

## Remapping the Collection Process of Student Information for the Costello College of Business Career Services Center

A Professional Readiness Experiential Program (PREP) Project Effort

### ----- *Authors / Student Project Team Members* -----

**Malik Waleed Ahmed** is a student at George Mason University graduating with a bachelor's degree in Management Information Systems. Malik also works at Amazon and is constantly learning new skills outside of work and college to attract new opportunities.

**Daniel Bayliss** is a student at George Mason University graduating with a bachelor's degree in Management Information Systems and currently works for Lowe's hardware, handling sales in the Inside Lawn and Garden Department, while completing his undergrad. Outside of the classroom, he has a passion for leadership and helping those around him achieve more than they could before, acting as a mentor, source of advice, and a listening ear for those around him.

**Albert Zheng** is a student at George Mason University graduating with a bachelor's degree in Operations & Supply Chain Management and a minor in Finance. Outside of school, Albert is an active realtor and property manager and works part-time at the Army Navy Country Club. In his free time, he spends much of his time golfing, fishing, and playing guitar.

**Jeremy Austin** is a student at George Mason University graduating with a bachelor's degree in Management Information Systems. This prospective business graduate works at the PX Exchange on the Fort Belvoir military base, where he inputs data into systems, takes inventory of store products, and manages advertising for product promotions. He also has an interest in computer systems and is slowly but surely developing skills in computer hardware engineering.

### ----- *Industry Participant / Mentor* -----

#### **Kerry A. Willigan**

Assistant Dean, Office of Career Services  
George Mason University's Costello College of Business  
[kwilliga@gmu.edu](mailto:kwilliga@gmu.edu)

### ----- *Faculty Member* -----

#### **Brian K. Ngac, PhD**

FWI Corporate Partner Faculty Fellow  
Assistant Dean, Centers of Excellence  
George Mason University's Costello College of Business  
[bngac@gmu.edu](mailto:bngac@gmu.edu)

*Interested in being an Industry Participant and or PREP Sponsor? Please reach out to [bngac@gmu.edu](mailto:bngac@gmu.edu), Thanks!*

---- Client Testimonial ----

*“I truly enjoyed working with this outstanding group of students throughout the semester. They showed up to each weekly meeting fully engaged, consistently prepared, and eager to contribute. What stood out most was the level of thoughtfulness they brought to our discussions, each one asking insightful questions, challenging ideas in a constructive way, and building on each other's perspectives.*

*As they worked through the challenge I presented, they demonstrated strong collaboration, creativity, and a willingness to iterate on their ideas. I was especially impressed by the quality and thoroughness of their final documentation. Their proposed solution was not only well-developed, but clearly communicated, reflecting both critical thinking and attention to detail.*

*It was a pleasure to work with such a motivated and thoughtful group, and I have no doubt each one will continue to excel in their future academic and professional pursuits. Don't forget, Costello Career Services is always here to help, and don't forget to complete the Career Outcome survey in the future!!!!”*

- Kerry Willigan | Assistant Dean, Office of Career Services | George Mason University's Costello College of Business

### **Introduction**

Our team has taken on the challenge to help the Costello College of Business Career Services with improving career outcome data collection and reporting. To achieve our desired outcome for the project, we closely discussed goals and expectations among group members and recipients of the final product.

### **Business Challenge**

The business challenge that the Costello College of Business Career Services (CCBCS) initially presented was an issue with data tracking for their students. Specifically, CCBCS needed to generate reports on student career success both before and after key milestones, undergraduate, graduate, and terminal program completion. Data for this included key metrics such as annual salary, firm employed with, and duration of job search.

After meeting with our client, we found that their current system, or rather the lack thereof, was unreliable at creating data-driven insights due to the nature of its disjointed information sources and the lack of engagement from the university's students. We found that CCBCS was pulling information from different sources, including data broker purchases, loose Excel sheets, LinkedIn info scrapes, and more. From this we found that the business problem covered two key issues, first, the creation of a centralized data system for easily accessible information, and second, establishing a cultural shift in the student population away from "I don't care, I'm just here to get my degree" and toward "These people actually care, let me go talk to them" such that the data platform can be continuously populated after system installation.

Furthermore, we found places where data could be collected that had previously gone uncaptured, namely, the undergraduate graduation application, alumni event registration, and the graduate school application.

### **Activities Done to Address the Business Challenge**

To overcome this challenge, the group first examined the existing AS-IS procedure and found several major problems, such as irregular survey schedules, low participation, unreliable data, and a lack of centralized ownership. To comprehend the intended KPIs, such as employment status, salary, internship participation, graduate school enrollment, student involvement, and survey response rates, the team met directly with the client on a weekly basis.

The team created a TO-BE pipeline plan, which gathers information about students' careers at various stages of their academic journey. Engagement through BUS 103, BUS 303, BUS 498, graduation applications, and alumni event registration are all included in this. Instead of depending solely on optional post-graduation surveys, these touchpoints aim to boost participation by integrating career questionnaires into current student and alumni procedures.

The team also researched and compared several platform options, including Power BI, AWS Athena, AWS Neptune, Tableau, and Airtable. Airtable was selected as the recommended solution because it provides a centralized, user-friendly platform that can collect form

responses, organize student records, support individual student tracking, and generate dashboard reports without requiring advanced technical knowledge.

Overall, the team addressed the challenge by creating a scalable, centralized data platform and student engagement pipeline that improves data collection, increases questionnaire participation, automates data aggregation, and allows Career Services to track key career outcome KPIs more efficiently.

### **Results & The Positive Impact**

The Costello College of Business Career Outcome Data Project results in the creation of a centralized, reliable system of record using Airtable. By consolidating student information, survey responses, job placements, and salary data into one structured platform, the project eliminates fragmented data sources and inconsistent formats that previously existed across spreadsheets and external systems. This standardization improves data quality, ensures consistency across departments, and allows career services to maintain a clean, accurate dataset that can be easily accessed and managed.

Another major result is the significant increase in survey response rates and data completeness. By integrating the data collection process directly into key academic touchpoints such as BUS 103, BUS 303, BUS 498, and graduation workflows, students are more consistently engaged in completing the survey. Faculty involvement and in-class participation further reinforce this process, reducing non-response rates and ensuring that more students contribute their career outcomes data. As a result, the college gains a more comprehensive and representative view of student success.

The project also enables real-time data collection and reduces manual administrative work. Instead of waiting months for reports or relying on delayed external processes, Career Services can immediately access updated information as students submit their responses. Automation within the system links related data such as student profiles, employment details, and salary information, minimizing the need for manual entry and follow-up. This leads to improved efficiency, reduced workload for staff, and more accurate reporting due to built-in validation and standardized input fields.

Overall, the positive impact of the project is substantial. With more accurate and timely data, CCB can better track student success, support data-driven decision-making, and strengthen relationships with employers by demonstrating strong career outcomes. Additionally, improved reporting enhances the college's ability to secure funding, support accreditation efforts, and build its reputation. Over time, the system creates a continuous improvement loop, allowing the college to monitor trends, refine programs, and ultimately improve career outcomes for students while operating more efficiently.

### **Conclusion**

In conclusion, our team has put in the utmost effort to ensure the best possible solution for the Costello College of Business. In doing so, we made sure to understand the clients' concerns and areas that caused difficulty with their business processes. Throughout the project, we made sure to communicate weekly with Kerry, who will be receiving the final product, to make sure all her demands are satisfied and she is comfortable with the implementation process. To achieve this, we integrated a survey and created automations for the data to automatically be transferred over to Airtable, allowing for easily accessible data as well as visualized reports to better help understand and report data. Another challenge we needed to solve was to improve low survey response rates, in which we proposed a multiple-step process in which the College of Business implements the survey as a requirement in multiple applications, such as the graduation application and grad school application, helping us ultimately achieve our goals.

### **PREP Student Reflection**

This PREP project gave our team the opportunity to apply classroom knowledge to a real business challenge while working directly with the Costello College of Business Career Services Center. Through this experience, we learned that successful projects require more than identifying a problem and recommending a solution; they also require communication, teamwork, adaptability, and a strong understanding of the client's needs. Weekly meetings with Kerry helped us improve our professional communication skills, ask better questions, and adjust our work based on feedback instead of only focusing on what looked good on paper. The project also taught us that implementation is just as important as the recommendation itself because a solution only creates value if people are able and willing to use it. Finally, after looking back on everything that we did for this project, the prep program overall has been the most valuable learning experience we've had. While other courses focus on theory and bookwork, this program gave us the experience of doing real work for a real client, solving a real problem. Overall, this experience helped us grow as students and future professionals by teaching us how to think like consultants, work with stakeholders, and develop a practical solution that the client can continue using after the project ends.