



Creating an Affordability Tool to Benchmark Graduates' Outcomes:

How HelioCampus Helped UMB Define Education ROI for Students

As Maryland's only public health, law, and human services university, the University of Maryland, Baltimore (UMB) prepares its graduate students to be the next generation of global health professionals.

Enrolling more than 6,700 students

in six nationally ranked professional schools spanning dentistry, law, medicine, nursing, pharmacy, and social work, UMB offers

76 doctoral, master's, baccalaureate, and certificate programs.



Seeking to fulfill a strategic goal of ensuring accessible academic programs to scholars of all races, ethnicities, and income levels, UMB undertook an expansive research project to help answer a unique question: **Are UMB grad programs affordable for the individual students they serve?**

"In the report from UMB's last accreditation, we identified the affordability of our professional programs as a key area to target," says Gregory C. Spengler, MPA, UMB's associate vice president for institutional effectiveness. "With the vital focus we have on professional degree programs, we don't want to limit any student who wants to choose health sciences as a profession."

Recognizing that the answer required an innovative data analytic solution, UMB partnered with HelioCampus to devise a first-of-its-kind, data-rich way to evaluate the true affordability of a UMB education.

And because it confers the majority of professional practice doctoral degrees awarded in the state each year, the university plays a key role in meeting growing workforce demands in the health, legal, and social work fields.

Why Affordability Matters

With Americans' student-loan debt load doubling in the last decade, it's estimated that about one-third of adults under age 30 currently carry outstanding student loans, according to a recent analysis by Pew Research Center.¹

Like all higher education institutions, UMB was well aware of the fact that growing numbers of students were accumulating significant additional debt before graduating. But because 64% of UMB students pursue professional graduate degrees, total costs are often higher than other graduate programs. Average debt held by its dentistry graduates, for example, reaches more than \$200,000, notes Spengler.

If paying off debt is perceived as too difficult, students become limited in their career choices. For example, **"we want medical-school graduates to be able to pursue a range of medical fields. We don't want to produce doctors who can only go into the field of surgery to pay off their debt,"** says Spengler. **"And we also want the people of Maryland to have access to a wide range of medical services everywhere in the state – even those fields that don't pay as highly."**

¹ <https://www.pewresearch.org/fact-tank/2019/08/13/facts-about-student-loans/>



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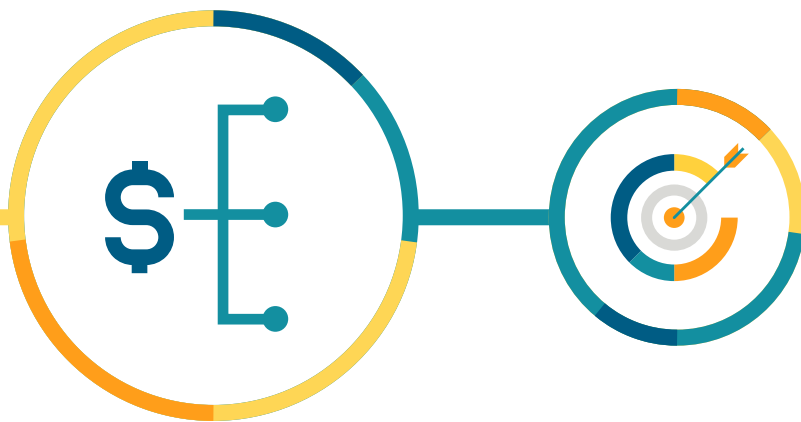
**Average debt held by
UMB dentistry graduates,
reaches more than
\$200,000**



Defining Affordability

While many national discussions about college affordability tend to focus on rising tuition prices and other expenses relative to family income, UMB wanted to instead focus on whether students – regardless of economic background – could reasonably expect to earn a good living in their chosen field, even after paying for their education.

Armed with that mandate, UMB and HelioCampus developed a two-phase plan to understand what accessibility and affordability look like – not just in theory but in practice.



The goals of the partnership were to:

- › Develop a model of affordability, particularly in the context of professional programs;
- › Gather and integrate available data to show historical debt and repayment trends; and
- › Develop a tool to estimate what affordability might look like to a diverse range of current and prospective UMB students.

Designing the Affordability Study

First, the HelioCampus team examined prior research efforts to define college affordability. What they found was that most analysis to date focused only on undergraduates – and didn't focus specifically on individual affordability levels. Moreover, there were no studies that used wage data to estimate how much students can really afford to pay out of their future incomes to retire debt.

Next, the team assembled a sample of 1,000 graduates across all professional degree programs over a seven-year period. HelioCampus then built a data set that integrated data from a variety of internal and external sources.



Key variables analyzed included:

- › Academic program;
- › Occupational wage comparisons – nationally and in surrounding Maryland regions;
- › Salary benchmarks;
- › Percent of a graduate's discretionary income used for repaying debt; and
- › How many years it took to repay educational costs.

Finally, HelioCampus created a digital tool to allow UMB leadership to analyze and interpret the data.

Merging Metrics Into Actionable Data

The result is the Affordability Estimator Tool, a first-of-its-kind tool that fully utilizes UMB's institutional data systems, integrating that data with state-produced salary information. With easy-to-use, interactive dashboards, UMB's leadership can now visualize the affordability of various professional degrees across categories such as student demographic, future occupation, and geography.

For example, a user can create a profile of a typical pharmacy student with average debt, and then match it against regional data of pharmacists' earnings and the cost of living in different parts of Maryland. Users can also input custom debt levels to match cases where they have unusually low or high debt. By generating a regional map of precisely where its degree programs would be most or least affordable based on where a graduate lives and works, the user can then forecast affordability for that student at a remarkably individual level.



"It was a way to look at something that had been thought about theoretically but has never been applied to a real-world situation," says Spengler. **"We never had the data to say 'yes, this is affordable' before."**

Proving Return on Investment

In fact, when it comes to comprehensively measuring affordability, nothing is currently as data-expansive or intensive as the model UMB and HelioCampus developed, adds Spengler.

“No one else has examined the impact on the individual students – what their debt profile is and how it can differ across demographic perspectives. Our model is unique.”

According to Spengler, results showed:

- › Even with high levels of graduating debt, UMB programs are broadly affordable for the majority of its graduates;
- › Graduates across different races and ethnicities accrue debt differently;
- › Geography matters for debt accrual, earnings, debt repayment, and therefore, affordability; and
- › Underserved areas of the state are often also the most unaffordable.



Informing Vital Decisions

The implications of the Affordability Estimator Tool are exciting, says Spengler. Using the tool, UMB leaders can begin to create targeted interventions to support specific student demographics; improve access, equity, and fairness; use financial aid resources more wisely; and review tuition policy.

Spengler also sees an opportunity to expand the program beyond UMB. "There is an opportunity for this to move beyond our one institution," he notes, "and eventually look at affordability across our entire university system."

Spengler knows that his team could not have created such a groundbreaking tool without the specialized expertise of HelioCampus. "This project went way beyond the nuts-and-bolts of hiring an IT company to help run data," he says. "HelioCampus understands the landscape of higher education, and so they were able to look at the findings through a policy perspective. That's incredibly rare."



Connect your data dots.

If you would like more information on HelioCampus solutions, email info@heliocampus.com.