

Strengthening Indiana's Community College System: A Report in Response to House Enrolled Act 1001-2015

PREPARED BY THE INDIANA COMMISSION FOR HIGHER EDUCATION
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INDIANA COMMISSION *for*
HIGHER EDUCATION

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Executive Summary

Ten years after the Indiana General Assembly established Ivy Tech Community College as the state's comprehensive community college system, now is the time to reflect, to acknowledge successes and opportunities for improvement, and to determine the best path forward as Ivy Tech begins its next decade of service to Indiana students, local communities and the state's economy.

Ivy Tech Community College: *The First Ten Years*

Ivy Tech is the first and only community college in the U.S. to operate as a system with statewide reach. While other states have moved toward a more systematic coordination of separately-operated community colleges, Ivy Tech remains unique nationwide. As the nation's only statewide, singly accredited community college, Ivy Tech is well positioned to implement effective strategies and practices at scale across Indiana to the benefit of all Hoosiers.

Recent reforms at Ivy Tech demonstrate the promise of innovative practices implemented at scale :

- Remediation Redesign: Ivy Tech Community College has emerged as a national leader in effective remedial delivery with its co-requisite model, which provides remedial coursework and support alongside college-level courses.

“...now is the time to reflect, to acknowledge successes and opportunities for improvement...”

- Pathways: Ivy Tech has also earned national attention for its ground-breaking, system-wide effort to better align

math courses to meet students' needs and career goals.

The Commission's Charge

The Indiana Commission for Higher Education was charged by the General Assembly in 2015 to review Ivy Tech's existing programs with low graduation rates and granted the authority to eliminate or restructure these offerings based on other successful program models.

The Commission's Findings

Two conclusions became abundantly clear through this process:

1. Successful community college programs—at Ivy Tech and nationwide—are highly structured with proactive advising practices that keep students on the path to completion with seamless job placement or transfer to a four-year college.
2. When Ivy Tech implements student-focused reforms at scale, significant improvements in student success can be achieved across the system in a short period of time.

In addition, the Commission found that:

- The majority of student enrollment is concentrated in a handful of subject areas. Despite a multitude of program offerings, two-thirds of Ivy Tech associate degree seekers enroll in three areas: Health Professions, General Studies and Business. Two-thirds of certificate-seekers enroll in Health Professions, Industrial Technology, and Mechanic-Repair Technologies.
- Many programs have low enrollment. At the region level, one-third of Ivy Tech's programs have had

fewer than 30 students enrolled in the past year, though in some cases this is due to capacity limitations or recruitment challenges.

- Completion rates lag behind the national average. The average completion rate for community college students nationwide is 58 percent for full-time students and 40 percent after 6 years when part-time students are included. Of all the programs Ivy Tech offers, fewer than 5 percent graduate at least half of their students. One out of every two programs fails to graduate even one-quarter of students after six years. As a system, Ivy Tech's full-time students complete at a rate of 26 percent and part-time students complete at a rate of 21 percent after six years.
- Highly structured programs have best results. Ivy Tech's health-related programs, apprenticeships, and Associate Accelerated Program (ASAP)—all of which are highly structured programs—have significantly higher completion rates than other, less structured programs offered by the college.
- Measurement of labor market outcomes has been elusive to date. Ivy Tech does not have a systematic method of measuring labor market outcomes for graduates. This is true of most Indiana institutions, both two-year and four-year.

The Commission's Recommendations

Modeled on national best practices, the Commission recommends that Ivy Tech:

- **Focus resources on programs that demonstrate demand and success.**

Ivy Tech should monitor the enrollment, graduation rate and job placement rates. Programs that do not demonstrate sufficient student demand, graduation success and/or labor market outcomes should be flagged for further investigation and potential elimination or restructuring.

- **Provide predictable schedules and structured pathways for every student.**

Evidence shows more high structured college programs achieve high completion rates. This is true with Ivy Tech's own apprenticeship, nursing and ASAP. These programs ask students to commit to a particular time horizon while providing highly structured course sequences. Ivy Tech should apply this model to its other programs, providing structured course sequences for accelerated, on-time and extend-

ed-time graduation with evening and weekend options. Ivy Tech should focus these efforts first on students who plan to transfer to four-year colleges and students in Ivy Tech's other high-enrollment programs.

- **Target student interventions and advising to ensure completion.**

With a more systematic approach to course scheduling, Ivy Tech's advisors can direct more of their resources to early career advising and proactive interventions to keep students on-track for completion. Furthermore, college advisors should be trained to perform all types of student advising—from career planning to financial assistance. They should serve their assigned students from enrollment to graduation and be each student's primary point of contact for any question related to completing a degree, academic or otherwise.

- **Smooth the transition from Ivy Tech to four-year colleges.**

Ivy Tech should implement incentives and supports to encourage students to complete credentials at the community college before transferring to four-year colleges.

Ivy Tech should channel students intending to transfer through the statewide guaranteed transfer core (30 credits) and transfer pathways (60 credits), encouraging them to complete one or both credentials before transferring. The Commission will investigate ways for the state, Ivy Tech and four-year colleges to help ensure that transfer students are encouraged by both Ivy Tech and four-year institutions to transfer at a “checkpoint” after completing a credential.

**Indiana Commission for
Higher Education is confident
Ivy Tech can be not only the
largest—but also among
the most successful—
community college
system in the nation.**

- **Improve Ivy Tech’s data system capabilities.**

The Commission’s review revealed significant opportunity for improving Ivy Tech’s data systems so that it can accurately report historical data and support Ivy Tech faculty and staff in the other recommendations described in this document.

- **Better embrace Ivy Tech’s diverse mission in public reporting and performance funding.**

The Commission will consider adding short-term certificates of 18-29 credits to its performance funding formula in the next biennium and labor market outcomes in the biennium after that. The Commission will also begin collecting and publicly reporting outcomes for Ivy Tech’s shorter-term credentials and corporate training programs.

STRENGTHENING INDIANA'S COMMUNITY COLLEGE SYSTEM

Background

Ivy Tech Community College is the nation's largest singly accredited statewide public community college system—serving about 185,000 students each year.

Originally founded in 1963 as Indiana Vocational Technical College to provide training and education for Indiana's various industry workforce needs, the college was re-chartered as Ivy Tech State College in 1995.

In 2005, the Indiana General Assembly officially made Ivy Tech Indiana's statewide public community college system. Ten years later, Indiana's legislature directed the Commission for Higher Education to study Ivy Tech's programs, examine strategies used by the nation's most successful community colleges, and make recommendations for restructuring Ivy Tech programs.

Commission's Charge

The Indiana Commission for Higher Education was charged by the General Assembly in 2015 to review Ivy Tech's existing programs with low graduation rates and granted the authority to eliminate or restructure these offerings based on other successful program models. The Commission's approach to this charge was to research the national landscape of community colleges with best practices identified by the Community College Research Center, the Aspen Institute (which annually awards a prize for community college excellence) and Complete College America. The Commission also analyzed Ivy Tech's enrollment and graduation data by region and program and identified characteristics of Ivy Tech's successful programs.

This report compiles the Commission's findings and presents a potential path forward for the next decade of Ivy Tech's service to Indiana students. Building on Ivy Tech's history and accomplishments, the Commission is confident Ivy Tech can be not just the largest—but also among the most successful—community college system in the United States.

Acknowledgements

The Commission would like to acknowledge the strong support and collaboration of several members of the Ivy Tech leadership who provided ongoing information and feedback to the Commission during the development of these recommendations.

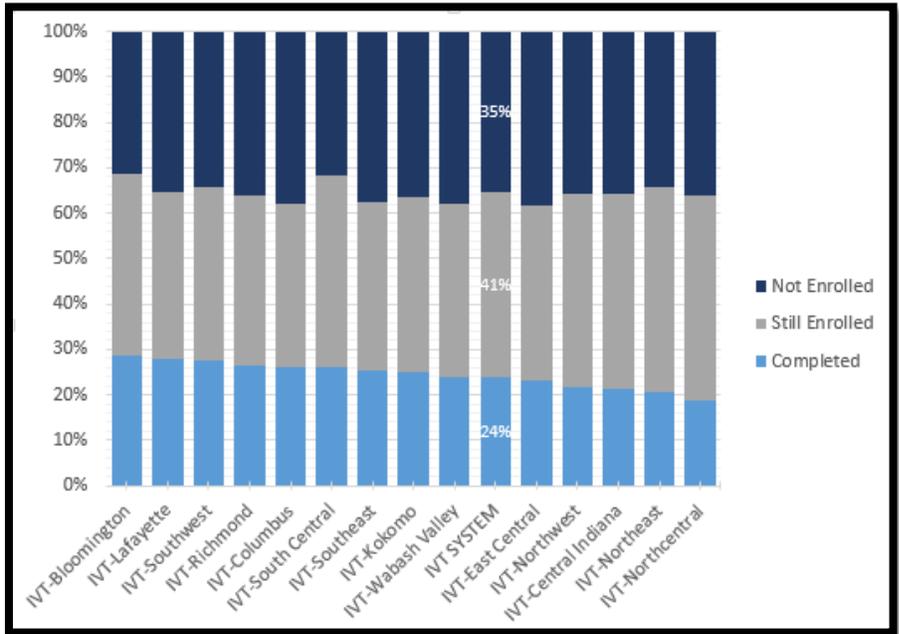
The Commission would also like to acknowledge the partnership of several other stakeholders who helped shape the recommendations, including representatives from of Governor Mike Pence's staff, the Ivy Tech Board of Trustees, the Indiana General Assembly, and the Indiana Department of Workforce Development as well as several external organizations focused on economic and community development.

Program Analysis

Based on national research and best practices, the metrics most critical to efficient and effective delivery of academic programs are **enrollment, completion rates** and **labor market outcomes** of graduates. The Commission evaluated each Ivy Tech program by region with these criteria in mind. To provide context for comparison, the Commission also analyzed demographic trends of students and compared those against national averages and trends for high-performing community colleges. While only the high level findings are presented in this section, the full analysis can be found in Appendices A and B.

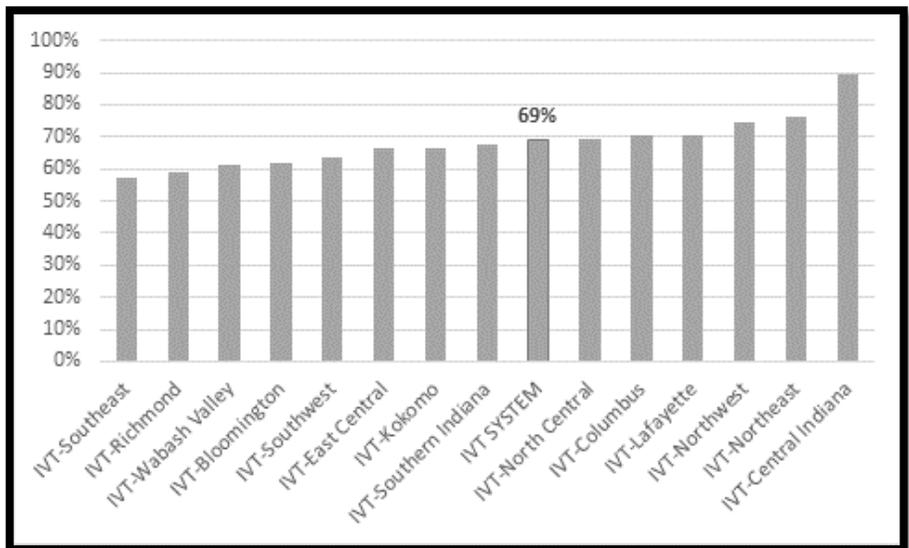
Key Finding #1-completion:
After six years, more students are still enrolled in college (41%) than have graduated (24%).

Chart shows the percentage of students in each status (not enrolled, still enrolled, completed) after six years.



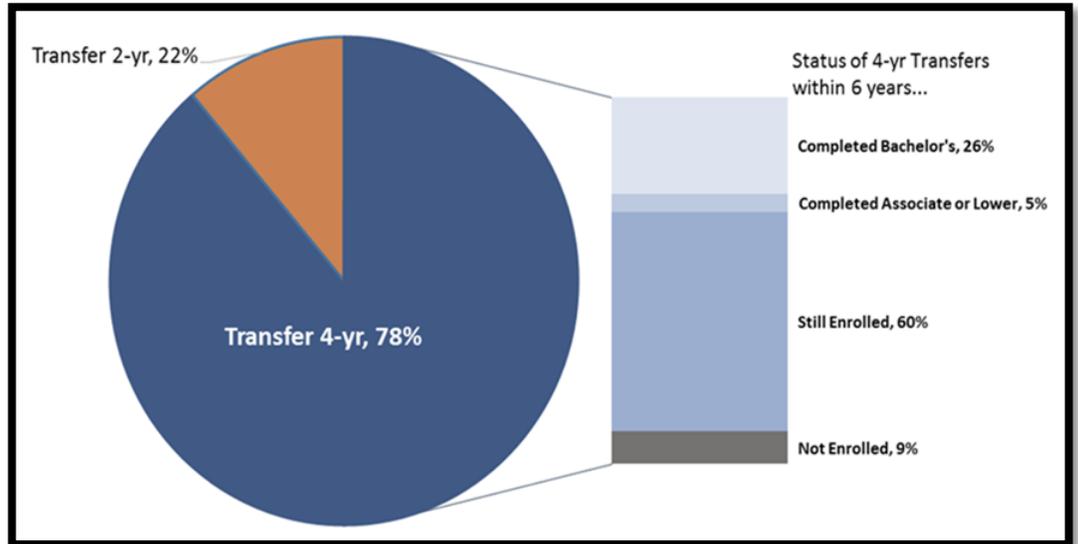
Key Finding #2-enrollment:
One-third of programs within an Ivy Tech region have fewer than 30 students enrolled.

Chart shows the percentage of programs with 30+ enrollment, defining programs with different degree levels within a particular subject grouped as a single program.



**Key Finding #3-
transfer outcomes:**
Of the students who
successfully transfer
from Ivy Tech to a
four-year institution,
about one in four
graduates with a
bachelor's degree
within six years.

Chart shows the 6-year
outcomes of students who
transfer from Ivy Tech.



Key Finding #4-labor market outcomes: Ivy Tech, like most Indiana institutions, does not currently have a mechanism to systematically and comprehensively measure the labor market outcomes of students, such as placement rates and average salaries.

(This section is excerpted from the full data analysis found in Appendices A and B.)

Best Practices of Community Colleges

In the early years of community colleges in the United States, these schools focused efforts and invested heavily in increasing student enrollment, with great success: Between 1970 and 2010, fall enrollment at community colleges leapt from 2.2 million to 7.2 million. By the 2000s, the number of high school graduates with some experience in higher education outnumbered those without.

More recently, policymakers, researchers and community college leaders have shifted their focus from increasing enrollment to increasing student completion. As a state, Indiana has placed a strong focus on degree and credential completion. The state's Commission for Higher Education set a goal for 60 percent of Hoosiers to have a meaningful degree or credential by 2025—a number tied directly to projected workforce demands in the next decade. Furthermore, Indiana has aligned this goal with fiscal incentives for colleges within its performance funding model—rewarding schools for graduating more students on-time, particularly minority and low-income students.

With community colleges under increased pressure to boost completion rates, organizations such as the Aspen Institute, the Community College Research Center at Columbia University, and Complete College America are helping define the best ways to measure community college performance and improve student success. While these organizations have different areas of focus and vary in scope and size, their work tells a remarkably consistent story about the practices of America's most effective community colleges.

The Aspen Institute, in particular, has helped provide guidance on measuring community college success. Since 2011, its College Excellence Program has examined hundreds of community colleges and performed dozens of site visits on campuses across the nation. Working with distinguished leaders from business, academia, and the public sector, the Institute awards the Aspen Prize for Community College Excellence to recognize America's finest community colleges. In the discussion that follows, the Commission will focus on the measures, policies and practices identified by the Aspen Institute for community colleges; however, the overarching themes presented are shared by other groups focused on increasing college completion.

The Aspen Institute has identified four criteria to measure a college's success: Completion, Learning, Labor Market Outcomes, and Equity. These criteria are valuable because they are measurable, comprehensive, and relevant—in that they reflect community colleges' historic and ongoing importance as gateways to higher education for America's underserved students as well as their vital role as economic engines for America's growth and competitiveness. These are criteria and values shared by the Commission and reflected in its College Completion, College Readiness, and Return on Investment reports.

Furthermore, adopting these criteria specifically for the purpose of this Ivy Tech analysis provides clear and empirical benchmarks for what community colleges should strive to achieve.

Based on guidance gleaned from the Aspen Institute and similar organizations, the Commission practices of effective community colleges. These are practices have proven themselves, in college after college, to be essential elements of student success.

Best Practices at Excellent Community Colleges

Excellent community colleges adopt the following best practices:

Simplify and streamline the path through college

- Provide highly structured programs that simplify program selection and keep students on the path to graduation
- Ensure consistent, predictable schedules that enable students to balance work and family obligations
- Refuse to let students languish in standalone remediation courses

Strengthen monitoring, intervention and support policies

- Monitor students' well-being with proactive interventions that keep them on track
- Provide "wrap-around" services that support underserved students
- Strive to serve the most disadvantaged students

Forge partnerships throughout communities served

- Collaborate with high schools to improve dual credit and prepare students for college
- Ensure a smooth transfer from community college to four-year institutions
- Forge partnerships with local industry and employers that ensure job placement

Improve constantly

- Measure performance to test and implement improvements
- Dismantle institutional siloes
- Hold staff accountable for results, i.e., program completion and job placement

(This section is excerpted from the Commission's comprehensive study on best practices for community colleges, *Does this Work?*, included as Appendix C of this report.)

Recommendations

Mission and Governance

Ivy Tech's structure and governance must facilitate a seamless, integrated system of program offerings from non-credit-bearing corporate training to transferable associate degrees. Within a subject area, credentials of all levels should stack toward the next. To ensure seamless integration and in keeping with the statutory authority granted to college boards of trustees, Ivy Tech operations should continue to be governed by their Board of Trustees as part of the higher education system that is coordinated by the Indiana Commission for Higher Education. The leadership at the regional level should focus on workforce development: building strong ties with its employers to evaluate program demand and strengthen job placement of graduates.

Ivy Tech should continue to fulfill its parallel but complementary missions:

- Serve as the state's main producer of sub-baccalaureate degrees and credentials, from short-term industry training to associate degrees
- Offer students seeking a bachelor's degree with a lower cost, regional options for:
 - Completing up to 60 credits as an Ivy Tech student to transfer to a four-year degree
 - Completing summer and guest courses while simultaneously enrolled at a four-year institution
- Collaborate with business and industry to produce short-term and long-term credentials to improve Indiana's workforce and fuel regional economies¹
- Seek out and serve the most disadvantaged students, whether their challenges are economic, academic or both
- Collaborate with high schools to improve college readiness and success, including but not limited to dual credit offerings

¹ Popular credentials include Welding, Automotive Technology, Cyber Security, Medical/Dental Assisting and Hospitality.

Strategies for Evaluating Program Offerings

Ivy Tech currently reviews programs on an annual basis. The following articulates a modified strategy for this ongoing program review to focus on the most critical metrics: **Sufficient student demand, sufficient employer demand and effectiveness** in terms of graduation or productive transfer.

Programs not meeting these criteria should be flagged for further investigation. There are circumstances in which flagged programs should continue to be offered, including demonstration clear workforce need for the program (in which case, an improvement plan should be developed to increase enrollment and completion rates) or capacity limitations (e.g., lab space) leading to a capped program size. Flagged programs that do not have such justification should be phased out or placed on an aspirational improvement plan. For programs with clear workforce need but low student demand, outside stakeholders such as economic development officials and local high schools should help increase demand by publicizing the programs and highlighting their positive labor market outcomes.

In response to the program review required under HEA 1001-2015, Ivy Tech should provide the Commission and the Indiana General Assembly a list of programs that do not meet the 2016 criteria listed in the chart on the following page. It is the discretion of Ivy Tech to determine whether the review will separate programs by degree level or allow varying degree levels within a single field of study to constitute a single program.

The report should detail whether each program identified will be discontinued, restructured as a statewide online offering instead of a regionally-based offering, or conditionally permitted to continue under an improvement plan or other appropriate plan. This report should be submitted no later than March 1, 2016.

How do we measure these outcomes?

Student Demand

Sufficient student demand is measured through enrollment; at minimum, a program should have at least 30 students enrolled. For the purpose of this analysis, there are two ways to define “program.” One approach, consistent with how data are reported now, is to define separate degree levels as separate programs. For example, a technical certificate in business and an associate degree in business would be considered separate programs. The other approach is to view a program as a set of stackable credentials within a particular area of study. For example, a certification, technical certificate and associate degree in business would be considered one program. This approach is consistent with a more modular environment in which students are classified as seeking and are conferred the lowest degree level first, building toward each higher credential level after each milestone. The student demand benchmark is measured using the second definition for the purpose of the initial program review.

Employer Demand

Sufficient labor market demand can be measured through job placement rates; at minimum, at least 75 percent of graduates from a program should be employed within one year of graduation. Transfer students should not be part of this calculation, given that their next step is to enroll in further postsecondary work, entering the labor market upon completion of their subsequent degree.

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Effectiveness

Effectiveness for **non-transfer** students is straightforward, measured by the percentage completing a degree or credential in three years or less.

Effectiveness for **transfer** students should be handled slightly differently, given that the students' eventual completion is accomplished only if both Ivy Tech and the four-year institution are effective. Ivy Tech should be credited with the success of getting its transfer students the first guaranteed transfer window (the 30-credit transfer core) or if the student receives an Ivy Tech associate degree while enrolled at the four-year institution through a reverse articulation process. Transfer time horizons must also allow more time for completion since these students are completing a four-year bachelor's degree, not a two-year associate degree or shorter-term certificate. Thus, effectiveness for transfer students is measured by the percentage completing one of the following within 6 years: Transfer Core, Associate Degree or Bachelor's Degree.

How do these metrics phase in?

The target values for each of these metrics will need to phase in, leaving time for Ivy Tech programs to improve to meet the benchmarks established. The following chart establishes *minimum* benchmarks for program review over the next five years. Ivy Tech could certainly establish higher benchmarks or phase them in earlier to bring about a faster pace of improvement.

	2016	2017	2018	2019	2020	2021
Student Demand	Enrollment of at least 30 students per program, per region					
Employer Demand	Job placement measurement not available		Job placement rate of at least 60%		Job placement rate of at least 75%	
Effectiveness (2-year degrees)	25% within 6 years	30% within 6 years	35% within 6 years	25% within 3 years	35% within 3 years	50% within 3 years
(shorter-term credentials)	For sub-associate programs, the time horizon for the effectiveness metric should be equal to 300% of published program length (2016-2018) and 150% of program length (2019-2021)					

Ivy Tech may elect to utilize additional criteria, such as the Aspen Institute's metric of degree production per full-time equivalent, to use in its ongoing program review.

Strategies for Restructuring Student Support

HEA 1001-2015 charges the Commission with restructuring underperforming programs “based on information from other programs that are successful.” Given that the vast majority of programs currently miss the completion benchmark, certain aspects of program restructuring—including the support granted to students enrolled in that program—should be approached system-wide. After evaluating high-performing programs within Ivy Tech and nationwide, the Commission has identified the following opportunities for system-wide restructuring to increase the effectiveness of programs with a target date for achieving scaled implementation of November 1, 2018. Ivy Tech should provide a written status update by November 1 of each calendar year until the restructuring has been completed at scale.

Remediation

Ivy Tech’s successful approach to remediation is a national model. Ivy Tech should continue to offer remediation through a co-requisite model and continue to improve the placement process through alternative assessments and competency-based “boot camps” prior to placement. Ivy Tech’s success in remediation will continue to be monitored and rewarded through the performance funding model which rewards Ivy Tech when remedial students successfully complete their first credit-bearing (post-remedial) course.

Course Scheduling

Evidence clearly indicates that more highly structured programs² achieve much higher graduation rates.

As such, the Commission calls on Ivy Tech to offer standard, consolidated and predictable schedules for accelerated, on-time and extended-time completion (that include weekend and evening options) for each of the following:

- Transfer students completing the Transfer Core
- Transfer students completing a Transfer Pathway
- High-enrollment programs that are not currently organized as blocks

The Commission recommends that these blocks be cohort-based to the extent possible. Students not participating in a cohort or block schedule should have mandatory academic advising prior to registration each semester.

With the majority of students in predictable scheduling blocks, it becomes a more automated process to generate degree maps and predict course demand, the latter of which should be communicated to department chairs. Each department chair should be mindful of the state law that students who follow their degree maps and find courses (or appropriate substitutes) unavailable are entitled to receive that course free of charge in a future semester.

Ivy Tech should measure and report the percentage of students enrolled in a consolidated, predictable schedule as a percentage of all students as well as the percentage of programs that offer such a schedule, based on Ivy Tech’s definition of what constitutes a consolidated, predictable schedule.

² For example, Ivy Tech’s apprenticeship and nursing programs (which also have selective admissions) and open-admissions programs such as City University of New York’s ASAP programs

Transfer Students

Students who transfer from Ivy Tech fall into one of two categories: they either begin at Ivy Tech intending to transfer, or they attend Ivy Tech for a number of semesters and then decide to transfer. While in a general context, the term “transfer student” would also include students who transfer *to* Ivy Tech from another institution, this document uses the term to refer to students transferring from Ivy Tech to a four-year institution. Students in the first category, who identify themselves upon entry as transfer students, should be guided through a structured set of courses to satisfy the statewide guaranteed Transfer Core or a Transfer Pathway. Since students who transfer with a credential are more likely to be successful at a four-year institution, the Commission recommends that Ivy Tech implement incentives for students to complete these credentials before transferring, which could be developed in partnership with the 4-year institutions (e.g., priority admission if the credential is completed).³ Students who intend to transfer should be flagged as such in the student information system to enable Ivy Tech to calculate the accountability metrics described in the previous section and facilitate dual advising from both Ivy Tech and the intended transfer institution.

The goal of this approach is that Ivy Tech students complete one or more credentials—the certificate for completing the general education core, an associate degree, or both—before they transfer. As such, the Commission will consider ways in which the state, the four-year institutions, and Ivy Tech can work together to create transfer checkpoints that coincide with these credentials being conferred.

Ivy Tech should measure and report the percentage of students who transfer after completing the 30-credit transfer core; and/or completing an associate degree as a percentage of all students who transfer.

Advising and Student Support

Building on the progress made since 2013-14 with the addition of degree maps and the hiring of additional advising staff, Ivy Tech should continue refocusing student support resources toward early career development, proactive interventions for off-map and at-risk students, and student coaching resources.

Support for at-risk students can be leveraged by working with state agency and community partners, particularly the Department of Family and Social Services, which should train Ivy Tech staff to assist students in applying for SNAP, housing and childcare assistance, and other benefits outside of traditional financial aid.

Implementing an advising model that allows students to have a single, consistent point of contact throughout their academic experience will also permit Ivy Tech to more effectively identify gaps in student support and provide students with targeted guidance at each point in their academic careers. The college should explore the most effective way to supplement this advising support with additional coaching resources for at-risk students. A coaching model has already proven to be an effective tool to increase student success with Ivy Tech 21st Century Scholars, so expanding this support to additional populations can help boost program outcomes and eliminate achievement gaps.

Ivy Tech currently has a process in place to provide feedback on student performance to both academic leadership and directors of advising. Another benefit of having a single, consistent point of contact for students is that these reports will become even more informative; student performance data will be tied to a single

³ Note that students receiving the state’s Frank O’Bannon need-based grant receive an additional \$800 per year after completing an associate degree in route to a four-year degree.

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advisor, not a combination, which will likely reveal clearer patterns of advisee behavior for each of the advisors that serve Ivy Tech students.

Ivy Tech should measure and report the percentage of students who are assigned a single, consistent point of contact for the duration of their academic program as a percentage of all students.

Corporate College

Ivy Tech operates an entity called the Corporate College which partners directly with employers to provide skills and training to employees, often customized to the needs of the employer. Ivy Tech's efficiency will be enhanced if it ensures that the Corporate College, through separate financials, is self-sustaining. Despite separate financials, the Corporate College could be used as a significant recruiting pool for the other parts of Ivy Tech if the Corporate College is positioned as an entry point for further study at Ivy Tech. Ivy Tech is encouraged to continue clarifying and strengthening Corporate College training pathways to credit bearing degree programs at the institution. Ivy Tech should measure and report the number of employers and students served through the corporate college and the proportion of students accessing the programs on their own compared to those accessing them through their employers.

Strategies for Enhanced Reporting and Accountability

Measuring Labor Market Outcomes

Given Ivy Tech's mission to serve local economies and the critical importance it holds for our state workforce, the Commission will ask the General Assembly to pass legislation charging the Department of Workforce Development and the Department of Revenue to work with Ivy Tech and the Commission to develop a mechanism to systematically measure labor market outcomes for all programs, including placement rates and salary level of graduates (excluding transfer students). The working group should establish a plan to collect any additional data necessary and have the measurement in place, at scale, by January 1, 2017. While the initial focus should be labor market outcomes for the community college, the working group should establish a model that would work for four-year institutions as well.

Labor market feedback must be not only reactive, but proactive as well, to ensure that Ivy Tech has projections of future jobs and the education and training necessary to support them. Given the time it takes to develop a new program, get it accredited and approved, and graduate the first cohort, a forward-looking approach to labor market feedback is critical. By January 1, 2017 and every year thereafter, the Department of Workforce Development should produce such estimates and coordinate the needs of employers, presenting that information to trustees, leadership and faculty of Ivy Tech in a systematic, ongoing manner.

Data System Capabilities

The Commission's review reveals significant opportunity for improvement of Ivy Tech's data systems. The Commission strongly recommends that Ivy Tech upgrade or overhaul its data systems by January 1, 2017 such that it can do the following:

Current functionality that should be retained:

- Predict demand for course offerings (number of sections and times) based on degree maps
- Notify students and advisors when students go off-map or fail milestone courses and place a hold for mandatory advising
- Identify other at-risk students for the purpose of proactive advising and prioritize advisor outreach efforts based on risk assessment
- Generate snapshot, historical and real-time data for enrollment, completion rates, job placement rates and all other data collected by the Commission through CHEDSS
- Generate enrollment and completion data for the corporate college and other non-credit students and programs and submit that to the Commission through CHEDSS

Functionality that should be added or enhanced:

- Track labor market outcomes for all programs including the corporate college in partnership with the Indiana Network of Knowledge
- Establish and update degree maps and make mapped courses the default selection in the registration system

Performance Funding

For the 2017-19 biennial budget (recommendations developed during 2016), the Commission endorses adding

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the conferral of shorter-term certificates (18-29 credits) into its performance funding formula within the degree completion metric and, once developed, the labor market outcomes metric.

For the 2019-21 biennial budget (recommendations developed during 2018), the Commission endorses the inclusion of a labor market outcomes metric for Ivy Tech's non-transfer programs. The Commission will use data collected by Ivy Tech during the 2017-19 biennium to establish a baseline, rewarding improvement over that baseline in the 2019-21 biennium. If the data are available soon enough to accelerate this timeline, this metric could be incorporated in the earlier biennium.

Public Reporting

Once additional data are submitted to the Commission, the Commission will supplement its College Completion Report for Ivy Tech with completion rates of Corporate College students as well as the percentage of Corporate College students that enroll in degree-seeking programs after completing coursework in the Corporate College.

The Commission will also incorporate labor market outcome data in its Return on Investment Reports and the Indiana College Value Index.

Timeline

The Commission recommends the following implementation timeline:

- **March 2016:** Initial program review complete. Ivy Tech submits report to Commission and General Assembly with plan to discontinue, restructure or improve programs missing short-term benchmarks (enrollment > 30, completion rate > 25%).
- **November 2016:** Ivy Tech submits a report to the Commission detailing the progress made on the recommendations related to restructuring student support.
- **November 2016:** Commission for Higher Education votes on a budget recommendation having considered inclusion of shorter-term certificates in the performance funding formula
- **January 2017:** Labor market outcomes measurement in place for all programs in all regions
- **November 2017:** Ivy Tech submits a report to the Commission detailing the progress made on the recommendations related to restructuring student support.
- **November 2018:** Target date for full scaled implementation of restructured student support. Ivy Tech submits a report to the Commission detailing the progress made.
- **November 2018:** Commission for Higher Education votes on a budget recommendation having considered inclusion of a labor market outcomes metric for Ivy Tech's non-transfer students in the performance funding formula

Appendices

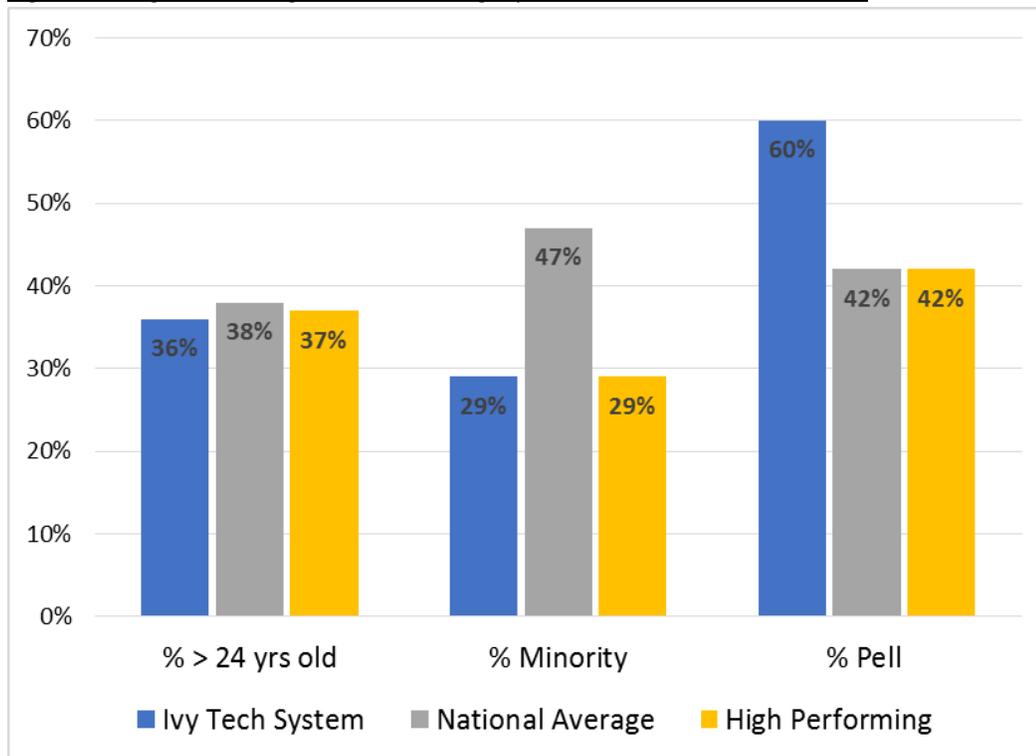
Appendix A: Analysis of Ivy Tech Demographics, Enrollment and Program Completion

Demographic Similarities

On the whole, Ivy Tech as a system serves a degree-seeking student population similar to those found on other two-year campuses nationwide. The percentage of adult students (36 percent) is consistent with peers nationwide, while the proportion of minority students (29 percent) is in line with high performing community colleges but below national averages. Notably, Ivy Tech enrolls substantially more Pell recipients than community colleges nationwide (60 percent vs. 42 percent), reflecting Indiana's bottom-third ranking in U.S. median income measures. (More Ivy Tech student demographic data can be found in Appendix B.)

- On some Ivy Tech regional campuses, the percentage of degree-seekers who receive a Pell grant is as high as 68-77 percent.

Figure 3: Degree-Seeking Student Demographics at Two-Year Institutions

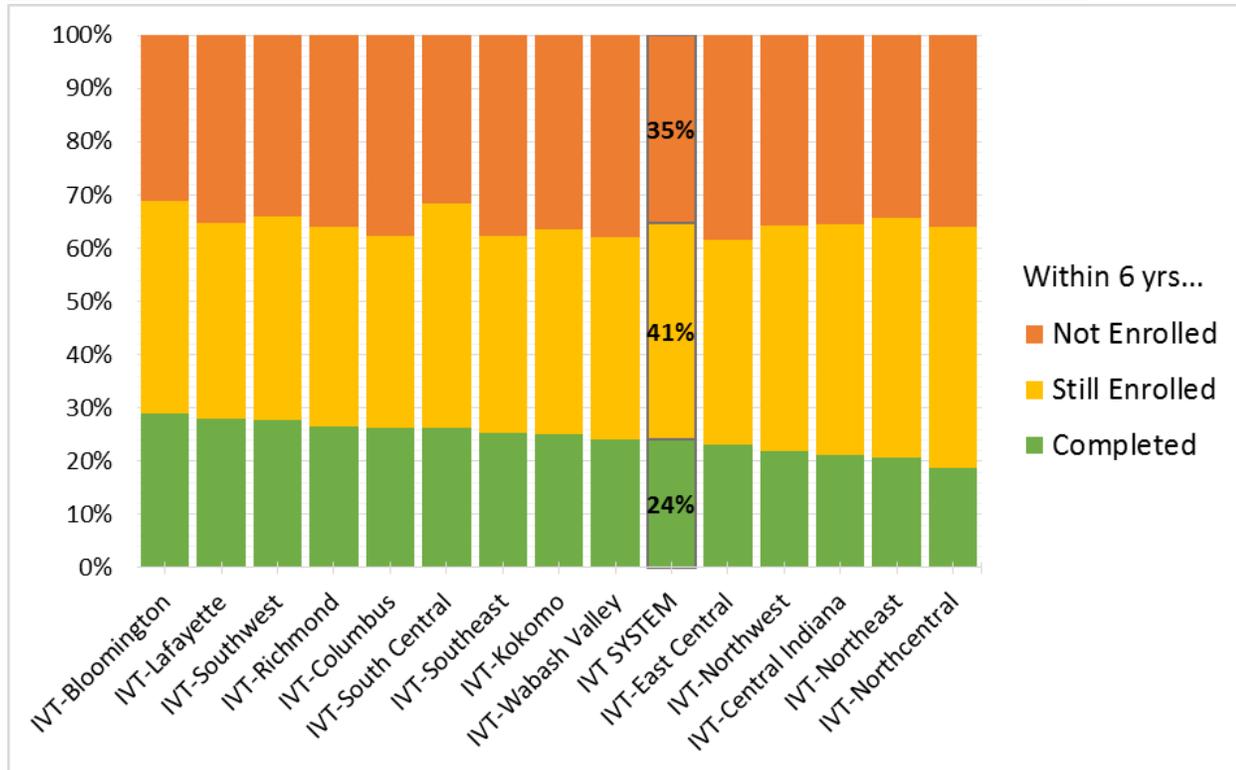


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Completion and Program Success

Only one quarter of students (24 percent) who start at Ivy Tech complete a degree within six years. Most (41 percent) are still enrolled in college six years after they began their studies—regardless of whether they started full- or part-time students. Figure 4 shows similar six-year trends across the regional Ivy Tech campuses.

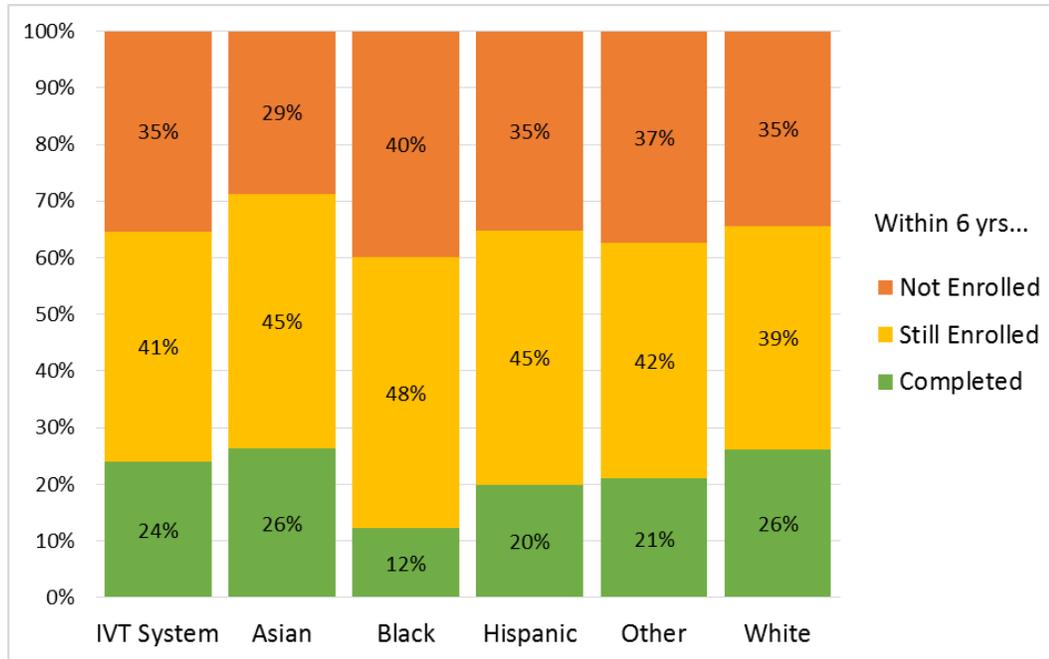
Figure 4: Average 6-year Student Success Rates by Regional Campus, Fall 2006-2008 Cohort



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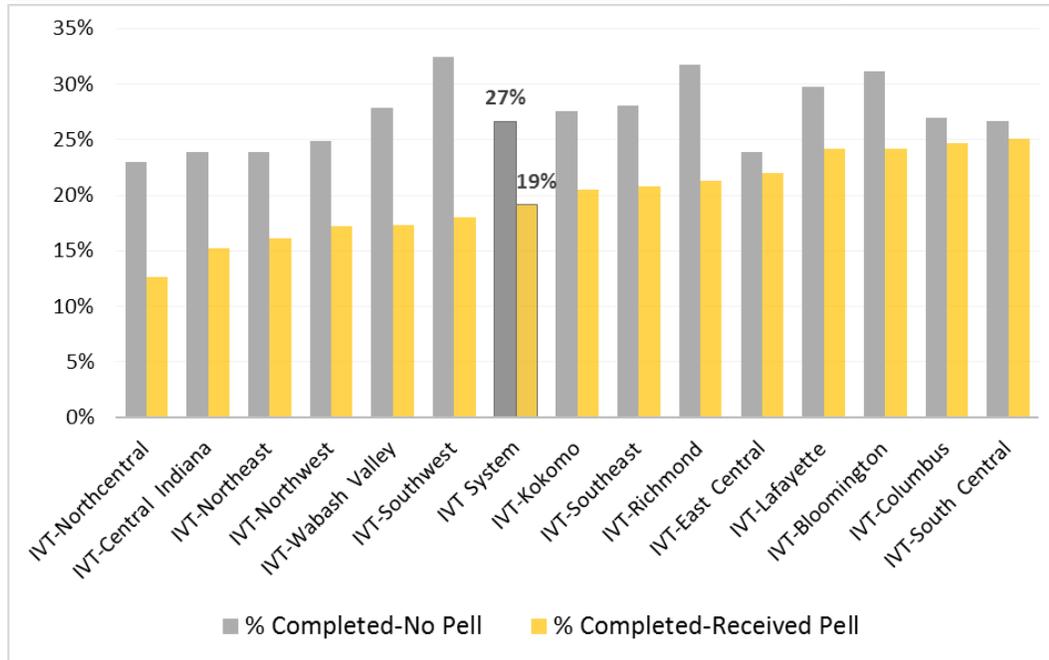
Completion outcomes for some minority groups and Pell recipients often are worse. Black students starting at Ivy Tech have on average lower completion rates and are more likely than their peers to have dropped out of college within six years, while an average 8 percentage point achievement gap exists between Pell and non-Pell recipients completing a degree. See Figures 5 and 6 below.

Figure 5: Average 6-year Student Success Rates by Race/Ethnicity, Fall 2006-2008 Cohort



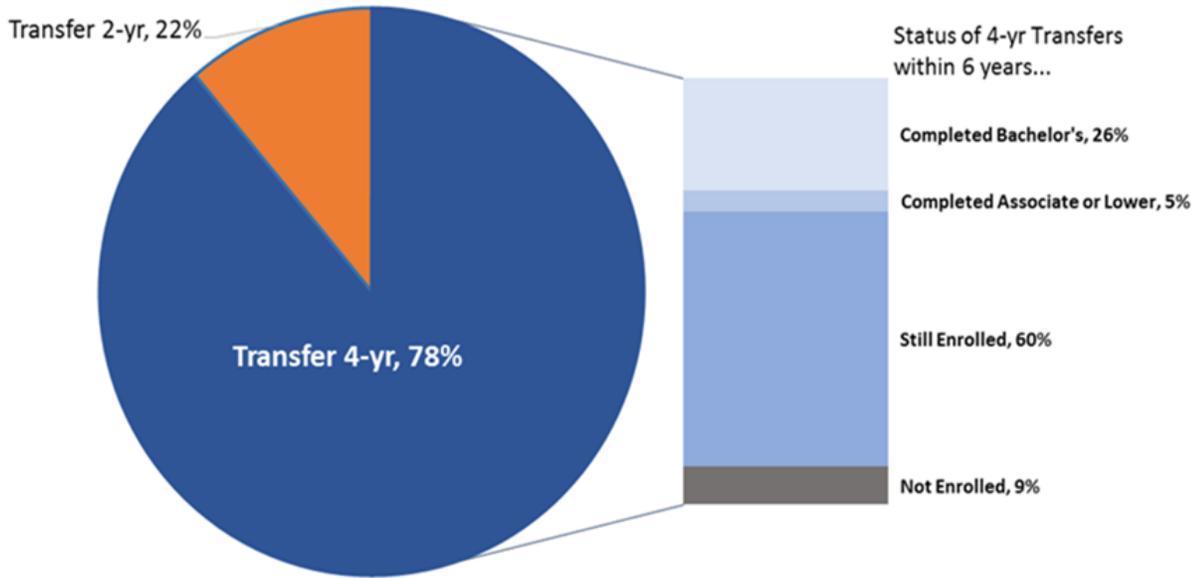
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Figure 6: Completion Rates by Pell Grant Status, Fall 2006-2008 Cohort



As for many community colleges, students who transfer and complete elsewhere are an important part of the success picture. Data indicate that approximately one in six Ivy Tech students (17 percent) transfers within six years, with a majority (78 percent) of transfers enrolling at a four-year college. Of the students who transfer to a four-year college, one-quarter (26 percent) graduate with a bachelor’s within six years, while most (60 percent) are still enrolled (See Figure 7).

Figure 7: Percentage of Transfers from Ivy Tech by Institution Level, and Success Rates for Transfers to 4-year Colleges, Fall 2006-2008 Cohort



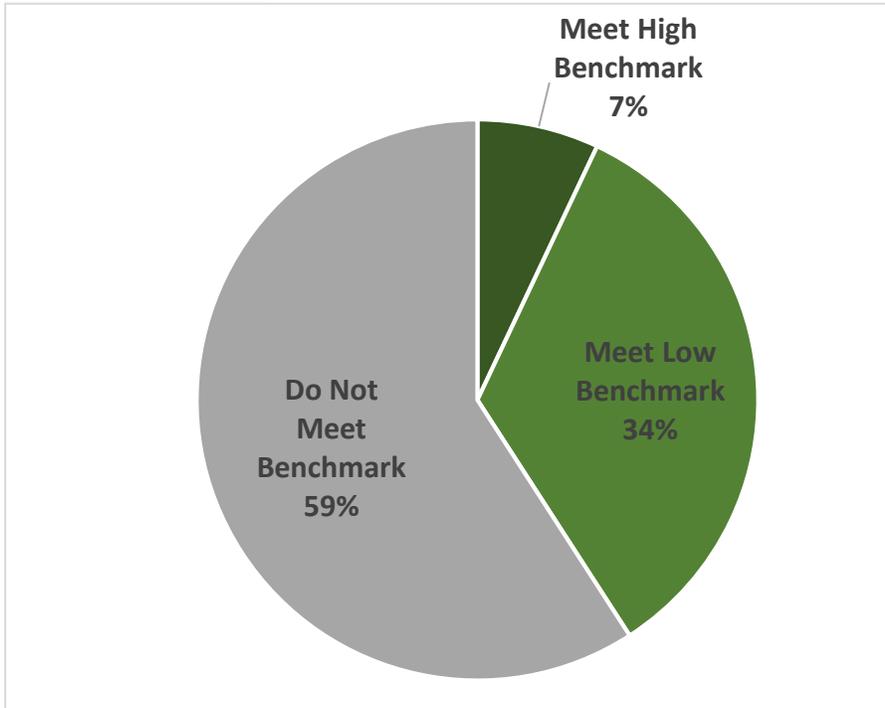
Program Completion Rates

Individual academic program completion rates (includes students initially enrolled in a program who subsequently transfer and complete) reveal achievement differences varying by the nature of the degree program. The data indicate that of the 74 Ivy Tech programs examined, less than half (30) achieve at least a 25 percent completion rate within six years.

Only a handful of programs—5 out of 74 (7 percent)—meet or exceed the state goal of 50 percent completion. These higher-achieving programs are tightly structured associate degrees in apprenticeships and nursing. Practical nursing is the only certificate program meeting the state benchmark (see Figures 8-10). The data suggest programs with higher completion rates also tend to have lower student attrition rates (i.e., students remain in the program throughout their academic career, rather than changing majors or degree level).

Top associate and certificate programs by completion rate vary by regional campus (see Figures 9-10). Within certain regions, program completion rates are over 80 percent, suggesting a number of possible best practices and structures to build upon system-wide, even as overall campus completion rates hover around 25 percent.

Figure 8: Percentage of Programs Achieving Benchmark Completion Rates (25% Low, 50% High) within Six Years, Fall 2006-2008 Cohort



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Figure 9 Average Extended (6-year) Completion Rates by Associate Program, Fall 2006-2008 Cohort

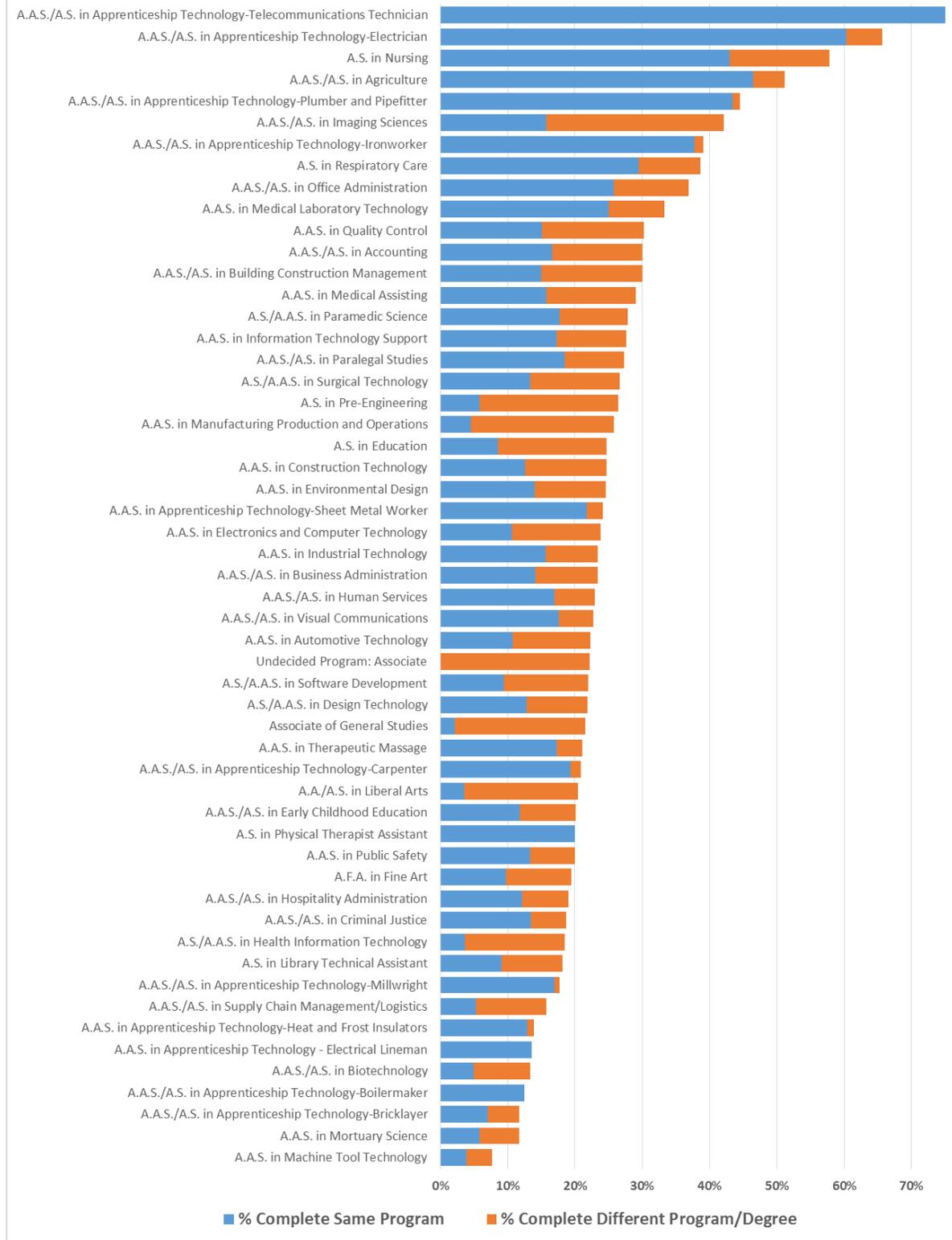
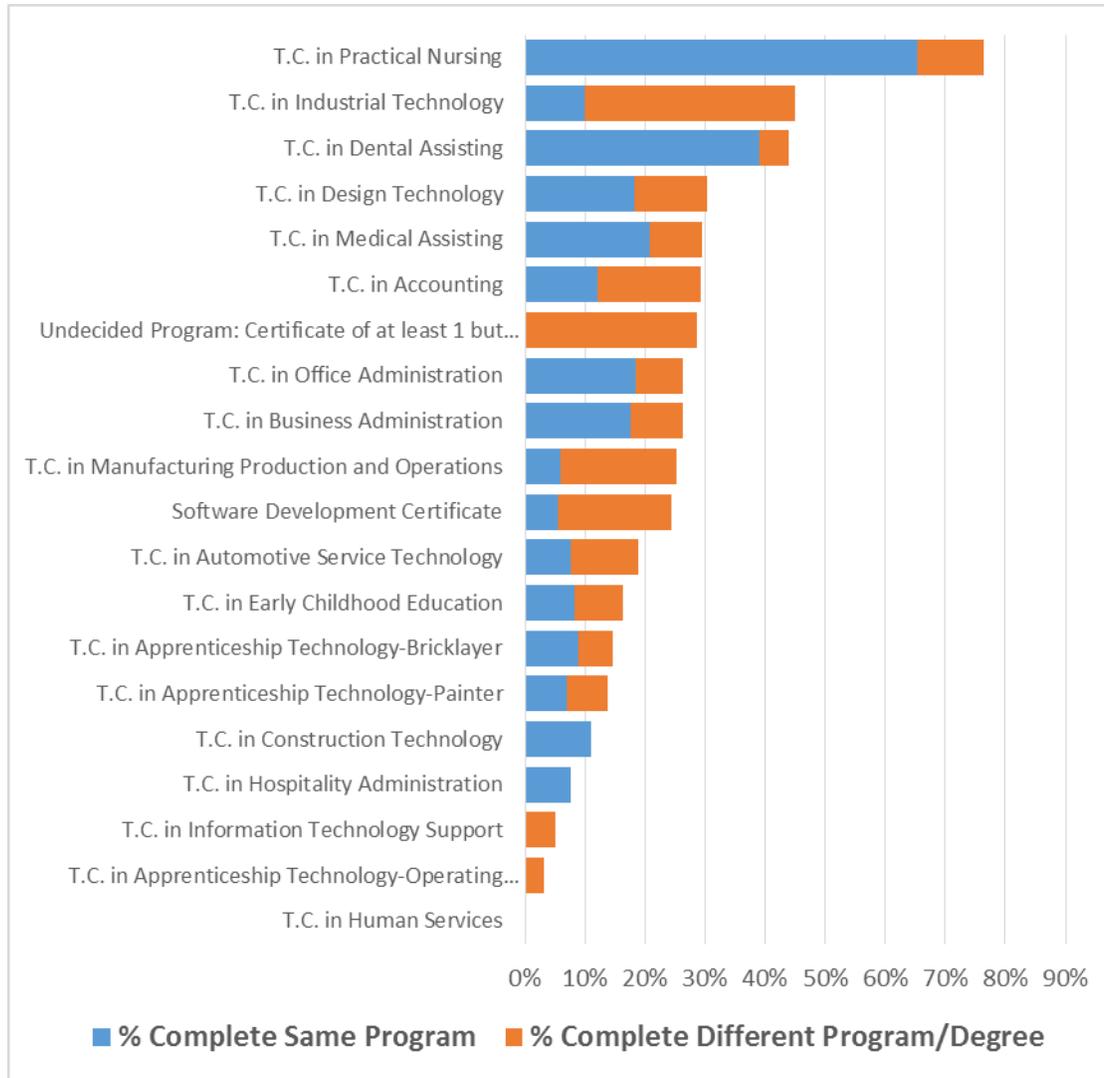


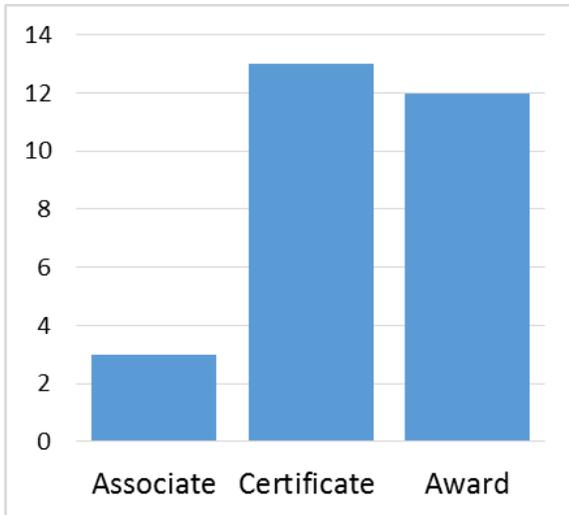
Figure 10: Average Extended (6-year) Completion Rates by Certificate Program, Fall 2006-2008 Cohort



Program Demand and Supply

Reflecting the community college core mission of education-workforce alignment, many of Ivy Tech’s degree programs are tailored to regional industry needs. Regionally specialized academic credentials often come in the form of certificates of at least one year in length and awards of less than one year. The top three certificate and award programs by enrollment vary considerably by region, while the top associate degree programs—General Studies, Healthcare Support, and Business Administration—are consistent statewide. (See Figure 11).

Figure 11: Number of Different Top Programs by Enrollment across Ivy Tech Regional Campuses, FY 2014



Ivy Tech’s academic offerings are extensive, yet seemingly under-utilized as stand-alone degree programs contributing to traditional completion rate success measures. As shown in Figure 12, higher production rates for awards and certificates compared to associate degrees attest, in part, to the relatively common practice in higher education of stacking coursework and credentials. Such practice is designed to provide stepping stones toward degrees. For example, students might earn a certificate or award while pursuing an associate degree in the same field.

Yet low overall program completion rates—which are inclusive of students changing programs and degree levels—along with program enrollment concentration data based on students’ reported main program of study suggest that extensive, multi-credential program offerings may instead serve as a structural impediment to institution-wide success. (See Figure 13).

The following is based on treating different degree levels within a particular subject as standalone programs:

- In 2014, less than two-thirds (111 out of 183) of all active Ivy Tech degree programs had total system-wide enrollments of 30 or more students pursuing that program as their primary degree. At the individual regional campus level, less than a third of programs achieved the 30+ enrollment benchmark (on average).
- Associate degree programs by far have the highest 30+ enrollment percentages—82 percent system-wide in FY 2014. Certificate and award programs, which represent more than half of Ivy Tech’s academic offerings, are much more likely to have lower enrollment concentrations (39-48 percent were at the 30+ mark in FY 2014).
- System-wide, 8 percent of all active programs with annual enrollments during fiscal years 2010-2014 were chronically under-enrolled, having fewer than 30 affiliated students each fiscal year. On some regional Ivy Tech campuses, the percentage of chronically under-enrolled programs was as high as 16-18 percent.

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Figure 12: Number of Degrees per FTE by Degree Type Population, FY 2014

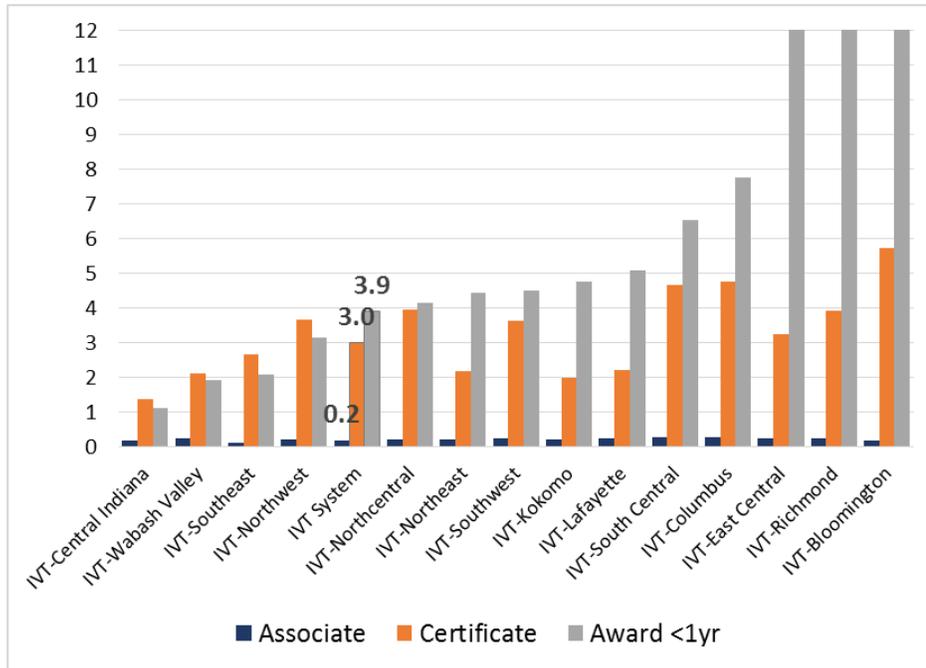
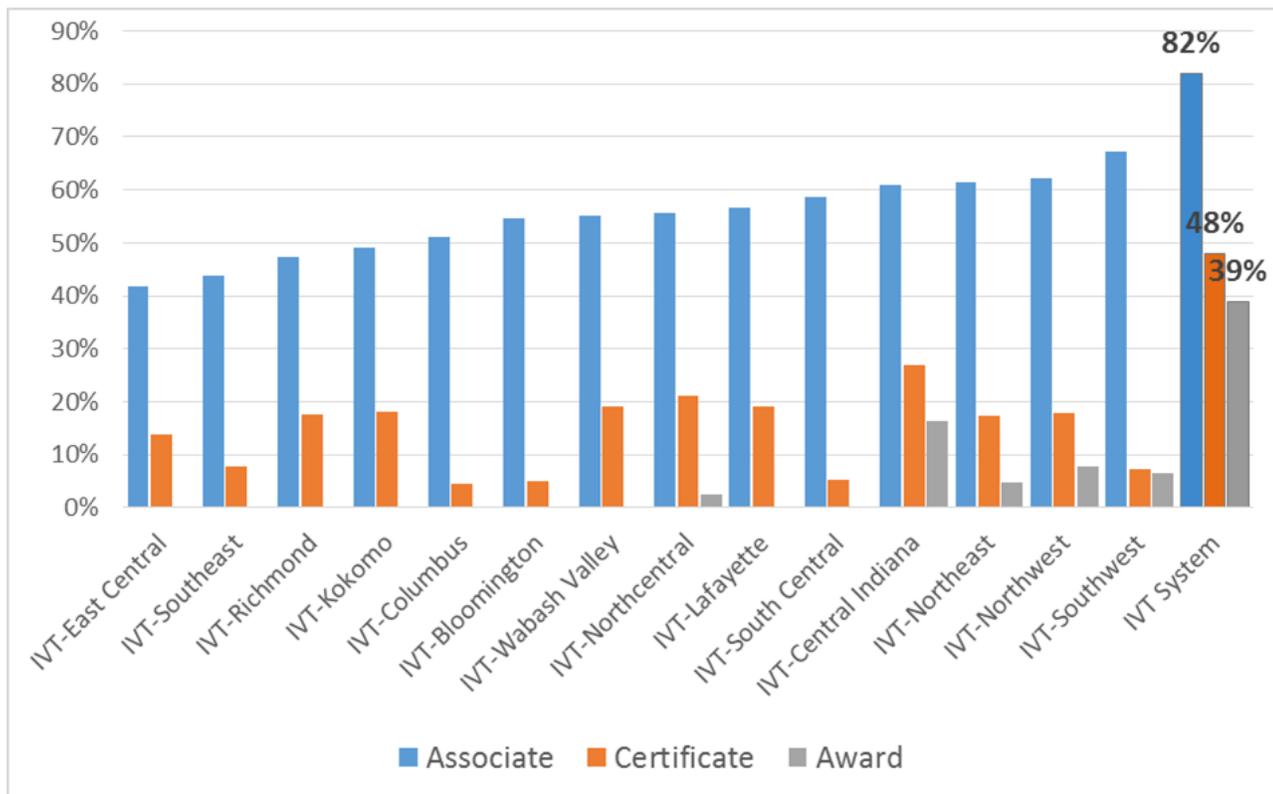


Figure 13: Enrollment Concentrations by Degree Type and Regional Campus: Percentage of Associate, Certificate, and Award Programs with 30+ Enrollments, FY 2014

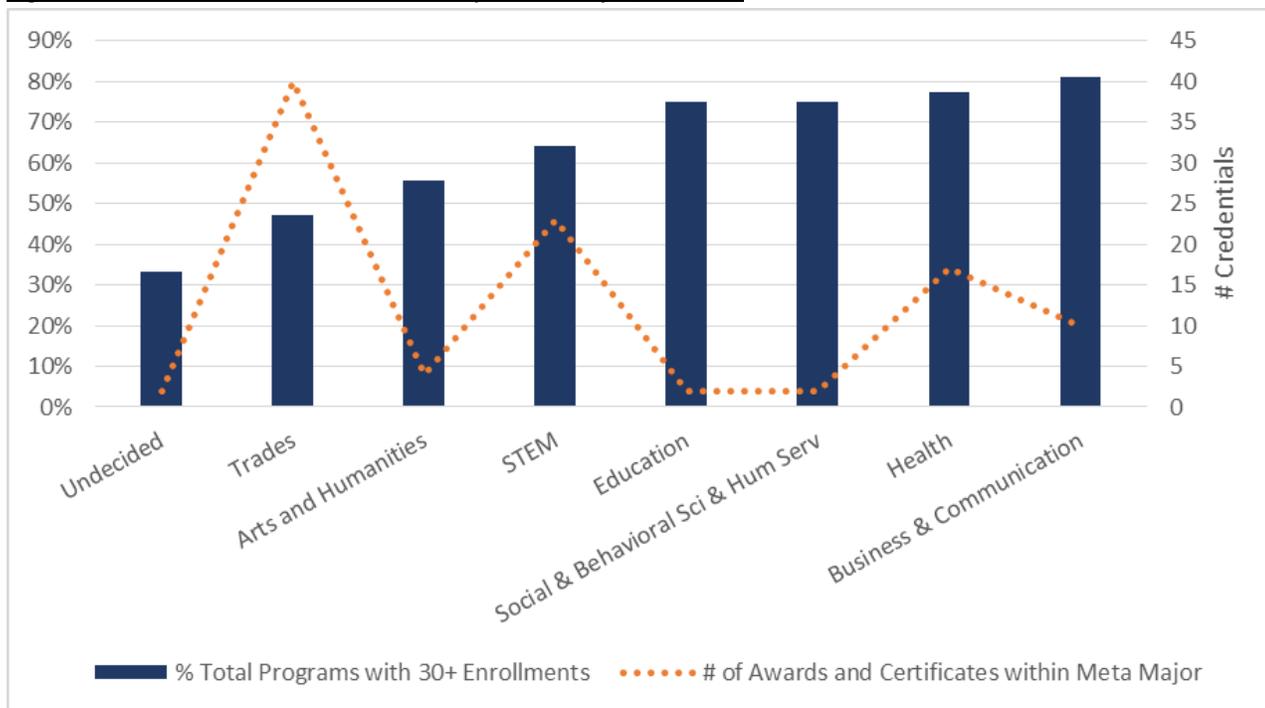


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Program enrollment concentration varies by program area (or meta-major), and the data suggest at least some correlation between the number of programs offered within a meta major and the percentage of programs with annual enrollments of 30 or more.

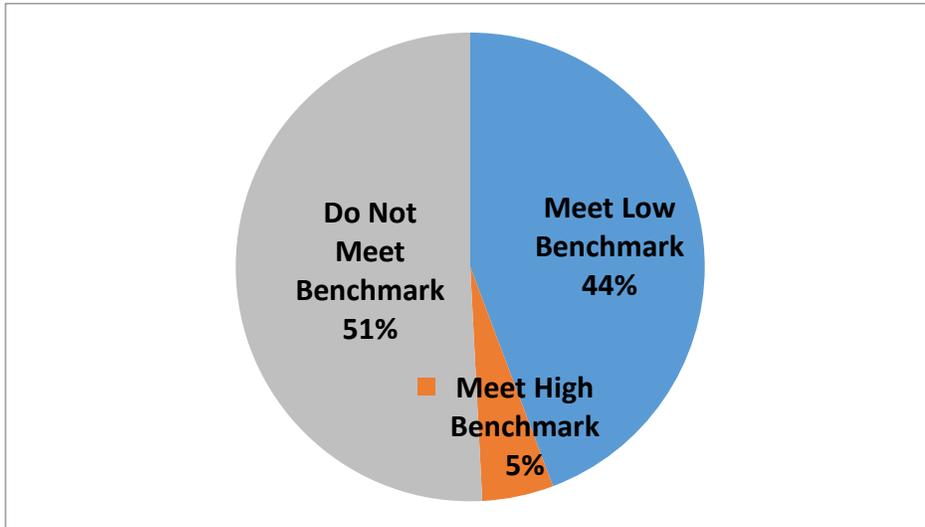
- The Trades meta-major has 74 programs--the majority (40) of which are certificate and award-level—and has the lowest (47 percent) enrollment concentration of all the meta-majors, not counting Undecided. STEM, which has the next highest number of certificate and award programs offered (23 out of 42 programs), stands at 64 percent enrollment concentration, below Business/Communication, Health, Social and Behavioral Sciences, and Education.

Figure 14– Enrollment Concentrations by Meta Major, FY 2014



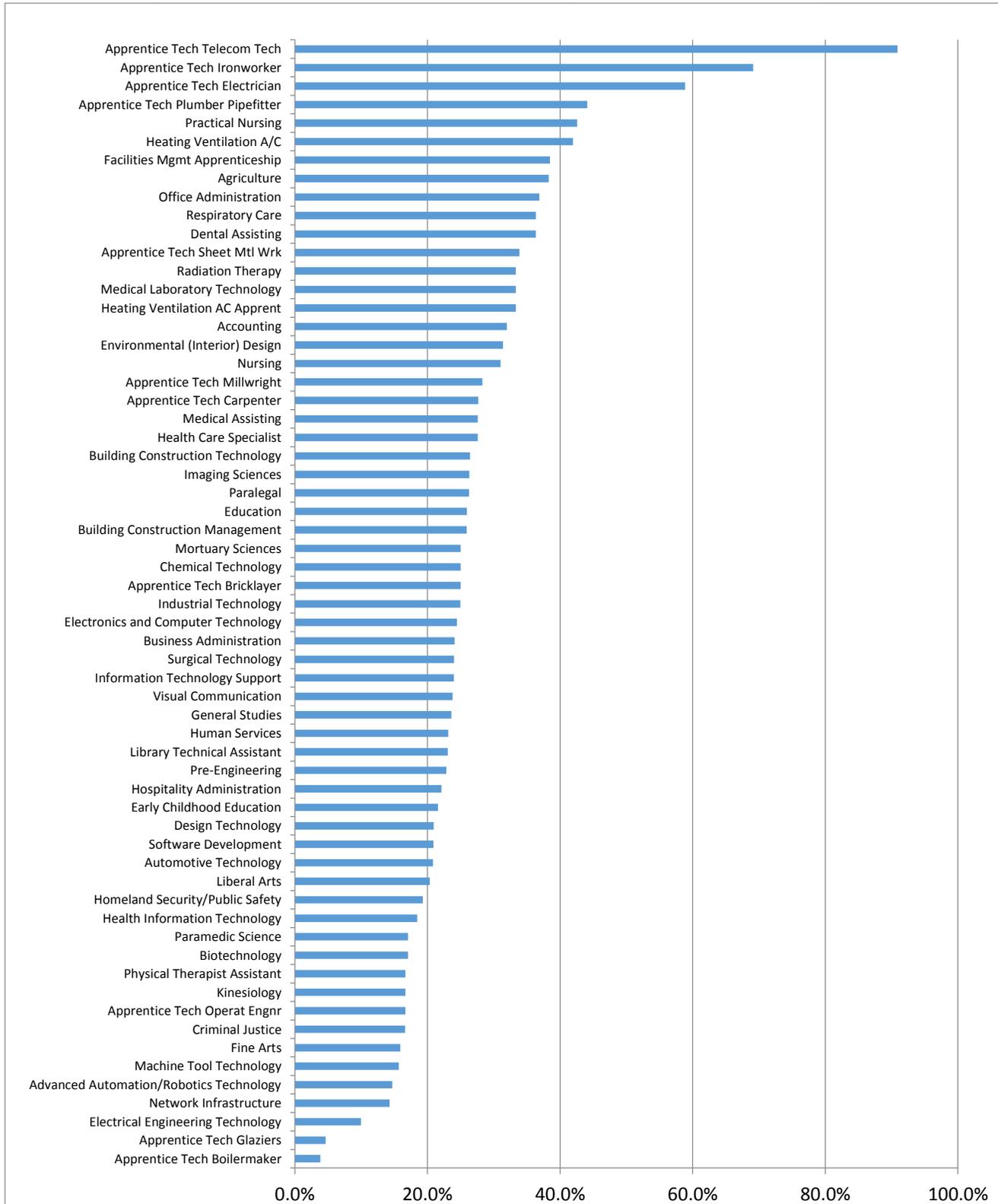
Using the second definition of program, where stackable credentials within a particular area of study are grouped together, a greater percentage of programs meet the 25 percent completion rate benchmark. Of the 61 academic programs, 30 had a six year completion rate of at least 25 percent, while three (3) of these programs had a completion rate of at least 50 percent - all three of which were apprenticeship programs. Program completion rates are based upon the student's major at the point of entry into Ivy Tech, so it does not capture many health and technology programs where students are admitted after completing prerequisite coursework. These programs frequently have accreditor imposed student/faculty ratio limitations or lab space limitations, with some required to sustain higher completion rates to retain external accreditation.

Figure 15: Percentage of Programs Achieving Benchmark Completion Rates (25% Low, 50% High) within Six Years, Fall 2006-2008 Cohort



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Figure 16: Average Extended (6-year) Completion Rates by Program, Fall 2006-2008 Cohort



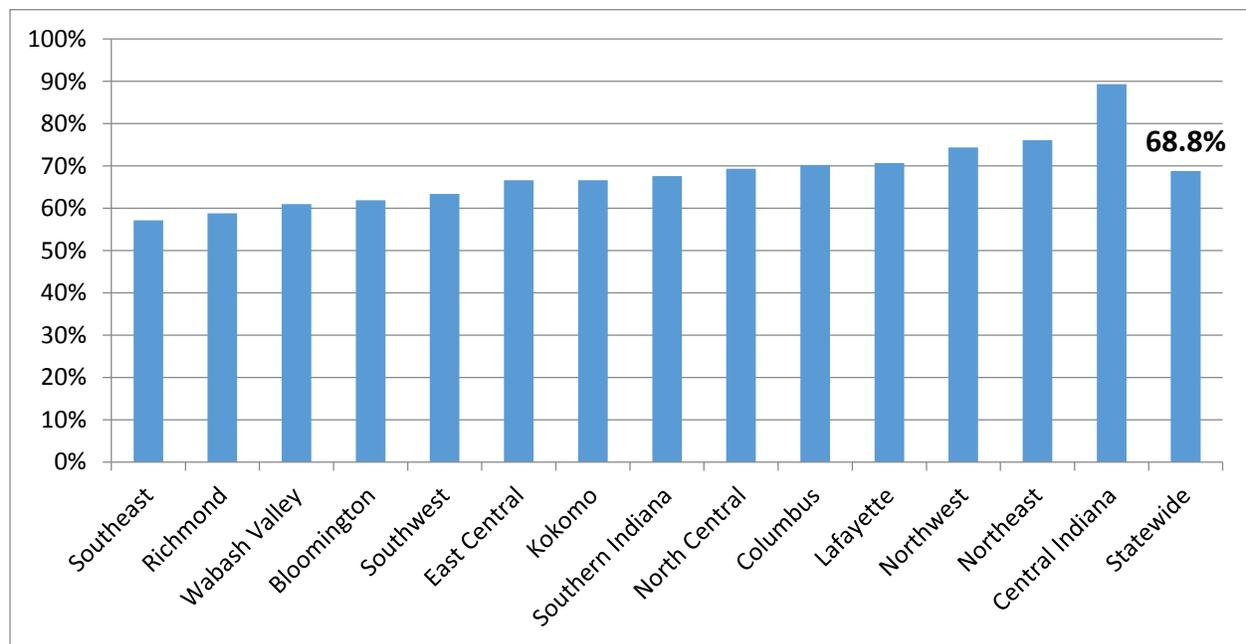
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Program Demand and Supply

By grouping related credential curricula into one program, with overlapping faculty and coursework, Ivy Tech tailors educational offerings to meet regional workforce needs and meet minimum enrollment thresholds.

In 2014, two-thirds of all Ivy Tech programs had enrollments of at least 30 students. At a regional level these percentages ranged from a low of 57 percent in the Southeast Region to nearly 90 percent in the Central Indiana Region.

Figure 17: Enrollment Concentrations by Degree Type and Regional Campus: Percentage of Associate, Certificate, and Award Programs with 30+ Enrollments, FY 2014



Data Notes

Sources

Analyses are based on data submitted to CHE by Ivy Tech for 2006-2014 and retrieved from the CHE Data Submission System. Data are supplemented by matches with the National Student Clearinghouse (for degree completions and enrollments outside of Indiana public institutions). National demographic data are sourced from IPEDS (2013, 2-yr public) and high performing averages are from the 2015 Aspen Prize for Community College Excellence Top 153.

Demographics

Ivy Tech calculations are based on 6-year averages (2008-2014) of resident and non-resident students who entered as first-time degree-seekers (associate and 1yr+ certificate) in the fall.

Completion and Program Success

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Extended (6-year) completion analyses based on combined cohorts (2006-2008) of resident and non-resident students who entered as first-time degree seekers (associate and 1yr+ certificate) in the fall.

- Cohorts are combined because of small "N" sizes, helping to reduce the level of any necessary data suppression for groups of fewer than 10 students
- Cohort programs of study are based on student's reported entry degree program and are limited to those with a combined 2006-2008 cohort enrollment of 10 or more students

Program Enrollment (Demand and Supply)

Fiscal year enrollments represent unduplicated headcounts by campus; students enrolled in multiple degree programs are counted only with their highest (primary) degree program.

Total program counts and disaggregations are based on active listings in the CHE Academic Program Inventory (API) for FY 2010-FY 2014.

Appendix B: Top Three Programs by Region

Top 3 Associate Programs* by Completion Rate (within 6 years, Fall 2006-2008 Cohort)			
Campus	Associate Program 1	Associate Program 2	Associate Program 3
IVT System	Apprenticeship Technology- Telecommunications Technician (75%)	Apprenticeship Technology- Electrician (66%)	Nursing (58%)
IVT-Bloomington	Nursing (55%)	Office Administration (44%)	Information Technology Support (41%)
IVT-Central Indiana	Nursing (76%)	Apprenticeship Technology- Electrician (74%)	Apprenticeship Technology- Plumber and Pipefitter (63%)
IVT-Columbus	Office Administration (50%)	General Studies (34%)	Information Technology Support (32%)
IVT-East Central	Nursing (72%)	Office Administration (45%)	Medical Assisting (39%)
IVT-Kokomo	Paralegal Studies (43%)	Information Technology Support (33%)	Medical Assisting (31%)
IVT-Lafayette	Agriculture (50%)	Office Administration (38%)	Information Technology Support (36%)
IVT-Northcentral	Apprenticeship Technology- Telecommunications Technician (82%)	Apprenticeship Technology- Electrician (64%)	Apprenticeship Technology- Ironworker (59%)
IVT-Northeast	Apprenticeship Technology- Plumber and Pipefitter (75%)	Paramedic Science (62%)	Apprenticeship Technology- Ironworker (40%)
IVT-Northwest	Apprenticeship Technology- Electrician (80%)	Apprenticeship Technology- Sheet Metal Worker (65%)	Apprenticeship Technology- Plumber and Pipefitter (56%)
IVT-Richmond	Office Administration (60%)	Accounting (50%)	Manufacturing Production and Operations (35%)
IVT-South Central	Paralegal Studies (55%)	Apprenticeship Technology- Electrician (47%)	Medical Assisting (40%)
IVT-Southeast	Industrial Technology (46%)	Software Development (38%)	Medical Assisting (38%)
IVT-Southwest	Apprenticeship Technology- Electrician (84%)	Apprenticeship Technology- Ironworker (64%)	Office Administration (47%)
IVT-Wabash Valley	Apprenticeship Technology- Electrician (82%)	Apprenticeship Technology- Plumber and Pipefitter (58%)	Apprenticeship Technology- Ironworker (53%)

*includes only programs with combined Fall 2006-2008 cohort of 10 or more students

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Top 3 Certificate Programs* by Completion Rate (within 6 years, Fall 2006-2008 Cohort)			
Campus	Certificate Program 1	Certificate Program 2	Certificate Program 3
IVT System	Practical Nursing (76%)	Industrial Technology (45%)	Dental Assisting (44%)
IVT-Bloomington	Manufacturing Production and Operations (50%)	-	-
IVT-Central Indiana	Medical Assisting (24%)	Automotive Service Technology (20%)	Manufacturing Production and Operations (8%)
IVT-Columbus	Medical Assisting (48%)	Dental Assisting (39%)	-
IVT-East Central	Practical Nursing (79%)	Dental Assisting (38%)	Manufacturing Production and Operations (33%)
IVT-Kokomo	Manufacturing Production and Operations (41%)	Medical Assisting (32%)	Accounting (30%)
IVT-Lafayette	Medical Assisting (38%)	Automotive Service Technology (30%)	Manufacturing Production and Operations (29%)
IVT-Northcentral	Practical Nursing (67%)	Manufacturing Production and Operations (33%)	Business Administration (22%)
IVT-Northeast	Medical Assisting (32%)	-	-
IVT-Northwest	Medical Assisting (31%)	Business Administration (25%)	Manufacturing Production and Operations (19%)
IVT-Richmond	Medical Assisting (23%)	-	-
IVT-South Central	Medical Assisting (33%)	Automotive Service Technology (31%)	Manufacturing Production and Operations (25%)
IVT-Southeast	Medical Assisting (30%)	-	-
IVT-Southwest	Medical Assisting (29%)	Automotive Service Technology (29%)	Manufacturing Production and Operations (15%)
IVT-Wabash Valley	Manufacturing Production and Operations (23%)	Medical Assisting (13%)	Automotive Service Technology (4%)

*includes only programs with combined Fall 2006-2008 cohort of 10 or more students

Appendix C: Community College Best Practices

Does it Work?

What America's Best Community Colleges Look Like – and How They Keep Getting Better

Introduction

America's community colleges educate over 10 million students, or nearly half the country's undergraduate population, each year.⁴ They serve over 50% of African Americans, 55% of Hispanics, and 60% of Native Americans who are enrolled as undergraduates. And they deliver their services, on average, for a third of what it costs to attend a public, 4-year institution.⁵

Although for many years community colleges received less attention than their 4-year peers, today no one is questioning their significance to America's economy and global competitiveness. Their convenience, affordability, and open enrollment policies provide college access to millions of people who would never attend otherwise. Their partnerships with government and industry send skilled workers into high-wage, high-growth fields such as healthcare, technology, and manufacturing. Even the president has called for expanded community college access as a means of boosting economic mobility.⁶ With two out of every three jobs expected to require a college-level degree or credential by 2020,⁷ community colleges have become more than an auxiliary feature of our higher education system; they have become its workhorse.

Yet despite expanding college access to America's students, community colleges in general have failed to translate this access into completion. Less than four of every ten community college students will earn a degree or certificate in six years.⁸ The outcomes are worse for minority students and those attending part-time. After receiving pressure from state governments and the Obama administration, even the sector's strongest advocate, the Association of Community Colleges, conceded in 2012 that completion rates were "unacceptably low."⁹

⁴ Thomas R. Bailey, Shanna Smith Jaggars, and Davis Jenkins, *Redesigning America's Community Colleges: A Clearer Path to Student Success* (Cambridge: Harvard University Press, 2015), 1.

⁵ "American Association of Community Colleges 2015 Fact Sheet," American Association of Community Colleges, accessed August 4, 2015, <http://www.aacc.nche.edu/AboutCC/Documents/FactSheet2015.pdf>.

⁶ Barack Obama, "Remarks by the President in State of the Union Address" (State of the Union delivered in Washington, DC, January 20, 2015), accessed August 4, 2015, <https://www.whitehouse.gov/the-press-office/2015/01/20/remarks-president-state-union-address-january-20-2015>.

⁷ "Lumina Foundation Facts and Figures," Lumina Foundation, accessed August 4, 2015, <http://www.luminafoundation.org/facts-and-figures>.

⁸ Bailey, Jaggars, and Jenkins, *Redesigning*, 1.

⁹ Joshua S. Wyner, *What Excellent Community Colleges Do: Preparing All Students for Success* (Cambridge: Harvard Education Press, 2014), 2, accessed August 4, 2015, <http://www.scribd.com/doc/208029288/Book-Excerpt-What-Excellent-Community-Colleges-Do-Preparing-All-Students-for-Success-By-Josh-Wyner#scribd>.

These disappointing outcomes, from institutions that are more important than ever, have helped to galvanize a movement that seeks to identify and scale best practices at community colleges across the country. Led by organizations such as the Aspen Institute, Community College Research Center (Teacher College, Columbia University), and Complete College America, among others, this movement proceeds from the premise that “it doesn’t matter how many students enter community colleges’ doors,” as Josh Wyner has written, “unless they exit with a meaningful credential in hand.”¹⁰ These organizations have adopted different methodologies and sub-focuses. Their efforts vary in scope and size. But taken as a whole, their work tells a remarkably consistent story about the practices of America’s most effective community colleges.

Drawing on these organizations’ body of research and analysis, this section has two objectives. First, it will identify and describe the criteria by which one of these organizations, the Aspen Institute, gauges the effectiveness of community colleges. Second, it will outline 11 best practices that are shared by the most effective colleges. In short, it seeks to answer the following questions: What do America’s most effective community colleges look like, and how have they become so successful?

Part 1: Defining Success

The U.S. began to grow its system of community colleges in the latter half of the 20th Century as a means of expanding college access – and the promise of a middle class life – to more Americans, especially those from underserved backgrounds. Getting more students in the door was objective number one, and enrollment was the metric of success (not to mention the key to state and federal funding). Naturally, schools did all they could to boost their student rolls. They created hundreds of new academic programs and developed flexible enrollment options. They launched outreach efforts and attracted students through scholarships, facilities, and specialized support services. Between 1970 and 2010, fall enrollment at community colleges leapt from 2.2 million to 7.2 million. By the 2000s, the number of high school graduates with some experience in higher education outnumbered those without. In this respect, then, community colleges have been a remarkable success.^{11,12}

Over the same period, though, policymakers and researchers have reached an important conclusion. Although going to college without gaining a credential “provides some benefit in the labor market,” those who do earn an occupational credential, such as a certificate or associate degree, enjoy greater benefits.¹³ In other words, access to college alone is not enough; completion matters.

¹⁰ *Ibid.*

¹¹ Bailey, Jaggars, and Jenkins, *Redesigning*, 2-4.

¹² Complete College America, “Boosting Completion at Community Colleges: Time, Choice, Structure and the Significant Role of States” (policy brief submitted by request to the White House Working Group for The President’s Summit on Community Colleges, August 31, 2010), 3, accessed August 4, 2015, [http://www.completecollege.org/docs/White%20House%20Briefing%20for%20Community%20College%20Summit%20\(FINAL\).pdf](http://www.completecollege.org/docs/White%20House%20Briefing%20for%20Community%20College%20Summit%20(FINAL).pdf).

¹³ Bailey, Jaggars, and Jenkins, *Redesigning*, 6.

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This conclusion, combined with other important factors,¹⁴ has prompted a shift in focus from college access to college completion. This shift has had significant implications for the way policymakers, funders, and consumers think about the value and effectiveness of community colleges. Many states, for example, now tie state funding to outcomes such as completion rates and graduates' earnings, rather than enrollment. Federal and state agencies increasingly require that institutions report these figures, and the Obama administration has proposed a college rating and incentive system based on these results.^{15,16}

As a result, community colleges are under extreme pressure – to boost completion rates, maintain access, and uphold the quality of their programs, all in a climate of diminishing financial support from state and local governments. In light of these circumstances, one might reasonably ask: What can a high-performing community college achieve? And how are we to measure success?

The Aspen Institute, a nonpartisan policy and educational organization based in Washington, DC, has helped provide incisive answers to these questions. Since 2011, its College Excellence Program has examined hundreds of community colleges and conducted dozens of site visits across the country. Its staff and policy affiliates have interviewed college leadership, faculty, and students; analyzed completion rates, demographic trends, and employment outcomes; and consulted with other leading experts on community colleges from around the country. Working with distinguished leaders from business, academe, and the public sector, the College Excellence Program conducts an intensive competition to recognize America's finest community colleges.¹⁷

Colleges that receive or are shortlisted for the Aspen Prize for Community College Excellence often achieve completion rates that exceed the national average, as measured by the percentage of first-time, full-time students who graduate or transfer from an institution within three years. They do so without compromising their commitment to access or diluting the rigor of their training. But although they achieve similarly impressive outcomes, these colleges vary significantly in other respects, such as location, structure, student demographics, and the makeup of their surrounding economy and workforce.¹⁸ Their outcomes, in other words, are not the product of circumstantial factors, but of continuous analysis and improvement.

Figure 1: Average Outcomes of Aspen Prize Recipients and Finalists Versus National Average

¹⁴ For a helpful overview, see Bailey, Jaggars, and Jenkins, *Redesigning*, 5-7.

¹⁵ *Ibid.*, 2, 5.

¹⁶ Wyner, *What Excellent Community Colleges Do*, 2.

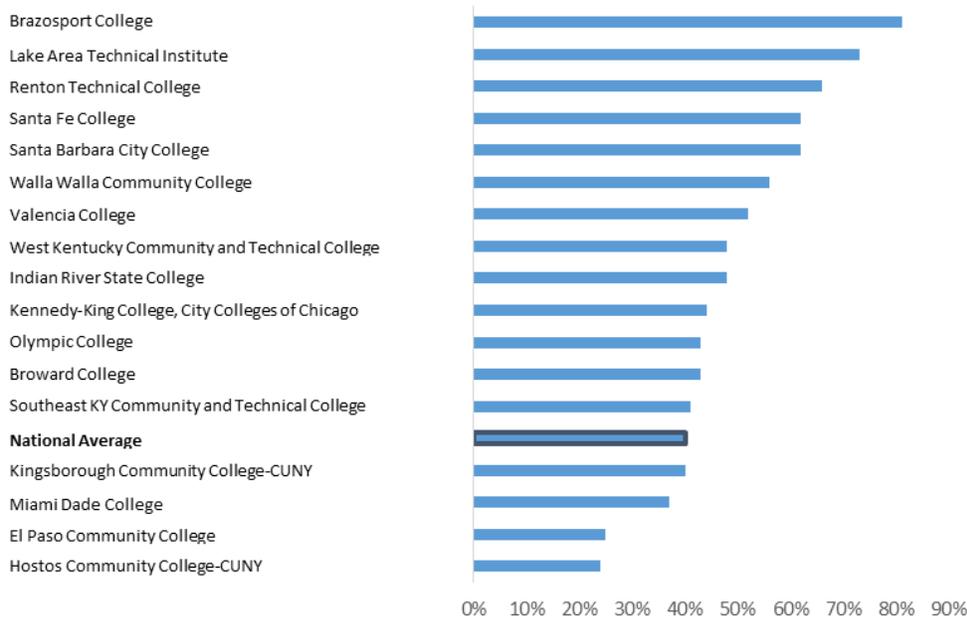
¹⁷ For an overview of the methodology behind the Aspen Prize, see: "How the Winner is Chosen," Aspen Prize for Community College Excellence, accessed August 4, 2015, <http://www.aspeninstitute.org/policy-work/college-excellence/selection/selection-criteria>.

¹⁸ The Aspen Institute, College Excellence Program, "The 2015 Aspen Prize for Community College Excellence," 23, accessed August 10, 2015, <http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/2015AspenPrizePublication.pdf>

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Completion

Percentage of first-time, full-time students who graduate or transfer within three years



The policies and practices at these community colleges provide valuable insights that can inform the work of other colleges across the country. Any discussion of best practices, though, should begin with a definition of success – what does it look like to succeed? The Aspen Institute has identified four criteria by which it measures a college’s success: Completion, Learning, Labor Market Outcomes, and Equity. The following table, excerpted from a 2014 book authored by the director of the Institute’s College Excellence Program, further outlines these criteria and their significance.

Figure 2: Criteria for Aspen Prize for Community College Excellence, excerpted table from What Excellent Community Colleges Do: Preparing All Students for Success, p. 6

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WHY THIS MATTERS

Completion

Do students earn associate's degrees and other meaningful credentials, and bachelor's degrees after they transfer?

- Community college completion/transfer rates are under 40%.
- Completion of a credential leads to better employment and wage prospects.
- Completion data enables colleges to set goals and others to compare colleges.

Learning

Do community colleges set expectations for what students should learn, measure whether they are doing so, and use that information to improve?

- There is strong evidence that college rigor has diminished.
- Teaching students so they learn and develop skills is the core business of colleges, so this must be assessed.
- Professors cannot improve instruction without good information about what's working and what's not in their classrooms.

Labor market outcomes

Do students find long-term employment after graduation and earn a living wage?

- To prepare a skilled work force, colleges need to understand whether their programs are aligned with labor market needs.
- Students' post-graduation outcomes tell colleges whether their programs are succeeding and improving.
- Students should be able to choose a college and program knowing whether they'll be rewarded for their investment.

Equity

Do colleges work to ensure equitable outcomes for minority and low-income students, and others often underserved?

- Minority college students have historically succeeded at lower rates than others, yet can be successful with added supports.
- Increasing success for minority and low-income students is necessary to meet the country's growing need for better-trained workers.
- Expanding access and success helps fulfill the ideal of equal opportunity.

These criteria, identified by the Institute in consultation with national higher education policy experts, are important for three reasons. First, they are measurable. Colleges can use graduation and transfer rates to assess their progress toward completion goals for the overall student population as well as for specific subgroups, such as Pell recipients or minority students. They can measure labor market outcomes through employment rates and wage data. And they can rely on letter grades, test scores, institution- or department-wide scoring rubrics, quantitative data from employer surveys, and other mechanisms to measure their improvement in teaching and learning outcomes. Second, these criteria are comprehensive, covering the totality of an institution's mission and underscoring the fact that institutions should not advance one set of outcomes, such as Completion, at the expense of another, such as Equity. The best colleges tend to show improvement across all categories, even when such advances are counterintuitive. Their completion and employment outcomes improve even as they recruit the neediest, most underprepared students and enhance the rigor of their training. And third, these criteria are relevant, reflecting community colleges' historic and ongoing importance as gateways

to higher education for America's underserved students, as well as their vital role as economic engines for America's growth and competitiveness. By adopting these criteria for the purpose of its Ivy Tech analysis, then, the Commission for Higher Education has relied on a clear and empirical benchmark for what any community college, anywhere in the nation, should strive to achieve.

Part 2: 11 Practices of Effective Community Colleges

Does this work? That, according to Hostos Community College interim president David Gomez, is the question that drives every big decision at the school of 8,900 students in the South Bronx.¹⁹ It is the same question that administrators, faculty, and staff at each of the Aspen Prize finalists ask themselves when weighing a new proposal or examining their latest performance metrics. And, when all is said and done, it is the same question that thousands of policymakers, employers, philanthropists, parents, and students are also asking about community colleges. *Does this work?*

The eleven practices described in the following pages do indeed work. They have shown themselves, at college after college, to be integral elements of student success.

Excellent Community Colleges Simplify and Streamline the Path through College

1. Provide Students with Structured Pathways
2. Refuse to Let Students Languish in Remediation

Excellent Community Colleges Strengthen their Monitoring, Intervention, and Support Policies

3. Monitor Students' Well-Being and Develop Effective Interventions to Keep Them on Track
4. Provide Training and Resources to Help Students Focus on School
5. Strive to Serve the Most Disadvantaged Students

Excellent Community Colleges Make Themselves Indispensable by Forging Partnerships Throughout the Communities They Serve

6. Collaborate with High Schools to Improve Dual Credit and Prepare Students for College
7. Ensure a Smooth Transfer from Community College to 4-Year Institution
8. Forge Partnerships with Local Industry and Employers

Excellent Community Colleges Improve Constantly

9. Measure Performance to Test and Scale Improvements
10. Invest in Human Capital to Improve Teaching and Learning
11. Remove Institutional Silos

¹⁹ *Ibid.*

Of course, the success of America's best community colleges cannot be boiled down to a single set of practices alone. The leadership and culture of these institutions, among many other factors, have important roles to play. But identifying practices and policies that are consistent from college to college is an important place to start, and can allow policymakers and others to understand better what makes these schools effective.

Excellent Community Colleges Simplify and Streamline the Path through College

For decades, as community colleges across the country focused on expanding access and enrollment, the trend was to continuously expand the number of academic and enrollment "options" from which students could choose. This trend is evident at many colleges, for example, in the proliferation of degree and certificate programs, including for-credit and noncredit options, or in the emergence of such inventions as semester-long remediation and unlimited exploratory periods. Though designed to provide students with greater flexibility, these options have had an unintended consequence, overwhelming students with choices and extending time-to-degree.^{20, 21}

Scholars from the Community College Research Center describe this model, still predominant at many institutions, as the "cafeteria or self-service college," since students are expected to "navigate often complex and ill-defined pathways mostly on their own."²² The most successful colleges, by contrast, have moved away from this self-service model in favor of a more highly structured model. This approach simplifies and streamlines students' academic and career decision-making, helping them progress from enrollment to graduation in the shortest amount of time possible.

1. Provide Students with Structured Pathways

Excellent community colleges provide clear, structured pathways through each academic program. By providing intensive advising and support, they help students make informed choices, in less time, about which career and program to pursue. Then, they provide each student with a detailed, term-by-term sequence of prescribed courses, so that students know exactly what they need to graduate or transfer on time.

Incoming community college students face a barrage of important choices. *Which career is best for me? Which major should I choose? Which classes do I need to graduate?* At many colleges, students are left to navigate these questions on their own, without any timetable or significant resources to help them progress quickly. Academic planning unfolds term-by-term, and registering for courses means thumbing through a phonebook-sized course catalog and making selections based on what's available and when. Most students have only a vague idea what their academic schedules will look like two, three, or four semesters down the road.

Although institutions have long assumed that students are capable of making informed choices independently – of "knowing their abilities and preferences, of understanding the full range of college

²⁰ Complete College America, "Boosting," 3.

²¹ Bailey, Jaggars, and Jenkins, *Redesigning*, 21-22.

²² *Ibid.*, 13.

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and career alternatives, and of weighing the costs and benefits associated with different college programs”²³ – that assumption has been all but entirely debunked. The preponderance of scholarship coming out of the social sciences, particularly behavioral economics, points to the conclusion that the complex and numerous choices facing community college students result in poor decision-making.²⁴ Too often, students waste time and money toiling in the “undecided” category or just throw in the towel, overwhelmed by the choices before them.

The best community colleges have responded to this challenge by introducing “structured pathways” (also known as “guided pathways”), which are clear, fully planned routes through an academic program. For many students, these pathways make academic planning faster and easier. They also provide more clarity about the future – e.g., which classes they will take, and when.

But rather than letting students take their time to develop a plan, excellent colleges make students do it right away. And rather than having to fend for themselves, students receive intensive advising and support, often through a first-term “student success” class, to help them make informed choices.^{25, 26} Other best practices include the following:

- At Chicago’s Kennedy-King College, which has tripled its graduation rate in recent years (despite the fact that almost all incoming students need remediation), students who are not ready to commit to a specific program are nonetheless required to select one of ten general focus areas. Similarly, students at Santa Fe College must commit to exploring a broad field such as the social sciences or humanities.²⁷
- At Lake Area Technical Institute, in Watertown, South Dakota, admissions representatives tour departments one-on-one with students to ensure they are matched to the right program. At Renton Technical Institute, outside Seattle, prospective allied health students sit in on classes; some professors even encourage them to try the homework.²⁸
- Both Brazosport College, in Lake Jackson, Texas, and West Kentucky Community and Technical College partner with local high schools to ensure that dual-credit students select a pathway and stick to courses within it.²⁹

After a student has made an informed commitment to an academic and/or career pathway, the best colleges take the guesswork and uncertainty out of academic planning by generating a term-by-term sequence of prescribed courses the student will take for the duration of his or her program. “Instead of charting their own paths by navigating daunting catalogs overflowing with choices,” Complete College America has written, “students make the ‘big choice’ of a desired career or academic discipline and then

²³ James Rosenbaum, of Northwestern University, quoted in Complete College America, “Boosting,” 4.

²⁴ Bailey, Jaggars, and Jenkins, *Redesigning*, 23-27.

²⁵ *Ibid.*, 17.

²⁶ Aspen Institute, “Aspen Prize (2015),” 23.

²⁷ *Ibid.*, 19, 23.

²⁸ *Ibid.*, 23.

²⁹ *Ibid.*

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the colleges make all of the 'little choices' for them."³⁰ By prescribing exactly which courses the student will take, the college eliminates the confusion and meandering that so often undermine a student's shot at completion. Structured pathways ensure that students are taking *only* the courses they need to graduate or transfer on time. For example:

- Using labor market projections for Chicago, planners working with Kennedy-King College developed academic programs that would lead to good careers, either through an associate or bachelor's degree. The college then devised highly structured, term-by-term pathways for each program, taking care to include only courses vital to a student's preparation. Now all students leave their first advising session with an academic roadmap that shows which courses they will take each term. This is true even for liberal arts students hoping to transfer: their pathways, too, show which courses are required and which electives are advised to achieve different transfer options.³¹
- At Lake Area Technical Institute and Renton Technical College, outside Seattle – both of which produce graduation rates well above the national average – almost all of a student's classes are prescribed in advance as part of an "integrated sequence," rather than an "assortment of classes."³²
- At the Tennessee Technology Centers, students enroll in entire programs, rather than in individual courses. After students decide which academic program to pursue, the college determines which classes they need to take and when they will take them. The "small choices," in other words, are "directed, streamlined and packaged to cut down on confusion and the chance of mistake."³³

At some high-performing institutions, structured pathways are especially effective in part because of the consistency with which coursework – including class time, labs, and field training – is scheduled over the course of an entire program. Knowing exactly *when* they will be in class enables students to plan other responsibilities, such as employment or childcare, around their schoolwork. And it keeps them from having to modify their work or daycare arrangements from term to term. Under the most structured form of consistent scheduling, students attend class in long segments, or "blocks," with short breaks in between. "Block Scheduling" puts students on a rigorous, routinized timetable. They often proceed with the same small cohort for the duration of their program and are surrounded by extensive academic and non-academic institutional supports. This model has been credited with helping to achieve exceptional completion rates at a number of institutions. For example:

³⁰ Complete College America, "Boosting," 4.

³¹ Aspen Institute, "Aspen Prize (2015)," 19, 23.

³² *Ibid.*

³³ Complete College America, "Boosting," 5. *NB: Although the Tennessee Technology Centers have not been included as a finalist for the Aspen Prize, Complete College America has recognized their work to strengthen guided pathways and other best practices that are shown to enhance student completion.*

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- Almost all of Lake Area Technical Institute's students attend full-time, each day, from morning until mid-afternoon, progressing through their program with the same cohort.³⁴
- At the Tennessee Technology Centers, 75% of students attend class five days a week from 8:00am until 2:00pm, enabling them to earn a certificate in a year to a year and a half.³⁵
- Block scheduling has also been effective outside of technical programs. The City University of New York, for example, has experienced remarkable success with its program for accelerated associate degrees, known as ASAP. This program uses a combination of the techniques described above, most notably intensive advising and support, block scheduling, and structured pathways. Graduation rates for students in the ASAP program are more than double the rate of their peers.³⁶ Likewise, Indian River State College in Ft. Pierce, Florida, has implemented block scheduling and small, intimate cohorts for several general education programs such as computer science and digital media.³⁷

Structured pathways are designed to improve the “chaotic and confusing environment” that many students face when they arrive on a community college campus today.³⁸ By empowering students to make informed choices and begin a coherent, prescribed sequence of predictably scheduled courses, the best community colleges have improved the completion prospects for hundreds of thousands of students.

2. Refuse to Let Students Languish in Remediation

Excellent community colleges refuse to let students languish in remediation. They develop innovative tools to prevent or accelerate remedial instruction and move students toward a degree faster.

Nationally, three out of every five community college students arrive in need of remedial coursework that costs time and money but does not apply toward a degree. It is no wonder that most of these students will not complete college.³⁹ Although the best community colleges also wrestle with this problem, many have introduced innovative measures to accelerate remedial education and move their students into college-level coursework more quickly. We can group these reforms into two categories.

In the first category are *predictive interventions* – efforts to identify academically at-risk students and obviate the need for remediation in the first place.

³⁴ The Aspen Institute, College Excellence Program, “The Aspen Prize for Community College Excellence: Honoring Our Nation’s Exceptional Community Colleges (2011),” 13, accessed August 10, 2015,

<http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/AspenPrize021312.pdf>.

³⁵ Complete College America, “Boosting,” 6.

³⁶ *Ibid.*

³⁷ Aspen Institute, “Aspen Prize (2015),” 24.

³⁸ Bailey, Jaggars, and Jenkins, *Redesigning*, 22.

³⁹ The Aspen Institute, College Excellence Program, “Defining Excellence: Lessons from the 2013 Aspen Prize Finalists” (Washington: The Aspen Institute, 2013), 3, accessed August 10, 2015,

http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/DefiningExcellence_2.pdf.

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- At West Kentucky Community and Technical College in Paducah, Kentucky, for example, area high school students who score poorly on a math placement test must enroll in a high school remediation class designed in consultation with the college. The same students may also take a free training course and retake the exam a month later.⁴⁰ That way, more students are ready for college-level work by the time they arrive on campus.
- Incoming students at Lake Area Technical Institute who need remediation will receive online materials to complete before arriving on campus. Any remaining work is squeezed into lunch breaks after their term begins.⁴¹

In the second category are *accelerative interventions* – effort to accelerate remedial education or embed it into college-level coursework so that students can start working toward a degree as soon as possible.

- The Express to Success program at Santa Barbara City College, in Santa Barbara, California, places students with remedial needs into small learning cohorts that progress through two remedial courses in the time that would usually be devoted to one. This approach runs contrary to traditional wisdom, since instructors are asking already struggling students to do more in less time. Yet the results speak for themselves: remedial course completion rates of Express to Success students are 30 percentage points higher than those of their peers.⁴²
- Kingsborough Community College, in Brooklyn, New York, has seen positive outcomes from the CUNY Start program – an intensive, accelerated remediation course that requires a time commitment of 25 hours a week for 12 to 18 weeks, enabling students to complete their remedial work in much less time than it would traditionally take. The school has also begun to allow students who closely missed the cutoff for college-level classes to enroll in English 101 courses anyway, with the assistance of special remedial tutors.⁴³
- Brazosport College has strived to make remedial coursework more germane to a student's career interests and academic goals by developing specialized pathways for remedial math. It now offers remedial pathways in industrial math, statistics, and math for transfer.⁴⁴
- Some leading institutions have begun administering their remedial coursework online, so that students can set their own pace, reaching out to professors or assistants when they need help.

⁴⁰ Aspen Institute, "Aspen Prize (2011)," 27.

⁴¹ *Ibid.*, 13.

⁴² The Aspen Institute, College Excellence Program, "The 2013 Aspen Prize for Community College Excellence," 11, accessed August 10, 2015, http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/AspenPrize_2013FINAL.pdf.

⁴³ Aspen Institute, "Defining Excellence," 3-4.

⁴⁴ *Ibid.*, 3.

Others have abandoned separate remedial classes altogether, opting instead to integrate remedial material into actual, college-level courses themselves.⁴⁵

The prevailing model of remediation at most community colleges is “hampered by inadequate placement information, lengthy prerequisite sequences, and, in many cases, uninspiring instruction,” according to scholars from the Community College Research Center. It is no wonder most students never make it out of remediation and into a college-level program. At high-performing institutions, by contrast, remediation is usually “contextualized” to students’ interests, bolstered by intensive support, and built around “co-requisite coursework designed to scaffold students’ success in critical college-level courses.”⁴⁶ By shortening or eliminating remediation altogether, high-performing community colleges have shepherded into degree programs students who traditionally would have fallen out along the way. As a result, they are seeing higher completion rates, and their students are saving time and money.

Note that Ivy Tech has adopted and improved upon this best practice, gaining national attention for its positive results with the co-requisite model and helping to implement state law to require early intervention college readiness testing for high school juniors.

Excellent Community Colleges Strengthen Their Monitoring, Intervention, and Support Policies

“Successful community colleges know that for the populations they serve, student motivation and engagement are never guaranteed. While many community colleges might think such things are beyond their control, exceptional colleges know otherwise.”⁴⁷ So concludes the Aspen Institute in its summary of best practices from the 2013 Prize competition. By and large, community colleges are in the business of serving America’s most underserved students, and the instructors, faculty, and staff who join the institution are drawn to this mission. And yet, across the country, most community colleges struggle to overcome the limitations of entrenched social, educational, and economic inequity their students face. What does it look like to overcome these hurdles?

At the best community colleges, it’s hard to slip through the cracks. At the first sign of trouble, whether academic, financial, or personal, someone intervenes to offer support and guidance. In some cases, the intervention is subtle: a student registers for a course outside her academic plan, receives an email or text notification, and corrects the mistake. In other cases, the intervention is more heavy-handed: a student skips an assignment or misses class; the next day, an academic coach shows up at his house ready to chat.

Rather than letting students fend for themselves, the best community colleges surround their students with resources and support. They keep a close eye not just on their class performance and academic progress, but also on their well-being more generally. They establish firm protocols for smart, consistent interventions, and they ensure that everyone, from advisors to instructors, is pulling his or her weight to

⁴⁵ *Ibid.*

⁴⁶ Bailey, Jaggars, and Jenkins, *Redesigning*, 17-18.

⁴⁷ Aspen Institute, “Defining Excellence,” 11.

promote the success of students. Joan Bartolomeo, a trustee of Kingsborough Community College's foundation, captured well the mindset and policies at these institutions. "There's a tenacity about keeping these kids enrolled that's amazing," he said. "It's like, 'we're not letting you go without a fight.'"⁴⁸

3. Monitor Students' Well-Being and Develop Effective Interventions to Keep Them on Track

Excellent community colleges leverage technology, institutional policies, and contact with students to monitor personal and academic well-being. They develop effective interventions to assist students at the first sign of difficulty, which enables them to stay on track.

Technology has enabled advisors and support staff at community colleges to keep a closer eye on their students than ever before. A poor grade on a quiz can trigger an advising appointment. Skipping class can prompt a phone call. Missing registration can disable an ID card.

But the most successful institutions also recognize that data and technology *per se* offer no panacea. The effectiveness of, say, a student progress portal or an early-warning alert system depends partly on the way it has been engineered and partly on the institutional policies that govern its use. A best-in-class student registration portal, for example, will do more than show a list of available classes. It will show exactly which courses are needed to graduate and flag classes that fall outside a student's academic plan or financial aid eligibility *before* the student registers. Likewise, advisors need software that aggregates and shows all of a student's previous "touchpoints" – with faculty, advisors, and other support staff – in order to see a comprehensive history of the student's progress and prior difficulties. Furthermore, such tools are only effective when the institution has adopted policies that guarantee follow-up with students.⁴⁹

- At Santa Fe College, for example, instructors using the school's early-warning alert system are trained to flag not only bad grades, but also absences, missed assignments, and other indicators that something could be amiss. As part of the implementation of the new system, the school established a protocol for intervention: who is responsible, and how often interventions should occur. Now, if an instructor flags a student for a missed assignment, the system pings several people involved with that student and outlines the appropriate follow-up steps.⁵⁰
- Kennedy-King College in Chicago increased its number of advisors from four to seventeen. Now, each advisor is assigned a group of students and is responsible for making sure each one stays on track with his or her academic plans from term to term. The college has also initiated interventions geared toward certain goals. It makes phone calls to all students registered for 12 credits, for example, and contacts students with poor midterm grades encouraging them to meet with a tutor.⁵¹

⁴⁸ Aspen Institute, "Aspen Prize (2013)," 17.

⁴⁹ Aspen Institute, "Aspen Prize (2015)," 24-25.

⁵⁰ *Ibid.*, 25.

⁵¹ *Ibid.*, 19-20.

- Advisors at Santa Fe College and Renton Technical College are assigned to specific programs and pathways, enabling them to gain familiarity with the professors, assignments, and rigors of the program, so they can counsel students more effectively.⁵² At other finalist colleges, such as Lake Area, class instructors also serve as students' advisors, integrating these functions further.⁵³
- Lake Area Technical Institute makes it clear to all new employees that they should do whatever is required to help students succeed. That, according to the Aspen Institute, could include "making a plan so that a student is protected from an abusive boyfriend, or giving a diabetic student who can't afford snacks free access to the kitchen, or contacting every student who's absent from your class." Darren Shelton, an admissions representative at the college, describes this degree of intervention as an "invisible hand," which guides students "from the day you walk in to take a tour to the day we help you walk down the ramp at graduation."⁵⁴
- Students at Walla Walla Community College in Walla Walla, Washington must meet with their advisors each quarter until they have consistently demonstrated academic competency. Their advisors use an online portal that aggregates key student data, such as placement scores, degree plans, grades, and alerts flagging bad performance or poor attendance. After noticing a problem, the school uses retention specialists to contact academically at-risk students. After contacting 300 students who were enrolled in spring classes but had not registered for the fall term, roughly a third re-enrolled.^{55, 56}

What these examples illustrate is that best-in-class technology and smart institutional policies help generate a 360-degree view of students' well-being. But that is just the beginning. In the end, it is the close relationship with students that makes the difference. Kennedy-King College and other finalist colleges, for example, have had to improve their advisor-to-student ratios in order to make progress. That is no surprise, especially when one considers that across the country, one guidance counselor is matched, on average, with 700 students.⁵⁷ But when good technology, smart institutional policies, and close relations with students come together, the result is a "high-touch" intervention model that mobilizes community college personnel quickly and effectively.

4. Provide Training and Resources to Help Students Focus on School

Excellent community colleges connect their students with resources and training that make it easier to focus on school. This approach helps students manage daily life stressors and develop skills they can use inside and outside the classroom. The most effective techniques are designed to help students persist, even when "life gets in the way."

⁵² *Ibid.*, 24.

⁵³ Aspen Institute, "Aspen Prize (2011)," 13.

⁵⁴ Aspen Institute, "Aspen Prize (2015)," 22.

⁵⁵ Aspen Institute, "Aspen Prize (2011)," 23.

⁵⁶ Aspen Institute, "Aspen Prize (2013)," 15.

⁵⁷ Complete College America, "Boosting," 4.

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The majority of America's community college students look different than the archetypal student at a 4-year residential college. Approximately one-quarter have children. Many have been out of school for years. Almost half have parents who did not attend college. Most have jobs.⁵⁸ These factors make community colleges the diverse, important institutions they are, but they also pose significant challenges to a student's success. The best colleges have developed support structures that mitigate these challenges and cultivate in students the skills they need to persist, even in the face of daunting life circumstances.

- For 17 years Kingsborough Community College has operated "Single Stop," a center that links its students, 60% of whom qualify as low-income, with services such as public transit support, food stamp and welfare applications, tax and financial assistance, and legal aid. Data show that among students in the same economic bracket, those who relied on the services of Single Stop were more likely to stay in school than those who did not.^{59, 60} West Kentucky Community and Technical College, Hostos Community College, and Olympic College, among others, have developed similar one-stop-shops where students can be referred to a wealth of academic and non-academic resources alike.^{61, 62}
- Another valuable tool pioneered at successful colleges is the student success course, which is usually designed to help students acculturate to the challenges of college life. Many Aspen finalist colleges have developed first-year or first-term classes that cultivate study skills, such as techniques for taking notes, and practical skills, such as financial planning, time management, and personal organization – along with more general academic and career planning.⁶³ These courses can have a measureable impact on student success: at Miami Dade College, where 70% of students who place into remedial education take a 3-credit class called Student Life Skills, graduation rates of the school's neediest students has doubled as a result of the class.⁶⁴

Centralizing resources and ensuring students get the help they need, as Single Stop does, or teaching students how to be smart, proactive, and organized, as the success classes do, are two of the most common practices used across high-achieving community colleges. These practices reflect a certain acknowledgment that community colleges serve America's most underprivileged students – students who need welfare support or a free bus ticket; students who are still learning how to balance homework and a part-time job. But these practices also reflect a determination not to let "life get in the way" of their students' success. That's why, at America's best community colleges, a student success class or a visit to a center like Single Stop are among an incoming student's top priorities.

5. Strive to Serve the Most Disadvantaged Students

⁵⁸ Aspen Institute, "Defining Excellence," 10.

⁵⁹ *Ibid.*, 13.

⁶⁰ Aspen Institute, "Aspen Prize (2013)," 17.

⁶¹ Aspen Institute, "Defining Excellence," 10.

⁶² Aspen Institute, "Aspen Prize (2015)," 28.

⁶³ Aspen Institute, "Defining Excellence," 11.

⁶⁴ Aspen Institute, "Aspen Prize (2011)," 19.

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Excellent community colleges strive to identify and serve the most disadvantaged individuals in their community.

Most community colleges serve a large number of underprivileged students. Some, however, do a better job searching for, recruiting, and serving these students once they arrive. In recent years, a number of colleges have distinguished themselves through aggressive outreach efforts and specialized support programs. A few notable examples include the following.

- West Kentucky Community and Technical College has begun offering two free years of college to anyone who earns a 2.5 GPA at a local high school, including schools in poor neighborhoods that have traditionally had low college enrollment rates. The college has also worked to increase the proportion of underrepresented minorities in its student population to match the proportion in its service area.⁶⁵
- Santa Fe College goes into area high schools with the poorest graduation rates among African Americans; registers students for a life skills program; helps them get acclimated to college life; and connects them with a student mentor.⁶⁶
- Southeast Kentucky Community and Technical College, located in an impoverished region of Appalachia, seeks to recruit single mothers on welfare, and then offers them a suite of financial and academic resources.⁶⁷
- Hostos Community College has developed an intensive English language immersion program to help its most struggling Hispanic students, as well as a program for students who have poor literacy skills in their native language.⁶⁸
- When Walla Walla Community College observed that low-income students in its service area were not taking advantage of its dual credit program, it waived fees for them, doubling their participation rates.⁶⁹
- Kingsborough, like many community colleges, provides workforce training and adult education in addition to its formal degree programs. When able, it structures these training offerings around existing college courses, with the same instructors and standards. That way, participants can “bank” their training credits and contribute them to a degree later on.⁷⁰

“At every finalist college,” the Aspen Institute reported in 2013, “students said it was hard to fail at their school. Whether financial, academic, or motivational, the lifelines were there, they said—you just had to

⁶⁵ Aspen Institute, “Aspen Prize (2015),” 28.

⁶⁶ Aspen Institute, “Defining Excellence,” 12.

⁶⁷ *Ibid.*, 13.

⁶⁸ Aspen Institute, “Aspen Prize (2015),” 28.

⁶⁹ Aspen Institute, “Defining Excellence,” 12.

⁷⁰ *Ibid.*

make sure to grab them.”⁷¹ The sentiment of wanting to serve the neediest students is not what distinguishes America’s high-performing colleges. It is the way in which these institutions have designed smart, evidence-based techniques to recruit, support, and monitor these students.

Excellent Community Colleges Make Themselves Indispensable by Forging Partnerships Throughout the Communities They Serve

The schools recognized by the Aspen Institute and other organizations are community colleges in the truest sense, having made themselves indispensable to the educational and economic flourishing of the regions they serve. They accomplish this by partnering with high schools, to ensure that secondary students receive the preparation needed to succeed in college; with 4-year colleges and universities, to ensure that transfer students experience a seamless transition and are ready to excel; and with local businesses and industry leaders, to ensure that their programs and curricula are aligned to meet the current and future needs of the region’s economy.

6. Collaborate with High Schools to Improve Dual Credit and Prepare Students for College

Excellent community colleges collaborate with high schools to improve dual-credit offerings and ensure that students are prepared to succeed once they arrive at college.

Many community colleges across the country work with area high schools to administer dual credit or early college courses. Exceptional colleges push this integration even further.

- In Fort Pierce, Florida, a high school student struggling with math need not look far for help. Several years ago, Indian River State College developed a series of web modules covering the material taught in its remedial math class, and then trained area high school instructors to teach the modules. The college also began providing free tutoring to high school students who need additional support and made its teaching resources available to area school systems.⁷²
- Brazosport College requires dual credit-seeking high school students to first enroll in its student success class. It also ensures that each participating high school has a dedicated counselor, jointly employed by the school system and college, who advises dual-credit students.⁷³
- Miami Dade College provides summer enrichment programs to students in the local K-12 system and also works with area high schools to align their instruction with college expectations.⁷⁴

Engaging with area high schools may ultimately prove to be one of the most effective techniques for boosting completion and equity outcomes over the long run. If colleges can help high schools shape content and pedagogy, or, at the very least, provide supplementary resources to improve teaching and

⁷¹ *Ibid.*, 14.

⁷² Aspen Institute, “Aspen Prize (2015),” 26.

⁷³ *Ibid.*

⁷⁴ Aspen Institute, “Aspen Prize (2011),” 17.

learning at the secondary level, they can reduce the time and cost of having to remediate students who show up to college unprepared.

7. Ensure a Smooth Transfer from Community College to 4-Year Institution

Excellent community colleges form partnerships with 4-year institutions to ensure that students experience a smooth, seamless transfer process.

More than 80% of incoming community college students say they hope to earn at least a bachelor's degree; six years later, however, only 15 percent have earned their diploma.⁷⁵ Though it is not uncommon for community colleges to have articulation agreements with 4-year institutions (in which the 4-year institution agrees to accept certain courses for credit), such agreements *per se* are insufficient to ensure that students who want to transfer can do so in significant numbers. Despite an articulation agreement, for example, the 4-year institution may not end up accepting many students.⁷⁶ The best community colleges distinguish themselves through exceptionally tight partnerships with 4-year institutions. Aspiring transfer students at these colleges enjoy dedicated resources and advising, and they go on to experience a smooth, streamlined transition as a result.

- Once a student has declared intent to transfer from Santa Fe College to the University of Florida, for example, s/he begins receiving Florida advising and invitations to campus events and social opportunities. The University has a student center and specialized transfer advisors on the Santa Fe campus, and Santa Fe's online learning plan is programmed with the prerequisites for Florida and other 4-year institutions, so that students understand how their course schedule aligns with their transfer plans. Certain students can even transition directly from their associate degree to online bachelor of science programs Florida has designed for Santa Fe grads.⁷⁷
- 30 percent of Valencia College students transfer to a four-year institution, and four in five head to the competitive University of Central Florida. Valencia students who intend to transfer to Central Florida receive joint counseling from both Valencia and Central Florida advisors, and students with an associate degree from Valencia are guaranteed admission.⁷⁸
- Students enrolled in El Paso Community College are also jointly enrolled in the University of Texas-El Paso. Their information is shared by both schools, and they receive joint advisors and resources from both the college and the university.⁷⁹

At these and other high-performing community colleges, aspiring transfer students know exactly which school and program they will matriculate into and how their current coursework maps onto their bachelor's requirements. Advisors at both the community college and the 4-year institution work

⁷⁵ Bailey, Jaggars, and Jenkins, *Redesigning*, 6.

⁷⁶ Aspen Institute, "Defining Excellence," 9.

⁷⁷ *Ibid.*, 10.

⁷⁸ Aspen Institute, "Aspen Prize (2011)," 9.

⁷⁹ Aspen Institute, "Aspen Prize (2015)," 26.

together to ensure that each student has the resources and counseling needed to stay on track and experience a painless transition.

8. Forge Partnerships with Local Industry and Employers

Excellent community colleges help catalyze economic growth by partnering with local employers and industry leaders.

The remarkable labor market outcomes common among Aspen finalist colleges stem in no small part from the excellent instruction, training, and support their students receive. But without robust partnerships with local employers and industry leaders, these outcomes would not be possible. The best community colleges use their partnerships to enhance instruction and learning, meet and anticipate the needs of the local labor market, and, ultimately, generate economic growth for the communities they serve.

Effective community colleges seek constant input from the employers and industry leaders who hire their graduates, and they quickly make changes to curricula and training based on their feedback.

- The industry leaders on Lake Area Technical Institute's professional advisory boards (of which there is one for each program) give real-time feedback to instructors based on what they are seeing in the field. As a result of these weekly conversations, Lake Area's faculty have restructured the school's agriculture program to emphasize precision technology; ensured that dental students get more experience taking impressions; trained energy students not only on the operation of hydroelectric equipment, but also on its repair; and incorporated conflict resolution techniques into the nursing program.⁸⁰
- When the maritime program at Kingsborough Community College was struggling to enroll students and place them in good jobs, the director began meeting with prospective employers. For the smaller ships in New York Harbor, he learned, students needed both engineering and on-deck skills, rather than the more specialized training that is characteristic of traditional maritime programs.⁸¹
- Industry relationships can help colleges enhance teaching and learning by way of their facilities and equipment. In Washington, almost 25 percent of the Puget Sound Naval Shipyard's employees graduated from an Olympic College apprenticeship program that provided students with hands-on experience at the shipyard. Indian River State College designed its public safety training complex with the input of police officers and firefighters. And petrochemical companies in Texas are so reliant on Brazosport College's graduates that they financed and helped design

⁸⁰ Aspen Institute, "Aspen Prize (2011)," 15.

⁸¹ Aspen Institute, "Defining Excellence," 8.

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cutting-edge training facilities on campus (to which they now send their own employees for training).^{82, 83}

Community colleges also use their industry partnerships to gauge the current and future needs of the local economy and workforce – and to ensure that their academic offerings align with these needs. The best community colleges are constantly changing with the local economic landscape—creating, changing, or, if graduates aren't getting jobs in high-wage, high-growth industries, shutting down programs as needed.

- Even among the best institutions, Walla Walla Community College stands out for its ability to anticipate and respond to changing economic winds, often partnering with economic modeling experts to forecast trends in jobs and wages and run feasibility analyses on the value of potential programs. For example:
 - Analysis indicated that the regional economy could support twice as many nurses as Walla Walla's program produced, so it doubled the size of its program.
 - When the construction industry in Washington began to languish during the 2008-09 recession, and Walla Walla graduates were no longer landing high-paying jobs, the school shuttered its carpentry program despite ongoing strong student interest. It also dismantled its culinary program and then, a few years later, reopened it with important changes.
 - Based on analysis, officials modified the school's irrigation instruction to focus on lawns and sport fields, where there is more demand, and away from farms; created a new program to produce technicians for the region's growing wind energy sector; and, following the advice of labor experts, developed a watershed ecology degree that can produce jobs for Native Americans attending the college from a nearby reservation that has had difficulty maintaining salmon populations.^{84,85}
- Lake Area ended its hospitality and tourism concentration because employers were hiring non-graduates for the same wages they hired Lake Area's graduates. When it considered doing the same for its medical assisting program, by contrast, employers protested by upping wages.⁸⁶
- When a local hospital experienced a shortage of workers, Indian River State College created a program in nuclear medicine in short order; although it suspended the program after meeting the demand, it is in a position to reopen should the need arise.⁸⁷

⁸² *Ibid.*, 9.

⁸³ Aspen Institute, "Aspen Prize (2015)," 27.

⁸⁴ Aspen Institute, "Aspen Prize (2013)," 13.

⁸⁵ Aspen Institute, "Defining Excellence," 8.

⁸⁶ Aspen Institute, "Aspen Prize (2015)," 27.

⁸⁷ *Ibid.*

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- Santa Fe College created a new program – a bachelor's in information technology – because local companies looking to hire programmers and network specialists could not compete for University of Florida graduates alongside Google and other tech giants.⁸⁸

Over time, the best community colleges go beyond serving as pipelines that meet existing or incipient economic needs: they actually generate new economic growth in the region as well.

- Walla Walla, for example, is credited with driving a tenfold expansion in Washington's local winemaking industry by developing its enology and viticulture degree.⁸⁹
- When the global IT firm Mindtree was deciding where to open its newest facility, it landed on Gainesville, FL after Santa Fe incorporated mobile applications into its existing programming degree; a fifth of Mindtree's local employees, it is now estimated, are Santa Fe graduates. Santa Fe's president has also created a community initiative that has generated 1,400 jobs by "aligning academic opportunities with industries predicted to have the greatest high-wage job growth in the region."⁹⁰

It is no surprise, in light of these efforts, that Aspen prize colleges boast remarkable labor market outcomes.

Excellent Community Colleges Improve Constantly

Someone observing any organization, whether in government, academe, business, or the public sector, may begin to notice certain pervasive attitudes or beliefs that reflect the culture of the institution as a whole. At strong community colleges, there is a culture of continuous improvement, an understanding that to serve students effectively, the school must constantly get better. All of the practices featured above reflect this culture. But there are three ways, in particular, in which the best colleges have institutionalized the process of getting better.

9. Measure Performance to Test and Scale Improvements

Excellent community colleges build cultures of evidence in which administrators, instructors, and staff collect and use data to test and implement improvements.

"If you can't measure it," Michael Bloomberg has said, "you can't manage it."⁹¹

The best community colleges have lived by this adage, methodically using data and research to fuel improvements. Using data well requires that schools have good data. And having good data requires that schools invest in up-to-date technology and resources. "Successful schools," the Aspen Institute concluded in 2013, "build the research and information systems necessary to analyze and synthesize

⁸⁸ *Ibid.*, 7.

⁸⁹ Aspen Institute, "Defining Excellence," 8.

⁹⁰ Aspen Institute, "Aspen Prize (2015)," 27-28.

⁹¹ "Expanding the Use of Data Analytics in City Governments," NYC.gov, accessed August 4, 2015, <http://www.mikebloomberg.com/news/expanding-the-use-of-data-analytics-in-city-governments/>.

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data about student outcomes and needs.” But using data well also means that everyone is committed to using those “research and information systems” consistently. Thus, successful schools also excel in “making everyone aware of—and invested in using” those tools.”⁹²

With data in hand, great community colleges are bold to experiment with new approaches and interventions. They are systematic in the way they conduct their trials, document and analyze their results, and scale the improvements that work.

- As Santa Fe College prepared to roll out a new early-warning alert system, it first piloted the system in a limited number of course sections and compared outcomes in the control and variable sections. During the first year of the trial, the retention rates of sections using the new system were 10 percentage points higher than control sections.⁹³
- Working with an advisor and a review panel of colleagues, new full-time instructors at Valencia College develop research trials to be tested on a variable and control group in their classroom. Successful practices, such as personalized lab assignments, are replicated and scaled.⁹⁴
- At Miami Dade College (and most community colleges), math is where a lot of students run into problems. After identifying four classes that enrolled 17,000 students and had pass rates around 50%, Miami Dade faculty carefully experimented with different interventions. They assessed the impact of each through completion data, survey feedback, and grades. They developed small tweaks targeted to different sections of the course and different subsets of students, eventually developing a “technology-based redesign” of the school’s remedial math courses.⁹⁵
- West Kentucky formed a “central advising council” composed of various faculty and staff who were charged with examining evidence and making recommendations for advisors. As is often the case nationally, data indicated that students performed better when taking more credits, so now, all advisors encourage students to take more than the bare minimum.⁹⁶
- For many years, regular reports on course completion at Kingsborough Community College showed that students who had taken English during their first semester were likelier to return the following term than students who had not. As part of an institution-wide push to use data more effectively, the school took action, requiring that all students take English in their first term.⁹⁷

The commitment to measurement and innovation at great community colleges is evident in the work of Regina Peruggi, president of Kingsborough Community College, who comes to each academic

⁹² Aspen Institute, “Defining Excellence,” 5.

⁹³ Aspen Institute, “Aspen Prize (2015),” 8.

⁹⁴ Aspen Institute, “Aspen Prize (2011),” 10.

⁹⁵ *Ibid.*, 19.

⁹⁶ Aspen Institute, “Aspen Prize (2015),” 25.

⁹⁷ Aspen Institute, “Defining Excellence,” 5.

department annually to provide faculty with a customized summary of outcomes.⁹⁸ It is also evident in the words of Lori Gaskin, president of Santa Barbara City College: “here,” she says, “there is a pervasive feeling of being open to taking risks and experimenting.”⁹⁹ These leaders have established cultures of evidence at their institutions, and everyone – from high-level administrators to the advisors engaged with students daily – is expected to track their performance and experiment with techniques for improvement.

10. Invest in Human Capital to Improve Teaching and Learning

Excellent community colleges invest in their people, aligning professional development to strengthen teaching and learning outcomes.

Although many community colleges have developed goals for student learning outcomes, it is less common to find colleges that continually measure their performance against these goals and make regular adjustments.¹⁰⁰ The best colleges are constantly scrutinizing and recalibrating their teaching methods and investing in the improvement of their faculty.

- At many high-performing colleges, professional development is targeted toward improving teaching and learning. Instructors who want to create a new intensive writing course at Hostos Community College, for example, are coupled with writing fellows who help develop assignments and critique the course. The Brazosport professors who teach the college’s student success courses are required to take a three-day workshop and “shadow” an existing teacher for a year.¹⁰¹
- West Kentucky launched a five-year program to train teachers in “common, effective reading strategies” they could impart to students; participants in the program met monthly for an entire year.¹⁰²
- New instructors at Lake Area Technical Institute meet once a month for classes on “lesson design, assessment, and how to incorporate hands-on activities into instruction.” And, in light of the growing popularity of distance learning, Broward College trained 19 “e-learning associates” with strengths in technology to help train their peers in virtual teaching best practices.¹⁰³

Great colleges are continually finding ways to innovate in the classroom, and they ensure that their instructors have a steady stream of resources, training, and support to improve their craft.

11. Remove Institutional Silos

⁹⁸ Aspen Institute, “Aspen Prize (2013),” 17.

⁹⁹ *Ibid.*, 11.

¹⁰⁰ Aspen Institute, “Aspen Prize (2015),” 25.

¹⁰¹ *Ibid.*

¹⁰² Aspen Institute, “Defining Excellence,” 4.

¹⁰³ *Ibid.*

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Excellent community colleges remove institutional siloes by deliberately making collaborative links across institutional units that would otherwise operate in isolation.

One of the most conspicuous features of high-performing community colleges is the extent to which different, traditionally isolated institutional units talk to and work with one another. The culture of collaboration at these colleges has helped to produce resources and reforms that would not have been possible otherwise.

- Meeting weekly over six years allowed the developmental and college-level math faculty at Santa Fe to reach significant breakthroughs, reducing duplication across courses and eventually restructuring the entire sequence of remediation courses.¹⁰⁴
- Advisors at Santa Barbara and West Kentucky go so far as to attend the faculty meetings of academic programs to which they are assigned. At other institutions, advisors are expected to be in their students' classes at least once a week. Establishing tight links between advisors and instructors allows both parties to address the needs of individual students more effectively while identifying challenges shared by the population at large. It also ensures that the most important messages – about homework help, financial planning, or other available resources – are shared consistently in the classroom and advising office.¹⁰⁵
- At Walla Walla, a longtime collaboration between the IT and student services department produced an online portal students now use for academic planning.¹⁰⁶

¹⁰⁴ *Ibid.*, 7.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

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Appendix D: Dashboard of Best Practices Provided by Ivy Tech Leadership

Ivy Tech Student Success Best Practice Efforts (w/ year started)	National Advocates for Best Practices					Can't do yet	Available Statewide	At Full-Scale Participation	Metrics Available	Stop-lights
	CCA	CCSSE	League for Innovation	Aspen	Lumina					
Math Pathways (2013)	X						Yes	Yes	X	
Co-requisite remediation (2012)	X	X					Yes	Yes	X	
Customized placement (2014)	X	X	X				Yes	Yes	X	
Revised Advising Model (2011)	X	X	X				Yes	Yes	X	
ASAP (2011)	X	X		X	X		Yes	No	X	
Honors (2013)		X					No	No	X	
Ivy Institute (tech programs in block scheduling format) (2011)	X						Yes, but not all prog. in all regions	No	X	
Ivy Prep (bootcamp for remediation) (2014)	X	X					Yes	No	X	
Degree Maps (2015)	X						Yes	Yes	by Dec.	
Auto-schedule from Deg. Map	X					X		No		n/a
Supplemental Instruction (2010)		X					Yes, in select courses	Yes	X	
Workforce partnerships and labor market success	X		X	X	X		Yes	Yes		
Support for minorities		X		X	X		Yes	Varies regionally	X	
Adult Degree Completion (2011)					X		Yes	Yes	X	
Assessment of Student Learning			X	X			Yes	Yes	X	
Rolling enrollment						X		No		n/a
Prior Learning Assessment (2008)	X		X		X		Yes	Yes	X	
3-credit Stu Success Course (2010)							Discontinued in 2014	Yes	X	
1-credit Stu Success Course by meta-major (2015)	X	X	X				Yes	Yes	X	
Reduced English 111 Course Size (2011)							No	No	X	

Appendix E: Ivy Tech Percentile Ranking from National Community College Benchmark Project

Metric	Ivy Tech percentile rank
Service area median household income	16 th
Percentage of students enrolled full-time	30 th
Percentage of students enrolled part-time	70 th
Enrollment of Hispanic students	45 th
Enrollment of African American students	77 th
Students receiving Pell grants	81 st
Transfer credit hours taught	18 th
Developmental credit hours taught	83 rd
Median student age	96 th
Fall 2012 enrollment	96 th
First-time, full-time students completing in 3 years	8 th
First-time, part-time students completing in 3 years	44 th
First-time, full-time students transferred in 3 years	50 th
First-time, part-time students transferred in 3 years	46 th
First-time, full-time students completing in 6 years	23 rd
First-time, part-time students completing in 6 years	66 th
First-time, full-time students transferred in 6 years	60 th
First-time, part-time students transferred in 6 years	63 rd
Percentage of graduates indicating they achieved educational objective	25 th
Persistence of credit seeking students (fall-to-spring)	32 nd
Persistence of credit seeking students (fall-to-fall)	16 th
Percentage of credit hours taught by full-time faculty	4 th
Percentage of credit hours taught by part-time faculty	95 th
Percentage of course sections taught by full-time faculty	7 th
Percentage of course sections taught by part-time faculty	93 rd
Withdrawal rates – all courses	52 nd
Withdrawal rates – college level courses	54 th
Pass rates – all courses	7 th
Pass rates – college level courses	11 th
Percentage of credit hours through distance learning	87 th
Percentage of credit sections through distances learning	86 th
Withdrawal rates in distance learning	47 th
Pass rates in distance learning	17 th
Instructional expenditure per credit hour	16 th
Instructional expenditure per FTE student	16 th