Counting the Hidden Assets

First Steps in Assessing the Impact of
Community College Noncredit Education Programs
on the Workforce and Local Economies

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Macomb Community College

LaGuardia Community College

Community College Research Center

December 2009

Business Roundtable Foreword

As the U.S. economy undergoes a fundamental reset that requires workers to develop new skills and knowledge, business leaders and policymakers increasingly are looking to their community colleges to address this need. A uniquely American institution, community colleges grew and changed throughout the latter half of the 20th century to provide open access to higher education. Now they must reinvent themselves again to assume new roles and address unforeseen local economic needs as they prepare a new generation of students to succeed in the global, 21st-century marketplace.

In May 2008, Business Roundtable, an association of chief executive officers (CEOs) of leading companies, sponsored a forum on Capitol Hill in Washington, DC, to address this timely topic.

Titled "The Untapped Potential of Community Colleges to Advance U.S. Competitiveness," the forum was moderated by David Wessel, economics editor of *The Wall Street Journal*. Nine members of Congress, eight community college leaders and six CEOs participated.

Several members of Congress raised concerns about low retention and graduation rates at community colleges and called for more accountability. Community college presidents agreed that there is wide variability in the quality of their institutions and recognized the need to increase the numbers of students who earn associate degrees and those who go on to obtain bachelor's degrees.

Community college advocates also argued for greater acknowledgment of the wide range of education and training activity that occurs outside of degree programs on what is called the "noncredit" side of their institutions. In their view, these noncredit activities enable their institutions to respond to employers' needs, help students get jobs and higher wages, and contribute to the prosperity of their communities.

Because numerous initiatives are under way to improve accountability on the credit side of community colleges, Business Roundtable asked Jim Jacobs, President of Macomb Community College; Gail Mellow, President of LaGuardia Community College; and the Community College Research Center to propose ideas about metrics for the noncredit side. We hope this paper will help stimulate a local, state and national discussion about community college effectiveness and accountability.

William D. Green
Chairman and CEO, Accenture
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Table of Contents

I. Introduction and Overview:
Meeting the Accountability Challenge

Throughout much of the 20th century, our nation's publicly funded two-year colleges have opened the door of economic opportunity to a broad base of students while serving local business as a cost-effective and responsive resource for workforce development. In today's competitive global economy, that relationship continues to thrive: Currently, 1,152 two-year public colleges[1] in the United States serve 6,596,356 students[2] in for-credit programs plus an estimated 5,000,000 students[3] in noncredit continuing education. This adds up to more than 11 million students enrolled in programs that advance the goals of a well-prepared workforce: strengthening basic academic skills, such as reading and math; earning an associate degree; gaining certification in an industry or discipline; or meeting the specific training needs of a partnering company.

That mission has never been more important, and the demand is expected to grow. Community colleges are ideally positioned to provide skill upgrades and job retraining to the multitudes of workers displaced by the current recession — a capability acknowledged in the federal American Reinvestment and Recovery Act, which encourages local partnerships with community colleges and other providers to retrain large numbers of workers.

This opportunity, however, comes with a challenge: In this age of accountability, community colleges need to demonstrate that they are meeting or exceeding performance goals using measures that allow accurate, apples-to-apples evaluation of programs based on nationally recognized standards. Currently, however, there is no standard national measurement of the direct educational and economic benefits of noncredit courses to their communities, so they are not systematically evaluated. The lack of relevant and appropriate measures leaves vast holes in policymakers' understanding of the scope, impact and effectiveness of the work of community colleges.

Simply stated, the underlying issue is that existing data collection systems are not designed to capture the most basic information about noncredit activities delivered by community colleges. As an urgently needed first step, this paper makes the case for the training hour as the basic unit of measurement and proposes a taxonomy to classify and describe the range of noncredit activities delivered by community colleges based on three levels of outcomes:

◗ **First Level: Focus of Outcomes.** Differentiating between goals of economic or personal advancement.

◗ **Second Level: Who Benefits from the Outcomes.** Whether the intended beneficiaries are individual students or sponsoring organizations.

◗ **Third Level: Application of Outcomes.** Classifying skills by how they will be used — in academic or general settings or to meet a company's specific training goals.

Why New Measures Are Needed

Traditionally, performance for community colleges has been measured by their rates of graduation and retention — a standard that many advocates believe unfairly under-represents the scope and effectiveness of community college programs, including their contributions to the economic well-being of students and their communities. There are two primary reasons for this:

◗ First, by definition, rates of graduation and retention recognize only the outcomes of education that are provided in credit hour units to the 6.5 million students who are enrolled in programs leading to degrees. However, these measures fail to recognize that many students served by community colleges have learning needs that fall outside timely progress to a degree, which results in an unrealistically pessimistic assessment of what these students actually have achieved.

◗ Second, graduation and retention rates exclude the education and training that America's community colleges provide to the estimated 5 million students who are not enrolled in degree programs. This means these institutions have no standard way to quantify and describe the diverse ways they deliver basic skills development, trade skills certifications, business or industry-specific training, GED preparation, English as a Second Language (ESL), and similar courses. Because the federal government does not track community college students who are not in degree programs, there is no uniform, national system for counting them.

In the absence of standard ways to account for noncredit education and training, almost half of community colleges' activities will continue to be unrecognized, and their degree programs will remain undervalued by traditional measures. As a result, community colleges face unfair disadvantages as they retool and rebuild to meet the workforce development needs of the 21st century.

◗ **They are shortchanged financially.** Because students in noncredit-bearing courses are not counted by the federal government, they are not eligible for federal financial aid. In addition, most local support of community colleges is based on the number of students served. Until they are able to account for all their students, community colleges risk financial shortfalls that could force them to close enrollment for classes, limit their ability to incorporate new educational technology, and result in shortages of space and equipment.

◗ **They cannot demonstrate results.** Without standard measures for noncredit courses, community colleges cannot quantify their effectiveness or the benefits they have for communities — for example, increases in community income levels, decreases in unemployment rates or increases in business viability. Colleges also are unable to compare the effectiveness of programs to develop best practices or identify institutions that have achieved high percentages of success. As a result, we lose a valuable tool to build support for community colleges and improve the quality of the system as a whole.

We hope that the elements proposed in this paper will lead to further discussion and ultimately form the framework for the universal metrics that will enable community colleges to achieve their full potential as a resource for America's 21st-century workforce.

II. Noncredit Education:
Driving America's Workforce Development

Essential to the mission of community colleges is an array of courses and programs that do not bear credit or lead to degrees. Although they serve more than 40 percent of students enrolled at publicly supported two-year institutions, no standard measures currently exist to identify and quantify these courses, so they have historically been left out of calculations to evaluate performance and determine financial support.

In this paper, the term "noncredit" includes the following kinds of activities:

◗ **Workforce education and training.** Offering courses outside the degree track enables colleges to respond quickly to local employer needs and demands. For example, community colleges have responded to the surge in public funding for energy efficiency programs by launching training courses to bring construction contractors up to speed on the skills they need to perform energy audits, weatherize homes and gain required certification to secure government contracts.

◗ **Customized programs sponsored by companies or other organizations to meet the specific training needs of incumbent employees.** For example, a glass manufacturing company might contract with its local community college to develop a course in fluid dynamic principles for its factory employees to improve production efficiency. Similarly, a local government might sponsor a course in skills valued by local industry as a strategy to create or retain jobs.

◗ **Developmental education to prepare an individual for college-level work.** Community colleges are on the front lines of providing students with basic skills, such as proficiency in math, reading and writing, that students need to succeed at work or to begin postsecondary education. Colleges offer short- or long-term developmental education programs that prepare students to pass the GED or entry examinations required for college-level work. In Michigan, for example, students enrolled in such programs outnumber students enrolled in postsecondary career and technical programs.

◗ **Most ESL classes.** For example, a hotel or restaurant chain might partner with a community college to offer these courses, often contextualized to the language of work.

◗ **Personal fulfillment or recreational classes.** Covering a range of interests and skills from parenting to playwriting to yoga, these courses enhance the quality of life in local communities.

By providing an affordable way to build and maintain a knowledgeable and skilled workforce, noncredit courses add value to people and their communities. Still, government leaders and other decisionmakers want to know: Exactly how much value do they add? Who benefits? What is the return on investment? Which programs are most effective and most cost-effective? And of course, how can these programs be improved? This white paper proposes the first steps to provide the answers decisionmakers want and community colleges need.

III. Currently Available Measures: A Small Part of the Whole Picture

Nationally, uniform data about students enrolled in degree programs are collected by the U.S. Department of Education through its Integrated Postsecondary Education Data System (IPEDS) report from every college or university that accepts federal student aid. This makes it possible to report that community colleges in the United States enroll more than 6.5 million credit-bearing students, accounting for 46 percent of all undergraduates; provide the start to more than 20 percent of all baccalaureate degree awardees; enroll more than 50 percent of all undergraduate minority students; and dually enroll tens of thousands of high school students.[4]

As long as graduation and retention rates are the only generally accepted measures, however, even these accurate numbers will provide an imperfect view of community college performance. Aligned as they are to the goals and resources of four-year institutions, these traditional measures do not take into account the nontraditional education needs and challenges of students served by community colleges or the diversity of offerings those institutions have developed to address them. For example:

◗ Community colleges are open-access institutions, available to any student, whereas the majority of four-year colleges are at least somewhat selective.

◗ Four-year institutions charge much higher tuition, receive more public dollars and thus have more money to spend; public four-year colleges spend three times as much per student as community colleges. Four-year institutions have a much higher proportion of full-time faculty who teach many fewer classes, a much larger percentage of advisers and support personnel, greater availability of scholarship dollars and endowments, and a much higher proportion of full-time students. With those advantages, it is not surprising that, on average, the rates of student retention and on-time graduation of four-year institutions are double those of community colleges. It also is clear that neither four-year colleges nor community colleges are doing a good enough job on retention and graduation, particularly for African-American and Hispanic students.

Of course, as previously stated, graduation and retention rates also fail to account for the 5 million students served by community colleges through noncredit educational courses. This greatly underestimates the scope and value of almost half the educational activities community colleges deliver, including most of the skill building, literacy, college readiness, and most important, workforce development and customized business training courses. Standardized measures of noncredit courses would bring these vital activities into the equation, allowing for the first time a fair and realistic assessment of the total performance of a community college.

Similarly, progress toward an associate degree is measured in credits, with 60–65 specified course credits being the usual graduation requirement. Credits are an academic currency, well understood and recognized at colleges and universities throughout the United States and in many foreign nations. Students can earn credits at a community college and, although the process still is not seamless, often can transfer some or all of these credits to a four-year institution.

Credits have a standard definition that makes it possible to calculate the amount of time it takes to earn each one. One college credit stands for one hour of class time each week during a 15- or 16-week semester. This hour also represents two to three hours of student preparation and study outside of class. An associate degree is thus roughly equivalent to 2,700 hours of student college-level effort. The commonality of this currency allows for a national count of credits taught in terms of the numbers of students making one year's worth of progress toward a degree — that is, the number of full-time equivalent students.

In contrast, noncredit community college education activities are greatly varied and lack a standard definition. Exact data regarding the type of education activities delivered across all colleges are not yet possible to determine; however, much of the growth of noncredit education in the past 20 years is in courses related to workforce education.[5]

With for-credit education we can compare gains produced (such as increases in graduates' salaries) against the effort of creating these gains using the standardized measures of efforts: credits earned and degrees granted. With regard to the noncredit training and workforce development activities of community colleges, there is no similar standard for counting students or measuring the quantity and quality of training activity. With no standard for measuring the input — that is, training activity — we have nothing against which to measure the benefits produced.

IV. What's Missing:
What We Need To Know about Community College Performance — and How To Measure It

Graduation and retention rates will continue to be a key indicator of community college performance — but not the only indicator. For a more accurate picture, it also is important to develop measures that recognize the vast amount of education that community colleges deliver outside of degree-bearing programs.

Specifically, if community colleges are to study and improve their noncredit work, they must be able to understand and assess the relationship between these activities and the impact of their outcomes on individual students, organizations and communities.

◗ For the individual student, the outcomes of interest may include expanded employment opportunities, salary growth and personal effectiveness.

◗ Companies and governmental and nongovernmental agencies may seek improvements in worker safety, less energy use, increased productivity, corporate profitability and agency effectiveness.

◗ Communities seek a return from training and workforce development that can be measured by job creation and economic growth, improved quality of life, and an increased tax base.

Noncredit programs are now being measured in an ad hoc, hodgepodge fashion. In some states, state or local officials are collecting some data. In many cases, the faculty and staff at a community college collect data and evaluate individual courses. However, no national data are gathered for the more than 1,000 community colleges that deliver this education and training. This makes it impossible to calculate the full breadth of programs community colleges operate and hinders the ability to make comparisons, identify best practices and make improvements.

Because there is no consistent standard for counting who is enrolled in a noncredit educational experience, most states do not even have unduplicated totals of who is enrolled. With many of the noncredit courses sponsored by companies, community colleges often record only the names of the companies that provided customized training but nothing identifying which of their employees received the training.

What we do know is that performance of noncredit courses cannot be reliably or fairly assessed by applying traditional assumptions to community college students and their goals. For example, if adults come to the community college with 5th grade skills, it is not fair or realistic to expect that short courses can provide the knowledge and skills necessary to successfully complete an associate degree. However, it is realistic to build bridge programs that incorporate increases in academic skills contextualized with work skills so that adults can get a job and to expect to assess how effectively these programs are meeting their goals.

The development of these outcome measures needs to come later through a collaborative process that would include business, government, labor, public officials and others. Together, they would carefully design a set of measures that are accessible and national in scope and will inform community colleges as they strive to improve their noncredit educational activities.

This is why Business Roundtable, an association of CEOs of leading U.S. companies, supported work at Macomb Community College in the Detroit suburbs and LaGuardia Community College in metropolitan New York City to begin the task of advancing a preliminary framework for measuring noncredit workforce education and training.

The intention of this paper is to advance and demonstrate the utility of a common denominator for community college noncredit activity that will allow a better accounting for and understanding of community college noncredit work. How much noncredit training and workforce development is undertaken in the nation's community colleges? Can we differentiate among the various activities and create universal classifications as we have done with degree-bearing studies and majors? Can we measure the returns to these efforts — better income, more jobs and increased productivity — in a standard way that allows for accurate assessment, comparison and improvement? Using these measures, can we compare the quality of the training provided?

By proposing a universal, basic unit of measurement and taxonomy, this paper takes an essential first step.

V. Measuring Community College Noncredit Activity:
A Proposed Framework

When we can measure units of education and the outcomes produced, we can then compute the effectiveness of the education process. For example, on the for-credit side, we can compute effectiveness in terms of the salary outcome of a degree made up of at least 60 credits. We know that the degrees from some majors have a greater initial salary outcome (nursing, for example) than others (liberal arts transfer programs, for example).

The first challenge for assessing outcomes for noncredit programs is to devise universally recognized, standard definitions: a basic unit of measurement analogous to course credit used to quantify the degree-granting programs and a taxonomy that makes it possible to classify these programs, opening the door to a systematic examination of outcomes and effectiveness.

Use Number of Hours as a Quantity Measure

This paper proposes that the number of hours of instruction, training or counseling be used as a measure of noncredit education. This would provide a consistent, simple and sensible common denominator to quantify the diverse ways noncredit programs are delivered. For example, one can easily combine and compare the number of hours a student spends in a welding class, an entrepreneur's workshop or career exploration.

Create a Taxonomy of Noncredit Offerings Based on Outcomes

To begin the process of assessing the diversity of noncredit community college activities, it is essential to establish standard definitions. This paper proposes as a useful framework a three-level taxonomy that classifies these activities into similar categories based on their outcomes.

First Level: Focus of Outcomes (Economic or Personal Advancement)

The primary level of the proposed system differentiates educational activities intended to affect the economic well-being of students, organizations and communities from those designed to satisfy personal goals. Outcomes of activities intended to affect economic well-being might include changes in a student's salary, profitability of a partnering business or the unemployment rate in a community. Activities intended to affect personal goals similarly would be grouped with courses with similar intended outcomes, such as stress reduction or creative enrichment.

Second Level: Who Benefits from the Outcomes (Individual Students or Sponsoring Organizations)

Funding for community colleges' noncredit activities comes from many sources: student tuition, sponsoring businesses and the public through government tax dollars. Because who pays has a direct effect on the desired outcomes, the second level of the proposed taxonomy differentiates between those programs intended for the direct benefit of individual students and those paid for and intended to benefit employers or other organizations.

For example, a course on construction management paid for by student tuition, government workforce training dollars or a not-for-profit organization has an individual student benefit, and its outcomes would be measured accordingly. In contrast, customer service training paid for by a company for the employees of a company, which is created and run by a community college, would be measured by outcomes related to the company's financial goals.

Third Level: Application of Outcomes (General Basic Academic Skills/General Workforce Skills or Sponsor-Specific Basic Skills/Sponsor-Specific Workforce Development)

At the third level, the proposed taxonomy differentiates between community college noncredit programs with outcomes that have an academic application and those with applications that are focused on employment-related goals.
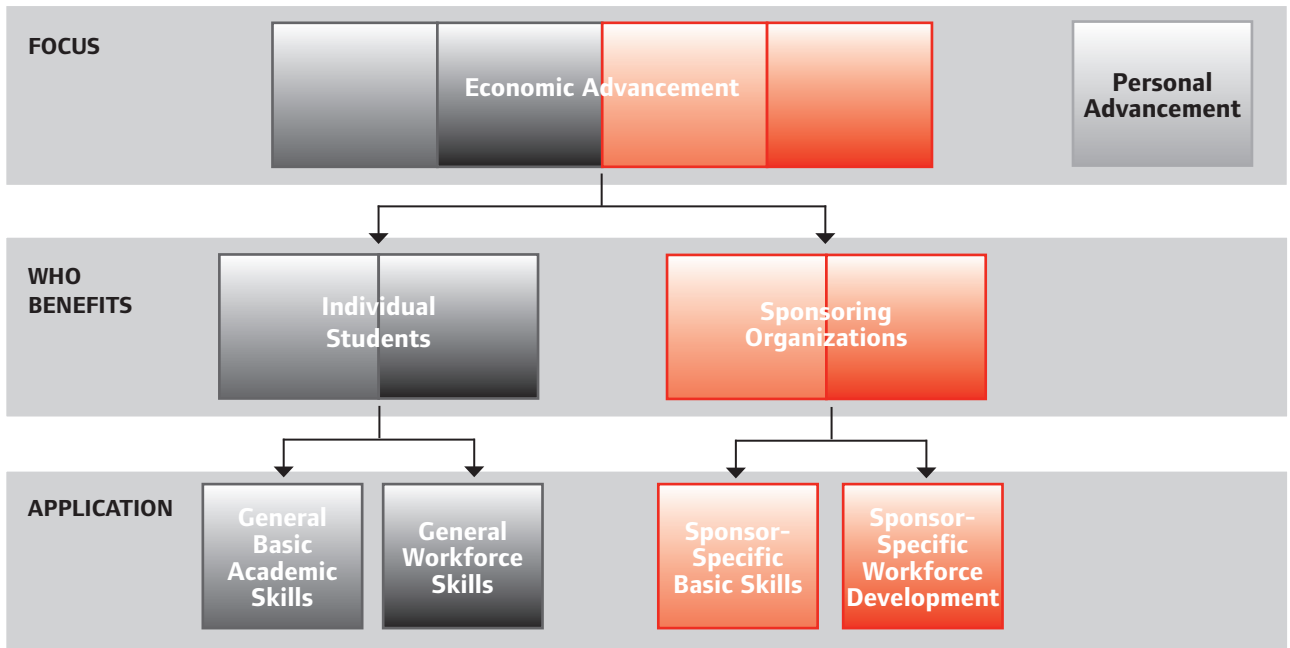
Academic programs would include precollege activities, typically at the high school level. These programs would include courses that teach basic skills in literacy, such as reading, writing and/or ESL, and in numeracy, such as computation and mathematics.

Noncredit courses with employment applications are programs intended to improve job skills. This category of activities includes both general workforce preparation, such as workshops in communications skills for managers, and more specific training efforts, such as programs teaching project management.

As the figure on page 10 illustrates, the taxonomy yields four categories of activities under the first level, economic advancement, and a side category for activities designed for personal advancement. The four training/workforce development categories are:

1. **General Basic Academic Skills** programs for the benefit of individual students, such as a basic math class attended by students who pay their own tuition;

2. **General Workforce Skills** programs for the benefit of individual students, such as a tuition-supported HVAC repair course;

3. **Sponsor-Specific Basic Skills** programs sponsored by companies and agencies to advance their employees' general skills, such as a company-sponsored workforce literacy program; and

4. **Sponsor-Specific Workforce Development** programs sponsored by companies and agencies for their employees to meet the company's own training needs, such as a company-sponsored workplace safety course.

Community College Noncredit Education Program Framework

FOCUS	Economic Advancement				Personal Advancement

WHO BENEFITS	Individual Students		Sponsoring Organizations	

APPLICATION	General Basic Academic Skills	General Workforce Skills	Sponsor–Specific Basic Skills	Sponsor–Specific Workforce Development

In time, and with greater refinement, deeper levels allowing greater differentiation also might be useful, although gaining consensus on these levels may be more challenging. For example, an additional level could differentiate workforce development by the economic sector served, perhaps separating programs for workers in the automotive industry from those for health care employers. Another level might differentiate programs by the educational attainments of their target populations — for example, precollege or postgraduate programs. Another possible level might differentiate programs by the instructional modality they employ: workshop, classroom or online.

Each category should include a set of activities with similar relevant outcomes within a reasonable range. Putting computer training for the local bank's employees into a category also containing courses in precollege math would undermine evaluation by presuming that the same effectiveness measures might be used to measure corporate productivity and individually targeted employment preparation. Once appropriate criteria for assessing training effectiveness are developed, this will help foster the development of meaningful evaluation of the effectiveness of each activity category. In the same way, a useful framework must make sense to community colleges as well as correlate with the manner in which community colleges now structure their noncredit activities.

VI. Testing the Model

Macomb and LaGuardia Community Colleges used the evaluation framework proposed in this paper to estimate the proportion of training they provide in their service areas. The actual process is outlined in Appendix A. The colleges now are examining the variations in outcomes per hour of training produced from program to program and from year to year. These variations can then be used to examine and demonstrate the responsiveness of the colleges to needs within their service areas and produce benchmarks against which to measure the effectiveness of their programs in a way that propels their continuous improvement.

This evaluation model will produce a usable assessment of the amount of noncredit workforce development activity each college carried out. With this model we can begin to determine the amount of noncredit training and workforce development produced by community colleges across the country and estimate the national economic impact of noncredit community college education. States that have hesitated to fund noncredit activity because of the lack of a standard measure within a set of reasonable categories may now revisit that issue.

Finally, the ability to account for noncredit education will advance the important goal of increasing the completion rates for degrees and other credit programs. Better understanding of the significance of noncredit education will lead more policymakers and community college practitioners to demand greater comparability with credit-bearing courses, facilitating transitions from noncredit into credit education and creating a valuable "internal market" for community college programs that can lead to degrees.

VII. Next Steps

A national conversation is emerging regarding granting college credit for industry-recognized certifications and other high-quality workforce training programs that currently are considered noncredit by both two- and four-year institutions. Adults need opportunities to earn credits toward portable, valued credentials — whether toward workforce certifications or associate or bachelor's degrees. We believe this conversation is very important and that the framework we are proposing in this paper will move it forward. By establishing common definitions and standards, it will be possible to identify those noncredit workforce preparation and development activities offered by community colleges that could move to the credit side and count toward earning a degree.

In addition, by offering a consistent way to account for noncredit educational activities offered by community colleges across the United States, this proposed measure will provide the first accurate description of the volume and value of the workforce and training that these courses produce.

This paper represents a small but critical first step toward those larger goals. Data collection and reporting by colleges of noncredit workforce activity are essential for developing the next, ultimately much more important measures of the quality and impact of this education on individuals, employers and the community. Once there is a basic count of individuals in noncredit classes, next steps must proceed rapidly toward an evaluation of the effectiveness of the training offered. While more research and analysis should be conducted, the preliminary outlines of the next set of measures clearly must include the following dimensions:

◗ First, community colleges need to be able to produce a cost/time/impact measure that is able to calculate the per-student cost of noncredit training as a function of the time in training measured against the ultimate impact of the training on individual wages or company productivity.

◗ Second, there must be a "responsiveness" measure that maps the offerings of a community college against the requirements of its local job market — assessing the extent to which the college is preparing students for existing jobs as well as anticipated employer needs. For example, is training being offered at the appropriate level and in the correct growth industries? Are colleges able to initiate training quickly enough to seize potential employment opportunities?

Ultimately, measures must be developed to evaluate the impact of specific skills or credentials for business sectors, giving funders the ability to determine the training "input" needed to produce specific outcomes in different business sectors. The data collection envisioned must look ahead and be able to answer the question of whether colleges are responding to the needs of students and employers, as well as the regional, statewide and national goals established by policymakers. Only then will the measures allow community colleges to determine the quality of the training and allow information to be gathered that can lead to quality improvement, determine whether the training meets stated goals and facilitate comparisons among community colleges.

This proposal provides the basis for further assessment, which would require additional resources to develop and deploy at community colleges nationally. The path ahead will not be without some bumps and detours, as well as an investment of time and money, but staying where we are is not viable. Too much about what community colleges are doing is being lost and ignored, which jeopardizes their ability to reach their full potential. Establishing a means to measure the quantity and quality of noncredit education will open eyes — and potentially doors — for advancements in public support and allow innovative practices to be shared. This is essential if community colleges are going to be recognized and held accountable for the invaluable role they play in 21st-century America.

Endnotes

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Appendix A:
Testing the Activity Measure and Framework at Two Colleges: Macomb Community College and LaGuardia Community College

Every noncredit student activity is entered into the student's record in the student database at Macomb Community College. The contact hours involved in the particular noncredit activity also are entered in the database. As a result, computing the total number of contact hours was not difficult. During the 2007–08 fiscal year, Macomb Community College produced 482,260 hours of individual noncredit activity. Of these hours, 424,987 were for training and workforce development.

Department codes were used to differentiate training for individuals and training sponsored by companies, and state of Michigan codes were used to differentiate basic skills training from other types of training. Macomb produced 8,738 hours of basic skills courses for individuals, 241,853 hours of workforce development training for individuals, zero hours of basic skills instruction sponsored by companies, 174,396 hours of workforce development training sponsored by companies, and 57,273 hours of personal interest activities and other activities for which Macomb receives no revenue from the state.

LaGuardia Community College does not use the same registration system for its noncredit programs as for its credit programs. The college has designed an activity registration system for its noncredit work that has greater flexibility and more relevant fields than its for-credit system. Measuring activity levels required some data auditing and led to procedural improvements. Nevertheless, college staff produced an activity level inventory with minimal data manipulation. During 2008, LaGuardia Community College produced 846,338 hours of individual noncredit activity. Of these hours, 813,875 were for training and workforce development.

LaGuardia also coded company-sponsored programs separately. Department codes were used to differentiate academic efforts from workforce development activities. LaGuardia produced 513,868 hours of basic skills courses for individuals, 286,174 hours of workforce development training for individuals, 3,691 hours of basic skills instruction sponsored by companies, 10,142 hours of workforce development training sponsored by companies and 32,463 hours of personal interest activities.

Appendix B:
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