



rpK GROUP | MGT

Higher Education System Transformation Toolkit



Market Demand & Opportunity Analysis: An Exemplar for Higher Education

A workforce-informed approach to assessing the optimal academic portfolio.

How to Use This Resource

Learn how to apply an externally focused economic lens to institutional and system-level program portfolios by conducting a **Market Demand and Opportunity (MDO)** analysis.



1 Learn about an MDO analysis *(Slide 28)*

What is an MDO, and how would system leaders use it?



2 Learn how an MDO is conducted *(Slide 31)*

Identify the institutional and labor-market data needed, and produce three analyses: a program analysis, a competitor analysis, and an employment 'gap' analysis.



3 See sample output from an MDO analysis *(Slides 35–47)*

Review the regional employment outlook, competitor landscape, and program opportunity data to determine where each institution holds a competitive advantage and where gaps exist.



4 Replicate across your system *(Slides 48–52)*

Apply this approach to each institution, then compare findings across campuses to surface system-wide patterns, reduce program redundancy, and identify opportunities for differentiation.



5 Drive system-level portfolio decisions *(Slide 53)*

Use the combined insights to guide resource reallocation, new program investments, cross-campus collaboration, and workforce-aligned optimization across the system.

What is a Market Demand & Opportunity Analysis (MDO)?

AN EXTERNAL LENS ON THE ECONOMIC OPPORTUNITY TIED TO AN INSTITUTION'S PROGRAM LIST

01 What is it?



An MDO provides an external lens on the economic opportunity tied to an institution's program list. Aggregated across a system, it can inform how many programs are needed to meet demand and where they are best located. Use it alongside student activity data in the academic portfolio.

02 What do system leaders need to know?



Leaders need to understand the strength, reach, and trajectory of economic opportunity—not only how many programs are offered. They need to evaluate that outlook alongside activity in current programs to identify unnecessary duplication and determine whether the portfolio is optimized for student demand and projected labor-market needs.

03 How is an MDO conducted?



Institution or system staff begin with a clean program list and run the analysis at each institution. The work produces:

- 1) a **program analysis** of employment and earnings outlook,
- 2) a **competitor analysis** of regional offerings, and
- 3) a **gap analysis** of growing occupations without aligned programs.

04 How is an MDO used by systems?



Findings reveal system-wide patterns, program redundancy, and opportunities for differentiation. They show institutional strengths, flag weak programs for possible consolidation, and highlight regional gaps—guiding resource reallocation, program investment, cross-campus collaboration, and workforce-aligned optimization.

Why Labor-Market Alignment Matters

Institutions face growing pressure to show that every program connects to real regional employment demand.

All

Active programs mapped to occupations

10 yrs

Employment projection horizon used

1

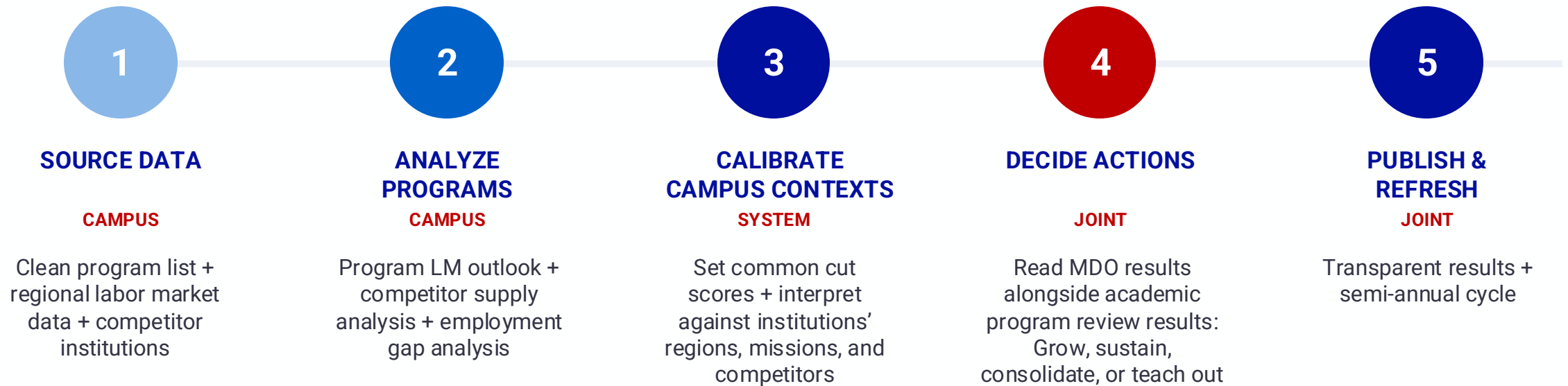
Shared external economic lens

The market imperative

Institutions and systems should test **every** program against regional employment demand, wage outlook, and competitor supply, not only the programs already under scrutiny. An external economic lens keeps portfolio decisions grounded in where jobs actually are, and where students will find opportunity after they graduate.

How to Deploy This Approach

Five phases move the work from a campus data baseline to repeatable system decisions.



This approach allows system leaders to apply a consistent, workforce-informed market demand and opportunity analysis across every institution in the system.

How is an MDO Conducted?

ASSEMBLE THE DATA, THEN RUN THREE SEQUENTIAL ANALYSES ACROSS EACH INSTITUTION AND ROLL THEM UP

DATA REQUIREMENTS

Program list: Institution name, department, program name, degree type, and Classification of Instructional Programs (CIP) code

Employment projections by occupation: Percent job growth, annual openings, and typical education and experience requirements

Earnings: annual or hourly¹

Competitor list: Regional competitors for each institution

Completions data: Degrees and certificates by program for institutions and competitors

CIP-SOC Crosswalk: Crosswalk that links education programs with occupations.

Program Demand Analysis

1

Using a CIP-SOC crosswalk, connect each program to the occupations to which it aligns, applying education and experience requirements. Calculate weighted job openings, growth rate, and earnings.¹ Set categories and cut scores to rank programs by labor-market outlook.

Competitor Analysis

2

For each program, examine whether select competitors offer it and their degree production in it. Set categories and cut scores to rank programs by market saturation and degree growth.

Gap Analysis

3

Rank occupations by projected job openings, growth, and earnings. Identify those with a strong outlook but no associated program and few regional or system competitors.

Replicate Across the System

4

Apply this approach to each institution, then compare findings to surface system-wide patterns and regional demand and reveal opportunities for differentiation.

Drive System-Level Portfolio Decisions

5

Combine MDO insights with the academic program review to guide workforce-aligned portfolio decisions, new program investments, and cross-campus collaboration.

1. Student ROI could be added for systems with access to state wage-record data.

Sources: Employment projections and earnings data are available from commercial vendors or state Departments of Labor. Completions data comes from the institutions/system; competitor data can be compiled from IPEDS.

Guiding Principles for Market-Informed Decisions

Program decisions should rest on external labor-market evidence and institutional context alike, and be communicated openly to the campus.



Externally informed

Read demand, wages, and competitor supply together so no single measure decides a program's future.



Transparent

Publish the data sources, cut scores, and results so faculty and staff can see how market conclusions are reached.



Opportunity-focused

Anchor every portfolio trade-off to student access, program quality, and post-completion earnings.



Consistent & comparable

Apply the same crosswalk and thresholds everywhere so comparisons stay fair across campuses and regions.

Foundation: Market Data Elements

Six core data sets, external and institutional, underpin every metric in the analysis.



Program List

Every active program by institution, department, degree type, and CIP code.



Employment Projections

Job growth, annual openings, and typical entry requirements by occupation.



Earnings

Annual or hourly wages for the occupations each program feeds.



Competitor List

Regional institutions competing for the same students in each program.



Completions Data

Degrees and certificates awarded by program, institution and competitors.



CIP-SOC Crosswalk

The link between instructional programs and the occupations they serve.

Sample MDO Analysis Approach & Output: Institution Level

See how labor market and program competitor information
inform program-level priorities.

Market Demand & Opportunity Overview

An MDO combines labor-market demand and regional competition to assess each program's economic and market position.

1

Program analysis

Assesses the employment and wage outlook for programs the institution already offers.

ECONOMIC OUTLOOK



2

Competitor analysis

Examines regional program availability, market saturation, and degree-production trends.

MARKET OPPORTUNITY



3

Gap analysis

Identifies growing occupations that lack aligned academic programs and face limited regional institution competition.

NEW OPPORTUNITIES

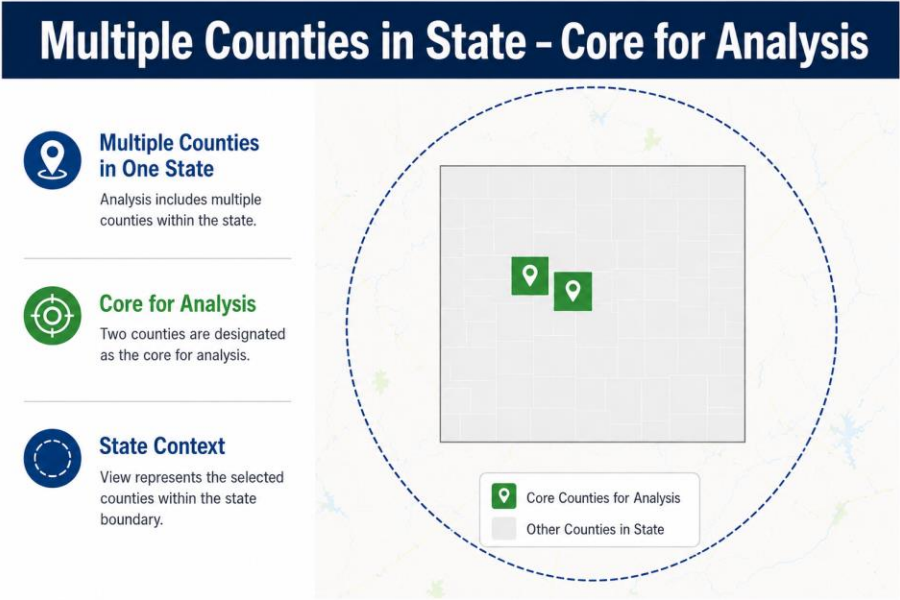


USE THE RESULTS TO:

Identify competitive strengths by program • Surface new program opportunities • Inform market-aligned portfolio adjustments

Institution Region: Population Projections

10-year Projected Population Growth	Two Counties	
(2025-2035)	Percent Change	Population Change
Lower-level College Age (15-19 year-olds)	-7%	-11.5K
Upper-level College Age (20-24 year-olds)	1%	1k
Early-mid Career Adults (25-39 year-olds)	6%	48k
Total Populations (all ages)	7% (6% statewide)	222k (45% of state)



-7% Projected change in lower-level college-age residents

+6% Projected change in early- to mid-career adults

IMPLICATION: Future growth will depend more heavily on programs that attract adult learners and align with regional workforce demand.

Institution Region: Employment Outlook

What are the market needs in the region?

6.8%

Projected job growth

Two-county region

131K

New jobs

34% of state total

226K

Annual job openings

45% of state total

REGIONAL NEW JOB CREATION – TOP BACHELOR’S-LEVEL OCCUPATIONS

Business

- Accountants and Auditors
- Management Analysts
- Market Research Analysts
- Data Scientists
- Business Operations Specialists
- Human Resources Specialists
- Project Management Specialists

Information technology

- Software Developers
- Computer Systems Analysts

Health

- Registered Nurses

1. MDO Program Analysis

Programs are evaluated using expected annual job openings, employment growth, and earnings after CIP codes are matched to occupations.

Strong outlook

All three labor indicators are at or above average.

Signals potentially robust employment and earnings prospects.

Moderate outlook

The indicators combine favorable and below-average outcomes.

Signals opportunity with weakness in one or two areas.

Limited outlook

Two or more labor indicators are below average.

May warrant curriculum adjustment or exploration of adjacent fields.

Methodology note: Education and experience requirements are adjusted for each occupational match.

Program Analysis: Economic Outlook by Program

How strong is the current labor market for programs the institution offers?

ECONOMIC OUTLOOK	Strong economic outlook More limited			
	Strong / High Wage • Cybersecurity • Software Engineering • Business Administration • Data Analytics ALL THREE INDICATORS Above-average growth, openings, and wages	Strong / Lower Wage • Organic and Sustainable Agriculture • Hospitality Business Management GROWTH + OPENINGS Above average; wages below average	Moderate • Strategic Communication GROWTH + WAGES Above average; openings below average	Limited • Electrical Engineering • Mechanical Engineering • Education Leadership and Administration (Doctoral) WAGES ONLY Growth and openings below average

2. MDO Competitor Analysis

Market opportunity combines program saturation with competitor degree-production trends.

1	Strong opportunity	Low market saturation + positive degree growth (or no competitors)	Fewer than half of competitors offer the program and at least half show degree growth; or the program has no regional competitors.
2	Moderate opportunity	One favorable signal, one weaker signal	Either low saturation with weak degree growth, or higher saturation with positive degree growth.
3	Limited opportunity	High market saturation + weak degree growth	At least half of competitors offer the program and fewer than half demonstrate degree-production growth.

Methodology note: Market Saturation is understood as the number of competitor institutions offering the program with same CIP code divided by the number of competitor institutions..

Competitor Analysis: Who Else Serves the Regional Market?

7 Competitor Institutions Identified



Within a 70-mile drive of the institution

Located within a 70-mile driving radius of the institution.



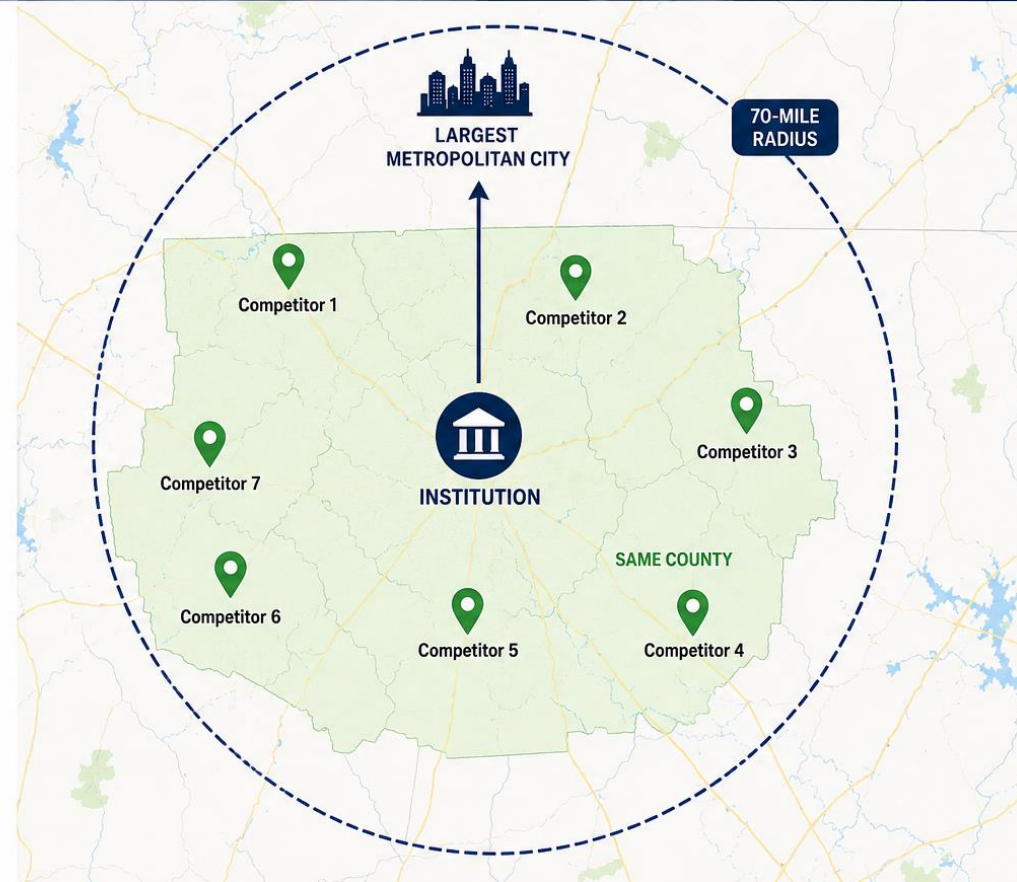
North of the region's largest metropolitan city

Situated north of the largest metropolitan city.



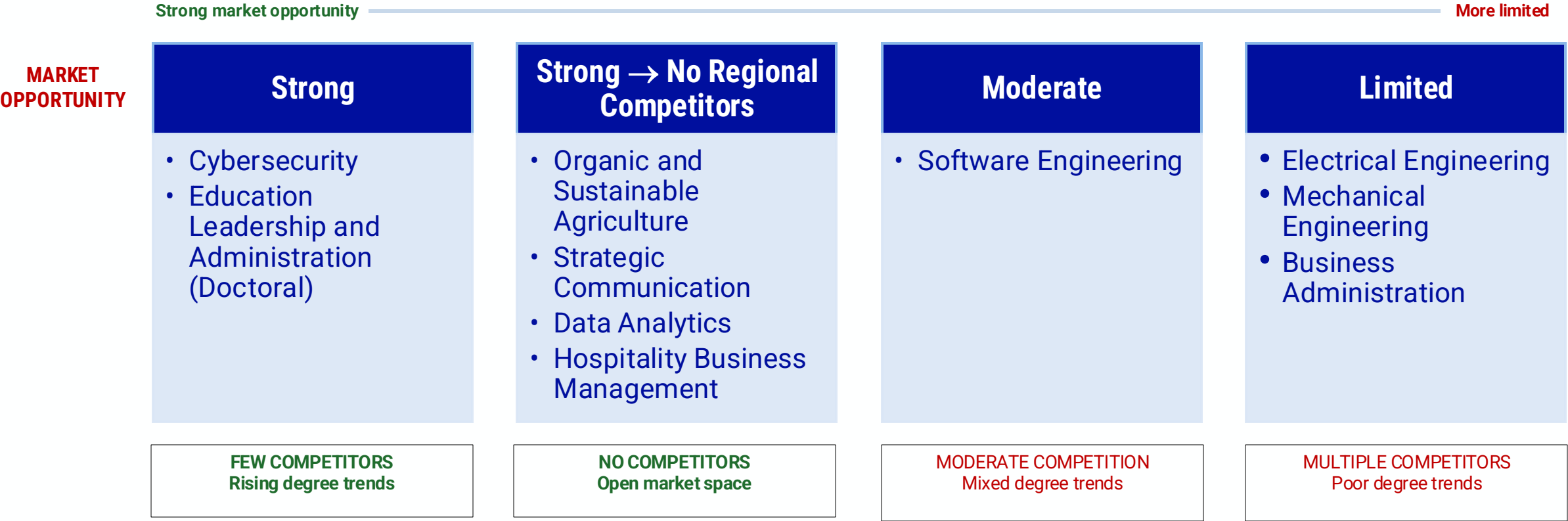
Four-year institutions in the same county

Includes four-year institutions, primarily located in the same county as the institution.



Competitor Analysis: Market Opportunity by Program

Where does the institution maintain a competitive advantage?



3. MDO Gap Analysis

Emerging opportunities appear where strong occupation indicators meet limited program competition.



Employment Outlook & Program Opportunity

Does employment demand suggest there are new opportunities the institution should consider?

Opportunity screen: strong growth + job openings + competitive wages | five or fewer regional competitors

OCCUPATIONAL AREAS THAT PASS THE SCREEN

Business-related Occupations* (4)	Engineering Occupations* (2)	Construction-related Occupations (2)	Computer-related Occupations* (1)
- Logisticians - Training & Development Specialists - Personal Financial Advisors - Financial Services Sales	- Industrial Engineers - Civil Engineers	- Construction Managers - Facilities Managers	Database Architects

* The institution currently offers other programs serving these areas.

MDO Findings Combined with Academic Program Review (APR) Findings

Green = favorable • Blue = mixed • Red = concern

MDO Metrics

APR Metrics

CIP Code	Institution’s Program Name	Employment Outlook	Wage Outlook	Market Opportunity	Application Growth	Application Yield	Enrollment Growth	Degree Output
01.0000	Organic and Sustainable Agriculture	Strong	Limited	Strong	Moderate	Moderate	Moderate	Low
09.0900	Strategic Communication	Moderate	Strong	Strong	Low	Strong	Low	Strong
11.1003	Cybersecurity	Strong	Strong	Strong	Strong	Moderate	n/a	n/a
13.0401	Education	Limited	Strong	Strong	n/a	n/a	n/a	Low
14.0903	Software Engineering	Strong	Strong	Moderate	Moderate	Low	Strong	Strong
14.1001	Electrical Engineering	Limited	Strong	Limited	Low	Low	Moderate	Strong
14.1901	Mechanical Engineering	Limited	Strong	Limited	Low	Low	Low	Strong
30.7101	Data Analytics	Strong	Strong	Strong	Moderate	Moderate	Moderate	Low
52.0201	Business Administration	Strong	Strong	Limited	Strong	Low	Strong	Low
52.0901	Hospitality Business Management	Strong	Limited	Strong	Moderate	Strong	Low	Low

All programs award bachelor’s degrees except Education Leadership and Administration, which awards doctoral degrees.

Note: The APR analysis is described in another part of the toolkit framework, which includes the sample data shown in this table.

Institution-level Assessment: Outlook & Opportunity

Four portfolio priorities emerge when MDO and academic program review findings are considered together.

1 Reposition programs losing market ground



Weakening employment outlook meets falling student interest: Electrical and Mechanical Engineering and Strategic Communication still produce 57% of annual degrees.

3 Convert business demand into degrees



Heavy regional competition against strong student interest: Business Administration's low yield and degree production signal a missed opportunity.

2 Back the IT programs the market rewards



Strong employment outlook, no graduates yet: Cybersecurity enrollment is climbing, while Software Engineering grows against heavy competition and lower yield.

4 Scale small programs with strong outlook



Healthy demand at small scale: Data Analytics and Organic and Sustainable Agriculture stay small, and Hospitality yields well from too few applications.

Example: How One MDO Analysis Emerges

Five measures build the evidence; one portfolio judgment aligns capacity to the pattern.

BUSINESS ADMINISTRATION

A program exhibiting one of the institution's strongest employment outlooks, but it also faces significant regional competition.

EMPLOYMENT GROWTH

Jobs accessible to Business graduates are projected to increase by 10% over the next decade

JOB OPENINGS

Job openings over the next decade accessible to Business graduates are projected well above average

EARNINGS

Median earnings of \$55/hr are well above average

MARKET DEMAND

Degree production is trending downward across all competitor institutions except one

MARKET SATURATION

Five of seven local competitor institutions offer this program

BOLT ON: MDO + APR METRICS

Combine APR + MDO metrics to get a full picture of student and labor market demand

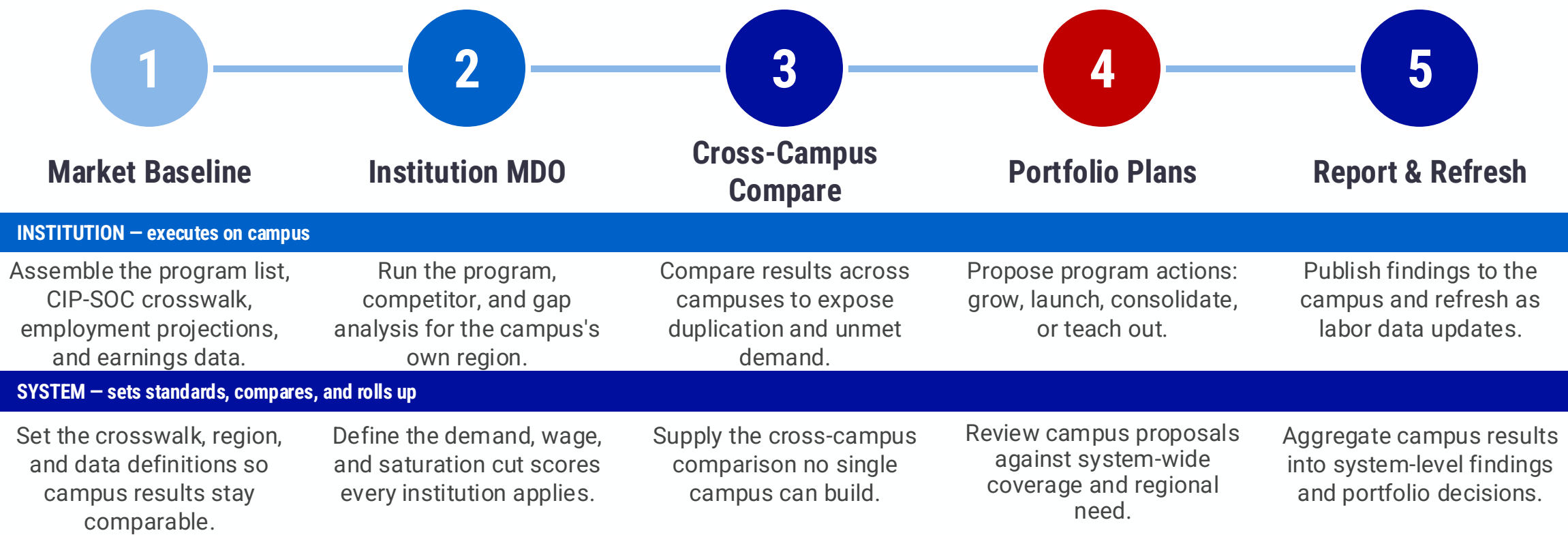
Portfolio judgment: The five measures align external labor market and competitive opportunities alongside internal college measures of student interest and demand — Business Administration offers strong economic opportunity for students but strong competition to recruit and enroll them as well.

Sample MDO Analysis Approach & Output: System Aggregation

Combine the campus analyses and align with the academic program review information to further inform where the system should grow, consolidate, differentiate or share.

MDO System Implementation Roadmap

Who does what at each phase: institutions run the MDO for their own region, while the system sets standards, supplies comparisons, and rolls findings up.



Ongoing: Institutions maintain and publish their own market metrics; the system refreshes cross-campus comparisons each cycle and returns them to every campus.

System Program Analysis

Which programs have the strongest labor-market outlook – and where are they duplicated?

Program	Institution A	Institution B	Institution C	Institution D	System read
Business Administration	Strong	Strong	Strong	Moderate	Offered at all four campuses – reduce duplication
Registered Nursing	–	Strong	Strong	Strong	High demand system-wide – protect and scale
Software Engineering	Strong	Moderate	Strong	–	Strong at three campuses – coordinate to avoid overlap
Cybersecurity	Strong	–	Moderate	–	Strong outlook, only two sites – room to expand
Data Analytics	Strong	–	–	Moderate	Emerging demand – scale up and add a second site
Mechanical Engineering	Limited	Limited	–	Moderate	Softening at two sites – review for consolidation
Organic & Sustainable Agriculture	Strong	–	–	–	Single-campus niche – keep as an Institution A signature

Labor-market outlook: **Strong** | **Moderate** | **Limited** | – Not offered

Illustrative, hypothetical four-campus system.

System Competitor Analysis: Duplication

Where are we producing more graduates than the region can absorb – and where are we short?

Program	Campuses offering	Completions / yr (system)	Regional demand	System read
Business Administration	4 of 4	~420	Moderate	Over-served – consolidate to the two strongest campuses
Registered Nursing	3 of 4	~180	Strong	Demand outpaces supply – protect and grow enrollment
Software Engineering	3 of 4	~150	Strong	Well-aligned – coordinate specializations across sites
Cybersecurity	2 of 4	~70	Strong	Under-served – add capacity at a third campus
Data Analytics	2 of 4	~60	Strong	Fast-growing – scale up and add a second cohort
Mechanical Engineering	3 of 4	~140	Moderate	Softening – review the lowest-yield site for consolidation
Organic & Sustainable Agriculture	1 of 4	~40	Moderate	Niche – retain as an Institution A signature program

Regional demand: Strong | Moderate Red count flags over-duplication. Illustrative, hypothetical four-campus system.

System Gap Analysis: Unmet Demand

Which high-wage, fast-growing occupations is the system under-producing for?

Occupation	Regional openings / yr	5-yr growth	Median wage	System programs	Action
Registered Nurses	~1,200	+9%	\$86,000	3	Scale — expand cohorts and clinical placements
Data Scientists	~450	+31%	\$103,000	1	Invest — add a program at a second campus
Health Information Technologists	~380	+16%	\$62,000	0	Launch — new program; no current offering
Clean-Energy Technicians	~300	+42%	\$58,000	0	Launch — partner locally for clean-energy training
Cybersecurity Analysts	~520	+28%	\$99,000	2	Expand — add a third site to close the gap
Industrial Maintenance Techs	~410	+12%	\$61,000	1	Grow — add an evening / apprenticeship track

System programs vs. demand: **0 = no program** | **1–2 = under-supplied** | **3+ = covered** Illustrative, hypothetical four-campus system.

System-Level Portfolio Decisions

REGIONAL DEMAND, WAGE, AND SUPPLY SIGNALS POINT TO FOUR PORTFOLIO MOVES

Consolidate where supply outruns demand



Business Administration produces ~420 completions a year across four campuses against moderate regional demand – concentrate production at the two strongest sites.

Invest where openings outpace completions



Data Science shows +31% growth at a \$103K median wage with one program; Health Information (~380 openings) and clean-energy technicians (+42% growth) have none.

Specialize by regional employer base



Anchor Cybersecurity where ~520 openings meet just two sites, and Nursing where ~1,200 openings far exceed ~180 completions a year.

Share capacity to cover thin-demand niches



Use joint delivery, shared faculty, and articulation agreements to serve smaller occupational demand without duplicating full programs.

rpK GROUP
from mission to market

MGT