

PROPOSAL TO UNIVERSITY OF WISCONSIN-SUPERIOR

Burning Glass proposes to provide University of Wisconsin-Superior with detailed real-time job posting data and a custom research report to assess the labor, skill and certification demands impacting UW-Superior's current academic programs and to evaluate potential new programs. Burning Glass will provide these data and the report in support of the following goals, outlined below:

Leadership and staff at UW-Superior seek to conduct a two-state environmental scan analysis of supply and demand for workers with particular educational credentials, within a 200 mile radius of Superior, WI. The goal of this analysis is to identify which skills and certifications present the greatest opportunities for labor market payoffs, both to satisfy regional workforce needs, and to grow the University's enrollment. In addition to this environmental scan, UW-Superior seeks detailed analyses of the enrollment potential for current and potential academic programs to inform University leaders about where to focus resources and expansion efforts.

To support these analyses, Burning Glass will draw from its detailed database of online employer demand, which includes nearly 100 million current and historical job postings. Burning Glass collects postings from over 40,000 online job sites to develop a comprehensive, real-time portrait of labor market demand. Our software extracts top line information about each job such as title, employer and industry, and then "reads" each job description to identify actual job titles, skills, and qualifications that employers are seeking. We then eliminate duplicate postings and place each job in a database for further analysis. Our detailed data offer the unique ability to identify and track important labor market trends as they happen, and before they are visible in other data series. We will further supplement and crosswalk our data with other published data sources, such as from the Bureau of Labor Statistics, Census Bureau, state LMI agencies, other local data sources etc.

PROJECT OVERVIEW

Burning Glass is pleased to offer its custom research services to assist UW-Superior in advancing the goals described above. A brief overview of our proposed services is as follows:

The Burning Glass Applied Research Team will produce and deliver a custom research report that supplies data and analyses that will address the three core deliverables embodied within the Request for Bids:

- > Environmental Scan of Regional Labor Market Demand
- > Supply and Demand Analytics Focused on Regional Education & Training Providers
- > Recommendations with Supporting Justifications

The Environmental Scan of Regional Labor Market Demand will provide UW-Superior with the most comprehensive data and insights regarding employer demand for talent across industries currently available. Burning Glass will draw demand-side insights from our world's-largest database of historical online job postings to inform University staff and leaders about the roles, skills, certifications and employers that present the best mix of opportunities for UW-Superior graduates to achieve labor market payoffs.

Next, Burning Glass will deploy its proprietary technology and nationally recognized approach to illuminating the supply and demand analytics of regional economies to assess the relative fitness of thirty-six (36) current academic program offerings of UW-Superior against employer demands within the targeted geographies. In addition to the analysis of UW-Superior's current academic programs, we will also deliver supply-side data and analyses that will inform University leaders about the prevalence of degrees awarded regionally, indexed against the distribution of educational requirements employers are asking for, as well as supply side analytics for UW-Superior's degree completers, indexed against completers of similar programs of study at up to six (6) additional training providers (to be specified by UW-Superior.)

Finally, we will supply UW-Superior with a number of recommendations, accompanied by supporting justifications based upon data and analyses from a comprehensive mix of proprietary and publically available sources. These recommendations will include a classification of all thirty-six (36) current academic programs to reflect each programs current state of alignment with regional demand. It will also include data and insights to support the recommendation of up to twelve (12) new academic program offerings for further review by the University.

ENVIRONMENTAL SCAN OF REGIONAL LABOR MARKET DEMAND

Addresses the following RFB requirements:

- *Data regarding annual average openings in specific fields within a 200 mile radius of Superior, WI.*
- *Evaluation of labor market demand within a 200 mile radius of Superior, WI.*

Burning Glass will supply UW-Superior with a report that contains an environmental scan of market demand for workers within a 200 mile radius surrounding Superior, WI. The environmental scan will include an analysis of how hard it is for employers to fill top positions, and which skills and certifications can help UW-Superior's graduates stand out in the job market. Specifically, Burning Glass will provide data on the following indicators:

- > **Summary of demand** – Burning Glass will group jobs by field of study and by occupation. It will then provide the total postings and top titles within each category for 2013 or the past twelve months (whichever is preferable to the University,) along with an analysis of top locations as

evidenced by online jobs postings activity. The summary will include identification of the top regional employers posting for these roles online.

Alignment to Local Strategic Planning and Workforce Planning Initiatives: In creating the environmental scan, Burning Glass can organize jobs around industry clusters that are part of economic development initiatives such as WI's Be Bold initiative or occupation groups that are part of the university's strategic plan. This flexible approach to alignment enables university stakeholders to connect the analyses provided by Burning Glass to ongoing initiatives in the region.

Degree to Occupation Crosswalk: To create this summary of demand by program of study, Burning Glass will leverage its proprietary degree to occupation crosswalk. We have mapped the occupations which represent strong targets for graduates of each degree based on the credentials employers demand and the transition commonly observed through analysis of Burning Glass's proprietary database of resumes. Our degree mapping, and our organization of data for UW-Superior goes beyond the very narrow matches offered by the traditional government crosswalk. Looking at history majors for example, our system goes beyond the suggestions of historian and history teacher to include legal and government jobs such as paralegal and policy analyst, writing intensive jobs such as editor and journalist, and a range of other jobs based on the skills the history major typically develop in the course of their studies. Our approach allows university analysts to assess the full demand for graduates of each program.

- > **Analysis of required skills and certifications** – the most commonly requested skills for graduates of each degree program, and the educational credentials and certifications that serve as evidence to employers that job candidates possess those in-demand skills.
- > **Skill Gaps** – which top jobs do employers take longest to fill? Long posting durations can be a sign that the supply chain for a particular job is broken.
- > **Employment trends (from OES data)** – employment trends, ten-year projected demand for occupations, and average salary and/or wage data using Bureau of Labor Statistics projections.

If the university desires, we will provide the above indicators at two levels of geographic detail. We will provide local data for the Duluth/Superior Metropolitan statistical area and for the 200 mile radius specified. We suggest looking at both levels of detail, as the 200 mile radius includes larger cities such as Minneapolis-St Paul, Minnesota and Eau Claire Wisconsin, which may prevent reader from understanding the specific needs of local employers.

SUPPLY/DEMAND ANALYTICS FOCUSED ON REGIONAL EDUCATION & TRAINING PROVIDERS

Addresses the following RFB requirements:

- *Number of unduplicated degrees granted by CIP code and type from key competitor Colleges/Universities within a 200 mile radius of Superior, WI.*
- *Comparison of UW-Superior (and up to 6 competitor institutions) degree completions to external demand within a 200 mile radius of Superior, WI.*
- *Data that indicates if the programs at UW-Superior are meeting/exceeding labor market demand.*
- *Evaluation of the labor market in the region and what areas of employment are undersupplied/oversupplied with specific degree types.*

DEGREE COMPLETION AND COMPETITOR DATA

Burning Glass will provide the number of unduplicated degrees by CIP code and by institution type for colleges and universities within a 200 mile radius of Superior. As noted above, to the extent that UW-Superior wishes to focus on its local region and economic base, we are also happy to provide these same statistics for the Duluth-Superior MSA or another more narrowly constrained geography. We will also provide institution specific data for UW-Superior and up to 6 competitor institutions.

SUPPLY-DEMAND ANALYTICS

Burning Glass offers two types of analytics to assess the alignment of labor market supply and demand. As noted above, we can use demand information to measure workforce supply. Jobs and skills that employers take longer to fill are likely jobs where there is not a sufficient supply of local talent. This is provided as part of the Environmental Scan.

We have also developed a demand/supply calculator which uses advanced analytics to compare degrees completed (through IPEDs data) with employer demand (as measured by entry-level job postings). This tool can assess which occupations and which programs are over or under supplied by local education institutions. This calculator combines our comprehensive job postings database with the degree to occupation crosswalk described above.

Importantly our mappings and the associated apportionment algorithms allow for a single degree to feed into multiple occupations and for multiple degrees to feed each occupation, a critical feature for assessing the relative supply and demand for non-technical and non-occupationally specific programs.

Our analyses will allow UW-Superior to specifically assess which programs will provide the strongest job prospects to new grads in terms of entering an undersupplied job market, finding well-paying occupations, and aligning programs with the employers' skill demands.

RECOMMENDATIONS WITH SUPPORTING JUSTIFICATIONS

Burning Glass will provide UW-Superior with two distinct sets of data-driven recommendations regarding current and future academic program offerings. Each recommendation offered will be accompanied by a summary of supporting justification based on the research and analyses conducted by our Applied Research Team.

CLASSIFICATION OF CURRENT OFFERINGS BY DEGREE OF MARKET ALIGNMENT

Burning-Glass will draw upon insights produced in our complete analysis of local supply and demand analytics to distribute up to thirty-six (36) academic programs into one of three categories. In assigning programs to categories, the Applied Research Team will place primary emphasis upon assessment of a program's ability to sustain or grow student enrollment. We will also include analyses of how specific expansions or redesigns within existing programs might yield enhanced labor market payoffs for successful completers. Specific factors and data supporting the classifications will be highlighted for each program within the following categories:

- > Above Average
- > Average
- > Below Average

Embedded within Burning Glass's recommendations will be adaptations of existing research designed to help degree programs identify jobs and skills which, if taught to students, enable them to be competitive candidates for a broader range of jobs. For example, we completed a study of the skills which liberal arts majors can add to double the number of job openings eligible to them. ([Click here to view the report.](#)) We will also highlight areas where internships and work-based learning are particularly critical to gaining employment. See for example our research on demand for internships ([click here to view](#)). We can also provide UW-Superior with lists of employers who commonly post online for internships by degree category. This can be used to further develop and enhance the university's connections between learning and work.

RECOMMENDATIONS FOR DEVELOPMENT OF NEW ACADAMIC PROGRAM(S)

In addition to recommendations regarding current program offerings, we will deliver insights to inform the University about opportunities to develop new academic programs that can attract new students

and provide strong career and earnings potential to University graduates. Each recommendation will be supported by underlying data and analyses that shed light on the employer demand, skills-gap indicators, trends analyses, and supply-side analytics that support University investments in program development and/or expansion.

All recommendations and findings contained within our report will be presented to UW-Superior in-person by our Research Lead, Jim Shanahan, Ph.D.

PROJECT TEAM

Burning Glass will manage the project by deploying a senior team with the expertise and experience needed to ensure project success. Our approach to Project Management focuses on achieving the goals identified in the RFB and reiterated in this proposal. Our senior team, charged with ensuring successful project implementation and operations, is as follows:

Project Manager: Dan Restuccia, Director of Applied Research

Mr. Restuccia, oversees Burning Glass's services division and is an expert in using job posting data to support institutions of higher education to make informed decisions connecting their program offerings to employer demand. Prior to joining Burning Glass, he worked on K-12 and higher education reform issues with Jobs for the Future, Clark University and the Boston Plan for Excellence.

Research Lead: Dr. James Shanahan.

Jim Shanahan, Ph.D, will be research lead in charge of the project. In that role, he will provide the operational leadership for the Project Team, monitor the project management progress, and perform and deliver primary analyses to the University. Jim is an economist who recently served as the Director of the Entrepreneurship Innovation Institute at Lorain County Community College, in Cleveland, Ohio. He is an experienced consultant, researcher and evaluator to workforce and economic development systems, and over his career has helped create and advise several industry/higher education initiatives including the Northeast Ohio Regional Information Technology Engagement Board (RITE); the Advanced Manufacturers Council for Mahoning & Shenango Valley, OH/PA; the Northeast Ohio Workforce Initiative; and the Akron Area Joint Economic Council. Jim's full C.V. and references to published reports are available upon request.

Research Analyst: Burning Glass maintains a team of junior analysts who are expert in public and proprietary sources of data on the job market. Specific analyst resources will be assigned at the commencement of the project.



Burning Glass has been in business for more than 15 years and we have extensive experience managing multiple projects and priorities. We enjoy a well-deserved reputation for meeting and exceeding expectations for timely delivery and performance of all project requirements.

Our keys for managing, prioritizing, and controlling multiple projects include:

- Regularly prioritize and re-prioritize project tasks (at least weekly, and often daily)
- Regularly monitor and evaluate project schedules to ensure appropriate resource allocation and adjust as necessary
- Continuous tracking of tasks and status
- Maintenance and update of a master project calendar
- Provide regular progress/status reviews, both internal and external

TIMELINE

Burning Glass is able to commence performance of this project upon execution of our Research Services Agreement (RSA.) We will deliver the research analyses described above within two months of the execution of the RSA.

PRICING

Burning Glass will undertake and deliver the research analyses described above and deliver for \$48,750.

ABOUT BURNING GLASS

Burning Glass, a leading labor market analytics firm, is playing a growing role in informing the global debate on education and the workforce. Founded in 1999 with the goal of developing the world's leading technologies for matching people with jobs, our technologies deliver insight across workforce and economic development, career exploration and counseling, and job matching. Burning Glass solutions drive critical workforce, education, and economic development initiatives for more than a dozen state and national governments, as well as numerous educational institutions, regional agencies, global recruitment agencies, major employers, and job boards.

For more information, contact Stephen J. Lynch, Director, Workforce and Economic Development Services, slynch@burning-glass.com