young parents, for men, and a 12-step program for graduates recovering from substance abuse. These are mostly peer-led but the counselor adds professional skill by participating in these groups.

There is a graduate mentoring program that has two directions. First, 23 graduates volunteer to mentor and tutor elementary and middle-school aged students. It is very rewarding and is a source of pride for the graduates. Second, 31 graduates have mentors themselves—people in the community who volunteer to assist in graduates' further development, including regular contact, coaching, opening doors of opportunity, and giving feedback and advice. Several of these are members of the National Association of Minority Contractors. The graduate resources program staff match people carefully and have periodic reviews of the mentoring relationships.

Since the majority of the graduates are working full-time or are in college, most of the Youthbuild graduate activities take place in the evenings or on weekends. After trying various staffing patterns over the past several years, "Youthbuild Anytown" determined that an adequate staff and budget were needed for the graduate resources program. This year, there is one full-time graduate resources program coordinator, a job developer, and the part-time services of a GED instructor and a counselor, who also work with current trainees in the program. In addition, there are two graduates hired as interns to help coordinate the graduate program and the alumni club. The budget is $105,000, including staff salaries, a small activities budget, and several thousand dollars available for revolving loans or for grants to support special projects of graduates. This level of funding was built into "Youthbuild Anytown's" funding proposals early last year.

As in the program cycle, the graduate resources program has a policy committee consisting of officers and directors of the alumni club. They meet once a month with the graduate resources program coordinator to hire any new graduate program staff, help resolve

program difficulties, set new directions, and give the coordinator advice and feedback from the other graduates.

Graduates are encouraged to keep developing themselves and their leadership. Innumerable leadership opportunities are made available to graduates through the follow-up program. Two graduates serve on "Youthbuild Anytown's" board of directors. They are called upon to accompany the director on fundraising events, to be spokespersons for Youthbuild at community meetings, to talk to the media, and to recruit and select new participants. They have been guest speakers in the program, tutors, and peer counselors.

There is a graduate alumni club whose activities are graduate-led and are determined by the interests of the members. "Youthbuild Anytown's" alumni club has decided to focus on three things: community involvement, a positive social life, and organizing a community youth conference to set a youth agenda for their community for the next 10 years.

For community involvement, the graduates collected food at Thanksgiving for the local homeless shelter. Three graduates who work at night volunteer in the neighborhood elementary school to help teach reading to second graders.

The alumni club has organized monthly events: several drug and alcohol-free dances, a few barbecues, bowling parties, and a few ball games. It has also organized a Youthbuild basketball team and entered into the city league. The alumni club encourages graduates to socialize with each other to reinforce the positive choices they made during the program year. Such social activities have been an important anchor in the lives of many of the young people.

The alumni club has also organized a youth conference to get other young people and young adults together to define the problems they face in their community and to propose solutions. It took six months to make this happen. About a dozen alumni club members led the project. They called other agencies, spoke at school assemblies, got public service announcements on local radio shows, and spread the word on the street that the conference was happening. They invited the mayor, other public officials, and the media to attend and listen. They got the local cable access TV to tape the event. The conference drew over 200 people. It represented the beginning of a useful discussion of issues facing youth and directions for future actions. The Youthbuild alumni club received tremendous appreciation and thanks for initiating the conference. It provided an important leadership experience for the members.

Overall, the "Youthbuild Anytown" graduate resources program is a center of social activity, learning, and support. Graduates feel the sense of family that they felt while enrolled in Youthbuild: "Once in Youthbuild, always in Youthbuild!" has become a reality. The graduate resources program even provides childcare and transportation for many of the activities to make it easier for graduates who are parents to participate. Graduates believe that "Youthbuild Anytown" is a home base where they can have continuing contact with staff who care about them, be around positive peers, and be inspired by the vision of Youthbuild in the community.

WHAT WORK
REQUIRES
OF SCHOOLS

A SCANS REPORT FOR
AMERICA 2000

THE SECRETARY'S COMMISSION ON ACHIEVING NECESSARY SKILLS
U.S. DEPARTMENT OF LABOR
JUNE 1991

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A LETTER TO
PARENTS, EMPLOYERS, AND EDUCATORS

FROM THE SECRETARY OF LABOR AND THE
SECRETARY'S COMMISSION ON ACHIEVING NECESSARY SKILLS

We, your Secretary of Labor and members of the secretary's Commission on Achieving Necessary Skills (SCANS), write as concerned representatives of the nation's schools, businesses, unions, and government. We have completed our initial examination of changes in the world of work and the implications of those changes for learning.

We understand that schools do more than simply prepare people to make a living. They prepare people to live full lives — to participate in their communities, to raise families, and to enjoy the leisure that is the fruit of their labor. A solid education is its own reward.

This report concerns only one part of that education, the part that involves how schools prepare young people for work. It does not deal with other, equally important, concerns that are also the proper responsibility of our educators. We do not want to be misinterpreted. We are not calling for a narrow work-focused education. Our future demands more.

For most of this century, as this nation took its goods and know-how to the world, America did not have to worry about competition from abroad. At home, the technology of mass production emphasized discipline to the assembly line. Today, the demands on business and workers are different. Firms must meet world class standards and so must workers. Employers seek adaptability and the ability to learn and work in teams.

This change has many implications. We focus on one: more than half of our young people leave school without the knowledge or foundation required to find and hold a good job. Unless all of us work to turn this situation around, these young people, and those who employ them, will pay a very high price. Low skills lead to low wages and low profits. Many of these youth will never be able to earn a decent living. And, in the long run, this will damage severely the quality of life everyone hopes to enjoy. None of us, and none of you, wants to stand by while this happens.

The Commission spent 12 months talking to business owners, to public employers, to the people who manage employees daily, to union officials, and to workers on the line and at their desks. We have talked to them in their stores, shops, government offices, and manufacturing facilities. Their message to us was the same across the country and in every kind of job: good jobs depend on people who can put knowledge to work. New workers must be creative and responsible problem solvers and have the skills and attitudes on which employers can build. Traditional jobs are changing and new jobs are created everyday. High paying but unskilled jobs are disappearing. Employers and employees share the belief that all workplaces must "work smarter."

From these conversations, we have drawn three major conclusions:

All American high school students must develop a new set of competencies and foundation skills if they are to enjoy a productive, full, and satisfying life. Whether they go next to work, apprenticeship, the armed services, or college, all young Americans should leave high school with the know-how they need to make their way in the world. In this document, know-how has two parts: competence and a foundation of skills and personal qualities. Less than one-half of our young people possess

it. This know-how will be important to those who will be developing the World Class Standards for educational performance called for by President Bush in April 1991 when he announced a new education strategy, "AMERICA 2000."

The qualities of high performance that today characterize our most competitive companies must become the standard for the vast majority of our companies, large and small, local and global. By "high performance" we mean work settings relentlessly committed to excellence, product quality, and customer satisfaction. These goals are pursued by combining technology and people in new ways. Decisions must be made closer to the front line and draw upon the abilities of workers to think creatively and solve problems. Above all, these goals depend on people — on managers committed to high performance and to the competence of their workforce and on responsible employees comfortable with technology and complex systems, skilled as members of teams, and with a passion for continuous learning.

The nation's schools must be transformed into high-performance organizations in their own right. Despite a decade of reform efforts, we can demonstrate little improvement in student achievement. We are failing to develop the full academic abilities of most students and utterly failing the majority of poor, disadvantaged, and minority youngsters. By transforming the nation's schools into high-performance organizations, we mean schools relentlessly committed to producing skilled graduates as the norm, not the exception. That, in fact, is the goal of President Bush's education strategy.

But, these convictions remain abstract issues unless you can understand them in the world of your child's education, your business needs, and the standards of your school. This document lays out what these convictions mean in practice, on the job and in the school. Most important, it defines what you must do to protect the future of your child, your business, and the health of American education.

This report identifies five competencies which, in conjunction with a three-part foundation of skills and personal qualities, lie at the heart of job performance today. (See page vii.) These eight areas represent essential preparation for all students, both those going directly to work and those planning further education. All eight must be an integral part of every young person's school life.

Seldom does one of these eight components stand alone in job performance. They are highly integrated, and most tasks require workers to draw on several of them simultaneously. Take an example far removed from the everyday world of work most of us experience: the men and women whose work involved planning and executing Operation Desert Storm had to apply all of the competencies to the problems before them. They did not categorize the problems encountered into five domains of competence and a three-part foundation. Instead, the officers solved problems by bringing their know-how to bear on the situation in the Middle East. The soldiers who executed the orders of the officers had to bring the same kinds of know-how to bear at their level.

On a different front, American manufacturing exports have surged since 1984, driven in part by radical improvements in quality, lower costs, and improved efficiency. Both of these situations demonstrate what hundreds of thousands of Americans can do with solid training. There is every reason to believe that similar success can be duplicated school-by-school, worker-by-worker, and manager-by-manager in the competitive environment that tests the United States today.

The SCANS skills defined in this document carry serious implications for parents, employers, and educators.

Parents must insist that their sons and daughters master this know-how and that their local schools teach it. Unless you do, your children are unlikely to earn a decent living.

If your children cannot learn these skills by the time they leave high school, they face bleak prospects — dead-end work, interrupted only by periods of unemployment, with little chance to climb a career ladder.

WORKPLACE KNOW-HOW

The know-how identified by SCANS is made up of five competencies and a three-part foundation of skills and personal qualities that are needed for solid job performance. These include:

COMPETENCIES—effective workers can productively use:

- **Resources—**allocating time, money, materials, space, and staff;
- **Interpersonal Skills—**working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;
- **Information—**acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;
- **Systems—**understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;
- **Technology—**selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

THE FOUNDATION—competence requires:

- **Basic Skills—**reading, writing, arithmetic and mathematics, speaking, and listening;
- **Thinking Skills—**thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning;
- **Personal Qualities—**individual responsibility, self-esteem, sociability, self-management, and integrity.

Polls indicate that most Americans believe that schools, in general, need improvement. But they also believe the school their child attends is fine. Both conditions cannot be true at the same time. The larger national problem begins in each of our neighborhood schools.

You can do several things to improve American education. First, display the SCANS skills prominently in your home and discuss them, often, with your children. Make sure they understand what you expect. Second, take the list with you to your child's school and find out where and how the school is equipping your child with these skills. Organize a parents' meeting to discuss the SCANS findings and what your school is doing about them. Finally, make sure your school superintendent and your school board know of your interest in these competencies and this foundation.

Employers must orient their business practices to hiring and developing this know-how in employees. If you do not develop a world class workforce, your business inevitably

will be at risk. If, for example, only 60 percent of your employees have these skills, and 90 percent of Japanese and German workers possess them, you are wasting must more on rework, poor quality, and late deliveries than are your competitors.

Here is what you can do. First, reorganize your workplace into the high-performance environment of the future. Nine out of ten employers are operating on yesterday's workplace assumptions. Do not be one of them. Second, invest in your employees so that they can obtain the skills needed to succeed in this new environment. Third, tell educators clearly what you need and work with them to accomplish it. You know that students have to believe that you care about what they learn. Employers who value performance in high school when they make their hiring decisions provide students with the right signal: learning and earning are related activities.

Finally, use the materials the Department of Labor can provide to confirm that the SCANS skills accurately reflect your local workforce requirements. Having confirmed these skills, make sure your local school board never loses sight of them in its instructional planning. By doing so, you will support the President of the United States in his efforts to put World Class Standards — incorporating the SCANS vision — into American schools and workplaces.

Educators have to instill in students the perspective on results that the SCANS skills demand. If you do not, you will be failing your students and your community as they try to adjust to the next century. You, more than anyone, are responsible for helping our children develop the skills they need.

Here is how you can help. First, tell your students what the standards are — what is expected of them. Second, give them the benefit of a fair and firm assessment of where they stand and what they need to do. If they pass from grade to grade and receive diplomas without mastering these skills, they cannot make their way in the world of work. Third, inject the competencies and the foundation we have defined into every nook and cranny of the school curriculum. Your most gifted students need this know-how, and so do those experiencing the greatest difficulties in the classroom. We are convinced that if students are taught the know-how in the context of relevant problems. You will find them more attentive, more interested — indeed, more teachable — because they will find the coursework challenging and relevant. Finally, ask for the materials the Department of Labor can make available to you. Use them with your colleagues and the local business community to have your students confirm that the SCANS skills represent real work in your home town.

We know that some schools are already transforming themselves. They serve as the inspiration for President Bush's recent proposals to build "a New Generation of American Schools." We know, too, that many teachers are accomplishing wonders against formidable odds, and that most would do the same if given the opportunity. We hope to encourage these developments so that all schools, for every student, can be transformed.

Above all, we know that many students work very hard. But many more do not because they do not believe the lessons they are learning are connected to the real world or that the diplomas they are earning will bring them a brighter future.

This report addresses one obstacle that stands in the way of that future. Employers have never clearly told educators what students need to know and be able to do in order to succeed. Those requirements, as this Commission sees them, are described in the following pages.

This document is our opening statement about the future of your children, your business,

and your school. It provides a general description of what is required. We have created this first statement with the advice of experts, educators, employees, supervisors, and business and labor leaders from around the nation. Do not take our word for it. Our conclusions must be tested in your homes, schools, and places of business. Join us in this conversation and share your thoughts with us. Write, call, and visit the Department of Labor for more information and for the tools and materials that can help you test these ideas and propositions for yourself.

June 28, 1991

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Secretary of Labor

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U.S. Department of Labor
Secretary's Commission on Achieving Necessary Skills
SCANS
Washington, D.C. 20210

May 31, 1991

The Honorable Lynn Martin
Secretary of Labor
Washington, D.C.

Dear Madam Secretary:

The Secretary's Commission on Achieving Necessary Skills (SCANS) was asked to examine the demands of the workplace and whether our young people are capable of meeting those demands. Specifically, the Commission was directed to advise the Secretary on the level of skills required to enter employment.

It is my privilege to chair this effort. We began in May 1990 to engage businesses, schools, unions, and parents in a dialogue about the future they hold in common. On behalf of my colleagues on the Commission, I am pleased to transmit to you the results of our first year's work.

This document deals with two of our tasks—defining the skills needed and proposing acceptable levels of proficiency for them. A technical report expanding on the themes of this document will be provided later this year and a final report on our work will be available in February 1992.

Sincerely,

William E. Brock

Chairman

EXECUTIVE SUMMARY

The Secretary's Commission on Achieving Necessary Skills (SCANS) was asked to examine the demands of the workplace and whether our young people are capable of meeting those demands.

Specifically, the Commission was directed to advise the Secretary on the level of skills required to enter employment. In carrying out this charge, the Commission was asked to:

- Define the skills needed for employment;
- Propose acceptable levels of proficiency;
- Suggest effective ways to assess proficiency; and
- Develop a dissemination strategy for the nation's schools, businesses, and homes.

This report results from our discussions and meetings with business owners, public employers, unions, and workers and supervisors in shops, plants, and stores. It builds on the work of six special panels we established to examine all manner of jobs from manufacturing to government employment. We also commissioned researchers to conduct lengthy interviews with workers in a wide range of jobs.

The message to us was universal: good jobs will increasingly depend on people who can put knowledge to work. What we found was disturbing: more than half our young people leave school without the knowledge or foundation required to find and hold a good job. These people will pay a very high price. They face the bleak prospects of dead-end work interrupted only by periods of unemployment.

Two conditions that arose in the last quarter of the 20th Century have changed the terms of our young people's entry into the world of work: the globalization of commerce and industry and the explosive growth of technology on the job. These developments have barely been reflected in how we prepare young people for work or in how many of our workplaces are organized. Schools need to do a better job and so do employers. Students and workers must work smarter. Unless they do, neither our schools, our students, nor our businesses can prosper.

SCANS research verifies that what we call *workplace know-how* defines effective job performance today. This know-how has two elements: *competencies* and a *foundation*. This report identifies five competencies and a three-part foundation of skills and personal qualities that lie at the heart of job-performance. (See pages x and xi.) These eight requirements are essential preparation for all students, both those going directly to work and those planning further education. Thus, the competencies and the foundation should be taught and understood in an integrated fashion that reflects the workplace *contexts* in which they are applied.

We believe, after examining the findings of cognitive science, that the most effective way of learning skills is "in context," placing learning objectives within a real environment rather than insisting that students first learn in the abstract what they will be expected to apply.

The five SCANS competencies span the chasm between school and the workplace. Because they are needed in workplaces dedicated to excellence, they are hallmarks of today's expert worker. And they lie behind the quality of every product and service offered on today's market.

The competencies differ from a person's technical knowledge. For example, both accountants and engineers manage resources, information, systems, and technology. They require competence in these areas even though building a bridge has little to do with balancing a set of books. But in each profession, the

competencies are at least as important as the technical expertise. The members of the Commission believe these competencies are applicable from the shop floor to the executive suite. In the broadest sense, the competencies represent the attributes that today's high-performance employer seeks in tomorrow's employee.

To describe how this know-how is used on the job, our report provides a series of five scenarios that portray work requirements in the context of the real world. The scenarios show that work involves a complex interplay among the five competencies we have identified and the three elements of the foundation — the **basic skills**, higher order **thinking skills**, and diligent application of **personal qualities**.

The scenarios make clear that tomorrow's career ladders require even the basic skills — the old 3 Rs — to take on a new meaning. First, all employees will have to **read** well enough to understand and interpret diagrams, directories, correspondence, manuals, records, charts, graphs, tables, and specifications. Without the ability to read a diverse set of materials, workers cannot locate the descriptive and quantitative information needed to make decisions or to recommend courses of action. What do these reading requirements mean on the job? They might involve:

- interpreting blueprints and materials catalogues;
- dealing with letters and written policy on complaints;
- reading patients' medical records and medication instructions; and
- reading the text of technical manuals from equipment vendors.

At the same time, most jobs will call for **writing skills** to prepare correspondence, instructions, charts, graphs, and proposals, in order to make requests, explain, illustrate, and convince. On the job this might require:

- writing memoranda to justify resources or explain plans;
- preparing instructions for operating simple machines;
- developing a narrative to explain graphs or tables; and
- drafting suggested modifications in company procedures.

Mathematics and **computational skills** will also be essential. Virtually all employees will be required to maintain records, estimate results, use spreadsheets, or apply statistical process controls as they negotiate, identify trends, or suggest new courses of action. Most of us will not leave our mathematics behind us in school. Instead, we will find ourselves using it on the job, for example, to:

- reconcile differences between inventory and financial records;
- estimate discounts on the spot while negotiating sales;
- use spreadsheet programs to monitor expenditures;
- employ statistical process control procedures to check quality; and
- project resource needs over the next planning period.

Finally, very few of us will work totally by ourselves. More and more, work involves listening carefully to clients and co-workers and clearly articulating one's own point of view. Today's worker has to **listen** and **speak** well enough to explain schedules and procedures, communicate with customers, work in teams, understand customer concerns, describe complex systems and procedures, probe for hidden meanings, teach others, and solve problems.

FIVE COMPETENCIES

Resources: Identifies, organizes, plans, and allocates resources

A. *Time* — Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules
B. *Money* — Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives
C. *Material and Facilities* — Acquires, stores, allocates, and uses materials or space efficiently
D. *Human Resources* — Assesses skills and distributes work accordingly, evaluates performance and provides feedback

Interpersonal: Works with others

A. *Participates as a Member of a Team* — contributes to group effort
B. *Teaches Others New Skills*
C. *Serves Clients/Customers* — works to satisfy customers' expectations
D. *Exercises Leadership* — communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies
E. *Negotiates* — works toward agreements involving exchange of resources, resolves divergent interests
F. *Works with Diversity* — works well with men and women from diverse backgrounds

Information: Acquires and uses information

A. *Acquires and Evaluates Information*
B. *Organizes and Maintains Information*
C. *Interprets and Communicates Information*
D. *Uses Computers to Process Information*

Systems: Understands complex inter-relationships

A. *Understands Systems* — knows how social, organizational, and technological systems work and operates effectively with them
B. *Monitors and Corrects Performance* — distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions
C. *Improves or Designs Systems* — suggests modifications to existing systems and develops new or alternative systems to improve performance

Technology: Works with a variety of technologies

A. *Selects Technology* — chooses procedures, tools or equipment including computers and related technologies
B. *Applies Technology to Task* — Understands overall intent and proper procedures for setup and operation of equipment
C. *Maintains and Troubleshoots Equipment* — Prevents, identifies, or solves problems with equipment, including computers and other technologies.

A THREE-PART FOUNDATION

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

A. *Reading* — locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules
B. *Writing* — communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts
C. *Arithmetic/Mathematics* — performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques
D. *Listening* — receives, attends to, interprets, and responds to verbal messages and other cues
E. *Speaking* — organizes ideas and communicates orally

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

A. *Creative Thinking* — generates new ideas
B. *Decision Making* — specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative
C. *Problem Solving* — recognizes problems and devises and implements plan of action
D. *Seeing Things in the Mind's Eye* — organizes, and processes symbols, pictures, graphs, objects, and other information
E. *Knowing How to Learn* — uses efficient learning techniques to acquire and apply new knowledge and skills
F. *Reasoning* — discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

A. *Responsibility* — exerts a high level of effort and perseveres towards goal attainment
B. *Self-Esteem* — believes in own self-worth and maintains a positive view of self
C. *Sociability* — demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings
D. *Self-Management* — assesses self accurately, sets personal goals, monitors progress, and exhibits self-control
E. *Integrity/Honesty* — chooses ethical courses of action

On the job, these skills may translate readily into:

- training new workers or explaining new schedules to a work team;
- describing plans to supervisors or clients;
- questioning customers to diagnose malfunctions; and
- answering questions from customers about post-sales service.

SCANS estimates that less than half of all young adults have achieved these reading and writing minimums; even fewer can handle the mathematics; and, schools today only indirectly address listening and speaking skills.

Defining the minimum levels of proficiency in the SCANS competencies is also a crucial part of the Commission's task. It requires judgments about the learning possible in yet-to-be designed schools. It also requires imagining what the workplaces of the year 2000 could and should look like.

Our work on these required levels of proficiency is not complete. We have examined less than a third of the jobs we intend to research. We also wish to hear what others think of our initial efforts. The insert at the top of page xx is illustrative of our initial estimates of work-ready levels of proficiency in the five competencies. Proficiency in each competency requires proficiency in the foundation. The contexts displayed come from more extensive scenarios contained in our report. The point we wish to make is that young people leaving school should have both a sufficient foundation and level of understanding of the competencies to exhibit performances like those illustrated.

The minimums we propose will define what makes a young person ready for work at entry levels on career ladders. They represent neither the first nor last step in a process of life-long learning. Instead, the minimums will be a second step in a progression of skills acquisition. For example, consider scheduling time, part of the SCANS **resources** competency. A young student (at the preparatory stage) might be expected to make a schedule for him or herself. Being *work-ready* would require making a schedule for others. At the extreme, a specialist might develop schedules for an airline. (See insert at bottom of page xiii.)

In September 1989 President Bush and the nation's governors agreed to six national goals in education to be achieved by the year 2000. By April 1991 a four-part strategy to attain these six goals was announced by President Bush and Secretary of Education Lamar Alexander. This report of the Secretary of Labor's Commission on Achieving Necessary Skills speaks directly to those goals and to that strategy. It defines what our young people must know and be able to do in order to hold a decent job and earn a decent living.

Our work pertains directly to National Goals #3 and #5 which state:

Goal #3 American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and *productive employment in our modern economy*. (emphasis added)

Goal #5 Every adult American will be literate and will *possess the knowledge and skills necessary to compete in a global economy* and exercise the rights and responsibilities of citizenship. (emphasis added)

Our report is intended to contribute to all four parts of the strategy put forth by President Bush in AMERICA 2000 as shown below.

Workforce know-how will be part of the new World Class Standards. However, defining competencies and a foundation is not enough. Schools must teach them. Students must learn them. And, they should be assessed as part of the America 2000 agenda. Our work on these issues will continue over the coming months. Among the concrete steps SCANS will take in the future are efforts to:

KNOW-HOW:
WORK-READY LEVEL OF PROFICIENCY

COMPETENCE	EXAMPLE OF LEVEL
RESOURCES	Develop cost estimates and write proposals to justify the expense of replacing kitchen equipment. Develop schedule for equipment delivery to avoid closing restaurant. Read construction blueprints and manufacturers' installation requirements to place and install equipment in the kitchen.*
INTERPERSONAL	Participate in team training and problem-solving session with multi-cultural staff of waiters and waitresses. Focus on upcoming Saturday night when local club has reserved restaurant after midnight for party. Three people cannot work and team has to address the staffing problem and prepare for handling possible complaints about prices, food quality, or service.*
INFORMATION	Analyze statistical control charts to monitor error rate. Develop, with other team members, a way to bring performance in production line up to that of best practice in competing plants.**
SYSTEMS	As part of information analysis above, analyze painting system and suggest how improvements can be made to minimize system downtime and improve paint finish.**
TECHNOLOGY	Evaluate three new paint spray guns from the point of view of costs, health and safety, and speed. Vendors describe performance with charts and written specifications. Call vendors' representatives to clarify claims and seek the names of others using their equipment. Call and interview references before preparing a report on the spray guns and making a presentation to management.**

PROGRESS IN ACQUIRING SKILLS

PROFICIENCY LEVEL	PERFORMANCE BENCHMARK
PREPARATORY	Scheduling oneself
WORK-READY	Scheduling small work team
INTERMEDIATE	Scheduling a production line or substantial construction project
ADVANCED	Developing roll-out schedule for new product or production plant
SPECIALIST	Develop algorithm for scheduling airline

*Competence as demonstrated in a service sector application.
**Competence as demonstrated in a manufacturing sector application.

- examine how to create an assessment system that helps students understand what they have to learn and certifies that they have mastered the competencies so that employers and colleges will honor their record of high school performance;
- consider the implications of the SCANS findings for curriculum development, school organization, teacher training, and instructional materials and technology; and

- help the Administration establish the public-private partnership called for in the education strategy, "AMERICA 2000."

The President of the United States has encouraged all of us to become revolutionaries in the cause of education. For over 200 years Americans have worked to make education part of their national vision, indispensable to democracy and to individual freedom. For at least the last 40 years, we have worked to further the ideal of equity — for minority Americans, for the disabled, and for immigrants. With that work still incomplete, we are called to still another revolution — to create an entire people trained to think and equipped with the know-how to make their knowledge productive.

This new revolution is no less exciting or challenging than those we have already completed. Nor is its outcome more certain. All that is certain is that we must begin.

EXCERPTS FROM AMERICA 2000's FOUR-PART STRATEGY[1]3

Part 1.

"For Today's Students: Better and More Accountable Schools — World Class Standards:....These standards will incorporate both knowledge and skills, to ensure that, when they leave school, young Americans are prepared for further study and the work force."

Part 2.

"For Tomorrow's Students: A New Generation of American Schools. New American Schools: help communities create schools that will reach the national education goals, including World Class Standards."

Part 3.

"For the Rest of Us (Yesterday's Students/Today's Work Force): A Nation of Students — Private-Sector Skills and Standards: business and labor will be asked...to establish job-related skill standards, built around core proficiencies...

Part 4.

"Communities Where Learning Can Happen." AMERICA 2000 Communities. The president is challenging every city, town, and neighborhood...to adopt the six national education goals...[and] develop a report card for measuring progress."

[1]The White House, April 18, 1991.

I.
HIGH-PERFORMANCE WORK AND SCHOOLS

On April 18, 1991, when the President of the United States announced a new education strategy, "AMERICA 2000," he said, "think about every problem, every challenge, we face. The solution to each starts with education. For the sake of he future of our children and the nation, we must transform America's schools. The days of the status quo are over.

We understand that schools do more than simply prepare people to make a living. They prepare people to live full lives — to participate in their communities, to raise families, to enjoy the leisure that is the fruit of their labor. A solid education is its own reward and has value beyond specific skills.

This report concerns one part of the transformation the President has described, the part that involves how our schools prepare our young people for work. It does not deal with other, equally important, concerns that are also the proper responsibility of our educators, such as providing comprehensive instruction in history, literature, geography, and theoretical science and mathematics so our young people can live the full lives we wish for them. Competency in these five core subjects remains relevant to the "real world." This report should not be misconstrued as suggesting that schools abandon these subjects in favor of workplace skills training.

This document describes fundamental changes in the nature of work, and the implications those changes hold for the kinds of workers and workplaces the nation must create. It defines "workplace know-how" —a quality that workers must possess if they are to grow, produce, and succeed. It is about changes in how we should think about the connections between education and earning a living. This report is about helping our youth enter the workforce prepared with the know-how they need to master whatever challenges work and life will place before them.

THE WORLD HAS CHANGED

A strong back, the willingness to work, and a high school diploma were once all that was needed to make a start in America. They are no longer. A well-developed mind, a passion to learn, and the ability to put knowledge to work are the new keys to the future of our young people, the success of businesses, and the economic well-being of the nation.

Two events of the last generation serve as metaphors for how radically and irreversibly the economic environment for all work has changed, both for Americans and for the rest of the world. In 1973, the OPEC oil embargo made it unmistakably clear that our nation's economic future was no longer ours alone to decide. Since then, the lessons of globalization and interdependence have been reinforced at every turn. In many ways, 1973 was a boundary line defining new territory.

Two years later, the first plans for an unheard of new product — a personal computer — appeared in a popular scientific magazine. That device has altered both the speed with which work is done and its very nature. It has configured the world of work as have perhaps no other invention since electricity or the assembly line. It has created not only a new industry; it has redefined the way thousands of different kinds of work are now carried out.

Globalization and technology contain both threat and promise. The threat is easily summarized in the economic implications of energy dependence, disappointing productivity growth, and stagnant wages. For example:

- **Productivity**. Productivity growth (output per hour) in the United States slowed significantly after 1973. Labor productivity actually declined in 1989 and 1990. Some estimate that if current international productivity trends continue, nine countries may exceed the U.S. in output per worker-hour by the year 2020.

- **Earnings and Income**. Stagnant productivity has seriously affected workers' earnings. Median family income increased nearly three percent a year between 1947 and 1973. Since 1973, it has scarcely increased at all. Families with heads of households under the age of 34 have watched their real income decline since 1979.

- **Jobs.** Job opportunities in the United States are changing. Twenty years ago, manufacturing accounted for 27 percent of all nonagricultural employment in the U.S.: services and retail trade for 32 percent. By 1990, manufacturing accounted for only 17 percent of these jobs, while services and retail trade made up 44 percent. In 1990, manufacturing jobs paid an average of $10.84 per hour; while service jobs paid $9.86 and jobs in retail trade paid only $6.78.

But the promise of an internationalized economic environment and a workplace grounded in new technologies is equally dramatic. The promise is a healthy economy that improves the standard of living for all by growing — by increasing productivity, creating new jobs, and meeting the challenges placed before it.

WORK IS CHANGING

To paraphrase futurist Alvin Toffler, we are now caught up in a "third wave" of industrialization. Just as the United States powered its early industrial growth with steam and built a manufacturing empire on the assembly line, it can now catch the crest of computer technology to create a high-wage, high-skill future.

That future depends on high-performance work organizations and a highly competent workforce. It will be as different from our present as today's most advanced work and workplace are different from Henry Ford's assembly line. As a corporate member of the commission observed, in reviewing preliminary descriptions of the workplace developed during this project, "What startles me is the realization that they are accurate, but ten years ago I could not possibly have imagined them. What will our workplace look like ten years from today?"

Figure A on the following page, adapted from a chart developed by the Congressional Office of Technology Assessment, summarizes the major differences between the traditional workplace and the leading-edge, high-performance workplaces that are beginning to develop. These differences were also found by the MIT Commission on Industrial Productivity that reported in 1989. The members of SCANS believe these new workplaces should become the norm, not the exception.

In most workplaces of today, work is routinized, repetitive, and organized along hierarchical lines. Perhaps its most prominent feature is that it emphasizes mass production by workers who are asked to think about what they are doing. It leaves quality to be inspected into the product after-the-fact, i.e., by weeding out defects through a separate quality control process.

High performance workplaces, by contrast, stand as a model for a successful future. In this new environment, work is problem-oriented, flexible, and organized in teams; labor is not a cost

but an investment. Most important, the high-performance organization recognizes that producing a defective product costs more than producing a high-quality one.

FIGURE A

CHARACTERISTICS OF TODAY'S AND TOMORROW'S WORKPLACE[2]3

TRADITIONAL MODEL	HIGH PERFORMANCE MODEL
STRATEGY	
• mass production	• flexible production
• long production runs	• customized production
• centralized control	• decentralized control
PRODUCTION	
• fixed automation	• flexible automation
• end-of-line quality control	• on-line quality control
• fragmentation of tasks	• work teams, multi-skilled workers
• authority vested in supervisor	• authority delegated to worker
HIRING AND HUMAN RESOURCES	
• labor-management confrontation	• labor-management cooperation
• minimal qualifications accepted	• screening for basic skills abilities
• workers as a cost	• workforce as an investment
JOB LADDERS	
• internal labor market	• limited internal labor market
• advancement by seniority	• advancement by certified skills
TRAINING	
• minimal for production workers	• training sessions for everyone
• specialized for craft workers	• broader skills sought

The solution: design quality into the product development process itself, particularly by enabling workers to make on-the-spot decisions.

Workplaces organized along the lines of the traditional mass production model can no longer prosper. Like the dinosaur with its limited intelligence, doomed to extinction at the hands of smaller but craftier animals, the traditional model cannot survive the competition from high performance organizations that depend on the intelligence and ingenuity of their managers and employees. High-performance organizations are relentlessly committed to excellence, to product quality, and to customer service. These are the organizations that have revived American manufacturing competitiveness and compete for the nation's mark of business distinction — the Department of Commerce's Baldrige Award. One of the defining characteristics of these firms is a workforce with skills outlined in this document.

[2]Source:"Competing in the New International Economy." Washington: Office of Technology Assessment, 1990.

THE EDUCATIONAL SIDE OF THE EQUATION

The world has changed. Work is changing. But despite their best efforts, most schools have not changed fast enough or moved far enough. For nearly a decade, education reform and its relationship to America's place in the world have been high on the public's agenda. Reports have been developed, meetings convened, and announcements and calls to arms issued. Literally hundreds of specific recommendations have been put forward by researchers, public leaders, opinion modern, and school officials.

Many educators have responded. Most communities in the United States have felt the impact: new curricula, adult literacy efforts, compensatory programs, in-school child care, new teacher training efforts — all of these and more have been tried. Yet, despite some promising exceptions, we are unable to demonstrate that things are, on the whole, much better. In terms of achieving results, not much has changed despite great effort and significant increases in funding.

It is time to ask: Why is that so? How is it that all this time, energy, and effort have been expended to so little avail? The problem is complex and so are the answers. Part of the difficulty is that employers and school personnel are passing each other like ships in the night: one speaks in Morse code, the other signals with flags. As a consequence of the miscommunication, secondary school students often see little connection between what they do in school and how they expect to make a living. They, therefore, invest very little effort in their education. The average American high school junior puts in half of the 60 hours a week that a Japanese peer devotes to schoolwork.

Miscommunication

One reason for the lack of educational improvement lies in the confusing signals exchanged between the education and the business communities. The educator asks, "What do you want in our graduates? We are confident we can produce it." The response is, too frequently, a set of contradictory cues.

- The local tour bus operator responds, "I want graduates who can diagnose and repair diesel engine and who know something about air brakes. That's my first priority. I don't have time to train these kids."

- The local bank vice president says, "I want clean and attractively dressed young people, with a solid grasp of the basics-reading, writing, and computation-and we will teach them the banking business."

- The owner of a small manufacturing firm asks for dependable, reliable graduates who will show up on time with enough technological skill to immediately step into the CAD-CAM (Computer-Assisted Design and Computer-Assisted manufacturing) operations.

Researchers' efforts have proven equally unhelpful. Most attempts to characterize work skills focus either on general human characteristics (e.g., intelligence, reasoning ability, reaction time) or on the characters of specific jobs (e.g., ability to assemble items or route packages). The level of detail communicated varies from the general (ability to solve problems) to the very specific (perform a tack weld on sheet metal). As a result, the operational implications and meaning of these lists are frequently difficult to determine. They do not provide direct links to the "stuff" of schools or a sense of the work enabled by the skills identified.

Frustrated, the school finds that the business world has not defined what schools should be doing. To the extent that individual business leaders are clear, they often convey an unrealistic expectation that schools serve as their

firm's training institution with their specific training requirements at the front of the line.

The results are predictable. Despite sincere, well-intentioned efforts to respond, the schools — lacking clear and consistent guidance — continue with the system and methodologies they inherited from a system designed nearly 100 years ago for the needs of business organizations that are now quite different.

The Student

The disjointed conversation between the schools and employers creates a situation in which students understand intuitively, often correctly, that what they are doing in the school today bears little resemblance to what they will be expected to do in the workplace tomorrow. Many students, both those expecting to go to work immediately after 12th grade and those going to colleges, simply do not consider high school work as worth serious effort.

The sense that students clearly distinguish between what goes on in their classrooms and what goes on in the "real world" was palpable in focus groups convened as part of the SCANS research. Not one of the students in these groups believe that a high school diploma by itself guarantees a job in today's economy. All of them, in fact — whether bound for college or work — believe that job skills, by and large, are learned on the job, by hands-on experience, through extra-curricular activities, or by osmosis. In other words, they believe that the skills needed in the real world are, in the words of one student, just "picked up".

But the massive training budgets of today's corporations are powerful evidence that workforce know-how cannot be simply "picked up." When students fail to associate "school" work with "real" work, they draw the wrong conclusion — that "school" work is not "real." In fact, however, the task of learning is the real work of today, whether at school, in the university, on the job, or in the White House. It is this task young people must master in every environment.

THE CHALLENGE

The challenge this situation places before the nation's business and educational communities is three-fold. The first task is to develop a better means of communicating, a common vocabulary to guide the conversation between the business and school communities. The following chapter suggests such a vocabulary. The second task is to set clear-cut standards and then convince students that effort invested in meeting these standards today will be rewarded in the world of work tomorrow. A major part of this task involves persuading students, teachers, parents, and business leaders that workplace know-how is not something "you just pick up." It can be defined. The third task is assess and certify students' workplace readiness so that students, their parents, and employers will know where they stand.

II
WHAT IS WORK LIKE TODAY?

In arguing that today's employers have been inconsistent and contradictory in their messages to the schools, we have pointed out that different employers have different needs — that the manufacturing plant differs from the machine shop and that neither bears much relationship to the typical office environment. All of that is true. But the diversity is largely a fog obscuring what is, in fact, a set of common competencies and skills shared by all workers. SCANS understands these competencies and skills as "workplace know-how."

FIVE SCENARIOS

This chapter explores that know-how. It does so, first, by examining the world of work through five short "scenarios" describing what high school graduates are actually expected to do when they enter high-performance work environments. We go on to draw from these scenarios the competencies and skills that will define effective work performance for the year 2000.

The five scenarios come from the following sectors of the economy:

- Manufacturing;
- Health Services;
- Retail Trade;
- Accommodations and Food Services; and
- Office Services.

We recognize that not all workplaces in these sectors are currently organized to draw upon the skills displayed by the workers in the scenarios. But we believe that the increasingly competitive environment businesses face is forcing more of them to reorganize to make better use of more highly-skilled workers. This means that those students who leave school prepared to enter such workplaces will get the best jobs with the most stable and rewarding futures. The student who leaves school with the workplace know-how described in these scenarios will be the prepared worker America requires in the next century.

Manufacturing

Kareem is an electronics specialist working as an electrician in a newly designed "Big Three" automobile assembly plant (AAP) in the Midwest. He had previously spent two years in the Army as an electronics specialist. The plant is a state-of-the-art production faculty employing 2,900 hourly workers. About two years ago, assembly line automation was completed with the selection and installation of a new robotics painting system. Kareem was involved in the selection of this equipment, which Alice, the procurement specialist in the engineering department chose with advice from line workers. But a pressing issue developed on the operating line: how to train people to properly use, maintain, and troubleshoot the system.

The vendor for the painting system had provided initial training in the system's programmable logic. But, after the vendor left, Kareem found himself frequently on-call to troubleshoot the problems of the new system because the other shop electricians were not able to maintain it. The other electricians, who had been hired from an older AAP plant on the basis of seniority, were what are called "pipe, wire, and relay" electricians who had a difficult time making the transition to electronics concepts. It appeared that while the vender had provided solid training in generalized troubleshooting, they had not provided sufficient training in how to troubleshoot the system as integrated into an automotive plant.

Kareem worked with the head of high-technology training at AAP and the vendor to revise the training to emphasize a broad array of maintenance skills needed on the line. The goal, in part, was to reduce the costs associated with repeated calls for assistance form the vendor.

The course work, which was taught by Kareem, included a review of basic electrical theory and training in basic electronics concepts. It also included work in pneumatics and hydraulics. It heavily emphasized the use of computer consoles with on-the-floor simulations of equipment operation.

One result of this ongoing training is a more confident team of electricians who can provide immediate assistance to the line. Another is equally impressive: system downtime (which can cost automakers more that $1 million daily) has been reduced by 22 percent at AAP.

Health Services

Luretta is the registrar in the emergency room of City Hospital, a large public facility on the West Coast serving a diverse, urban population. She is the first person patients meet when they enter the hospital. Stress in the emergency room is almost tangible, particularly on weekends. Residents of nearby low-income neighborhoods use the facility for routine health care; accident victims from all over the area are frequently brought to City; and gang violence produces many severely wounded patients. This combination threatens to overwhelm the emergency room on weekends.

On Friday evening, the emergency room staff is just recovering from a very difficult afternoon. Seven children, injured when their school bus was hit by a delivery van, were brought to the emergency room between 3:30 and 4:00 p.m. As Luretta takes a breather, an ambulance crew brings in a local college student suffering from a drug overdose. Luretta processes his papers from information provided by the ambulance crew and turns him over to a Licensed practical Nurse (LPN). As the LPN leaves, a gunshot victim staggers in on the arm of a friend. Luretta grabs the friend to get information on the victim and has an orderly wheel the victim back to an examining room. At that very moment, a distraught mother arrives with her teenage daughter who is wheezing, clearly in severe respiratory distress.

Confident that the first two patients are in good hands, Luretta turns her attention to the mother and daughter only to find that neither speaks English. The girl is choking; the mother unable to make herself understood, becomes hysterical. Frank, a Registered Nurse (RN) who hears the commotion, arrives and takes the girl to an examining room. As the RN leaves he instructs Luretta to get an attending physician and an interpreter.

Luretta locates Dr. Paula Jones in the next room and asks her to come to the examining room. Next, she calls the Community Affairs office and gets an interpreter on the phone with the mother and herself. The interpreter informs Luretta that the girl is asthmatic and that she has been treated at the hospital before. Luretta smiles at the mother to reassure her that everything is under control and goes to her computer terminal to locate the daughter's hospital records. Luretta hands a copy of the records to Dr. Jones who completes the examination of the girl and prescribes medication to relieve her distress.

Retail Trade

Mickey is a salesperson at a computer store on Main Street in a small northeastern city. The store carries a basic line of computers and printers form five different manufacturers, about 15 pieces of equipment in all, varying in size, price, and capabilities. The store also carries a wide range of software, from word processing to database management programs, as well as paper, diskettes, add-on peripherals such as modems, and miscellaneous supplies.

This week the company has a sale on laptop computers. Moreover, each member of the sales force who sells 10 or more laptops will receive one free for his or her own use. Mickey goes to the database he maintains on his computer to search his customer records for promising purchasers. He first lists owners of laptops form the same manufacturer, then owners of other laptops and begins placing calls.

At this point, a customer walks into the store. The customer owns a seven-person real estate company. She complains that her sales-people travel so much throughout the region that they cannot stay on top of mortgage rates from different banks or new listings throughout the state. As a result they are losing sales, Mickey responds, "You've come to the right place. Portable computers—laptops—can solve this problem for you. And, we have a terrific sale on them right now."

"This model has a built-in modem. If you equip your cars with phones, your employees could download all the information they need just by dialing your office from the car. You also need a desktop computer at your office to answer the phone, but your salespeople could connect with it directly; or, we have a software package called Real Estate Monitor which hooks you up directly to an on-line information service that has up-to-the-minute real estate listings and mortgage rates."

The customer is intrigued, but worried about the costs. Mickey nods, "Even with the sale we are offering, seven or eight computers is a substantial investment for a small firm. But let me ask you this. You tell me you are losing two or more sales a week because your sales force can't stay on top of listings and mortgage rates. If this system helps you recoup just one of those sales a week, isn't it true that it will pay for itself in a month or two?"

"That may be about right," responds the customer. "My name is Joan Lewis. Let's sit down and talk about precisely how much this is going to cost me."

Accommodations and Food Services

Greg, Anthony, and Kathleen are on the verge of realizing an entrepreneurial dream—opening their own restaurant (The Three Chefs) in a growing southern town. Independently they have worked hard to reach this point, spending 10 or more years learning the restaurant business, pooling their savings, and borrowing from friends and family to raise the start-up capital they needed. Greg took out a second mortgage on his home to satisfy the local bank's demand for security on a line of credit.

Greg serves as manager and "front-of-the-house" shift supervisor during the day. Kathleen is the lunchtime chef and evening manager. Anthony trains the staff, does the bookkeeping, and prepares the evening meals. Renovation has been completed on the restaurant, and most of the new kitchen equipment has been installed. Waiters and waitresses have completed their training and have worked two practice shifts to iron out problems.

Kathleen and Anthony analyzed the "back-of-the-house" work flow during the practice shifts and developed a plan for improving the kitchen's output. They can improve efficiency in the kitchen by almost 20 percent by starting food preparation an hour early and moving one of the work stations to the front of the house. After some discussion, the three of them realized that although the repositioning makes sense, it will probably cost them between $7,000 and $10,000, which they do not have. If their projections are correct, they might be able to afford it after they have made about $250,000 in sales, i.e., in three to four months, if all goes well. They opt to make minor adjustments to the system and refrain from expensive changes until they have seen how the first month's sales and expenses look.

"Here's another way we can control our costs," says Kathleen. "I've come across a new management information system that can generate inventory reports, sales reports, and pricing charts. We can integrate the inventory reports and pricing data to project cost and make menu changes. I've also been looking at several different accounting software packages. I think the software our accountant recommended is the most suitable for our needs. There is a large pool of programmers who know that software, making it easier for us to obtain a consultant on short notice to tailor it to our operation."

Office Services

Verbatim Transcription Service (VTS) provides written records of meetings, legal proceedings, and conferences. The firm employs 24 people, including six transcribers, but today only four of the transcribers are available. The transcriber's job is to decipher tapes received from stenographers and recorders and create a written record. Accuracy and timeliness are critical elements of the transcriber's work which undergirds the firm's success.

Gabriela is a top-notch transcriber at VTS. This has been a particularly busy week, and today she has six tapes in various stages of conversation. Three of the clients have asked for their documentation by the following morning. One law firm has a court case approaching. The minutes of a controversial school board budget hearing are to be delivered to the local newspaper tomorrow for publication the following day and the president of a local university (one of VTS's largest clients) wants immediate service on the tapes of a book she is dictating, regardless of how many other clients are inconvenienced.

Gabriela doesn't think she can finish all the tapes on time and goes to Nan, her supervisor, to discuss the problem and possible solutions. She and Nan decide to call in a freelance transcriber they have hired previously to work with legal clients. Gabriela then calls the school board president and the local newspaper. She arranges to have the minutes reviewed that evening by school board staff so that she can make corrections and deliver them to the newspaper by the editor's "drop-dead" deadline. She is able to reach the university president with whom she discusses her time constraints and negotiates a reprieve. Gabriela woks out a schedule whereby she will have the president's transcript ready two days later by 4:00 p.m.

After finishing her scheduled daily work, Gabriela looks over the first draft of a new transcriber hired to work exclusively with a local teaching hospital to determine if his knowledge of medical terms is adequate. Otherwise, he will be sent to a specialized training course. Gabriela tells Nan that, in her opinion, they have hired the right person and no further training is needed.

COMMON ELEMENTS: FIVE COMPETENCIES

The benefit of these scenarios is that they begin to do justice to the rich complexity—the problems, demands, rewards and satisfactions—of high-performance work. They capture what some men and women face and actually do in today's workplace. They confirm that when employers say they want people comfortable with technology and capable of solving problems, they are realistic. They confirm, too, that reading, writing, and basic arithmetic are not enough. These skills must be integrated with other kinds of competency to make them fully operational. But these scenarios range from the effort to make a sale to the work of saving lives in hospital emergency rooms. What do they have in common? Are there competencies that are generic to the entire economy?

The Common elements in each of the scenarios are exceptional performance in five competencies. (See Figure B.) These five competencies rest on a three-part foundation of skills and personal qualities that we will address later. The competencies span the chasm between the worlds of the school and the workplace. They are the basis of the modern workplace dedicated to excellence. They are the hallmark of today's expert worker. And they lie behind every product and service offered on today's market—putting food on tables, travelers in rooms, airplane passengers at their destination, patients in the operating room, and automobiles on the street.

The expert worker of tomorrow will not simply "pick-up" these competencies. Their acquisition must begin in the schools and be refined through on-the-job experience and further training. Teaching and learning

FIGURE B

*more complete definitions can be found in Appendix B

FIVE COMPETENCIES

Resources: Identifies, organizes, plans, and allocates resources

A. *Time* — Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules
B. *Money* — Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives
C. *Material and Facilities* — Acquires, stores, allocates, and uses materials or space efficiently
D. *Human Resources* — Assesses skills and distributes work accordingly, evaluates performance and provides feedback

Interpersonal: Works with others

A. *Participates as a Member of a Team* — contributes to group effort
B. *Teaches Others New Skills*
C. *Serves Clients/Customers* — works to satisfy customers' expectations
D. *Exercises Leadership* — communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies
E. *Negotiates* — works toward agreements involving exchange of resources, resolves divergent interests
F. *Works with Diversity* — works well with men and women from diverse backgrounds

Information: Acquires and uses information

A. *Acquires and Evaluates Information*
B. *Organizes and Maintains Information*
C. *Interprets and Communicates Information*
D. *Uses Computers to Process Information*

Systems: Understands complex inter-relationships

A. *Understands Systems* — knows how social, organizational, and technological systems work and operates effectively with them
B. *Monitors and Corrects Performance* — distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions
C. *Improves or Designs Systems* — suggests modifications to existing systems and develops new or alternative systems to improve performance

Technology: Works with a variety of technologies

A. *Selects Technology* — chooses procedures, tools or equipment including computers and related technologies
B. *Applies Technology to Task* — Understands overall intent and proper procedures for setup and operation of equipment
C. *Maintains and Troubleshoots Equipment* — Prevents, identifies, or solves problems with equipment, including computers and other technologies.

the competencies must become the tasks of our schools and students.

In each scenario, competent workers demonstrate their skill in managing or using:

1. **Resources**. Workers schedule time, budget funds, arrange space, or assign staff.

2. **Interpersonal Skills.** Competent employees are skilled team members and teachers of new workers; they serve clients directly and persuade co-workers either individually or in groups; they negotiate with others to solve problems or reach decisions; they work comfortably with colleagues from diverse backgrounds; and they responsibly challenge existing procedures and policies.

3. **Information**. Workers are expected to identify, assimilate, and integrate information from diverse sources; they prepare, maintain, and interpret quantitative and qualitative records; they convert information from one form to another and are comfortable conveying information, orally and in writing, as the need arises.

4. **Systems**. Workers should understand their own work in the context of the work of those around them; they understand how parts of systems are connected, anticipate consequences, and monitor and correct their own performance; they can identify trends and anomalies in system performance, integrate multiple displays of data, and link symbols (e.g., displays on a computer screen) with real phenomena (e.g., machine performance).

5. **Technology**. Technology today is everywhere, demanding high levels of competence in selecting and using appropriate technology, visualizing operations, using technology to monitor tasks, and maintaining and troubleshooting complex equipment.

The competencies differ from a person's technical knowledge. For example, both accountants and engineers manage resources, information, systems, and technology. They require competence in these areas even though building a bridge has little to do with balancing a set of books. But in each profession, the competencies are at least as important as technical expertise.

The members of SCANS believe these competencies are applicable from the shop floor to the executive suite. They are generic; all are needed across industries and at many steps on a career ladder. (See page 12.) In the broadest sense, the competencies represent the attributes employers seek in today's and tomorrow's employee.

Returning to the scenarios, we can see clearly how essential these five competencies are for effective performance across the job spectrum.

Resources

Whether it was Kareem in the automobile factory, Kathleen and her partners in the restaurant, or Gabriela at VTS, all demonstrated their ability to manage resources. Kareem understood that time is a resource and that downtime costs money. The entrepreneurial chefs had put their life savings on the line and their analyses of costs, procedures, and the best use of their own time were designed to protect that investment. Gabriela made exceptional use of the human resources and time available to her in meeting a time crunch with serious implications for VTS's reputation.

Interpersonal

Interpersonal competence is the lubricant of the workplace, minimizing friction and the daily wear and tear of work. It also undergirds restructured work organizations in factories and provides the "service" in service firms. It is required if teams are to solve problems that they jointly face. All of these competent workers function effectively in quite complicated interpersonal environments. A false step in most of these situations invites resistance from colleagues or clients and could, in some situations, threaten lives.

COMPETENCE NEEDED ACROSS THE BOARD

Who needs the SCANS competencies? Everyone from the entry-level clerk to managers, executives, or partners in professional corporations. Take the high-pressure world of a major law firm as an example of how competence is required across the board:

Receptionists are expected to demonstrate personable "front-desk" skills (meeting clients and identifying their needs) and to manage complex telecommunications systems without difficulty.

Secretaries are routinely called on to work with associates and partners with different, often difficult, working styles and to manipulate computer-based data, graphics, and information systems on different kinds of equipment.

Legal Administrators help select and oversee the installation of state-of-the art telecommunications and information systems to meet lawyers' needs and they also ensure that all support personnel are trained in these systems.

Associates (junior attorneys) having spent three years learning the rudiments of the legal system and its precedents stretching back to common law, are now expected to put that knowledge to work on specialized problems situated in complex modern systems, e.g., corporations, hospitals, contracts, or civil rights law, and to search for precedents supporting the client's legal position.

The Managing Partner is responsible for ensuring that the cogs and gears of the entire firm operate as a harmonious system—that the support system meets the demands the firm places on it; that the accounting and finance systems follow and recover costs; that the background of the lawyers meshes with the legal specialty of the firm; and that potentially profitable new areas of client interest can be accommodated.

Far from looking down his nose at the traditional "pipe, wire, and relay" electricians, Kareem understood that manufacturing quality products is a team effort. He needed his experience as an electrician with AAP to develop effective training programs to make the most of the plant's state-of-the-art equipment. Gabriela's skills helped her negotiate a potentially troubling work conflict. Mickey took his customer's concern about costs seriously, but turned the issue to his advantage. Luretta, in perhaps the most pressure driven of these situations, went out of her way to reassure the distraught mother, while seeking help in two directions simultaneously, from a doctor and an interpreter.

Information

Luretta, staring at a potentially life-threatening situation, could do nothing to help until she obtained the information needed by the doctors. Calmly, in the face of this stress, she called in an interpreter and, armed with the knowledge of the patient's history and the location of her records, expertly manipulated a computerized information system to locate the records that City Hospital doctors had to have. Gabriela's job at VTS is essentially transforming information from one form (audio tapes or stenographic notes) to another, a written record.

The heart of Mickey's job is not so much selling as showing his customers how the equipment he has to offer can solve their information problems. If he can do that, the technology sells itself. In the scenario Mickey solicited information from the customer about the customer's information needs. Using that knowledge, he was able to describe how laptops, modems, telephones, and specialized software could make information an asset in the world of real estate, instead of a problem.

Systems

As the world of work has become more complex, all workers have been required to

understand their own work in the context of that of others. They must think of discrete tasks as part of a coherent whole. Greg., Kathleen, and Anthony understood that the "front-of-the-house" could not begin to function without an effective operation in the "back-of-the-house". Moreover, they correctly viewed portions, menus, and inventory control not as discrete problems, but as integral parts of the restaurant's cost structure, susceptible to a single cost-control system.

On one level, Kareem's troubleshooting of the computerized painting equipment is simply part of his job. Kareem's special contribution was to understand that his job affected the entire operation and the profitability of the plant. He then drew on the engineering department, his co-workers with outdated skills, the training department, and the strengths of the vendor.

Luretta's job as registrar placed her in a pivotal position for the systems revolving around her—ambulance crews, nursing staff, physicians, orderlies, the police, and community affairs specialists. Luretta might easily have satisfied herself with jotting down the information the interpreter gave her, leaving Dr. Jones to worry about obtaining the patient's records. She did not. Dr. Jones did not have to. And the patient received immediate attention.

Technology

Nobody today can avoid technology; it has penetrated every aspect of life from the home to the job. Those unable to use it face a lifetime of menial work. Mickey obviously spends his working life fitting technologies to his client's needs. But he also uses the technology himself to stay in contact with his customers. Kareem worked with the engineering department to select and install the new robot painting system. His knowledge of the electronics of this new technology propelled him from the ranks of the electricians, first to troubleshooter, and then to a leadership position in the new training effort. At the heart of the inventory and cost control efforts of the three chefs, we find a technology-based information system which will make or break their restaurant.

THE FOUNDATION

What of the employer's other significant requests of the schools, that they provide students with the basic skills of reading, writing, and computation or that they teach punctuality and responsibility? Are these traditional functions of American Schools now outdated, over-whelmed by the new demands of the workplace? On the contrary, SCANS research has identified a three-part foundation of intellectual skills and personal qualities that are part of each of the five competencies. (See Figure C.)

The foundation includes three parts:

- **Basic Skills.** Reading, writing, mathematics (arithmetical computation and mathematical reasoning), listening, and speaking;
- **Thinking Skills.** Creative thinking, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning; and
- **Personal Qualities.** Individual responsibility as well as self-esteem, sociability, self-management, and integrity.

The scenarios are a useful device for exploring how the foundation both contributes to excellent performance and serves as a floor under the five competencies. The competent performance described in the scenarios would have been impossible without sufficient proficiency in both the basic and thinking skills, as well as responsible personal behavior.

FIGURE C

*More complete definitions can be found in Appendix C

A THREE-PART FOUNDATION

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

A. *Reading* — locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules
B. *Writing* — communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts
C. *Arithmetic/Mathematics* — performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques
D. *Listening* — receives, attends to, interprets, and responds to verbal messages and other cues
E. *Speaking* — organizes ideas and communicates orally

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reasons

A. *Creative Thinking* — generates new ideas
B. *Decision Making* — specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative
C. *Problem Solving* — recognizes problems and devises and implements plan of action
D. *Seeing Things in the Mind's Eye* — organizes, and processes symbols, pictures, graphs, objects and other information
E. *Knowing How to Learn* — uses efficient learning techniques to acquire and apply new knowledge and skills
F. *Reasoning* — discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

A. *Responsibility* — exerts a high level of effort and perseveres towards goal attainment
B. *Self-Esteem* — believes in own self-worth and maintains a positive view of self
C. *Sociability* — demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings
D. *Self-Management* — assesses self accurately, sets personal goals, monitors progress, and exhibits self-control
E. *Integrity/Honesty* — chooses ethical courses of action

The basic skills are the irreducible minimum for anyone who wants to get even a low-skill job. They will not guarantee a career or access to college education, but their absence will ensure that the door of opportunity remains closed. The thinking skills, by contrast, permit workers to analyze, synthesize, and evaluate complexity. They are the true raw materials from which the five competencies are built because they make workers the masters of their work instead of its servants.

The personal qualities are attributes that employers would like to be able to take for granted, but cannot. They are so important that their absence can quickly disqualify any job seeker at any level of accomplishment. Schools normally do not "teach" these qualities in the classroom itself but weave them into the life

and structure of the school environment—in the expectations that the school holds for student behavior and in the consequences it exacts if those expectations are not met.

Effective performance in today's workplace absolutely requires high levels of performance in all three parts of the foundation. There is no point in belaboring the obvious. People who cannot read, write, and communicate cannot be trusted in a transcription service. The rude salesman who alienates customers will not make sales. The cashier with a hand in the till cheats the business and ultimately the customers. The electrician who cannot solve technical problems threatens the production line. And restaurant owners who cannot creatively approach problems will probably not be in business for long.

The foundation is far too often viewed as the most we can hope for from public education. In fact, it is the point from which real competence is built. If the foundation is all we can hope for, that is all we will get, and we will have settled for far too little. The term "foundation" means just that. It supports the possibilities and potentials that most of our young people sense in themselves, and that schools must bring out. By learning the competencies as they learn the foundations, each intertwined with the other, our young people will be ready to enter and thrive in the workplace of tomorrow.

III
IMPLICATIONS FOR LEARNING

The SCANS goal is increased educational achievement for all segments of the population. We intend to transform perceptions about the preparation essential for work. If all of tomorrow's students are to master the full repertoire of SCANS competencies and their foundation, schools must change. The know-how we have defined is also important for further learning beyond high school. If yesterday's students, that is, today's worker—are to acquire these competencies—then workplaces must also be restructured and so must the adult education providers that serve them.

Students will not acquire what they need to progress in life by osmosis, either in school or in the workplace. Learning through experience is okay only if all students and workers are exposed to the right experiences. The SCANS skills can be taught. Schools and workplaces must provide structured opportunity for their acquisition.

TODAY'S SCHOOLS

Today's schools must determine new standards, curricula, teaching methods, and materials. Although SCANS believes that a total reorientation is required, with foresight and planning the know-how we have defined can be incorporated in the five core subjects (history, geography, science, English, and mathematics) as well as in other subjects and the extracurricular activity of schools.

SCANS believes that teachers and schools must begin early to help students see the relationships between what they study and its applications in real-world contexts. It is not true that everything we need to know in life we learned in kindergarten; it is true, however, that we can begin that early to learn what life requires.

We believe, after examining the findings of cognitive science, that the most effective way of teaching skills is "in context." Placing learning objectives within real environments is better than insisting that students first learn in the abstract what they will then be expected to apply. SCANS suggests three principles from cognitive science to guide real contextual learning in all our schools:

- Students do not need to learn basic skills before they learn problem-solving skills. The two go together. They are not sequential but mutually reinforcing.

- Learning should be reoriented away from mere mastery of information and toward encouraging students to recognize and solve problems; and

- Real know-how—foundation and competencies—cannot be taught in isolation; students need practice in the application of these skills.

The foundation is best learned in the context of the competencies that it supports. Reading and mathematics become less abstract and more concrete when they are embedded in one or more of the competencies; that is, when the learning is "situated" in a systems or a technological problem. When skills are taught in the context of the competencies, students will learn the skill more rapidly and will be more likely to apply it in real situations. Personal characteristics such as self-esteem and responsibility, to use another example, are best developed in teamwork efforts. Choosing between teaching the foundation and the competencies is false; students usually become more proficient faster if they learn both simultaneously. In sum, learning in order "to know" must never be separated from learning in

order "to do". Knowledge and its uses belong together. (See Figure D.)

Finally, in the Commissions's view, the foundation skills should be assessed along with competencies. Deficiencies in basic or thinking skills will be found in the performance of the competencies. These deficiencies need to be pointed out to the student and immediately remedied. But if students can demonstrate the competency properly, they can be assumed to have the foundation they need.

AMERICA 2000 calls for radically improving all 110,000 of today's schools, making them better and more accountable. The SCANS competencies are our contribution to that effort.

THE SCHOOL OF TOMORROW

Just as our workplaces are being reshaped, so too are our schools. As others have said, the school of tomorrow can be as different from today as overnight delivery is form the pony express. On May 22, 1991, President Bush sent Congress the AMERICA 2000 Excellence in Education Act. The bill included the *New American Schools* program for starting "break-the-mold schools." The first wave will create 535 such entities and more are anticipated by the year 2000. Students in these new schools will be learning the SCANS skills in new ways.

Imagine the challenge to education at the turn of the century in AMERICA 2000. School and work have been restructured and both are far more productive than they are today (See Figure E.) Students of all ages learn more per hour in schools of all sorts and workers earn more per hour on the job.

The emphasis on quality means fewer drop-outs from schools and fewer rejects on the production line. Our children are internationally competitive in math and science and, partly as a result, so are American goods and services.

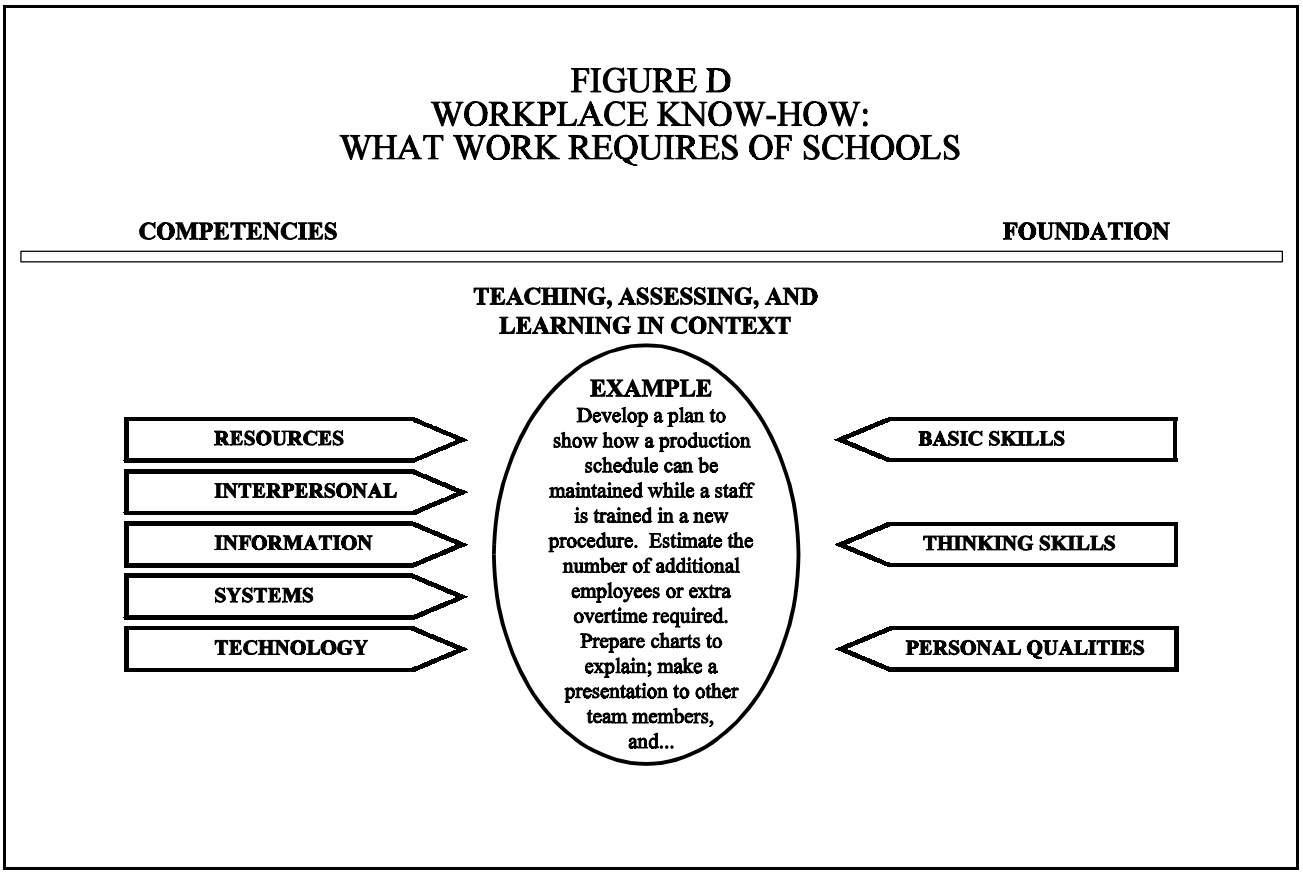
In junior and senior high schools, all students are studying the five core subjects defined by President Bush: English, mathematics, science, history, and geography. They are regularly assessed in these subjects by means of formal, nationally-comparable assessments made in the 4th, 8th, and 12th grades. Proficiency in the SCANS competencies is determined from the assessment for grades 8 and 12.

The 8th grade SCANS assessment is a benchmark for each student. It tells where more effort is needed if the student is to aspire to a decent job or to higher education. Daily, less formal assessments are guiding teacher and students alike. Learning a musical instrument is a sound analogy — the formal assessment is a recital, but the daily assessment comes in practice. Response is instantaneous and continual at each rehearsal. The SCANS competencies are tested in the same way — formal assessments at grades 8 and 12, but daily reinforcement occurs in curriculum activities centered on team efforts, school projects, and dairies, notebooks, and records of experiments maintained in each student's portfolio.

Assessments of student competency in the 12th grade are taken into consideration by college admissions officials. But there is a new development: employers are also paying attention to assessments of the SCANS skills in their hiring and placement decisions.

Moreover, all students are able to acquire the assessed skills with study. Indeed, the portions of assessments related to the know-how defined by SCANS are publicly available,

so teachers can teach the SCANS skills, and students can understand what they must learn. This is not curriculum driven by multiple choice tests; it is assessment to guide learning. High-performance firms build in quality; they do not test it in at the end of the production line. The schools of the future will, in a similar way, integrate assessment and instruction.



The SCANS competencies and skills are not intended for special tracks labeled "general" or "career" or "vocational" education. All teachers, in all disciplines, are expected to incorporate them into their classwork. The challenge here is to teach the know-how that young people need as an essential element of learning across the curriculum, including the five core subjects. Students will find the content more relevant and challenging. Teachers will find their classes more attentive and interested. Employers and college officials will be delighted with the results because the curriculum will be tied to real things in the real world.

The know-how defined by SCANS should be the responsibility of teachers in every curricular and extra-curricular area. These skills can and should be developed in the five core courses, in art and music, in foreign languages, in vocational education, on the school newspaper, or on athletic teams. Take the five core subject areas as examples (and these are only examples, as SCANS will not be prescribing curricula):

- **Allocating resources** can be taught in almost any of the five core subjects. Space and material resources are a natural object of inquiry in both history and geography. In both, students can study how the environment and natural resources shaped tribes and nations. Budget—from simple addition, to percentages, to algebra imbedded in sophisticated spreadsheets—can be covered in mathematics.

Learning how to compute percentages in the context of realistic budget problems will be much more profitable than if taught in the abstract or with artificial word problems.

FIGURE E

CHARACTERISTICS OF TODAY'S AND TOMORROW'S SCHOOLS	
SCHOOLS OF TODAY	**SCHOOLS OF TOMORROW**
STRATEGY	
• Focus on development of basic skills • Testing separate from teaching	• Focus on development of thinking skills • Assessment integral to teaching
LEARNING ENVIRONMENT	
• Recitation and recall from short-term memory • Students work as individuals • Hierarchically sequenced—basics before higher order	• Students actively construct knowledge for themselves • Cooperative problem solving • Skills learned in context of real problems
MANAGEMENT	
• Supervision by administration	• Learner-centered, teacher directed
OUTCOME	
• Only some students learn to think	• All students learn to think

- **Systems** and **technology** have a natural home in science courses. Students might learn about computer networks—or electrical or hydraulic or ecological systems—and be asked to evaluate alternative equipment possibilities in laboratory experiments. At higher levels of mathematics, students might learn statistical process control techniques as part of competence with systems.

- **Social systems** and **information** can again be taken up in history and geography. Students could be asked to compare the colonial "system" to the representational system that emerged from the Constitutional Convention.

- **Basic skills** find a natural home in English classes—reading, writing, listening, and speaking. What may not be as obvious are the possibilities for covering competence in information as well. Communications skills and the use of the computer for word processing, graphics, multi-media (video and audio), and manipulating databases can all be taught in the context of solving relevant problems.

- **Interpersonal** competence can be covered in all five core subjects, using cooperative learning opportunities to encourage team-work and evaluation of the team's solutions. Teachers might, at the beginning of the term, tell students that they will have the opportunity to teach. Students would understand that

their grade, in part, depends on how well their classmates learn the material they teach.

Future SCANS reports will discuss further the relationship between the SCANS competencies and achievements in the five core subjects. Clearly, the idea is that as students advance they will become more proficient in each of the SCANS five competencies. Performance in the 12th grade should be far superior to performance in the 8th. Performance after postsecondary school, training in the armed services, an apprenticeship program, or workplace-based training should be at a higher level still. SCANS believes that all students should be able to demonstrate their mastery of these skills by the time they can legally leave high school, age 16 in most states.

YESTERDAY'S STUDENT/TODAY'S WORKER

Most of those graduating high school this June, or in previous years, have not had an opportunity to learn the SCANS competencies. Four of every five of those who will be earning their living in the year 2000 are already beyond high school age. Yet, all these workers need to understand systems, allocate resources, and so on.

Fortunately, learning opportunities do not end with high school graduation. And these opportunities will have to be increased if Goal #5 of the six national Goals, agreed to by President Bush and the governors, is to be achieved. That goal states in part:

> *"Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy..."*

Meeting the goal means that programs that serve workers must teach the SCANS know-how. They need to be part of the curriculum goals for programs offered by companies at the workplace. They should also be present where unions and companies jointly participate—as the United Auto Workers does with the auto firms, and the Communication Workers of America and the International Brotherhood of Electrical Workers do with AT&T.

The SCANS proficiencies should also be sought by workers whose firms do not provide them with training or who are looking for work and are served by adult education and training programs including those administered by the Department of Labor under the Job Training Partnership Act or the Department of Health and Human Services under the Family Assistance Act.

AMERICA 2000 seeks to transform the United States from a "Nation at Risk" to a "Nation of Students." The strategy would change life-long learning from a slogan to a reality for all. Responsibility for the transformation must be assumed by all sectors of society, including employers. Neither presidents nor parents will be needed for long if employers do not value and reward additional skills. Figure A in Chapter I listed the characteristics of high-performance employers. These include investment in workers and promotion for skills attained. It makes no sense for schools to teach self-management if employers want to vest all authority in supervisors. Speaking skills will atrophy if workers are only expected to listen. Traditional mass production factories often viewed creativity as a liability rather than as an asset in a worker; and they certainly did not need workers who could "challenge existing procedures." Understanding systems yields no advantage if tasks are fragmented. Knowing how to schedule is an unnecessary skill if workers are subject to the routine of the traditional production lines.

In short, most employers have to require and be able to use productively the SCANS competencies. Otherwise, schools, students, and workers will not put forth the effort needed. In the words of an earlier Commission, America will have to choose a high-skilled, high-wage future. Workplaces must reorganize to use SCANS skills and become a learning environment for them. This choice will have to be made by service firms, as well as by manufacturers who produce for international

markets. Hospitals, restaurants, and government offices have to become high-performance workplaces.

AMERICA 2000 speaks of a public-private partnership to "establish job-related...skill standards, built around core proficiencies." This document provides a first definition of the core proficiencies. As such, it defines the end point for high school work and the beginning point for further learning on the job or in a postsecondary institution. This Commission is defining a level of proficiency within a spectrum that extends back into middle and elementary school and forward to higher education. It is the seam in life-long learning between high school and further study.

LEVELS OF PROFICIENCY

In addition to defining the skills needed for employment, the Commission was asked to propose acceptable levels of proficiency; that is, to answer the question: What is the threshold level for each competency and foundation skill for entry-level work? How much know-how is enough for a typical job ladder? If these questions cannot be answered with precision, the SCANS task will not be accomplished.

Proposing levels of proficiency is a difficult assignment. It requires judgement and a leap of imagination into a future world where schools and work are restructured. What *could* students and workers learn if the educational system fully responded to the strategy contained in AMERICA 2000? What *would* be required to access a career ladder if the high-performance model shown in Figure A became the norm? The proficiency levels are what makes the definitions meaningful. The verb "reading" is almost meaningless until an object such as "a computer manual" is attached. Is the minimum level for entering a high-performance workplace reading an instructional manual or a learned paper on advanced physics? Must an entry-level worker be able to listen to a customer with a complaint or to a lecture on advanced statistics?

SCANS proposes a proficiency scale that ranges from "preparatory" (suitable only for unskilled work) to "specialist" (suitable for jobs requiring special expertise). With proper preparation, all students could achieve at least the work-ready level on this scale. This level marks readiness to enter a job on a career ladder, one with real possibilities for decent pay and advancement in the workplace. In terms of just one area of competence—managing time as a resource—the proficiency scale might look like the following:

Proficiency Level	**Performance Benchmark**
Preparatory	Scheduling oneself
Work-ready	Scheduling small work team
Intermediate	Scheduling a production line or substantial construction project
Advanced	Developing roll-out schedule for new product or production plant
Specialist	Develop algorithm for scheduling airline

The following Figures F and G illustrate SCANS initial estimates of *work-ready* levels of proficiency required for entry into a career-ladder job today. These estimates may be modified as our research continues and as members of the public respond to this report; they are set forth to elicit reaction. Many people may believe these estimates are too high. They are certainly higher than most of us would expect today from all students. It would be surprising if most adults had these skills unless and until the competencies defined in this report are routinely taught in the schools. SCANS believes, however, that the competencies underlying the performances illustrated in these figures can be taught to, and learned by, every teenager.

Figures F and G describe the kinds of tasks performed by all employees in the high-performance workplace of today. These tasks define how the SCANS skills and competencies are used. Students who expect a promising career ladder must leave school with enough of this know-how to give employers some confidence that they can progress in the world of work.

FIGURE F

SERVICE KNOW-HOW: LEVEL OF COMPETENCE EXPECTED FOR ENTRY ON A CAREER LADDER (See Accommodations and Personal Services Scenario, Chapter II)	
COMPETENCE	**EXAMPLE OF WORK-READY LEVEL**
RESOURCES	Develop cost estimates and write proposals to justify the expense of replacing kitchen equipment. Develop a schedule for equipment delivery to avoid closing restaurant. Read construction blueprints and manufacturers' installation requirements to place and install equipment in the kitchen.
INTERPERSONAL	Participate in team training and problem-solving session with multi-cultural staff of waiters and waitresses. Focus on upcoming Saturday night when a local club has reserved the restaurant after midnight for a party. Three people cannot work and the team has to address the staffing problem and prepare for handling possible complaints about prices, food quality, or service.
INFORMATION	Learn how to use a spreadsheet program to estimate the food costs of alternative menus and daily specials. Make up weekly menu and print it with desk-top publishing software.
SYSTEMS	Analyze "system" that determines the average and maximum wait from the time customers sit down until they receive the appetizer and then the entree. Modify system to reduce both the average and maximum waiting time by 20 percent. Determine expected increase in the number of customers served.
TECHNOLOGY	Read the specifications and listen to salespeople describe three competing ovens for the kitchen. Write a report evaluating the ovens and making a recommendation. Set the automatic controls on the chosen oven to prepare a sample dish.

Tomorrow's career ladders require even the basic skills to take on new meaning. As shown in the figure, future jobs will require employees who can **read** well enough to understand and interpret diagrams, directories, correspondence, manuals, records, charts, graphs, tables, and specifications. Without the ability to read a diverse set of materials, employees will not be able to locate the descriptive and quantitative information needed to make decisions or to recommend courses of action. On the job, for example, this may mean reading well enough to:

- interpret blueprints and catalogues to estimate material costs;
- deal with complaint letters and company policy manuals describing complaint policy;
- understand patients' medical records and instructions for administering medication; and
- read the text of technical manuals from equipment vendors.

At the same time, most jobs will call for **writing skills** to prepare correspondence, instructions, charts, graphs, and proposals, in order to make requests, explain, illustrate, or convince. This may mean, for example:

- writing a memo to justify additional resources;
- preparing instructions for operating simple machines;
- developing a narrative to explain graphs and tables; and
- drafting suggested modifications in company procedures.

Mathematics and **computational skills** are also essential. Virtually all employees should be prepared to maintain records, estimate results, use spreadsheets, or apply statistical process controls as they negotiate, identify trends, or suggest new courses of action. Mathematics skills are the foundation of such actions as:

- reconciling differences in inventory records;
- mentally estimating discounts while negotiating sales;
- using spreadsheet programs to track expenditures;
- using statistical process control procedures to maintain quality; and
- projecting resource needs over the next planning period.

Finally, very few of us will work by ourselves. More and more work involves listening carefully to clients and co-workers and clearly articulating one's point of view. Tomorrow's worker will have to **listen** and **speak** well enough to explain schedules and procedures, communicate with customers, work in teams, understand customer concerns, describe complex systems and procedures, probe for hidden meanings, teach others, and solve problems. On the job this might mean:

- explaining new production schedules to a work team;
- describing plans to supervisors and clients;
- questioning customers to diagnose malfunctions; and
- answering questions from customers about services offered.

Today, we cannot precisely determine how many youngsters have skills at the SCANS work-ready level. Our only data source is the 1986 National Assessment of Educational Progress (NAEP) survey of 21 to 25-year-olds. Our staff compared the tasks in Figures F and G with those assessed by the NAEP. On this basis we estimate that less than half of young adults can demonstrate the SCANS reading and writing minimums; even fewer can handle the mathematics. NAEP does not assess the competencies. But since they are rarely explicitly taught or assessed in school, it is likely that reading, writing, and mathematics performance represents the upper limits of student proficiency. Further, today most schools do not address the listening and speaking skills directly.

Figures F and G also illustrate that all three parts of the foundation are required in work settings and are part of the competencies. Meeting the challenges presented in both figures obviously requires basic skills. But higher order thinking skills are also needed. Proposing an effective menu requires creativity and mental visualization. Learning how to use a spreadsheet program—by definition—cannot be accomplished without knowing how to learn. Recommending equipment requires decision making. Developing a training plan that does not upset production schedules requires problem-solving and reasoning skills.

The same observation can be made for the personal qualities that are part of the foundation; these qualities are essential for performance. Irresponsible workers or those lacking self-esteem are unlikely to contribute in team problem-solving efforts. No firm wants discourteous employees without social skills dealing with vendors or salespeople, let alone with fellow employees or customers. Without the capacity for self-management, a worker cannot be given a lengthy assignment, such as analyzing statistical charts and finding ways to improve quality or analyzing

the waiting time in a restaurant; those who are not self-starters will be looking for step-by-step instructions until it becomes easier for the manager to do the job him or herself. Finally, no firm can afford having workers whose integrity cannot be trusted involved in matters dealing with vendors or safety.

As the letter to parents, employers, and educators that preceded this document states: the real world does not "...categorize problems into five domains of competence and a three-part foundation. Instead, all eight [are applied] to the situation..." Figures F and G are intended to illustrate that idea.

FIGURE G

MANUFACTURING KNOW-HOW:
LEVEL OF COMPETENCE EXPECTED FOR ENTRY ON A CAREER LADDER
(See Manufacturing Scenario, Chapter II)

COMPETENCE	EXAMPLE OF WORK-READY LEVEL
RESOURCES	Develop a plan to show how the production schedule can be maintained while the staff is trained in a new procedure. Estimate the number of additional employees or overtime required so that training can occur. Prepare charts to explain schedule to management and employees; make a presentation and answer questions about it.
INTERPERSONAL	Join a production team brainstorming to find ways to include two new workers who speak limited English in the plant's improvement program. The goal is to have all team members, whatever their English skills, make weekly suggestions to improve product quality.
INFORMATION	Analyze statistical control charts to monitor error rate. Develop, with other team members, a way to bring performance in your production line up to that of best practice in competing plants.
SYSTEMS	As part of information analysis above, analyze painting system and suggest how improvements can be made to minimize system downtime and improve paint finish.
TECHNOLOGY	Evaluate three new paint spray guns from the point of view of costs, health and safety, and speed. Vendors describe performance with charts and written specifications. Call vendors' representatives to clarify claims and seek the names of others using their equipment. Call and interview references before preparing a report on the spray guns and making a presentation to management.

FUTURE WORK

This report is the first product of the SCANS Commission. It defines the skills needed for employment and contains our initial proposals for acceptable levels of proficiency.

As this report is in preparation, SCANS is continuing its analysis of performance requirements for 50 jobs, including chefs, electricians, bank tellers, truck drivers, and numeric control drill press operators.[4]3 When that analysis is complete, SCANS will be in a position to more accurately describe job performance requirements at the work-ready proficiency level for each of five competencies.

The Commission's activities will conclude in February 1992. In the remaining months of the Commission's service, we will continue our efforts to propose acceptable levels of proficiency and turn our attention to the other two tasks with which we have been charged:

- suggesting effective ways to assess proficiency; and
- developing a dissemination strategy for the nation's schools, business, unions, and homes.

The work will be undertaken by a series of SCANS Committees that will address: Assessment, Changes in K-12 Education, Changes in Education for Today's Workers, and How Technology Can Support Educational Change. We also have created a special group to address the role of Government as Employer.

Assessment

President Bush has called for a nationwide voluntary assessment of our young people in grades 4, 8, and 12 in five core subjects: English, mathematics, science, history, and geography. We believe measurement of SCANS competencies should inform the development of those assessments in grades 8 and 12. The President's program states, "Colleges will be urged to use the American Achievement Tests in admissions; employers will be urged to pay attention to them in hiring."

In the next six months, SCANS will consider the major issues involved in creating an assessment system for the competencies and the foundation.

SCANS understands that the large numbers of local, state, and nationwide examinations that are already administered in the nation's schools add up to a nearly overwhelming burden in the nation's classrooms. We have no desire to add a testing system that is already extensive. At the same time, SCANS is convinced that most existing tests—largely pencil and paper, multiple choice tests of short-term memory—do little to advance the cause of learning. Effective assessment techniques should support instruction and student's knowledge of their progress.

The assessment process we will examine further will be aimed at ensuring fairness for students from different social, racial, and economic backgrounds. The standards embodied in this assessment process should not be a barrier to student success but a gateway to a new future. This can be accomplished with an open assessment system in which the criteria for performance are crystal clear. Assessment must be designed so that, when teachers teach and students study, both are engaged in authentic practice of valued competencies. SCANS will not develop the assessment process; we will, however, consider and report on the issues involved.

As part of that effort, SCANS will explore the idea of certifying that they competencies have been acquired.

SCANS aims to promote the development and use of assessment that can provide the basis for a new kind of high school credential. This credential will measure mastery of specific, learnable competencies. This approach is intended to renew the dignity of the high school diploma, giving it real meaning as a mark of competence.

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[4]See Appendix D.

Certifying the five competencies can serve several purposes not now being achieved. They will link school credentials, student effort, and student achievement; they will provide an incentive for students to study; and they will give employers a reason to pay attention to school records. Finally, they will provide a clear target for instruction and learning. Assessment can thus help improve achievement, not simply monitor it.

In response to President Bush's request that business and labor leaders help create "World Class Standards" of student performance, SCANS will work with the Departments of Labor and Education to "spearhead a public-private partnership" as called for in AMERICA 2000. This entity will advise education officials about work-relevant skills and knowledge as described in the President's education strategy.

The President has charged SCANS to inform the Secretaries of Labor and Education as they develop voluntary standards for all industries. We will review this charge under AMERICA 2000 before issuing our final report.

As the Secretary of Education has said "AMERICA 2000 is not a program but a crusade." If the crusade is to succeed, education must effectively be linked to work. Employers and labor leaders, therefore, must participate in decisions about what future American schools will look like, what kinds of skills and knowledge they will teach, and what kinds of certificates of competence will accompany the high school diploma.

Dissemination

Developing a strategy to assure that the SCANS competencies become a part of the learning opportunity for every child in this nation is a formidable task. There are many issues to be considered if schools are to integrate instruction in these competencies into their current programs.

In the next six months, the Commission will consider the implications of the SCANS competencies and foundation for curriculum, instructional materials, school organization, and teacher training.

The members of SCANS understand that what they are proposing presents major new challenges to the nation's schools and educators. Schools of the future, capable of developing these competencies and skills in every student, will not spring up overnight. Creating schools of the future will require focusing on their organization and related concerns of curriculum, instructional materials, and teacher training.

We realize that these changes will not be free of charge. For example, the AMERICA 2000 Excellence in Education Act calls for Governors' Academies for School Leaders and for Teachers. We also realize that good schools will use their resources efficiently and effectively. In the remaining months left to SCANS, we will consider how educators might proceed.

Again, SCANS will not produce curricula or instructional materials. We will, however, examine the implications of our recommendations for these components of the learning process.

A BEGINNING

President Bush has encouraged all of us to be revolutionaries in the cause of education. The revolution required in education will not be easy to accomplish. But the members of the SCANS Commission remain optimistic. Many students and teachers are working wonders against great odds; many schools have begun the work of reshaping themselves. A review of our nation's history demonstrates that the success of the United States has always been rooted in the ability of it's people to rise to new challenges. The knowledge that our education system is not keeping pace with change must be tempered with the recognition that these same schools produced men and women who have created changes undreamed of in the world.

For over 200 years Americans have worked to make education part of their national vision, indispensable to democracy and to

individual freedom. For at least the last 40 years, we have worked to join the power of education to the ideal of equity—for minority Americans, for the disabled, and for immigrants. With that work still incomplete, we are called to still another revolution—to create an entire people trained to think and equipped with the know-how to make their knowledge productive.

This new revolution is not less exciting or challenging than those we have already completed. Nor is its outcome more certain. All that is certain is that we must begin.

To that end, SCANS contributes this document to the discussion. We do not pretend to have the final word. As a report on work in progress, our conclusions are tentative and incomplete. Nevertheless, we believe that what we have outlined here represents a genuine addition to the conversation. We offer it as a contribution to the national dialogue about education in America.

We ask all who care about the future to join us in this conversation. Is the vocabulary we have provided helpful? Are we on the right track with our definition of the know-how needed by young Americans? Are the competencies and skills we have defined being taught in your child's school or at your place of work? Your participation in this conversation can help refine, correct, and focus SCANS thinking as we continue our work. We invite you to be in touch with the Department of Labor for more information about these issues and for the tools and materials it can provide to help you test these ideas in your own community.

APPENDIX A
ACKNOWLEDGMENTS

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APPENDIX B
DEFINITIONS: THE COMPETENCIES

RESOURCES

Allocates Time. Selects relevant, goal-related activities, ranks them in order of importance, allocates time to activities, and understands, prepares, and follows schedules.

Allocates Money. Uses or prepares budgets, including making cost and revenue forecasts, keeps detailed records to track budget performance, and makes appropriate adjustments.

Allocates Material and Facility Resources. Acquires, stores, and distributes materials, supplies, parts, equipment, space, or final products in order to make the best use of them.

Allocates Human Resources. Assesses knowledge and skills and distributes work accordingly, evaluates performance, and provides feedback.

INTERPERSONAL

Participates as a Member of a Team. Works cooperatively with others and contributes to group with ideas, suggestions, and effort.

Teaches others. Helps others learn.

Serves Clients/Customers. Works and Communicates with clients and customers to satisfy their expectations.

Exercises Leadership. Communicates thoughts, feelings, and ideas to justify a position, encourages, persuades, convinces, or otherwise motivates an individual or groups, including responsibly challenging existing procedures, policies, or authority.

Negotiates. Works toward an agreement that may involve exchanging specific resources or resolving divergent interests.

Works with Cultural Diversity. Works well with men and women and with a variety of ethnic, social, or educational backgrounds.

INFORMATION

Acquires and Evaluates Information. Identifies need for data, obtains it from existing sources or creates it, and evaluates its relevance and accuracy.

Organizes and Maintains Information. Organizes, processes, and maintains written or computerized records and other forms of information in a systematic fashion.

Interprets and Communicates Information. Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial, or multi-media methods.

Uses Computers to Process Information. Employs computers to acquire, organize, analyze, and communicate information.

SYSTEMS

Understands Systems. Knows how social, organizational, and technological systems work and operates effectively within them**.**

Monitors and Corrects Performance. Distinguishes trends, predicts impact of actions on system operations, diagnoses deviations in the function of a system/organization, and takes necessary action to correct performance.

Improves and Designs Systems. makes suggestions to modify existing systems to improve products or services, and develops new or alternative systems.

TECHNOLOGY

Selects Technology. Judges which set of procedures, tools, or machines, including computers and their programs, will produce the desired results.

Applies Technology to Task. Understands the overall intent and the proper procedures for setting up and operating machines, including computers and their programming systems.

Maintains and Troubleshoots Technology. Prevents, identifies, or solves problems in machines, computers, and other technologies.

APPENDIX C
DEFINITIONS: THE FOUNDATION

BASIC SKILLS

Reading. Locates, understands, and interprets written information in prose and documents—including manuals, graphs, and schedules—to perform tasks; learns from text by determining the main idea or essential message; identifies relevant details, facts, and specifications; infers or locates the meaning of unknown or technical vocabulary; and judges the accuracy, appropriateness, style, and plausibility of reports, proposals, or theories of other writers.

Writing. Communicates thoughts, ideas, information, and messages in writing; records information completely and accurately; composes and creates documents such as letters, directions, manuals, reports, proposals, graphs, flow charts; uses language, style, organization, and format appropriate to the subject matter, purpose, and audience. Includes supporting documentation and attends to level of detail; checks, edits, and revises for correct information, appropriate emphasis, form, grammar, spelling, and punctuation.

Arithmetic. Performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical situations; makes reasonable estimates of arithmetic results without a calculator, and uses tables, graphs, diagrams, and charts to obtain or convey quantitative information.

Mathematics. Approaches practical problems by choosing appropriately from a variety of mathematical techniques; uses quantitative data to construct logical explanations for real world situations; expresses mathematical ideas and concepts orally and in writing; and understands the role of chance in the occurrence and prediction of events.

Listening. Receives, attends to, interprets, and responds to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend; to learn; to critically evaluate; to appreciate; or to support the speaker.

Speaking. Organizes ideas and communicates oral messages appropriate to listeners and situations; participates in conversation, discussion, and group presentations; selects an appropriate medium for conveying a message; uses verbal language and other cues such as body language appropriate in style, tone, and level of complexity to the audience and the occasion; speaks clearly and communicates a message; understands and responds to listener feedback; and asks questions when needed.

THINKING SKILLS

Creative Thinking. Uses imagination freely, combines ideas or information in new ways, makes connections between seemingly unrelated ideas, and reshapes goals in ways that reveal new possibilities.

Decision Making. Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternatives.

Problem Solving. Recognizes that a problem exits (i.e., there is a discrepancy between what is and what should or could be), identifies possible reasons for the discrepancy, and devises and implements a plan of action to resolve it. Evaluates an monitors progress, and revises plan as indicated by findings.

Seeing Things in the Mind's Eye. Organizes and processes symbols, pictures, graphs, objects or other information; for example, sees a building from a blueprint, a system's operation from schematics, the flow of work activities from narrative descriptions, or the taste of food from reading a recipe.

Knowing How to Learn. Recognizes and can use learning techniques to apply and adapt new knowledge and skills in both familiar and changing situations. Involves being aware of learning tools such as personal learning styles (visual, aural, etc.), formal learning strategies (note taking or clustering items that share some characteristics), and informal learning strategies (awareness of unidentified false assumptions that may lead to faulty conclusions).

Reasoning. Discovers a rule or principle underlying the relationship between two or more objects and applies it in solving a problem. For example, uses logic to draw conclusions from available information, extracts rules or principles from a set of objects or written text; applies rules and principles to a new situation, or determines which conclusions are correct when given a set of facts and a set of conclusions.

PERSONAL QUALITIES

Responsibility. Exerts a high level of effort and perseverance toward goals attainment. Works hard to become excellent at doing tasks by setting high standards, paying attention to details, working well, and displaying a high level of concentration even when assigned an unpleasant task. Displays high standards of attendance, punctuality, enthusiasm, vitality, and optimism in approaching and completing tasks.

Self-Esteem. Believes in own self-worth and maintains a positive view of self; demonstrates knowledge of own skills and abilities; is aware of impact on others; and knows own emotional capacity and needs and how to address them.

Sociability. Demonstrates understanding, friendliness, adaptability, empathy, and politeness in new and on-going group settings. Asserts self in familiar and unfamiliar social situations; relates well to others; responds appropriately as the situation requires; and takes an interest in what others say and do.

Self-Management. Assesses own knowledge, skills, and abilities accurately; set well-defined and realistic personal goals; monitors progress toward goal attainment and motivates self through goal achievement; exhibits self-control and responds to feedback unemotionally and non-defensively; is a "self-starter."

Integrity/Honesty. Can be trusted. Recognizes when faced with making a decision or exhibiting behavior that may break with commonly-held personal or societal values; understands the impact of violating these beliefs and codes on an organization, self, and others; and chooses an ethical course of action.

APPENDIX D
JOBS ANALYSIS

The SCANS concepts of competencies and a foundation, and the use of scenarios describing work in context, was developed by the Commission and staff based on a review of the literature and advice from numerous experts. Convinced that this new language represented a promising start, SCANS extended this conversation into the research and business communities. We wanted to ensure that the five competencies and the foundation were, in fact, critical to job performance. We also worked to ensure that the workplace scenarios represented expert reflection on what today's worker actually does.

During Phase I of this effort 15 jobs have been analyzed through detailed, in-depth interviews, lasting up to four hours each, with job holders or their supervisors. The interviews explored the general job description, confirmed ratings of the importance of skills, and inquired about "critical incidents" and illustrative tasks and tools used on the job.

The 15 jobs, by employment sector, are:

- **Restaurant and Accommodations**
  —Chefs
  —Front Desk Clerks
  —Assistant Housekeepers

- **Manufacturing and Construction**
  —Electricians
  —Numeric Control Drill Operators
  —Offset Lithographer Press Operators

- **Office and Finance**
  —Bank Tellers
  —Underwriter Assistants
  —Secretaries

- **Health and Human Services**
  —Medical Record Technicians
  —Registered Nurses
  —Teacher's Aides

- **Trade and Communications**
  —Truck Drivers
  —Retail Salespeople
  —Inside Equipment Technicians.

In Phase 2 of the SCANS research, the following 35 jobs will be added to the research base:

- **Manufacturing, Agri-Business, Mining, and Construction**
  —Plastic Molding Machine Operator
  —Blue Collar Worker Supervisor
  —Farmer
  —Excavating Machine Operator
  —Carpenter
  —Expeditor/Purchasing Agent
  —Construction Contractor

- **Health and Human Services**
  —Childcare Aide
  —Dental Hygienist
  —Dietary Manager
  —Licensed Practical Nurse
  —Medical Assistant
  —Medical Technician/Technologist
  —Optician

- **Office, Financial Services, and Government**

  —Graphics Designer
  —Computer Operator
  —Accounting/Financial Analyst
  —Programming Technician
  —Personnel Specialist
  —Law Enforcement Officer
  —Quality Control Inspector

- **Accommodations and Personal Services**
  —Food Service Unit Manger
  —Waiter/Waitress
  —Industry Training Specialist
  —Accounting Executive/ Executive Meeting Manager
  —Hairstylist/Cosmetologist/Esthetician
  —Beauty Shop Owner
  —Show Operations Supervisor

- **Trade, Transportation, and Communications**
  —Order Filler
  —Traffic, Shipping and Receiving Clerk
  —Outside Equipment Technician
  —Truck Delivery Salesperson
  —Telemarketing Representative
  —Travel Agent
  —Customer Service Representative

FOR ADDITIONAL INFORMATION AND MATERIALS, CONTACT:

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EMPLOYING NONCOGNITIVE VARIABLES IN ADMITTING AND ADVISING COMMUNITY COLLEGE STUDENTS

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As community colleges have more applicants, more programs have turned to selective admissions. Additionally, good postmatriculation advising requires more useful assessments than have been possible employing such measures as prior grade-point average (GPA). A variety of problems have been identified in relying on GPA. A series of noncognitive variables, as measured by the Noncognitive Questionnaire (NCQ), were included in a study of 263 community college students in health sciences programs at a western community college. NCQ scores were related to college grades using Pearson correlation and multiple regression. Results showed modest but statistically significant relationships with community college grades. The NCQ scales of Community, Leadership and Strong Support Person contributed most to multiple-regression equations predicting college grades. NCQ scales tended to correlate highest with early and late community college grades. While students in the study had mean NCQ scores similar to normative samples, they tended to be lowest on Community,

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which was most predictive of their performance. It is recommended that a predicted GPA generated from NCQ scores be added to the admissions criteria for health programs at the college, and that pre and postmatriculation advising programs include use of noncognitive variables.

Admissions to colleges and universities remain one of the most important functions in higher education. This function is commonly separated in policy and practice from advising, particularly postmatriculation academic advising. If admissions and advising can be coordinated, the effect on students and the campus climate can be profound. While many community colleges have open admissions—as more students from diverse backgrounds seek admissions—more institutions are having to reexamine their admissions policies in the context of how they provide advising. The purpose of this study was to investigate the utility of employing noncognitive variables in selecting students for health sciences programs at a western community college. Previously, the college had employed high school grades as a predictor of student success at the school. Following, is a discussion of the validity of high school grades and the noncognitive variable scores as indicators of student success and their value as a basis for student advising.

Research has generally supported the value of prior grades as predictors of college grades or retention (Carnevale, Haghighat, and Kimmel, 1998; Sedlacek, 1998). However, there are some disadvantages to employing high school grade-point average (GPA) as a predictor. First, variations in the quality of the high school tend to dilute the value of the GPA. Comparing schools with varying standards is difficult. The quality of the students and the quality of the curriculum may vary (Sedlacek, 1998). Additionally, grading practices may vary at different high schools (Carnavale et al., 1998). Another issue is the gap that exists between high school exit standards and college entrance requirements (Smittle, 1995).

A potentially greater problem in using GPA as a predictor is "grade inflation." Data from the College Board show that the percentage of students who had an A average (A+, A, A–) has increased from 28% to 37%, with no corresponding increase in postsecondary achievement (Rigol & Kimmel, 1997). Ziomek and Svec (1995) also reported that high academic achievers were particularly likely to receive inflated grades in high school. Rojstaczer (2003) reported that the mean GPA in higher education nationally had risen from 2.94 in 1991–92 to 3.09 in 2001–02, based on a 4-point system. *Thus, the grade inflation problem seems to exist at all levels of education.* Another report by Career World (1999) indicated that the use of test preparation programs for the Scholastic Achievement

Test (SAT) and American College Test (ACT), as well as grade inflation, make it difficult for colleges to identify the high academic achiever.

Grade inflation can be a large problem for community colleges. As some programs have gotten more selective, the GPAs of applicants have increased to a point where their potential to discriminate among applicants is very limited. In addition, with the increase of diverse students attending community colleges, there is also an increased number of individuals who are coming to college underprepared (Smittle, 1995). Furthermore, 10% of all high schools no longer calculate GPAs. Of those that do calculate GPAs, 57% include nonacademic courses in the figure (The College Board, 1998). Consequently, prior GPA may not tell us enough of what we need to know about the potential of students before or after they enroll.

Research conducted by Sternberg (1985, 1986) offers compelling reasons to look beyond cognitive predictors of academic performance when making admissions decisions. The author suggested that intelligence can be shown in three ways. The first, componential or analytic intelligence, is the ability to interpret information in a hierarchical and taxonomic fashion in a well-defined and unchanging context. It is associated with traditional educational and social experiences. People who do well on standardized tests and have high precollege GPAs tend to have this type of intelligence. The second, experiential intelligence, involves the ability to interpret information in changing contexts. Lastly, contextual intelligence is the ability to adapt to a changing environment, i.e., the ability to handle one's environment and negotiate the system. The Noncognitive Questionnaire (NCQ) is designed to measure Sternberg's (1985, 1986) experiential and contextual intelligences (Sedlacek, 1996; 2003; 2004; in press). Table 1 contains a description of the NCQ scales. The NCQ has been shown to have validity in predicting the success (grades and retention) of students in higher education. It has been shown to be particularly valid for students with less-traditional experiences than middle-class 18–22 year olds, e.g., students of color, 2nd older students (Sedlacek, 1998; 2003; 2004; in press).

The NCQ scales were designed to provide information that can be used by advisors to work with students developmentally (Sedlacek, 1991). The dimensions are correlated with academic success, and make intuitive and developmental sense for students.

METHOD AND RESULTS

Students in the health sciences programs at a western community college ($N = 263$) were administered the NCQ. The NCQ was scored

Table 1. Description of noncognitive scales

Noncognitive scale	Description
Positive self-concept or confidence	Strong self-feeling, strength of character. Determination, independence.
Realistic self-appraisal	Especially academic. Recognizes and Accepts any deficiencies and works hard at self-development. Recognizes needs to broaden his/her individuality.
Understands and deals with racism	Realist based upon personal experience of racism. Is committed to fighting to improve existing system. Not submissive to existing wrongs, not hostile to society, nor a "cop-out." Able to handle racist system. Asserts school role to fight racism.
Prefers long-range goals to short-term or immediate needs	Able to respond to deferred gratification.
Availability of strong support person	To whom to turn in crises.
Successful leadership experience	In any area pertinent to his/her background (gang leader, sports, noneducational groups, etc.).
Community involvement	Has involvement in his/her cultural community.
Knowledge acquired in a field	Unusual and/or culturally related ways of obtaining information and demonstrating knowledge. Field itself may be nontraditional.

with interrater reliability of 85% or .86 using coefficient alpha. The NCQ scale scores were correlated with cumulative grades and grades for several semesters. Table 2 shows the means and standard deviations for the NCQ scales and grades.

Multiple regression analyses were done for each GPA separately using NCQ scores as predictors and GPA as a criterion. Table 3 shows the multiple correlations for the analyses.

Multiple correlations with GPAs (significant at .05 level) show that the NCQ scale Community Service contributed most to the multiple correlations, followed by Leadership and Strong Support Person. Community was significant in all equations, while Strong Support Person contributed most to the earlier GPA predictions and Leadership to later GPA predictions. Each of the noncognitive variables made a significant contribution to at least one of the equations.

Table 2. Grade point averages (GPAs) means and standard deviations as measured by the noncognitive questionnaire (NCQ)

Year	Mean*	Standard deviation
1	1.88	1.74
2	2.42	1.70
3	2.88	1.33
4	3.06	1.01

*4 point system.

Table 3. Significant noncognitive predictors of grade-point average as determined by multiple correlation analyses of noncognitive questionnaire scores

Year	Multiple correlations (*R*)	Noncognitive variable*
1	.53	Support person, leadership, community, self concept, self-appraisal
2	.44	Community, support person, leadership, goals
3	.39	Community, nontraditional knowledge, leadership, handling racism
4	.31	Community, support person, nontraditional knowledge
Cumulative	.66	Community, support person, leadership

*significant (.05) contributor to *R*.

DISCUSSION

The multiple correlations indicated some potentially useful relationships to consider in determining policy. The NCQ scales tended to correlate best with early GPA and with cumulative GPA. Early GPAs had less restriction of range than later GPAs. Cumulative GPAs are the most stable estimates and, hence, may be more likely to show a relationship if one is present. Studies have shown that early and cumulative grades in a curriculum are probably the most meaningful (Sedlacek, 1989; 2004). Getting off to a good start and finishing well are critical to student adjustment, and are points of transition. Often students are exploring or focused on other issues in the middle of their curricula. For example, persistence is a concept that is difficult to measure because the student may leave in good standing to explore other more immediate goals, i.e., raise a family, obtain employment, or reach for other personal objectives (Grimes & Antworth, 1996; Losak, 1986, as cited in Grimes & David, 1999).

While students in the study generally had NCQ scores similar to normative samples, they tended to be lowest on Community Service—which was the scale most predictive of their performance. Thus, using Community Service as both a predictor of success and a postmatriculation concept in advising and student services would be worth serious consideration. Community college students had the highest NCQ scores on Self-Concept, Long-Term Goals, and Leadership. This suggests that those noncognitive variables are areas of strength for community college students.

Noncognitive variables have been shown to be better predictors of retention than grades (Sedlacek, 2004). Future analyses will include retention, where feasible, as well as comparisons of matriculated and nonmatriculated students and predicted GPAs of applicants. These analyses will provide further information about the admissions and advising process at community colleges.

It is recommended that community colleges consider employing noncognitive variables in admissions and advising policies. Using multiple-regression equations developed in this study that predict GPA, applicants can receive a predicted GPA from NCQ scores. This predicted GPA can be considered along with prior GPA to decide on admissions to selective programs. Studies should be conducted at any institution considering using noncognitive variables; weights unique to a given school could be developed.

Implications for practice include using individual NCQ scores in advising students who matriculate, or in preadmission advising. This could be particularly useful for those who choose other options or who are not selected. Sedlacek (2004) presented a number of case studies and suggestions for using noncognitive variables in advising, including examples in community college.

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A Proposed Framework for Case Conferencing

Context

Case conferences are regular, weekly or bi-weekly conversation that staff have about each individual student. One of the features of programs with good outcomes is their ability to have a real-time understanding of the accomplishments and barriers each student is experiencing. This is an important strategy for promoting the individual development of each student. This framework is designed to provide a practical structure for these conversations.

In our view, regular case conferencing has at least two important benefits. First, it can facilitate alignment among the staff. Each staff person may have a point of view about how each individual student is progressing through the program. These conversations provide an opportunity for staff to share data about students, and clarify their collective intention towards the students' development. Second, it can ensure that program is maximizing its leverage to promote personal change. This provides a meaningful experience for each student.

It's important for staff to be aware of their on bias in this process. Thinking analytically about student behavior has to be infused in this process. Two tools that we have used with some success has been the **leadership compass**. This helps staff to be aware of their own biases and those of others. This can help them put their own differences in perspective. The **ladder of inference** is a tool that can show staff how we all work from a selected data and make assumptions and draw meaning based on our own individual differences. Describing behavior or issues can provide data to build shared meaning. *The Fifth Discipline Fieldbook* is a good resource that describes the ladder of inference and strategies for staffs to engage in what they call "skillful discussion".

We described preconditions for case conferencing, overarching construct for case conferencing, case conferencing principles, conditions for success and a suggested case conferencing process.

Preconditions for case conferencing

A. Staff must mutual respect for each other. They may not always agree and they may interpret the behaviors of students in different ways. Staff need to listen to each other and describe exactly what they are experiencing in relation to each student. Descriptive discussion builds shared meaning, and of course, careful listening builds understanding between staff people.

B. The program has to be clear on what its core beliefs about student success

- Turning the program's core beliefs about student success into competencies (what does the program believe is essential for student's success in the world? What set of beliefs is the program promoting with students?)
- Competencies can be demonstrated
- Competencies are measurable by number, percent, or a yes/no.

C. Staff expect that each students' behavior can change. This belief is a critical part of creating a transformational environment where students can develop.

Overarching construct

A case conference is based on three sets of questions:

1. How is the young person doing? This question is informed by the status of each individual young person who has issues, assets, and formative needs.

2. Are there areas of need or is there an opportunity to cultivate these competencies?
   This is informed by how young people are acting in ways that the program believes will make them successful in the world. It is also based how the student is or is not manifesting behaviors the program is trying to cultivate.

3. What will need to happen to address these needs of to support the utilization of these opportunities? Who will "take point" in this effort? When will it happen?

This forms the strategy staff implement as a result of the case conferencing process. Everyone plays a role.

The strategy itself springs from **three program capacities.**

(a) The program and its staff have the capacity to provide **services** to young people in need. Connecting a young person to day care or to substance abuse rehabilitation are examples of services.
(b) The program and its staff have the capacity to provide **supports** that will help the young person develop the competencies they need to develop. Providing a specific training providing specific feedback to the young person are examples of a support.
(c) The program and its staff have the capacity to provide **opportunities** for young people to practice competencies or to manifest values. This is the basis for leadership development. A young person might be given a role to practice this competency. If a student needs to practice clear communication, he/she might be asked to say the pledge out loud for example.

<u>Principles of Case Conferencing</u>

- Data is primary and everyone has data about the young person
- A strategy includes opportunities, supports, and services
- Ladder of Inference: staff is sharing data, coming up shared meaning, and implementing strategies that leverage their strengths in relation to the young person.
- Staff talk about every young person on a regular basis

<u>Suggested Case Conferencing Process</u>

The case manager facilitates the process.

(1)Case manager shares objective data: attendance, progress toward competencies, etc.

(2)Go-round: other staff share their data

- I see….
- I think….
- I believe the next step for the student is…..

(3)Strategy/ Commitments

(4)Case Manager recaps action steps and commitments

(5)Check-in point is established

TOTAL TIME: 5-10 MINUTES PER STUDENT