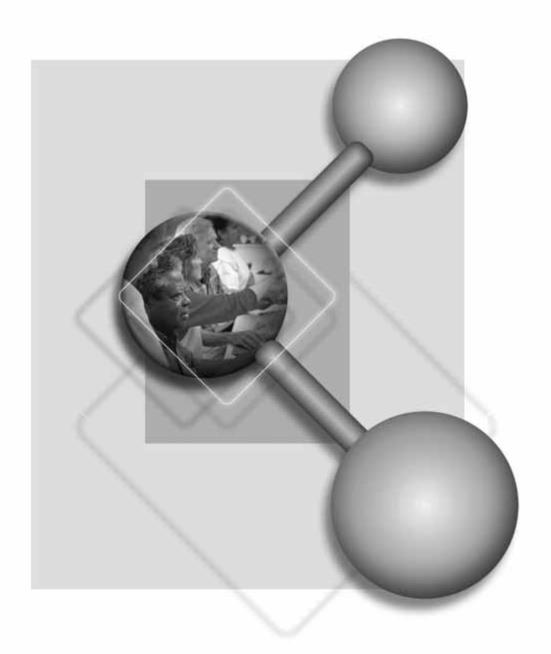
## Career Pathways as a Systemic Framework

Rethinking Education for Student Success in College and Careers







## **Career Pathways as a Systemic Framework**

Rethinking Education for Student Success in College and Careers

The League for Innovation in the Community College is an international organization dedicated to catalyzing the community college movement. The League hosts conferences and institutes, develops web resources, conducts research, produces publications, provides services, and leads projects and initiatives with more than 750 member colleges, 150 corporate partners, and a host of other government and nonprofit agencies in a continuing effort to make a positive difference for students and communities. Information about the League and its activities is available at www.league.org.

This paper is published with the generous support of *Kuder*.



The opinions expressed in this book are those of the authors and do not necessarily reflect the views of the League for Innovation in the Community College, Kuder, or the U.S. Department of Education, Office of Vocational and Adult Education.

©2007 League for Innovation in the Community College

All rights reserved. No part of this project may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, without limitation, photocopying, recording, or by any information storage and retrieval system, without written permission.

Requests for permission should be sent to **Publications** League for Innovation in the Community College 4505 E. Chandler Boulevard, Suite 250 Phoenix, AZ 85048 Email: publications@league.org

Fax: (480) 705-8201

Printed in the United States of America

ISBN 978-1-931300-48-3

## Acknowledgements

This Call to Action grew out of a conversation between representatives of the College and Career Transitions Initiative and the Breaking Through Initiative about the need to reinvigorate education across the country through the use of career pathways. In response to shared concepts identified in the course of that dialogue, 25 experts and practitioners in the field of career pathways were convened and charged with the task of identifying ways to transition pathways existing silo efforts targeting in-school youth, out-of-school youth, or adults into a single lifelong continuum.

In response to this challenge, the individuals listed on the next page coauthored this paper with the vision of reorganizing workforce development efforts at community colleges to meet the needs of all students eligible to access services through their programs. While the paper draws heavily from recent work in the field, it attempts to move career pathways forward by redefining existing models as a single systemic framework capable of serving students of all ages.

Our purpose in developing this paper is to encourage a dialogue with our colleagues across the country about what career pathways mean for the organization of community colleges as they seek to fulfill their workforce development mission.

The League gratefully acknowledges the generous support provided by *Kuder* for the printing and distribution of this publication.

Jim Jacobs
National Council for Workforce Education

Laurance Warford League for Innovation in the Community College

January 2007

## Coauthors

Ashok Agrawal

St. Louis Community College

Julian L. Alssid

Workforce Strategy Center

Keith Bird

Kentucky Community and Technical College System

Melissa Goldberg

Workforce Strategy Center

**Scott Hess** 

U.S. Department of Education

Jim Jacobs

National Council of Workforce Education

Community College Research Center, Teachers College, Columbia University Macomb Community College

**Davis Jenkins** 

Community College Research Center, Teachers College, Columbia University

Gwen Joseph

Kentucky Community and Technical College System

Richard Kazis

Jobs for the Future

Shauna King-Simms

Kentucky Community and Technical College System

Nancy Laprade

The Pawleys Group

Steve Long

St. Louis Community College

Mimi Maduro

Oregon Department of Community Colleges and Workforce Development Columbia Gorge Community College Jean Petty

League for Innovation in the Community College College and Career Transitions Initiative

Kay McClenney

University of Texas at Austin

Patrick McKeehan

PMcK Consulting, LLC

Jim McKenney

American Association of Community Colleges

Israel Mendoza

Washington State Board for Community and Technical Colleges

Andrew Meyer

Anne Arundel Community College

Marcia Pfeiffer

St. Louis Community College

Nan Poppe

Portland Community College

Jerry Rubin

Jobs for the Future

Don Snyder

Lehigh Carbon Community College

Judy Taylor

Jobs for the Future

Laurance Warford

League for Innovation in the Community College

College and Career Transitions Initiative

# Contents



# Career Pathways as a Systemic Framework Rethinking Education for Student Success in College and Careers

Preamble 1
Career Pathways
•
as a Systemic Framework
What Is a Career Pathway?
The Evolution of Career Pathways
Seamless Transitions4
Core Elements
of the Comprehensive Career Pathways Framework 5
Institutional and Instructional Transformation5
Mission Integration5
Curriculum and Instructional Transformation5
Visual Roadmaps and Templates
Articulation and Transition
Student Supports and Tools
Career Planning and Counseling
Internships
College and Workforce Readiness Preparation
Case Management
Credit for Prior and Experiential Learning
Partnership Driven
Inclusive Involvement
Collaboration and Trust
Demand-Driven Economic Development Strategy8
Employer Involvement8
Employer Validation of Career Pathways8
Employer Involvement in the Determination of Relevant
Skills and Competencies8
Ongoing Oversight of Pathway Relevance and Content8
Employer Input and Support for Incumbent Worker Pathways 8
Employer Support of Pathway Graduates

Continuous Improvement	8
Planning	8
Accountability	9
Sustainability	9
Leadership at All Levels and Cross-Sections	9
Replicable Models	9
Reallocating and Blending Multiple Funding Sources	
Alignment of State and Federal Policy	9
Core Elements and Features	. 10
A Call to Action	. 11
Notes	. 13
Bibliography	. 14

## Preamble



As the centerpiece of conferences and federal initiatives across the educational spectrum, career pathways could be seen as be the latest fad offering community colleges the promise of increased funding and student success. In contrast, the authors of this paper contend that career pathways are the building blocks of a critically needed systemic transformation that will position community colleges as leaders in the effort to address some of the most pressing economic and social concerns facing the country today - not as a short term fix or project, but as incubators of innovation capable of changing the face of education in America.

ability of community and technical colleges along with their partners in education and the employer community - to do a far better job of moving students to and through their institutions, toward better jobs, and toward continuing education over a lifetime. (Kay McClenney, 2006)

Unless the skills gap within the United States is closed and employers can find the workers they need, and job seekers have the skills to pursue the opportunities that will exist, then America's economy will remain vulnerable.... The stakes are high: freedom of trade and commerce; personal

## ...career pathways are the building blocks of a critically needed systemic transformation...

Why is the work of developing career pathways so important? Why does it really matter? Two leaders in the fields of postsecondary education and economic development have succinctly and clearly articulated the "why?", as well as the sense of urgency we must feel as we go about the work of developing systemic career pathways across the nation:

The future of our communities and of our country, not to mention countless individuals, depends significantly on the

and political liberty; and national and individual security. (David Sampson, 2001)

The career pathways model provides a comprehensive policy and practice framework that addresses these issues by meeting the interdependent needs of two major groups: businesses and individuals. Businesses need skilled workers to compete in global markets and individuals need stable income and quality of life for themselves and their families. Career pathways are nothing less than a "pathway to the middle class"

#### **Career Pathways as a Systemic Framework**

(McClenney, 2006) for individuals. Recent studies have provided detailed research indicating that a high school diploma will no longer prepare an individual for a job that will pay a living wage; postsecondary education is essential to economic success. Additionally, individuals must continually update their skills to keep current in our fastchanging economic environment. The importance of postsecondary education is reflected by students seeking education at community colleges; today, the typical community college student is one who is blending work with school, often stopping out to work before re-entering college for additional training and the higher wages attached to a college

Bridges to Opportunity Initiative.

It is now time to take this work to the next level, moving from project work to sustainable, systemic change on a national scale. We can no longer afford to have parallel initiatives making incremental, marginal progress on career pathways. We must initiate transformational change, reforming our P-20 educational systems, and the systems of our workforce and economic development partners, to meet the needs of students and the business sector. In this critically important work, we must collaborate and leverage our resources at all levels to realize long-term, sustainable gains. We must also ensure that

## Career pathways, done well, don't just build workforces. They change lives.

degree or certificate. While community colleges must continue to offer educational services to students who plan to articulate to a four year program without a detour, they must also meet the particular needs of this new student, one who has no other option in the quest to earn living wages within the global economy. Within this context, career pathways offer tremendous potential.

The career pathways movement is not new; high schools and community colleges have invested resources and talent over the past five to ten years to develop the concept and various implementation models. Among the major players are the League for Innovation in the Community College with its College and Career Transitions Initiative (CCTI), the Workforce Strategy Center, the National Tech Prep Network (NTPN), the Center for Occupational Research and Development (CORD), the Community College Research Center (CCRC) at Columbia University, and the Ford Foundation's

pathways initiatives are done exceedingly well, incorporating continuous improvement mechanisms at each phase: "Career pathways, done well, don't just build workforces. They change lives" (McClenney, 2006).

This paper is presented not as the definitive answer to how pathways should be developed and implemented, but rather as a catalyst to energize and focus the dialogue between community college leaders and their education, business, and government partners as they work together to create success. We challenge our readers to step into this leadership role, forging a future of promise for students across the educational spectrum.

## Career Pathways

as a Systemic Framework



## What Is a Career Pathway?

A career pathway is a framework for connecting a series of educational programs with integrated work experience and support services, thereby enabling students and workers to combine school and work and advance over time to better jobs and higher levels of education and training. Career and technical education (CTE) in secondary education serves as the launch pad for students in their

students they serve. A career pathway is not a program, but a systemic framework for a new way of doing business in our high schools, colleges, and communities. The ultimate goal is for pathways to provide a seamless system of career exploration, preparation, and skill upgrades linked to academic credits and credentials, available with multiple entry and exit points spanning middle school, secondary school, postsecondary institutions, adult education, and workplace education.1

A career pathway is not a program, but a systemic framework for a new way of doing business in our high schools, colleges, and communities.

transition to postsecondary education and enhanced training opportunities.

Career pathways target regional labor markets, focus on employment sectors, and provide a framework for workforce development by integrating the programs and resources of community colleges and other education institutions, workforce agencies, and social service providers. Additionally, career pathways are aligned with the needs and informed interests of students and workers. Career pathways provide community colleges the opportunity to link academic coursework to the local economy while meeting the varied needs and informed interests of the diverse

## The Evolution of Career Pathways

Career pathways emerged over the last decade as a result of the combined efforts of career and technical education programs in high schools and workforce development and professional and technical programs at community colleges as an institutional response to a changing student body. Initially seen as a specialized silo within workforce development or professional and technical programs, results of these efforts led to an evolution in thinking about career pathways not as just another program or project, but as a systemic framework for transforming educational institutions

#### **Career Pathways as a Systemic Framework**

to actively meet the changing needs and informed interests of students and workers, as well as industry sectors across the learning continuum. From a programmatic perspective, several factors have contributed to this evolving understanding of career pathways' potential:

- 1) A growing awareness of the need for demand-driven and sustained partnerships between community colleges, business, workforce and economic development, and community leaders focused on meeting regional, sector-based workforce needs;
- 2) A shift from seeking best-practice models to an approach that evaluates all activities from planning to continuous improvement based on measurable outcomes and established feedback mechanisms:
- 3) Evolving models of sustainability as state and federal policies align and encourage connections between students, careers, the labor market, and economic development, allowing multiple funding sources to be blended to cultivate continuity;
- 4) The need for secondary schools to eliminate a two-track system, to a system that provides opportunities for all students to transition successfully to postsecondary education in both academic and careerrelated studies; and
- 5) The emergence of career pathways as a critical economic development tool. With the globalization of the workforce, intellectual talent can be located almost anywhere on earth. Extensive research and literature suggest the communities, regions,

and states that will be most competitive are those that support and grow industry clusters based on demand. One critical component of this strategy is the growth of human capital. Since career pathways are focused around regional or statewide industry sectors and not a single business, the development of career pathways presents a strategic advantage in supplying the talent needed by business and industry, from entry-level technicians to scientists and engineers.

### Seamless Transitions

Career pathways are not just one strategy implemented at a single point along the learning continuum. Rather, career pathways work on multiple fronts to ease student transitions from secondary to postsecondary education and into lifelong learning. Comprehensive career pathways facilitate the following seamless transitions:

- Secondary education to postsecondary education:
- Precollege (adult basic education, GED, English as a Second Language, developmental education) to credit postsecondary;
- Postsecondary education for openenrollment students, unemployed or dislocated workers, incumbent workers, career changers, and disadvantaged youth; and
- Community college to university.

## **Core Elements**

## of the Comprehensive Career Pathways Framework



The following six core elements are at the heart of the comprehensive career pathways framework:

- 1) Institutional and instructional transformation;
- 2) Supports and tools to help students succeed;
- 3) Partnerships that drive planning and implementation;
- 4) Employer involvement in all phases of the process;
- 5) Commitment to continuous improvement; and
- 6) Commitment to sustainability.

Career pathways efforts across the country have successfully implemented several features, or components, related to each of these core elements. While each feature is not a requirement for creating a career pathway, together the features serve as a menu of proven strategies that can be expanded upon and enhanced as career pathways continue to evolve. The features or components of the six core elements are described in the paragraphs that follow.

## Institutional and Instructional **Transformation**

#### Mission Integration

Collaborative Design. Academic, student support, remedial, adult education, and workforce development offices work collaboratively to design

pathways and roadmaps. Similarly, secondary institutions must follow the same model, with career pathways providing a framework to break down the silos of academic and career and technical education tracks.

Strong, Focused Partnership. A resilient partnership with high school career and technical education focuses on seamless transitions from high school to postsecondary education.

#### Curriculum and Instructional Transformation

Alternative Delivery Methods. Provide education and training for students and incumbent workers at times and locations convenient to students and employers rather than instructors and institutions. Delivery methods can include asynchronous or synchronous learning offered evenings or weekends, blended or hybrid delivery models, and delivery at off-campus locations such as job sites and community facilities.

Contexted Curriculum. Design curriculum that uses industry-based and relevant material. Many bridge programs embed occupational, workplace, or technical skills in the adult basic education (ABE), GED, English as a Second Language (ESL), or development education (DE) curriculum.

#### Modularized, or Chunked, Curriculum.

Structure and sequence curriculum in modules or chunks tied to jobs, with multiple entry and exit points and with multiple levels of industry-recognized credentials built into the sequencing of the pathway.

#### **Core Elements of the Comprehensive Career Pathways Framework**

Competency-based Curriculum. Develop and/or package curriculum that meets academic and quality standards, is designed and organized by competencies required for jobs, and is cross-walked with industry skill standards and certifications where applicable. Job profiling and the use of subject-matter experts should be strongly considered as tools to strengthen the curriculum and meet the competency needs of business.

Common Organizational Structure for CTE at the Secondary Level. Use the 16 Career Clusters as the organizing tool for secondary CTE programs. This common structure is critical for

potential lateral and vertical movement within an occupation or career cluster linked to occupational labor-market data.

Inclusive Development Processes. Ensure roadmaps are demand driven and collaboratively developed, fully engaging employers, faculty, advisors, educational administrators, workforce professionals, and labor representatives as appropriate.

Tool Accessibility. Maximize the use, distribution, and visibility of tools by students, advisors, counselors, parents, and public workforce development professionals. The tools can also be

## Ensure roadmaps are demand driven and collaboratively developed...

implementing secondary-postsecondary articulation agreements within and between states by allowing for the use of a common set of employer- and postsecondary-validated curriculum standards. This program consistency is also critical for the collection of research data demonstrating the effectiveness of CTE.

### Visual Roadmaps and Templates

Navigation Tools. Provide visual roadmaps or templates depicting the coursework, competencies, skill requirements, and credentials needed for a series of related occupations in an industry sector. These visual roadmaps assist students and workers as they navigate their pathways to better jobs and increased earnings.

Organizational Development Tool. Provide employers with an organizational development tool to focus on career planning and development for their employees.

Career Lattices. Include career lattices that identify multiple entry and exits points and

loaded onto websites; incorporated in college catalogs, high school career guides, and recruitment materials; and used for ongoing curriculum improvement in both secondary and postsecondary settings.

#### Articulation and Transition

Bridge Programs. Implement easily accessible programs that provide developmental education to bridge academically underprepared students to a credit-bearing postsecondary pathway.

Rigorous Academic Credentials. Provide occupational credentials that are rigorous, recognizable, and relevant in the labor market.

Dual or Concurrent Enrollment and Dual Credit. Provide opportunities for students to earn college credit through dual or concurrent enrollment at a community college, or concurrent enrollment at a university and a community college.

Articulation Agreements. Provide seamless articulation across educational institutions for courses, credentials, certificates, and degrees.

## Student Supports and Tools

## Career Planning and Counseling

Career-Planning Resources. Provide career planning courses, workshops, and web-based resources that include tools such as assessments. career portfolios, and individual education and career plan development, thereby increasing understanding about demand occupations and career clusters of interest to students and workers.

Job-Seeking Resources. Provide job search assistance, coping strategies for blending work and education, and skill building in résumé writing, interviewing, and social networking.

### Internships

Incorporate opportunities for learning by doing, including internships, co-op work experience, simulations, and team class projects that are assignments from local employers or community organizations.

## College and Workforce Readiness Preparation

Provide preparation supports to high school students and adult learners to assure college and workforce readiness. Supports may include

- Placement test preparation workshops for youth and adult learners;
- Providing reading, writing, and math summer institutes to decrease need for remediation, and receipt of a careerreadiness or workforce certificate;
- Use of employer- and postsecondaryvalidated cluster standards created through collaboration between OVAE and NASDCTEC for high school curriculum development; and

Workplace skills workshops for adults reentering the workforce.

### Case Management

Provide case management, referral to community resources, and childcare and transportation assistance as appropriate to assure student success and ease of transition.

### Credit for Prior and Experiential Learning

Provide clearly defined options for adults to continue lifelong learning and receive credit for prior experience.

## Partnership Driven

#### Inclusive Involvement

Involve employers and industry associations; community-based organizations; labor and apprenticeship committees; education institutions, including academic, workforce, student services, and remedial programs; workforce development agencies; human service agencies; and economic development agencies in meaningful partnerships. This brings both supply and demand needs to the table and provides an opportunity to connect systems that have been historically separated. Career pathways cannot be designed in a vacuum.

#### Collaboration and Trust

A culture of collaboration, trust, and shared leadership must be cultivated in partnerships. Identify the benefits for each partner and involve partners in the continuous nurturing of strong relationships through planning, development, implementation, and continuous improvement.

#### **Core Elements of the Comprehensive Career Pathways Framework**

## Demand-Driven Economic Development Strategy

Focus on career pathways as a critical economic development tool and on the labor market demands of industry sectors that are important to the economy of the region. Employers must drive the development of the career pathways to ensure that students or workers exiting at identified points will have access to good jobs and advancement opportunities. This responsive approach provides a platform for leveraging public and private investment and the flexibility to adapt to changing and evolving labor markets.

## **Employer Involvement**

### Employer Validation of Career Pathways

While a career pathway may initiate from national, state, or local data, local employers must validate the pathway under development to ensure local viability and relevance. In many cases a pathway is determined by local labor markets, historical hiring practices, unionization, and variety of other factors that can only be known through meaningful interactions with employers.

## Employer Involvement in the Determination of Relevant Skills and Competencies

Employers must be involved in determining the appropriate primary, or necessary, skills and secondary, or preferred, skills that relate to the requirements of the work. Employers must also assist in the determination of how skills and competencies build upon one another to create the interlinking pathway components required for entry into a pathway and movement from one position to another.

### Ongoing Oversight of Pathway Relevance and Content

No career pathway is static; indeed, relevant skill sets for evolving technologies pathways may change every six months. The presence of employers who can point out the trends and aid in the continual reorganization and assessment of the program is invaluable for a career pathway to remain relevant.

## Employer Input and Support for Incumbent Worker Pathways

Employers can work to customize career pathway programs to meet their specialized needs, which will yield effective and efficient pathways for adults already in the workforce.

#### Employer Support of Pathway Graduates

Employer involvement guarantees that the employment goals of students involved in pathways will be taken seriously and other sources of labor, such as importing workers from other parts of the country or recruiting from other firms, will not replace the pathway as the pipeline of choice for local employers.

## Continuous Improvement **Planning**

Involve partners in a data-driven planning process to identify gaps and design career pathways. Use labor market information, in conjunction with direct input from employers, to assess current and future demand as the basis for career pathway design.

#### **Core Elements of the Comprehensive Career Pathways Framework**



Focus on data-driven accountability and decision making, using metrics that are understood by business and noneducational partners. Career pathways shift away from the use of compliance or anecdotal data by cultivating the use of evidence to ensure systems meet the needs of students and employers.

## Sustainability

### Leadership at All Levels and Cross-Sections

Develop and engage leadership at all levels of partner organizations to encourage bottom-up as well as top-down participation. Institutional commitment at every level, including the institutions' governing boards, is vital to sustaining career pathways.

### Replicable Models

Develop career pathway models that are replicable in other institutions and regions, a process critical to leveraging resources and sustainability.

## Reallocating and Blending Multiple Funding Sources

Reallocation. Reallocate institutional and school district resources to support the infrastructure needed for institutional transformation. Many necessary changes can be made without additional resources.

Blending. Blend funding from public and private sources to foster commitment, leverage resources, and share costs among partners. This is especially important to fund student supports, which are critical to student success in postsecondary attainment. Potential funding sources include Workforce Investment Act, Perkins, Temporary Assistance for Needy Families, state and federal financial aid, foundations, employer contributions including tuition reimbursement, industry workforce training funds, and educational institution general funds.

### Alignment of State and Federal Policy

State and federal policies must be fully aligned in order to reconceptualize education as a pathway spanning high schools, community colleges, universities, and workplaces. Policy efforts in various states and at the federal level are focusing on high school graduation requirements, curricular alignment, articulation, college readiness, and dual enrollment. Regional efforts to advance career pathways can be thwarted without a parallel effort to align state educational agency policies simultaneously.2

**Career Pathways Systemic Framework** SUSTAINABILIT **Core Elements** PARTNERSHIPS Pathways: Institutional & Instructional Transformation Student Supports & Tools

#### 1) Institutional and Instructional Transformation

and Features

- Mission Integration
- Curriculum and Instructional Transformation
- Visual Roadmaps and Templates
- Articulation and Transition

#### 2) Student Supports and Tools

- Career Planning and Counseling
- Internships
- College and Workforce Readiness Preparation
- Case Management
- Credit for Prior and Experiential Learning

#### 3) Partnership Driven

- Inclusive Involvement
- Collaboration and Trust
- Demand-Driven Economic Development Strategy

#### 4) Employer Involvement

- Employer Validation of Career Pathways
- Employer Involvement in the Determination of Relevant Skills and Competencies
- Ongoing Oversight of Pathway Relevance and Content
- Employer Input and Support for Incumbent Worker Pathways
- Employer Support of Pathway Graduates

#### 5) Continuous Improvement

- Planning
- Accountability

#### 6) Sustainability

- Leadership at All Levels and Cross-Sectors
- Replicable Models
- Reallocating and Blending Multiple Funding Sources
- Alignment of State and Federal Policy

## A Call to Action



Community colleges are institutions of America. They are a modern-day vehicle for the American dream, offering opportunity and a future to people from every walk of life. The emergence of the global economy poses a challenge to this mission, even as it heightens the urgency for community colleges to succeed. This new urgency is forcing community colleges to reinvent themselves and their organizations to be more effective, efficient, and responsive.

We are faced with a challenging reality: Existing systems for preparing American youth and adults for employment "are generally characterized by numerous disconnects among programs at different levels and between programs and the labor market" (Jenkins, 2006). While it is important to promote collaboration among these systems, leadership is needed to correct serious disconnects that "create barriers to educational and career advancement" and "lower the return on the public's investment in education and other services" (Jenkins, 2006).

The next major community college movement in the United States must be sharply focused on addressing this urgent need, improving transitions and outcomes for people of all ages, and ensuring success for those advancing through our systems of education and employment.

The next major community college movement in the United States must be sharply focused on addressing this urgent need, improving transitions and outcomes for people of all ages, and ensuring success for those advancing through our systems of education and employment. Only with relentless focus and sustained effort can we effectively help the large numbers of Americans who seek to move from where they are to where they must be: effective workers, contributing citizens, and earners of family-supporting wages.

Community colleges, some 1,200 strong, are well positioned to lead this work. They are strategically located throughout the country and frequently serve as the critical link in the continuum from secondary and basic education to postsecondary education and training leading to employment. They have a proven ability to effectively listen to business, industry, and the community, respond quickly and appropriately to identified needs, work collaboratively with education and employer partners, and produce

#### A Call to Action

results: preparing people for employment and advanced education.

The development of explicit, integrated, highquality career pathways promises improved student transitions and increasingly successful student outcomes. But to attain these results, community colleges leaders must integrate this critical work into every community college mission statement, every strategic plan, and every leader's action agenda. They must also work with partner organizations to resolve six major issues:

- 1) Align secondary and postsecondary curricula to ensure that high school students are prepared to successfully engage in postsecondary education and training;
- 2) Design adult basic skills and remedial education programs to effectively prepare students for college-level math and English;
- 3) Develop new methods of awarding academic credit that respond to the need for flexibility and match the learning needs and schedules of all learners:

- 4) Revise curriculum and academic policy to ensure that credit and noncredit programs complement and connect with one another;
- 5) Abandon the traditional silos of academic and career programs in favor of an integrated approach, recognizing that both general and technical education are critical for all students;
- 6) Develop a greater capacity to deliver demand-driven curriculum that meets the labor market needs of business and industry and leads to ever-increasing competencies and postsecondary credentials for employees.

The stakes are high. Improving student transitions within and among our systems of education and employment, enhancing student success, and effectively preparing students for life and work are goals that must be our highest priority, for the sake of our students and the future of our society.

## Notes

<sup>1</sup>For a detailed discussion of the career pathways framework, see Davis Jenkins, Aligning Public Resources to Support Individual and Regional Economic Advancement in the Knowledge Economy, Workforce Strategy Center (2006), and Laurance Warford, Pathways to Student Success, League for Innovation in the Community College (2006).

<sup>2</sup>To learn more about alignment of state and federal policy for career pathways, see Strengthening Transitions by Encouraging Career Pathways: A Look at State Policies and Practices by Katherine Hughes and Melinda Mechur Karp, Community College Research Center, Teachers College, Columbia University (March 2006).

## Bibliography

Hughes, Katherine L. and Karp, Melinda Mechur. (2006 March). Strengthening Transitions by Encouraging Career Pathways: A Look at State Policies and Practices. A joint publication of the American Association of Community Colleges and the League for Innovation in the Community College. Phoenix: League for Innovation in the Community College. Available: www.tc.edu/ccrc/.

Hull, Dan. (2005 September). Career Pathways: Education with a Purpose. Waco, TX: CORD Communications. Available: cordcommuncations.com.

Jenkins, Davis. (2006 August). Career Pathways: Aligning Public Resources to Support Individual and Regional Economic Advancement in the Knowledge Economy. Brooklyn, NY: Workforce Strategy Center. Available: www.workforcestrategy.org.

Liebowitz, Marty, and Taylor, Judith Combes. (2004 November). Breaking Through: Helping Low-Skilled Adults Enter and Succeed in College and Careers. A joint publication of National Council for Workforce Education (Columbus, OH) and Jobs for the Future (Boston, MA). Available: www.ncwe.org/documents/report\_2004\_ncweJff\_breakingThrough.pdf.

McClenney, Kay. (2006 March). Pathways to Student Success. Keynote speech. CCTI Summit, League for Innovation in the Community College, Atlanta, GA.

Prince, David, and Jenkins, Davis. (2005 April). Building Pathways to Success for Low-Skills Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Study. New York: Community College Research Center, Teachers College, Columbia University. Available: www.tc.edu/ccrc/.

Sampson, David. (2001 December 7). Remarks to the 2001 Workforce Development Policy Forum, National Governor's Association, New Orleans, LA.

United States Department of Education, Office of Vocational and Adult Education (2005 September). Pathways to College: Access and Success. Washington, DC: Author. Available: www.ed.gov/about/offices/list/ovae/pi/cclo/cbtrans/index.html.

Warford, Laurance J. (Ed.). (2006 March). Pathways to Student Success: Case Studies from the College and Career Transitions Initiative. Phoenix: League for Innovation in the Community College. Available: www.league.org/league/projects/ccti/index.html.

Women Employed With Chicago Jobs Council and UIC Great Cities Institute. (2005 November). Bridges to Careers for Low-Skilled Adults: A Program Development Guide. Chicago: Women Employed Institute. Available: www.womenemployed.org/docs/BridgeGuideFinal.pdf.

Workforce Strategy Center. (2002 August). Building a Career Pathways System: Promising Practices in Community College-Centered Workforce Development. Boston: Workforce Strategy Center. Available: www.workforcestrategy.org/publications/Career\_Pathways.pdf.

Workforce Strategy Center. (2003 January). Building Bridges to College and Careers: Contextualized Basic Skills Programs at Community Colleges Boston: Workforce Strategy Center. Available: www.workforcestrategy.org/publications/Contextualized\_basic\_ed\_report.pdf [pdf]. Career Pathways as a Systemic Framework: Rethinking Education for Student Success in College and Careers is the culmination of efforts by many who have worked with the College and Career Transitions Initiative and the Breaking Through Initiative. The shared goal of these initiatives is to better prepare students for postsecondary education through the use of career pathways. Research has shown that informed, prepared learners are more likely to succeed when following their chosen career pathway. Congratulations to the many people who contributed policy and other information to this very worthy white paper.

Publication sponsored and supported by Kuder.



As a corporate sustaining partner of the League for Innovation in the Community College, Kuder® provides customized systems to assist community and technical colleges to improve academic transitions and integrate comprehensive college and career planning. Additionally, Kuder provides effective data management for visualizing trends related to career interests, skills, and work values, increasing enrollment management, and enhancing program development.





League for Innovation in the Community College 4505 East Chandler Boulevard, Suite 250 Phoenix, Arizona 85048

> Phone: (480) 705-8200 Fax: (480) 705-8201