Evaluating Outcomes for New Jersey's Higher Education Institutions

State of New Jersey
Office of the Secretary of Higher Education
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OPPORTUNITY INNOVATION
A STUDENT-CENTERED VISION FOR HIGHER EDUCATION

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WHY THIS WORK MATTERS

In New Jersey, our vision is simple: every resident, regardless of life circumstances, should have equitable and affordable opportunities to earn a high-quality credential that prepares them for lifelong success. This student-centered vision drives the policies that the Office of the Secretary of Higher Education (OSHE) develops and implements statewide. To fulfill this vision, we need accurate, reliable student outcomes and labor market information to guide the path forward.

Given these data needs, OSHE launched the Utilizing Labor Market Information Pilot Program in partnership with the Education Quality Outcomes Standards Board (EQOS) and Common Group. These organizations partnered to define a set of metrics and data collection processes to holistically measure students' post-collegiate success, then worked with seven HEIs to test this quality assurance framework.

Through this pilot program we aim to move the needle on establishing effective labor market reporting by building upon the New Jersey Education to Earnings Data System (NJEEDS) and Student Unit Record System (SURE). Having complete information on students' post-collegiate outcomes is invaluable to support, inform, and empower stakeholders across the state, including:
- Current and prospective students seeking to answer key questions, including where to enroll, what credential and career path to pursue, and what level of financial assistance may be needed;
- Higher education institutions seeking to assess and continuously improve curriculum quality, while marketing high-quality academic programs to students;
- State agencies and policymakers seeking to make impactful policy decisions about how to close equity gaps in degree attainment and best support the state's economic recovery through education and training.

Improving the seamless transition between education and the workforce is critical given our current economic climate, in which our residents are eager to learn new skills and prepare for good-paying careers. New Jersey, with the help of quality education-labor market data, can support all students' preparation for and transitions into the workforce.

This report presents the lessons learned from the pilot program and recommendations for OSHE to scale labor market data collection best practices statewide. We hope this report and the accompanying toolkit ignite continued discussions about leveraging data to strengthen the state's education-workforce ecosystem.

Sincerely,

Brian K. Bridges, Ph.D.
Secretary of Higher Education
State of New Jersey

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

New Jersey's Utilizing Labor Market Information Pilot Program represented the third state pilot program launched by the Education Quality Outcomes Standards Board (EQOS), following a successful inaugural pilot in partnership with the Colorado Department of Higher Education and alongside an ongoing pilot program with the Indiana Department of Workforce Development. The program with the New Jersey Office of the Secretary of Higher Education (OSHE) sought to build on progress made to test the viability of outcomes data collection systems at 7 higher education institutions and develop strategies to strengthen consumer protection and improve educational equity statewide.

Together, OSHE and EQOS recruited seven institutions to participate in the pilot program, guided them through outcomes data collection processes and the project's methodologies, and supported them along the way via webinars, one-on-one meetings, and group discussions.

Throughout the pilot program, the team gained invaluable insights on the challenges faced by higher education institutions as well as opportunities for improvement that could lead to improved outcomes for students across sectors. The findings discovered and lessons learned as a result of this pilot program will inform efforts to revamp labor market data collection processes and outcomes-based quality assurance systems within New Jersey and provide inspiration for federal and state agencies nationwide.

Recommendations for Next Steps

Create a stakeholder feedback process to inform and enhance the rollout of metrics.

Standardize data collection efforts to ensure consistency.

Establish reliable, objective sources of student employment data.

Create opportunities for information exchange and problem solving.

Engage stakeholders to demonstrate the value of data collection efforts.

OVERVIEW OF THE NEW JERSEY PILOT PROCESS & RESULTS

PARTNERSHIP WITH NEW JERSEY OSHE

The Labor Market Information Pilot by EQOS and the OSHE was launched to explore strategies to develop real-time labor management information systems to empower students and institutions with enhanced information on labor market demands. Such systems are intended to advance New Jersey's state higher education and economic plans by enhancing support to students and institutions.

EQOS partnered with OSHE in June 2021 to improve the state's practice around quality assurance standards and labor market information systems. The impetus for improved labor market information systems was the state's need for a more efficient and reliable system to evaluate institution quality and bolster consumer protection in higher education.

RECRUITING INSTITUTIONS

As part of its formal agreement with OSHE, EQOS developed a protocol for recruiting institutions to ensure a variety of institution types, locations, and sizes, demographic diversity, programmatic interest in improving data collection systems, and departmental capacity. OSHE distributed a survey to New Jersey's higher education institutions and received a total of 18 responses. Ultimately, the following seven institutions were chosen to participate in the pilot program:

- Berkeley College
- Fairleigh Dickinson University
- Rider University
- Rowan University
- Rowan College at Burlington County
- Rutgers University – Newark
- Salem Community College

NORTH STAR GOAL

Our North Star: OSHE's 90 licensed HEIs voluntarily collect metrics using a scaled approach that begins with high-demand industries such as offshore wind, health, manufacturing and supply chain logistics and expands over time to more industries.

SCOPE OF WORK AND METHODOLOGY

Based on the EQOS Quality Assurance Framework and OSHE's priorities, the EQOS team developed an updated set of student outcomes metrics and definitions that provided the foundation for the pilot process as well as a comprehensive picture of students' real-world results. The 11 metrics and corresponding definitions were distributed across three categories, detailed below:

EDUCATION OUTCOMES

- Learning
- Credentialing rate
- Completion rate
- Transfer rate
- Furthering education rate
- Satisfaction

EMPLOYMENT & WAGE

- Number and percent Employed in field of study
- Earnings
    - Median change in earnings within 1-5 years post-completion

FINANCIAL IMPACT

- Return on investment (ROI)
- Loan repayment rate
- Cohort default rate

METRIC DEFINITIONS

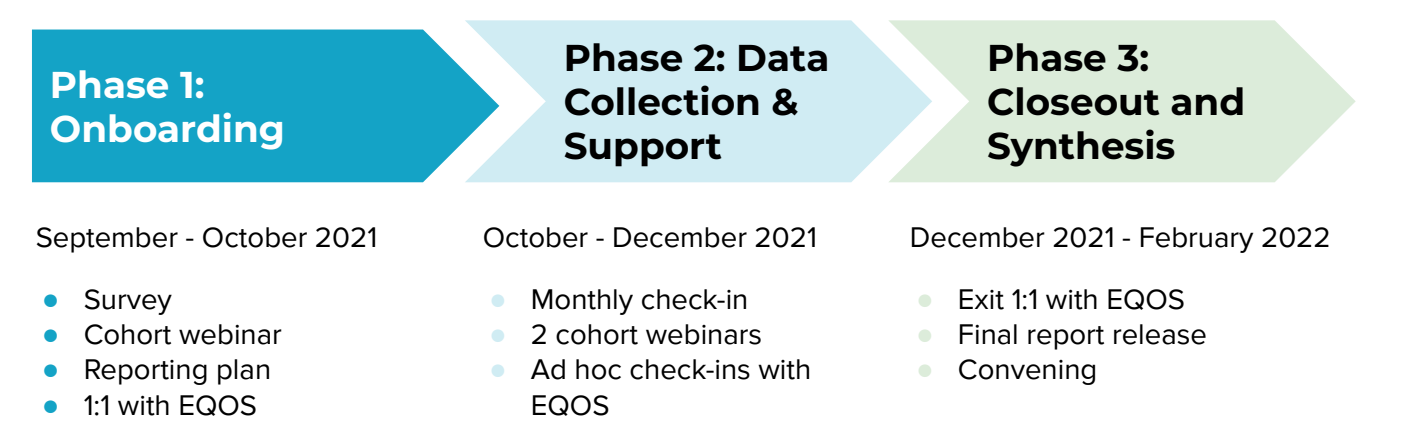| Metric	Definition
Learning	Percentage of students who completed an assessment or process and verifiably demonstrated mastery of skill or competency as articulated by the institution
Credentialing rate	Percentage of students within a given cohort earning the credential sought at their institution
Completion rate	Percentage of students graduating from the academic program within the stated, anticipated time to completion
Transfer rate	Percentage of students in each cohort transferring into another academic program at the initial or subsequent institution(s)
Furthering education rate	Percentage of completers enrolling in additional, higher-level, or graduate academic programs
Satisfaction rate	Median and/or average score (on a 1-10 scale) of pre- and post-program surveys that capture students' initial motivation and expectations for enrolling in the academic program and perspective on their experience following completion
Percent employed in field of study	Percentage of graduates who, within 180 days: • Obtained employment within their field of study (including self-employment) • Continued employment at a higher title and/or with increased salary
Median change in earnings	Median change between program graduates' pre-enrollment and post-graduation income, 1 to 5 years after completion
Return on investment 1 year post-program	The annual earnings of a given academic program's graduates 1 year post-graduation, expressed as a percentage of the typical amount paid for the given program
Loan repayment rate	Percentage of borrowers who repay at least $1 of their loan principal during a fiscal year
Cohort default rate	Percentage of borrowers of a given academic program who enter repayment in a fiscal year and default within three fiscal years

METHODOLOGY

DATA COLLECTION

Using these metrics, institutions collected student outcomes data for one or two cohorts of up to two academic programs. In collaboration with the institutions and OSHE, EQOS developed a novel approach to defining cohorts that avoids the pitfalls of traditional methods, which often miss significant numbers of students who entered a graduating class late or who started an academic program but did not complete it.

Cohorts were determined according to students' graduating class year as opposed to their entry year. In addition, the EQOS team requested that institutions provide details about when graduates started their majors and under what circumstances. This included specifying:

- Which year a student started the academic program,
- How long it took the student to complete the academic program,
- Under what circumstances the student enrolled in the academic program (e.g., first major, switched major, transfer, etc.), and
- Students' initial major (if applicable).

PILOT TIMELINE

Pilot institutions were recruited and onboarded in September and October 2021. The data collection phase spanned October through December 2021. During that time, EQOS provided institutions with technical assistance and strategic guidance, and EQOS, OSHE, and the institutions convened for two webinars. The timeline is summarized below:

Phase 1: Onboarding

Phase 2: Data Collection & Support

Phase 3: Closeout and Synthesis

September - October 2021

October - December 2021

December 2021 - February 2022

- Survey
- Cohort webinar
- Reporting plan
- 1:1 with EQOS

- Monthly check-in
- 2 cohort webinars
- Ad hoc check-ins with EQOS

- Exit 1:1 with EQOS
- Final report release
- Convening

DATA REPORTING TOOLS: REPORTING PLAN

Alongside its framework of student outcomes metrics, two tools were developed for institutions to carry out the pilot's technical work. EQOS designed a Reporting Plan template and Data Intake Spreadsheet using Google Sheets. While the tool worked effectively for the pilot, it is important to note that the application may not be applicable or appropriate for such processes at larger scales.

The Reporting Plan provided a shared space for institutions and the EQOS team to establish relevant academic program and cohort information and maintain mutual accountability. The Reporting Plan (housed within the Data Intake Spreadsheet) asked for such relevant pieces of information as the academic program's name and description, information on credit hours and timing, finances, and more.

DATA REPORTING TOOLS: DATA INTAKE SPREADSHEET

The main tab of the Data Intake Spreadsheet (see fig. 1) contains cells in which providers input data on their students' demographic information and outcomes.

The spreadsheet also contained two additional tabs, including a reference page of metrics with their corresponding definitions (see fig. 2) and an Aggregated Metrics tab (see fig. 3) that calculated the recorded information to produce legible numerical conclusions about the outcomes data (e.g., percentages, averages, etc.).

Fig. 1: Sample intake sheet

Fig. 2: Definitions, Sources, and Action Steps tab

Fig. 3: Aggregated Metrics tab

RESULTS & LEARNINGS

INITIAL RESULTS

During qualitative one-on-one interviews with EQOS, participating institutions were asked to reflect on the process of collecting data for the pilot metrics. Below is the analysis of the reported difficulty of the collection process.

The difficulty score is subjective and calculated by analyzing the percentage of institutions that were able to report at least one data point on this metric and the anecdotal feedback from institutions about the difficulty of reporting on this metric.

Metric	Percentage Reporting*	Difficulty Score**
Learning	50%	Medium — assessments vary by academic program
Credentialing Rate	83%	Easy
Completion Rate	67%	Easy
Transfer Rate	83%	Medium
Furthering Education Rate	83%	Medium
Satisfaction Rate	33%	Medium — depends on survey design and response rates
Percent Employed in Field of Study	83%	Difficult — low survey responses and limited, reliable alternative sources for this information.
Median Change in Earnings	50%	Difficult — same rationale as above
Return on Investment 1 Year Post-Program	50%	Difficult — low survey responses and amount paid varies by student
Loan Repayment Rate	83%	Difficult — low survey responses
Cohort Default Rate	67%	Difficult — low survey responses

** Includes institutions that reported at least **one** data point for the corresponding metric*
** The difficulty score is based on six institutions' reported data. Note that a metric may have a high percentage reporting score but be rated as "difficult" if several institutions reported only a handful of data points.

KEY LEARNINGS

Following the institutions' completion of the data collection phase, EQOS extensively reviewed the institutions' data intake spreadsheets and conducted exit interviews to gauge immediate feedback and determine preliminary findings. EQOS's findings included four main takeaways regarding **People**, **Process & Platforms**, **Incentives**, and **Metrics**.
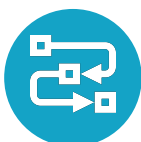
PEOPLE

Above all, strong relationships between departments within institutions—including Institutional Research, Institutional Evaluation, Career Services, Financial Aid, Alumni Relations, Admissions, Communications, and more—are essential for furthering effective data collection initiatives.

In addition, a consistent distribution of responsibilities, including prioritization, championing, and execution of data collection efforts, within institutions is important for creating departmental "buy-in" and effectively allocating resources.

PROCESS & PLATFORMS

Throughout the pilot, institutions signaled that one planning year would be adequate to prepare and collect relevant data for all academic programs. Most institutions already report student outcomes data to OSHE via its SURE system. Data collection efforts could be streamlined if OSHE compiles the data institutions have submitted and the institutions supplement that with students' survey results.

> "
> Anything to do with data, the Office of Institutional Research does it, and that may not be the best place for this work. The results and the impact of the results are going to come back to Communications and Marketing and to the Alumni and Advancement units. In fact, you could argue that this work needs to be an initiative of the President's Office.
>
> **— Pilot School Leader**

INCENTIVES

Institutions have many incentives to gather student outcomes data, from compliance to internal improvements, but could certainly benefit from additional motivators. The pilot schools noted that a state-led process which provided placement and earnings data, as well as financial resources for staffing support and survey outreach, would offer extraordinary incentives to further data collection efforts. In addition, the pilot institutions signaled that transparency is key to ensuring the success of data collection programs, and that all parties should be clear about the intended uses and audiences of students' outcomes data.

KEY LEARNINGS

METRICS

 While many schools, including the pilot institutions, are employing data-driven strategies, most student information systems are not robust enough to adequately and effectively capture detailed demographic and other information. As expressed in the earlier table, the difficulty of collecting data varied widely between metrics.

In addition, students often hesitate to self-report for a variety of reasons, making it even more difficult to track student outcomes. According to the pilot institutions, survey response rates fall between 15 and 30%, which can be problematic for smaller academic programs with fewer students and which raises reliability and validity concerns for all academic programs. As a result, institutions may utilize alternatives to surveys, such as objective data from state and private agencies, to measure relevant student outcomes.

> "
> It's important to know how your students identify themselves to have a really clear understanding of, really, who your customers are. In order to meet their needs, we really need to know who they are—it's not enough just to say they're 'non-white and female.'
>
> **— Pilot School Leader**

> "
> In looking at some surveys, there are definite patterns by gender, ethnicity, and income levels in terms of who responds to surveys and who doesn't. From an equity perspective, what is the story that you know from these surveys? Who becomes invisible when you rely solely on student-reported data?
>
> **— Pilot School Leader**

IMPROVEMENT AREAS

While many elements of the pilot indicated success, the EQOS team identified several areas for improvement that would enable data collection processes within New Jersey to flourish at scale.

RESOURCES

In order to successfully integrate effective data collection processes into their operations, HEIs require standardized tools, such as surveys, guidelines, and data dictionaries with definitions of student outcomes, timelines for collection, and data sources. In addition, many schools require additional financial resources to incentivize staff and students to participate in data collection initiatives.

RELATIONSHIPS

Relationships between different departments within HEIs are essential for streamlining and operationalizing data collection efforts. As a result, it is crucial for leaders within institutions, such as presidents and provosts, to develop strategies to connect departments that collaborate on data sharing and collection.

In addition, institutions and OSHE should further cultivate relationships with business and industry partners. As data collection from surveys has proven difficult, HEIs and states may be able to rely on private sector institutions for relevant outcomes data that would be otherwise impossible to collect.

RETURN ON INVESTMENT

There is much momentum around calculating return on investment for academic programs within the state and nationwide. However, to gain an accurate picture of student results, calculations must be standardized in ways that accurately represent long-term institutional outcomes and that account for all costs and funding streams (private, public, household, etc.).

RECOMMENDATIONS & NEXT STEPS

NORTH STAR GOAL

Our North Star: OSHE's 90 licensed HEIs voluntarily collect metrics using a scaled approach that begins with high-demand industries such as offshore wind, health, manufacturing and supply chain logistics and expands over time to more industries.

GOVERNING OBJECTIVES FOR RECOMMENDATIONS

The recommendations create a path to the collection of accurate, consistent, and objective data that can support decision making from various stakeholders (e.g., institutions, students).

The recommendations leverage and build on existing processes and platforms used by HEIs, OSHE, and NJEEDS to maximize efficiency and scalability.

The recommendations position (a) HEIs to eventually drive program improvement and market outcomes and (b) students to understand which academic programs will help them achieve goals.

Recommendation 1

Create a stakeholder feedback process to inform and enhance the rollout of metrics.

Gather more input and feedback from HEIs and other key stakeholders (e.g., learners, NJ state agencies, state legislatures, employers, and the Governor) via focus groups, surveys, and other activities to inform guidance on data collection.

Discussion topics include:
- Metrics refinement (based on a decision tree and policy landscape analysis)
- Survey development
- Process design and timing
- Disclosure/privacy language
- Platform integration
- Data sharing agreements
- Outputs and data usage (e.g., dashboard, webpage)
- Student engagement

> **"**
> My biggest concern is the ability to even gather student-level information at a high level of detail in *current student and alumni surveys*. I just don't know what the return would be on that. Particularly right now with COVID-19, everything being online has survey results pummeled.
>
> **— Pilot School Leader**

Standardize data collection efforts to ensure consistency.

Recommendation 2

Continue efforts to ensure that all institutions, particularly for-profit institutions, are included in the SURE system, then take inventory of the data collected, who collects it, how it is validated, and how/whether it can be shared with institutions by academic program. In parallel, continuously refine a statewide data dictionary and survey tool to ensure consistency in cohort approaches, metric definitions, collection schedules, and data sources across institutions.

Recommendation 3

Establish reliable, objective sources of student employment data.

Expedite the collection of placement and salary data using objective, non-student survey sources by: (a) joining the U.S. Census Bureau's Post-Secondary Employment Outcomes (PSEO) initiative; (b) providing data to institutions from NJEEDS; (c) continuing efforts to report and analyze data across state lines through the Coleridge Administrative Data Research Facility (ADRF) platform and Eastern States Collaborative; and (d) providing institutions that are not currently part of NJEEDS with similar employment outcomes data they obtained through third-party vendors.

Create opportunities for information exchange and problem-solving.

Establish or leverage an existing online community of practice (e.g., the State Higher Education Executive Officers Association) for institutions and other stakeholders to facilitate the exchange of ideas and best practices, faster problem-solving on common challenges, and centralized on-demand access to resources and decisions, with opportunities for professional development (e.g., annual training summits).

Recommendation 5

Engage stakeholders to demonstrate the value of data collection efforts.

Create a statewide messaging and advocacy campaign that uplifts NJ's culture of data use: including building trust, clarifying the value of collecting data, providing examples of how data can be used by different stakeholders, and demonstrating alignment between state initiatives and the needs of students, families, institutions, and employers.

> 66
>
> The findings of the pilot suggest that the current status of collection of student employment outcomes data varies across majors. Institutions may be particularly challenged in cases where the career paths of graduates are more complex.
>
> — **Pilot School Leader**

TIMELINE FOR RECOMMENDATIONS

In order to sustain the momentum built through this project, OSHE and relevant stakeholders should implement these steps within one year from the conclusion of the pilot.

Months 1-3	Months 4-6	Months 7-9	Months 10-12
• Backwards-map the outputs • Develop a policy and decision tree analysis • Conduct focus groups	• Formalize and grow partnerships with the U.S. Census Bureau/PSEO, NJEEDS, and others • Establish or leverage communities of practice • Continue developing a statewide data dictionary and survey tool (will take roughly 6 months) • Launch statewide messaging campaign	• Continue work on data dictionary and survey tool • Test implementation strategies with a larger set of institutions using agreed-upon metrics and platforms, tweaking process as necessary	• Convene a training institute for all 90 institutions, based on results of implementation testing
Ongoing steps that will take time to complete: • Secure institutions' voluntary participation in the SURE system and onboard them (2–3-year process)			

Over the next six months, OSHE can work with the stakeholders below to take the following action steps to move the recommendations forward.

For Institutions	• Complete our survey to share your contact information. • Review the Education Institution Readiness Assessment Tool (on page 21) to jumpstart your institution's alignment with OSHE systems. • Stay tuned for information on how to join a focus group.
For NJ state agencies	• Continuously share statewide data collection updates on labor market information during cross-agency working group and NJEEDS executive leadership committee meetings (e.g, Department of Education, Department of Labor and Workforce Development, the Higher Education Student Assistance Authority). • Join OSHE in developing a messaging and advocacy campaign about the value of building a statewide culture of data.
For employers	• Provide data to academic programs about student results (e.g., through surveys). • Partner with OSHE and institutions to identify in-demand careers based on employment outcomes.

CONCLUSION

Labor market information data holds enormous power to inform students and families, improve student success, and align academic programs with in-demand careers. Strengthening New Jersey's capacity to collect this data is necessary. The Utilizing Labor Market Information pilot program yielded lessons to assist New Jersey in achieving its goals around building a statewide culture that utilizes data for evidence-based decision-making.

The recommendations discussed throughout this report represent cross-cutting themes for the state, including scoping metrics, streamlining processes and platforms, considering incentives, and, perhaps most importantly, engaging people. Robust collaboration will ensure New Jersey meets its higher education data goals.

OPPORTUNITY INNOVATION
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EDUCATION INSTITUTION READINESS ASSESSMENT TOOL

BACKGROUND

This questionnaire and checklist is meant to provide the institution with relevant prompts to gauge its level of readiness to collect and report data on student outcomes. The following questions are designed to create a detailed picture of the institution's academic programs as well as the types of data and collection systems the institution currently maintains. The results of this checklist will establish a baseline for all participating parties to proceed with developing strategies, establishing processes, and taking the necessary steps to collect student outcomes data.

(**Note:** higher education institutions should use this checklist at their own discretion and for their own benefit to clarify their current capacities and establish a baseline to develop data collection strategies. New Jersey OSHE will not collect nor store any results from this checklist.)

CONTACTS, DEMOGRAPHICS, & PRE-ENROLLMENT DATA

CONTACT INFORMATION

A. How current/up-to-date is your student and alumni contact information (e.g., email, phone numbers, social media handles)?
- ☐ Institution possesses **all** student/alumni contact information
- ☐ Institution possesses **some** student/alumni contact information
- ☐ Institution possesses **all/some** student contact information but **little/no** alumni contact information
- ☐ Institution possesses **little/no** student contact information but **all/some** alumni contact information
- ☐ Other:

B. How does your institution collect and maintain student and alumni contact information?
   Student surveys
- ☐ Alumni outreach
- ☐ State/third-party databases
  - ☐ Including:
- ☐ Other:

PRE-ENROLLMENT INFORMATION

A. What pre-enrollment information do you collect about students (if any)?
- ☐ Demographic information
  - ☐ Race/ethnicity
  - ☐ Gender
  - ☐ Age
  - ☐ Prior education attainment
  - ☐ Other:
- ☐ How student entered academic program
- ☐ Previous major (if applicable)
- ☐ Pre-program earnings
- ☐ Academic program cost to student
- ☐ Other:

B. How do you collect this information?
- ☐ Student surveys
- ☐ Relevant state agencies/databases
  - ☐ Including:
- ☐ Tax information
- ☐ Third-party databases (e.g., Equifax)
- ☐ Other:

C. For what is pre-enrollment information used?
- ☐ Compliance
- ☐ Quality assurance
- ☐ Internal improvement
- ☐ Marketing
- ☐ Financial reward (e.g., from state)
- ☐ Other:

PLACEMENT & SALARY INFORMATION

A. What information regarding post-completion student placement and earnings is collected by your institution?
- ☐ Placement
  - ☐ Employer
  - ☐ Title
  - ☐ Date of employment
- ☐ Earnings
  - ☐ Annual salary
  - ☐ Salary range
  - ☐ Wage

B. How is such information collected by your institution?
- ☐ Student surveys
- ☐ Employer
- ☐ Tax information
- ☐ Relevant state agencies/databases
  - ☐ Including:
- ☐ Third-party databases (e.g., Equifax)
- ☐ Other:

C. What sorts of constraints limit your institution's ability to collect this data?
- ☐ Students won't respond to surveys.
- ☐ Employers will not release placement/earnings information.
- ☐ State agencies do not possess or will not disclose information.
- ☐ Faculty/staff limitations
- ☐ Disclosure/privacy restrictions
- ☐ Other:

INSTITUTIONAL CAPACITY

A. What types of technology does your institution use to collect/manage student outcomes data?
- ☐ Excel
- ☐ Salesforce
- ☐ LMS
- ☐ SIS
- ☐ Other:

B. Which faculty, teams, or relationships would be integral to data collection efforts at your institution?
- ☐ Executive/director
- ☐ IT specialist
- ☐ Specific data collection rep
- ☐ Other: