Executive Summary

Colleges and universities are under increasing pressure to demonstrate the value of the educational experiences they offer through the outcomes of their students. Such demands for greater accountability and transparency derive from an array of factors, including concerns from policymakers and the public about college costs, student indebtedness, and lower than desired completion rates. Unfortunately some higher education stakeholders tend to focus primarily on the short-term economic outcomes of college such as first year salaries and neglect less-quantifiable, long-term outcomes. College graduates are more likely to vote, to be active in their communities through volunteer service and philanthropy, and less likely to have chronic health problems, and these longer-term outcomes are absent from much of the current conversation.

The goal of the Post-Collegiate Outcomes (PCO) Initiative is to provide a framework for a richer and more comprehensive discussion of student outcomes after college as well as consistent and meaningful measurement tools for reporting those outcomes. The PCO Framework consists of two intersecting continua leading to four quadrants: public and personal outcomes and economic and human capital outcomes of a college education.

As a supplement to the PCO Framework, the Toolkit consists of supporting documents that demonstrate how the Framework can be utilized by different stakeholders; provide more in-depth explorations of developing measures for use within the framework; and discuss the policy implications and next steps for refining and improving the framework. Together, the PCO Framework and Toolkit are an important first step toward creating common metrics and indicators for reporting a comprehensive array of post-collegiate outcomes and accurately assessing the value of a college education.

Background

For decades, the benefits of a college education were unquestioned. A college education was widely recognized to confer economic and social mobility, prestige, worldliness, self-knowledge, and moral refinement. It was a rite of passage for some, a portal to a better life for others. The value of earning a college credential was assumed.

In recent years, the value of higher education has come under scrutiny. The cost of attending public colleges and universities has risen as a result of declining state financial support, leading to escalating debt burdens for students and families. The post-recession economy’s slow recovery has limited the job opportunities for new graduates. As a result, students, their families, policy makers, and others are asking fundamental questions about the value of a college education to both students and their communities.

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However, accurately capturing the value of a college education remains elusive. Studies have indicated that college degree attainment is linked to increased workplace productivity, higher earnings with more comprehensive benefits packages, greater job satisfaction, better health, less reliance on public services, and increased civic participation. Yet existing approaches to capture the value of a college education are hindered by incomplete data and legal barriers, leading policymakers to default to incomplete employment and earnings measures that fail to capture even those outcomes for many students, and nothing at all for the myriad other post-collegiate outcomes.

Most institutions and many states maintain student unit record data, but linking campus-level data to post-collegiate outcomes remains a significant challenge. States also have different data definitions and collection protocols, making cross-state comparisons difficult. National sample surveys, such as the American Community Survey\(^1\) and various longitudinal surveys conducted by the U.S. Department of Education\(^2\), provide broad student outcomes, but results cannot be associated with individual institutions, making these outcomes less useful for institutional accountability.

As a result of these data limitations, there is no common vocabulary, much less a meaningful conversation, on how to report and improve post-collegiate student outcomes.

**Initiative Overview**

The goal of the Post-Collegiate Outcomes (PCO) Initiative was to create a framework and set of tools that could be used to discuss, assemble, and report post-collegiate outcomes in order to advance the national understanding of the value of individual’s higher education experiences.

The PCO Initiative is sponsored by three national higher education associations – the American Association of Community Colleges (AACC), in partnership with the Association of Public and Land-grant Universities (APLU) and the American Association of State Colleges and Universities (AASCU). The initiative was funded by the Bill & Melinda Gates Foundation.

The initiative’s association partners brought together subject matter experts and institutional leaders (see Appendix) to create the initial framework and tools presented here. The framework includes economic and human capital outcomes such as the ability of students to apply essential learning outcomes in their chosen careers and the graduates’ community contributions. The accompanying tools guide the application of the framework by different audiences within the higher education and policy communities. Together the framework and tools are the foundation for future

\(^1\) United States Census Bureau, American Community Survey, [http://www.census.gov/acs/www/](http://www.census.gov/acs/www/)

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work that will expand the framework and tools and define relevant metrics and indicators for a broad range of outcomes.

Initiative Objectives and Scope

The initiative participants developed the conceptual framework to better understand and discuss post-collegiate outcomes. The toolkit includes stakeholder perspectives, in-depth examples of considerations for developing metrics, and a discussion of the policy implications and future considerations. The audiences for the PCO effort are colleges and universities, education governing bodies, policy makers, and the public.

The PCO Initiative was guided by four primary objectives:

- To develop a conceptual framework for post-collegiate outcomes for use by audiences both inside and outside the higher education community.
- To develop resources and tools to improve the understanding and guide the use of mission-appropriate post-collegiate outcomes.
- Where possible, to identify and define an initial set of post-collegiate outcome measures that may be reported now with currently available data.
- To disseminate and promote the conceptual framework and accompanying tools to the higher education and policy communities.

The initiative's scope is limited to undergraduate student outcomes attributable to a college education, including students who did not complete college. Institutional contributions, such as economic development and technology transfer, are beyond the scope of this initiative.

Initiative Working Groups

To accomplish the initiative objectives, an oversight committee and two working groups of subject matter experts and leaders from two- and four-year institutions were convened in 2014. The groups had broad representation across various sectors, institutional missions, geographic areas, demographics, and areas of expertise. For a complete list of oversight committee and working group members, see the Appendix.

The Oversight committee provided guidance on the initiative's scope, focus, and deliverables to the initiative staff and the two working groups.

The Framework and Measures working group created a conceptual framework and associated definitions for reporting post-collegiate outcomes informed by relevant research, models, and activities already underway. The Policy working group examined and refined the framework and

DISCUSSION DRAFT

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definitions to increase its utility for policy makers and other outside audiences. Each of the three groups also provided recommendations for the promotion and use of the framework by key audiences: colleges and universities, policy makers, and governing bodies.

THE PCO FRAMEWORK

The conceptual framework that emerged from the oversight committee and working groups deliberations is illustrated in Figure 1. The PCO Framework consists of two intersecting continua leading to four quadrants: public and personal outcomes on horizontal axis and economic and human capital outcomes on vertical axis.

Figure 1: PCO Framework

The intersection of public and economic in the top left quadrant represents outcomes related to the

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public economic good. The intersection of public and human capital in the bottom left quadrant represents outcomes related to the public human capital value of higher education. The intersection of the personal and economic in the top right quadrant encompasses outcomes related to the personal (or individual) economic good. And the intersection of personal and human capital in the bottom right quadrant includes outcomes that demonstrate the personal (or individual) human capital value. The continuous nature of the axes represented by the arrows illustrate how post-collegiate outcomes can be both public and personal, as well as serve both economic and human capital goals. Some outcomes will not fit neatly within a single quadrant of the framework, but will instead overlap depending on the specific audience and use of the underlying measures.

The pre-cursor to the PCO conceptual framework was created as part of a 1998 Institute for Higher Education Policy (IHEP) study that classified the benefits of a college education (see Figure 2). The PCO Framework modifies the IHEP classification anchors from “public and private” to “public and personal” to more clearly focus on the recipients of post-secondary educational experiences. The PCO framework also expands the IHEP classification of “social” to “human capital” to convey that an

Figure 2: The Array of Higher Education Benefits as defined by the Institute for Higher Education Policy, 1998

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individual's development in essential learning outcomes (such as critical thinking, teamwork, and problem solving) is an investment in personal human capital.

Defining Key Terms

For users to clearly understand and apply the PCO Framework requires the definition of key terms. This section will focus on three broad concepts: outcomes, metrics, and indicators.

Outcomes. Outcomes are the results of the higher education experience that are evaluated or measured using the framework. Outcomes that result from the educational experience range from broad and diffuse to narrow and concrete. Broad “big picture” results are frequently not specific enough to create a single measurement definition or data source, and are often represented by a combination of more discrete, concrete results that are easier to measure. For example, in the public economic quadrant, broader outcomes include stronger local economies through a wider tax base and a reduced reliance on social services. Within the personal human capital quadrant, more diffuse broad outcomes include life satisfaction, improved health and wellness, and the ability of individuals to think critically and solve problems, both on the job and as consumers.

Outcomes sometimes fit neatly in a single quadrant, while others transcend the boundary of a single quadrant; see Figure 3 for examples. Some outcomes can be easily traced to the actions and intentions of specific institutions or programs, whereas other outcomes appear more generally in a larger population or community. Future development of the PCO Framework will include the development of recommended definitions and methodologies for gauging some of these more complex outcomes that currently lack agreed upon definitions. Guidance for the appropriate use of outcomes to evaluate the contributions of an institution to the needs of its surrounding community, state, and the nation will also need to be developed.
**Metrics.** Each outcome is evaluated and measured through one or more specific metrics. Although some outcomes may be narrow enough to be captured adequately by a single metric, it is more likely that a combination of metrics will be needed to comprehensively describe the outcome under consideration.

Within the public economic quadrant, for example, an outcome such as “community economic health” could be measured by three metrics: increased tax revenues, spending on social services, or the alignment of community members’ work qualifications with available jobs in high demand areas. The measurement of an outcome of “social giving” within the public human capital quadrant might require on several metrics, among them rates of volunteerism, and charitable giving levels. Some outcomes will be measured by metrics from more than one quadrant. For example, “wage levels”

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could be measured by increased personal earnings within the personal economic quadrant and an expanded tax base within the public economic quadrant.

**Indicators.** Indicators provide a context or benchmark for metric results, making it possible to determine if the data reported is positive, negative, or neutral as compared to a desired objective. Knowing that 60% of degree completers from a particular year voted in the most recent state election, for example, may be a positive or negative outcome, depending on the expectations of a particular stakeholder group or the goals of a specific institution. Indicators can provide additional contextual information for users by comparing current outcomes to past performance of a similar group, to national data, or to established goals.

**Answering the Question of Value**

The PCO Framework and Toolkit were created as a resource for defining and measuring the outcomes of colleges across the U.S. Capturing the full array of post-collegiate outcomes provides more complete evidence of the value of higher education to students, families, policy makers, and additional stakeholders. A better understanding of the benefits accrued to both individuals and communities as a result of higher education is particularly important given the current economically-focused environment in which colleges and universities operate. The national dialogue often emphasizes the individual financial benefits of college - influenced by public concerns about higher education affordability and student indebtedness. As the U.S. emerges from the lingering recession, persistent questions remain about the market value of a post-secondary credential and students’ abilities to secure jobs after leaving a college or university. The slow economic recovery fuels the desires of states and local communities to re-build a diminished tax base and increase national earnings levels through a more educated, skilled workforce. The public and personal economic benefits are significant but they are not the only positive outcomes from postsecondary education. The PCO Framework helps to draw the attention of the public, students, families and policy makers to notable outcomes such as a stronger social safety net and increased civic participation.

Figure 4 more concretely illustrates the value of expanding the discussion of post-collegiate outcomes beyond the economic benefits for a key higher education stakeholder group – state policy makers. State policy makers are often interested in the return on state investments in technical colleges. While the outcomes in the personal economic quadrant are those most often considered, utilizing the PCO Framework to better understand outcomes from the other quadrants can also provide valuable information. For example, a metric that shows low career satisfaction among state workers may indicate an unstable employment base that will not sustain future growth in the industry or state. Other outcomes, metrics, and indicators that could provide information to improve state policy maker decisions are shown in Figure 4.

**DISCUSSION DRAFT**

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Providing higher education stakeholders with a more complete understanding of the interconnections between and among outcomes across the four quadrants of the PCO Framework is one of the primary intentions of the PCO Initiative. The framework was created to be flexible and to accommodate the full range of post-collegiate outcomes.

The PCO Framework supports conversations to broaden the set of outcomes considered when discussing the value of a college experience. It also draws attention to the limitations of some outcomes to accurately and appropriately represent institutional accountability to students and the public. Multiple measures of key outcomes highlight and reinforce the strength of diversity within the U.S. higher education system while also allowing for meaningful measurement and comparison of outcomes across institutions.

Intentionally changing the conversation about post-collegiate outcomes to reflect the broader societal outcomes associated with a better-educated society and acknowledging those outcomes that are appropriate for institutional accountability will require leadership and consistent communication. The PCO Framework and Toolkit includes the resources necessary to unite the higher education community behind a common vocabulary and direction.

**Figure 4: Example Outcomes for the Value of State Investments in Technical Colleges for State Policy Makers**

<table>
<thead>
<tr>
<th>Framework</th>
<th>Outcome</th>
<th>Metric</th>
<th>Indicator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Economic</td>
<td>Graduates’ employment</td>
<td>Percentage of technical college graduates employed 1 month, 1 year, and 5 years post degree award</td>
<td>Comparison to target percentage set by state policy makers; comparison to percentage of technical college graduates employed prior to investments or in states where investments were not made</td>
</tr>
<tr>
<td>Public Economic</td>
<td>Return on investment of public expenditures</td>
<td>Ratio of the increase in tax base compared to the total cost of new investments made in technical colleges</td>
<td>Ratios greater than 1 indicate a positive return on investment; comparison to expected or projected return on investment</td>
</tr>
<tr>
<td>Personal Human Capital</td>
<td>Career satisfaction</td>
<td>Percentage of technical college graduates’ survey responses about satisfaction with their career that are positive</td>
<td>Comparison to percent of positive survey responses about career satisfaction from individuals who did not attend or did not complete college</td>
</tr>
</tbody>
</table>

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Appendix: Post-Collegiate Outcomes (PCO) Initiative Committee and Working Group Members

Oversight Committee
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Ronnie Booth (Committee Co-chair), President, Tri-County Technical College, SC
Donald Doucette, Chancellor, Eastern Iowa Community College District, IA
Katharine Eneguess, President Emeritus, White Mountains Community College, NH
Hans L’Orange, Vice President, Research and Information Resources, State Higher Education Executive Officers Association (SHEEO), CO
Rick MacLennan, President, Garrett College, MD
Mark McNamee, Senior Vice President and Provost, Virginia Tech, VA
Gary Miller, Chancellor, University of Wisconsin–Green Bay, WI
Kevin D. Rome, President, Lincoln University of Missouri, MO
Craig Schoenecker, System Director, Research, Minnesota State Colleges and Universities, MN
Rachel Zinn, Director, Workforce Data Quality Campaign, DC

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Ellen L. Boswell, Director of Institutional Research, Metropolitan State University of Denver, CO
Julie Carpenter-Hubin, Director, Research and Planning, Ohio State University, OH
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Christy England-Siegerdt, Associate Provost, Institutional Research and Data Analytics, State University of New York (SUNY), NY
Eric Fotheringham, Social Research Specialist, University of North Carolina, NC

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References

http://www.usc.edu/dept/chepa/IDApays/resources/IHEP_ReapingTheBenefits.pdf
The American Association of Community Colleges (AACC) is leading the Post-Collegiate Outcomes (PCO) Initiative in collaboration with two partner organizations.

As the voice of the nation’s community colleges, the American Association of Community Colleges (AACC) delivers educational and economic opportunity for 13 million diverse students in search of the American dream. Uniquely dedicated to access and success for all students, the AACC’s nearly 1,200 member colleges provide an on-ramp to degree attainment, skilled careers, and family-supporting wages. Located in Washington, DC, the AACC advocates for these not-for-profit, public-serving institutions to ensure they have the resources and support they need to deliver on the mission of increasing economic mobility for all.

The American Association of State Colleges and Universities (AASCU) is a Washington, DC-based higher education association of more than 400 public colleges, universities, and systems whose members share a learning-and teaching-centered culture, a historic commitment to underserved student populations, and a dedication to research and creativity that advances their regions' economic progress and cultural development.

The Association of Public and Land-grant Universities (APLU) is a research, policy, and advocacy organization representing 238 public research universities, land-grant institutions, state university systems, and affiliated organizations. Founded in 1887, APLU is North America’s oldest higher education association with member institutions in all 50 U.S. states, the District of Columbia, four U.S. territories, Canada, and Mexico. Annually, APLU member campuses enroll 4.8 million undergraduates and 1.3 million graduate students, award 1.2 million degrees, employ 1.4 million faculty and staff, and conduct $41 billion in university-based research.

The AACC would like to thank the Bill & Melinda Gates Foundation for making possible through generous grant support the development of the Post-Collegiate Outcomes Framework and Tool-kit. Guided by the belief that every life has equal value, the Bill & Melinda Gates Foundation works to help all people lead healthy, productive lives. In developing countries, it focuses on improving people’s health and giving them the chance to lift themselves out of hunger and extreme poverty. In the United States, it seeks to ensure that all people—especially those with the fewest resources—have access to the opportunities they need to succeed in school and life. Based in Seattle, Washington, the foundation is led by CEO Dr. Susan Desmond-Hellmann and co-chair William H. Gates Sr., under the direction of Bill and Melinda Gates and Warren Buffett.

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