
Client:	Nate Mackinnon	Date:	October 2, 2023
Company:	Massachusetts Association of Community Colleges	Email:	mackinnonn@macc.mass.edu
Project Title:	Free community College Planning		

Project Context

The Massachusetts Association of Community Colleges (MACC) is looking to implement a free community college program in the state. MACC recognizes the critical role that community colleges play in workforce development and aims to explore the potential impact a free community college program would have on economic growth and higher education. MACC and its stakeholders need to understand: (1) the current state of higher education and how a free option would affect the market, (2) The costs of implementing and maintaining a free community college under various models, (3) how to accommodate increased enrollment and staffing due to an influx of new students. Doing so will enable MACC to make well-informed decisions regarding the design and execution of the free community college initiative.

Project Summary

Phase I: Data Collection and Market Research (12 weeks)

Objectives:

- Obtain detailed understanding of the current higher education landscape in Massachusetts and nationally, for reference
 - Capture baseline understanding of current state costs, enrollment rates, student demographics, and existing financial aid programs as they relate to providing community college for free
- Identify number of students currently enrolled, and measure projected demand for free college
 - Examine current populations being served and projected growth percentages
 - Determine growth/adoption projections by region/district/college
- Understand factors and additional growth potential
 - Project effects on enrollment and persistence rates, student demographics, financial aid programs, academic planning, student resource needs, and other key factors

Activities:

- Conduct interviews with administrators of other free college programs to 1) understand practices and policies that will be impacted and 2) to inform survey design
- Conduct interviews with Massachusetts community college administrators to understand opportunities and impacts, and develop hypotheses to inform survey design
- Conduct interviews and/or focus groups with potential students across different populations to understand perceptions, opportunities, and constraints, to enable thoughtful and comprehensive survey design
- Survey potential students to measure interest in free college for those without a bachelor's or associate degree
 - Leverage choice-based conjoint methodology in survey design, deployment, and analysis to simulate markets, decision making, and trade-offs associated with the entry of a new "free" option into the market
 - Conduct deep statistical analysis to model demand curves indicating expected interest/growth and its cascading impacts based on the addition of a free option into the market
 - Total survey sample size will be approximately N=1,000
 - Populations to include in survey sampling include
 - Prospective students – Non-Traditional (N=300)
 - Prospective students – Traditional (N=300)

- Parents of prospective students (N=200)
- Current students (N=200)
(Cicero will rely, in part, on MACC to supply survey sample (email addresses) for a portion of prospective students. A 3rd party market research panel will also be used to source survey sample)
- Compile extensive secondary research of current state costs, enrollment rates, and student demographics to enable effective modeling in Phase II.

Deliverables:

- Summary of interviews, including key insights regarding priorities, expectations, and recommendations
- Overview of market size and higher education landscape, including projected impacts, interests, and perceptions
- Conjoint analysis findings including detailed demand curves and growth projections
- Detailed strategic plan objectives and development work plan for next phases

Phase II: Data Evaluation and Modeling (12 weeks)

This phase is split into two separate workstreams. (1) Financial Analytics and Modeling and (2) Market Growth Logistics and Implementation.

Workstream 1 – Financial Analytics and Modeling

Objectives:

- Identify potential financial models to create and sustain a free college program, and relative associated costs of each model
- Identify all cost factors and unforeseen changes in costs due to growth (leveraging expansive data obtained in Phase I)
 - Increased number of potential students to enroll, and cascading impacts across academic, student affairs, administrative, financial aid, and other functions
- Identify impacts and opportunities based on funding sources and methods
 - Short-term and long-term

Activities:

- Additional interviews with administrators of free community colleges to understand funding structures and potential financial design models and to pressure test initial models and findings
- Secondary research and design of potential financial models
 - Modeling and ideation with different design models including tuition, textbooks, living expenses etc.
- Cost analysis of current students, and potential/unforeseen cost increases due to growth
 - Current cost per student/ potential cost per student
 - Faculty and staff, administrative, and other key increases and potential incentives
- Funding mechanism analysis and feasibility for both short- and long-term needs

Deliverables:

- List of potential financing models with costs of each model
- Cost models indicating cost impacts at different growth projection levels
- Options and considerations for funding structures

Workstream 2 – Market Growth - Logistics and Implementation

Objectives:

- Identify total addressable market and growth effects of program implementation.
- Assess capacity constraints of increased enrollment.
 - Staffing, facilities, technology
- Identify most viable strategies for streamlining applications, enrollment, and registrations processes.

Activities:

- Market sizing analysis to identify the TAM (Total Addressable Market), SAM (Serviceable Addressable Market), and SOM (Serviceable Obtainable Market) – Both current and projected.
- In-depth capacity constraint analysis given demand from conjoint analysis.
- Secondary research of comparable free community college programs
 - Change in enrollment, best practices and policies, communication strategies.
- Charting and graphing demographic data
- Administrative process optimization strategy planning

Deliverables:

- Report of the total addressable market
- Change in enrollment forecast (student demographics, enrollment rates)
- Impact models indicating resource needs, accompanied by potential strategies for streamlining administrative processes

As with Phase I, Throughout Phase II, we expect to be in regular communication with MACC and other stakeholders. We envision that this phase will require a series of facilitated discussions: first the core team, then the full staff, then key external stakeholders to reflect on data points that are especially valuable.

Phase III: Plan Refinement and Presentation

Objectives:

- Determine MACC's best course of action given collected data and financial modeling options
- Aggregate data and models into a comprehensive report and refine the strategic plan and presentation

Activities:

- Data visualization and refinement – creating easily digestible data points to justify recommendations and prepare for socialization with key stakeholders
- Analysis of all available data to design the best course of action for MACC
- Plan development for multiple option menu of recommendations

Deliverables:

- A comprehensive plan package that includes the following materials:
 - High-level report of detailed market, financial, and logistical findings
 - A clear actionable menu of recommendations with various options and associated cost projections
 - Summary of research conducted in previous phases
 - Presentation to key stakeholders, including government officials, education leaders, and community members.

Project Timeline

Phase/Workstream		Week								
		1 -3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27
Phase 1: Data Collection and Market Research	Project kickoff	■								
	In-depth interviews	■	■							
	Survey design		■	■	■					
	Survey design, deployment, analysis, and rough draft			■	■					
Phase 2: Data Evaluation and Modeling	Secondary research			■	■	■				
	Solution development and modeling				■	■	■			
	Market sizing and growth projections					■	■	■		
Phase 3: Plan Refinement and Presentation	Model refinement and optimization							■	■	■
	Data aggregation and report creation							■	■	■
	Final report recommendation and delivery									■

About Cicero

Our team members have a depth of experience from top-tier strategy consulting and corporate firms, institutions of higher education, and government and not-for-profit entities. Our team includes current and former c-level executives, board members, business professors, economists, lawyers, diplomats, researchers, and data scientists. This experience and diversity help us deliver cutting edge methodologies and perspectives to every project. Many Cicero team members speak multiple languages and we have collectively lived and worked across six continents.

Cicero’s experience and expertise in higher education is immense. Cicero’s Higher Ed practice has partnered with a broad range of higher education institutions, systems, and organizations over the course of the last two decades, driving real and actionable impact for each. Particularly relevant to this project, Cicero has conducted sophisticated, in-depth research projects for a bevy of our higher education partners (as well as many large organizations in other industries) and brings deep capacity and perspective to this work. A small sample of our higher education clients is provided below:

Example Cicero Higher Ed Clients



We understand that project details change rapidly, and that responsiveness is essential. Our clients have access to a senior member of the project team 24/7 by telephone or email to answer questions or provide clarification. It is our intention that this relationship is truly collaborative, and we want to be available to be a true partner in the work.

References

The individuals below may be contacted to provide a personal account of the impact that the Cicero Higher Education has had on their organization.

Reference #1	
Institution/Company	McLennan Community College
Contact Name - Title	Dr. Stephen Benson – VP, Finance and Administration
Contact Phone Number	254.299.8649
Contact Email Address	sbenson@mclennan.edu
Project Dates	2021
Project Description	Inquiry-to-Enrollment (I2E) Optimization: Comprehensive analysis and process mapping of the entire I2E process resulting in CSUMB’s deep understanding of its enrollment funnel, plus dozens of specific improvement opportunities to inform prioritization of resources in addressing enrollment funnel leakage.
Reference #2	
Institution/Company	Waubonsee Community College (multi-campus regional community college)
Contact Name - Title	Dr. Jamal Scott - VP, Strategic Development
Contact Phone Number	(630) 466-2881
Contact Email Address	jscott@waubonsee.edu
Project Dates	January 2018 – April 2018

Project Description	Enrollment-optimization and competitive landscape research; heavy secondary competitive landscape research, SWOT analysis, and quantitative studies to drive enrollment, including affordability, scholarshiping, enrollment growth strategy, and population/cohort needs
Reference #3	
Institution/Company	Utah System of Higher Education
Contact Name - Title	Scott Wyatt – Executive Director of Special Initiatives and Statewide Online Education
Contact Phone Number	
Contact Email Address	swyatt@ushe.edu
Project Dates	April 2011 – Present
Project Description	Multiple projects including assessment of opportunities to increase completion rates of adult students, brand perceptions/awareness assessment for multiple USHE institutions, primary research to inform campus safety initiatives

Ability of Professional Personnel

Cicero’s Higher Education practice has been providing consulting services to higher education clients for over 20 years and was a core practice of Cicero Group when it was founded in 2001. The Higher Education practice also benefits from the expertise of other practices within Cicero Group, most notably the Social Impact practice and EdDirection, its K-12 education practice.

The key personnel for this engagement have a wealth of experience in the higher education space, accumulated through a combination of experience working for post-secondary organizations and years of consulting experience for higher education clients.

Bios of Cicero team members are included below to provide perspective on the level and depth of expertise that Cicero brings to each client engagement. Aaron Andersen, who leads Cicero’s Higher Education practice, will serve as Cicero’s lead on the project, with an expert team comprised of highly qualified consultants and researchers led by Ben Aplanalp. on a day-to-day basis. *NOTE: Specific individual qualifications for the additional project team members can be provided based on the timing of the project, as individual analyst and associate assignments cannot be made (or promised) until the project timeline is firmly established. Bios of potential team members are provided here for information only.*



Aaron Andersen
Senior Partner, Higher Ed Practice Lead

Prior Experience

- Principal Organizational Consultant, University of California Berkeley
- Senior Policy Analyst, University of California Berkeley
- Teaching and Research Fellow, Harvard University
- Associate Director, Program Administrator, Utah State University
- Harvard University, EdM
- Cornell University, MPA
- Utah State University, BA History

Aaron Andersen is a Senior Partner at Cicero Group and serves as executive lead for Cicero's Higher Education practice. In this role he focuses on helping systems and institutions of higher education develop data-driven strategies to improve student outcomes, enrollments, and operations.

Prior to joining Cicero Group, Aaron worked for over a decade in leadership roles in higher education. His experience included high-profile direction of large-scale operational restructuring efforts, consolidating disparate business units into new reporting, data management, and program delivery structures. In addition, he has led significant vertical optimization initiatives, bringing marketing, acquisition, conversion, and retention efforts into alignment around aggressive organizational targets. His experience also included key roles managing cost and resource management and allocation processes through periods of institutional retrenchment, evaluating and standardizing policies across business units, and architecting solutions to align faculty and administrative interests.

Specific to his higher education work since joining Cicero Group, Aaron has led large-scale engagements with institutions and systems across the country, helping these systems to develop and implement comprehensive student outcome improvement-focused strategies across a range of different approaches including strategic planning, analytics and data strategy, operations improvement, and program evaluation and development, among many others.



Ben Aplanalp
Principal

Prior Experience

- Management Consultant, RLG International
- Account Manager, Hilti Inc.
- Financial Analyst, CellTrust Corporation
- Thunderbird School of Global Management, MBA
- University of Utah, BA Finance

Ben Aplanalp is a Principal with Cicero Group. Ben has experience in a variety of industries including Higher Education, Education-Serving Non-Profit for both Higher Ed and K-12, Transportation Logistics, Oil & Gas, Biotech, Software Security, Chemicals, Shipbuilding, Construction, Waste Removal, Marketing & Sales, and Tech Startups. He has made

significant contributions in solving clients' business challenges in the areas of process optimization, project management, change management, implementation, leadership coaching and salesforce transformation. Ben drives impact through strategic thinking and thoughtful implementation, utilizing data-driven strategies to achieve meaningful, sustainable improvement for client partners.

Prior to joining Cicero, Ben worked for 5 years as a Management Consultant/Project Manager with the Canadian firm, RLG International. There he partnered with clients to optimize operations and capital projects, and to develop leadership teams. In this role, Ben spent 3+ years living and working in Australia with various multinational Oil & Gas companies in the LNG (Liquefied Natural Gas) sector. Before his time with RLG International, Ben worked as an Account Manager with Hilti Inc. serving San Diego area clients in the Energy Production, Public Utilities, and Shipbuilding industries.

Ben has earned an MBA from the Thunderbird School of Global Management and a bachelor's degree in Finance from the University of Utah.

Example Contributing Personnel



George Wong
Engagement Manager
Prior Experience

- Senior Consultant, Equation Consulting
- Operational Effectiveness Manager, Bell Canada
- *Rotman School of Management, MBA*
- *University of Waterloo, Honors BSc Chemistry*

George Wong is an Engagement Manager at Cicero Group. Since joining in 2018, George has leveraged his background and experience to deliver value on strategic & operational transformation, post-merger strategy, change management, private equity due diligence, product optimization, marketing, competitive analysis, customer segmentation, and customer experience engagements to Cicero's clients. These clients have spanned a wide range of industries including technology (both hardware and software/SaaS), healthcare, energy, and transportation/logistics.

George has also applied his skills and experience to Cicero's social sector clients, including institutions of higher education and non-profits. This work has focused on areas such as impact measurement & evaluation, enrollment and graduation rate improvement, and strategic repositioning of mission & vision.

Prior to joining Cicero, George was a Senior Consultant at Equation Consulting, an analytics-focused healthcare consulting firm, where he provided advisory services to hospitals, health systems, and physician groups of all sizes - including two of the top five largest not-for-profit hospital systems in the US. Notable engagements include the development of a multi-year physician staffing plan for a five-hospital health system and an operational transformation engagement that guided the newly installed senior leadership team of a regional medical center in reversing entrenched trends of underperformance.



Taylor Thurman

Associate

Prior Experience

- Operations Manager, Wildlands Network
- Youth Development Specialist, U.S. Peace Corps
- *University of Michigan, MSW – Master’s International*
- *University of Utah, BS Social Work*

Taylor is an Associate at Cicero Group. In this role, she provides strategic insight and direction to a variety of public and private entities. Taylor’s expertise spans higher education, social impact, organizational operations, process improvement, and international development.

Prior to joining Cicero Group, Taylor was the operations manager at Wildlands Network, a continental-scale landscape conservation nonprofit. During this time, Taylor developed a formal framework for organizational operations and process management. Prior to Wildlands Network, Taylor worked for Peace Corps’ Youth Development sector in Costa Rica. There she primarily focused on the development, implementation, and evaluation of positive youth programming in schools. She also previously worked as a homeless outreach coordinator and case manager for Volunteers of America, Utah.



Constanza Nicolini

Business Analyst

Prior Experience

- Market Research & Sales Operations Head Intern, Enea Openwave
- Design Thinking Intern, Scotiabank Digital Factory
- Computer Science Teacher Assistant, Georgetown University
- *Georgetown University, BSBA – Finance, Operations, and Information Management (OPIM), Computer Science*

Constanza Nicolini is a Business Analyst at Cicero Group. In this role, she has primarily provided support to private equity clients in consumer goods, technology, and retail spaces. During her time at Cicero, Constanza has conducted extensive quantitative and qualitative research, performed pre-deal due diligence analyses, and assisted in change management projects.

Prior to joining the firm, Constanza interned at Enea Openwave as a market research and sales operations head intern. At this role, she had the opportunity to transform the company’s reporting systems by fully automating them using VBA language. Constanza also worked at Scotiabank where her efforts helped the company digitalize their in-person banking operations.

Examples of Cicero's Higher Education Work: Case Studies

Below are several case studies that detail the types of projects that our Higher Education practice leads, and the value Cicero offers.

NOTE: Cicero commits to each of our clients that unless our work/partnership is established as being public, we hold the specific details and results of that work (beyond general, high-level summaries) confidential unless we have been granted specific permission to share those details. Therefore, upon request, Cicero may request from any of our system and/or institutional partners permission to share greater details of the relevant work we have executed on their behalf if it will benefit MACC's evaluation committee's understanding of our capacity to execute this engagement.

CASE STUDY #3: Large, Multi-Campus Community College in the West – Messaging and Audience Strategy for Implementation of New Learning Model and Programs

Project Objective

Our Client was planning to implement a pathways model as a future innovation and improvement on its educational offerings. Given the relatively novel and unfamiliar model, the College wanted to understand how to best implement it with minimal disruption to the current student body, while also effectively messaging the benefits and innovative aspects of this model to additional audiences, including current students, prospective students, and influencers of prospective students (namely, parents and high school counselors). The institution also needed to understand how to best address common concerns and what critical information it would need to be disseminated prior to the transition to the new model.

Approach

Cicero, in partnership with an advertising / branding agency, collaborated with the College to design and execute comprehensive, qualitative, and quantitative research with audiences across the College's state. Cicero and client stakeholders focused on designing two separate but complementary research approaches with student audiences and influencer audiences, allowing the findings and insights to build upon one another into a comprehensive strategic framework. Interviews and focus groups were first utilized to generate hypotheses around key terminology and key concerns, and then a widely distributed survey was used to quantify insights and prioritize strategic imperatives.

Results

Combining the results of both the qualitative and quantitative research, Cicero Group developed an in-depth toolbox for the client to utilize when developing messaging and resources for the upcoming transition. Cicero utilized the insights and quotes from the qualitative research to add nuance and understanding to the quantitative findings which enabled the research to be broadly shared across campus without fear of misunderstanding of different interpretations of critical terminology and findings. Cicero identified the key concerns among both students and influencers, including what differentiated the concerns across groups and where the concerns overlapped, informing collateral development and resource allocation. Additionally, the research proved critical in refining a last-minute programmatic name change that reduced confusion and drove more positive associations with key aspects of the program such as opportunity, support, and outcomes.

CASE STUDY #4: State Higher Education System – Perceptions of Higher Education and Barriers to Enrollment

Project Objective

Cicero’s client, a state higher education system, was concerned about recent declines in post-secondary enrollment at its member colleges and universities and wanted to understand the drivers behind this trend. Specifically, the client wished to determine if prospective students were shifting in their overall perceptions of the value of post-secondary degrees if the brand messaging from individual institutions was no longer resonating. Furthermore, the client wanted to know what systemic issues were preventing students from successfully enrolling in its member institutions. A secondary objective of this research was to determine if certain populations, namely minority and non-traditional students, were experiencing outsized impacts of these trends. The results of this research would be used to drive marketing campaigns at both the institution and system levels to increase applications, as well as form the basis for improvement initiatives that would ease and remove barriers from the application/enrollment process.

Approach

Cicero worked with the client system and its member institutions to develop a two-pronged approach of both qualitative (IDI) and quantitative (online survey) methods that would gather the thoughts and perspectives of numerous stakeholder groups. These groups included prospective students, current students, prospective students who abandoned their enrollment before matriculation, parents of each student type, and high school guidance counsellors. The research tools were designed to not only gather the perceptions of each respondent group towards the value and purpose of higher education and specific institutions, but also understand the underlying drivers that motivate each group in when making decisions concerning their many options for post-secondary education.

Results

The quantitative research was used to provide the client with a clear understanding of the beliefs that each respondent group has with respect to the life goals they are looking to achieve, their perceptions of what post-secondary education and specific institutions have to offer, and the degree of alignment between the two. Qualitative findings were used to provide additional context to all findings and help make them more tangible. Cicero also identified the critical process and systemic points where prospective students need more support to successfully navigate the enrollment process. This research informed a variety of initiatives to be implemented at the system and institution levels centered on developing providing more impactful information and resources to students, parents, and counselors at the appropriate times, modifying brand messaging to create greater alignment with the evolving priorities of prospective students, and creating an application and enrollment system with more optimal processes that reduce the barriers that hamper student matriculation.

CASE STUDY #5: University Specializing in Health Sciences with Nationwide Campus Network – Expansion into Full Slate of Health Sciences Certifications and Degree Programs

Project Objective

The university was contemplating an expansion into a full portfolio of Health Sciences Programs across its broad network of campuses. The institution had multiple degree offerings in the field of nursing, but wished to explore expansion into

other Health Sciences offerings, including both degree, and certificate programs nationally, and regionally. The organization required robust, reliable research to inform their decision about which programs and fields to develop, as well as extensive support in building associated development plans.

Approach

Cicero collaborated with the client to devise a research approach that included in-depth industry (desk) research, secondary market research and data analysis, plus primary market research across multiple populations. Leveraging these methods, the team examined market demand for potential new programs, expansion of existing programs, potential market acceptance of this university as the provider of these programs, as well as perceptions of both current students and alumni regarding proposed expansions.

Results

At the conclusion of this research, Cicero’s team was able to identify multiple programs that presented worthy expansion opportunities for the university based not only on market demand, but on alignment with the institution’s unique capabilities and objectives. Programs were prioritized based on fit and opportunity, while others were identified as programs to avoid. This research also informed the development of integrated branding for the new slate of programs and created pathways to communicate expanded offerings and subsequent branding, marketing, and messaging efforts to key stakeholder populations, prospective students, and partner organizations.

Project Fees

It is anticipated that the proposed scope of work will take 10 months to complete, including final readout with MACC.

Project Fees

	Professional Fees*	Hard Costs	Total Fees
Phase 1 – Data Collection and Market Research	\$170,000	\$38,000	\$208,000
Phase 2 – Data Evaluation and Modeling	\$160,000	N/A	\$160,000
Phase 3 – Plan Refinement and Presentation	\$78,000	N/A	\$78,000
			\$446,000

Cicero team travel, if required, will be billed to MACC at true cost, with Cicero adhering to any relevant MACC travel policy and reimbursement guidelines.

The above project costs are all-inclusive of the actions/services described in this proposal, including:

- Project management & ongoing collaboration with MACC team members
- Coordination of all logistics related to the project
- Strategic thought leadership throughout the project (including Cicero team members being available for multiple meetings throughout the engagement)
- Design of all required documents, including in-depth interview guides and survey questionnaires
- Robust reporting of all research