Background on the Analytical Consulting Lab

The Analytics Consulting Lab (ACL) is part of the Foster experiential learning initiative. The specific interest in the Analytics Consulting Lab comes out of the deep demand for business leaders that can provide guidance in analysis and focus that analysis to specific business questions. Additionally, many recruiters and employers have commented that finding talent that bridges the business and analytical communities is difficult. The ACL strives to provide a real-world learning experience for students to work with sponsoring companies on business questions that revolve around analysis. Students work in teams using analysis (broadly defined) to answer current and important business questions.

READ THIS!!!!!! Course Expectations

Analytics Consulting Lab is an experiential class, with a strong focus on the application of analytics and market measurement in a real-world, client-facing, consulting environment. It provides an excellent opportunity for Foster MBA students to get real-world experience in consulting and in applying analytics and market measurement techniques to actual business challenges and opportunities.

Therefore, it is important to set some very important expectations in regards to this class:

- **The class does NOT involve lectures to present new theory or analytical techniques. Students seeking new analytical techniques or lectures on analytics, primarily, should consider other courses for that goal. This is a class on the application of analytics in a real-world, team-based environment.**
- **You will work in a team. Team dynamics will be instrumental in your experience. It is important that you are available, accountable, dedicated, and willing to contribute in a team. In most cases, you get to choose your teammates. Be extremely open and honest with your teammates in terms of their contribution and hold each other accountable in a supportive and respectful manner.**
• **The Professor is your advisor, coach, aide, and sounding-board.** He is here to help you in your journey through the project. **The MBA team is in a leadership role to execute the project, communicate and present to the client, and formulate recommendations.**

• The Professor can help you with reviewing regression, analytical concepts, data visualization, consulting best practices, and most any topic that arises on the project. **Execution of the project is, however, the responsibility of the MBA team.**

• **Each project in ACL is unique, real, and driven by an actual client-facing challenge or opportunity.** Your project will vary from others. Projects have different goals, different analytical opportunities, and clearly different clients. You can apply for the project(s) that most interests you.

• **ACL is a lot of work, a lot of learning, and a lot of fun.** Many students consider it a top Kellogg experience. Be sure that your schedule, life, and other commitments permit you to get the most from the class.

## Course Details

The ACL is offered as MKTG 579. Most projects in the ACL are sponsored by Seattle-based firms, professional contacts of Dr. Walker, and alumni of the school, at very senior levels in their organizations. Students taking the ACL are assured a strong learning experience and a commitment from the firm to provide access to decision maker and information that will make the experience meaningful.

Information about Dr. Walker’s course at Kellogg can be found at: [http://kellogg.northwestern.edu/faculty/walker/htm/acl](http://kellogg.northwestern.edu/faculty/walker/htm/acl)

You might look at student videos to learn about their experiences and thoughts on how the course helped in the professional development.

This course is now at Foster. Join us and make it a great tradition here!

## Application Process

Students interested in the ACL must select MKTG 579 during elective bidding. Once in the class, email Dr. Walker of your:

- Project Choice #1
- Project Choice #2
- Any fellow desired student for a team (limit of one student to specify). Team member preference is only considered if both people select each other.
- Other information that you may wish to share in your application, personal goals, career aspirations, etc.

Student teams that are fully formed (a team of 5) are encouraged and will be given special preference. If you are forming a team and submitting as a team, do make that
clear in the application and stress how your team has come to select the project and how it meets your goals.

Student information in the application process is used in formulating teams and assigning projects so that goals, backgrounds, skills, and expectations are all best aligned.

**Project Assignment**

Student assignments to client projects will be based on individual preferences, requested skill sets and industry experience, and team member diversity. Every attempt will be made to grant students their first or second choice of projects. Student information is collected via the application. Students may select one fellow student for a project. This fellow student selection is honored as possible, if the both students select each other. Students will be notified about their project assignments during the term before the class. All efforts are taken to accommodate first choices, while forming teams with an appropriate set of skills and interests.

**Case Packet and Readings**

As this course is an experiential one, there are no specific cases to prepare. However, many students have looked for examples of companies that have excelled at Analytics. Also, as the course emphasizes consulting and best practices in a professional client engagement, there is a need to consider some of these best practices. Given this, the following texts are recommended and optional:


These texts are easily purchased on-line, so these are not requested in the bookstore.

**Course Meetings**

As with other experiential courses, the focus is on the team project and its delivery to the sponsoring company.

Teams will meet with the Professor on a regularly and frequent basis in order to discuss the analysis, flow of work, final presentation and delivery to the sponsoring team. The class will also meet with the prescribed schedule to review concepts and themes important in being successful with the analytical consulting function and in order to provide presentations for the purpose of group learning.

All Group Meetings are to be held with the team and the Professor at a pre-defined time that works mutually. Meetings with the Professor and Client must conclude before 4:30PM on weekdays. Students who cannot make meetings in person are encouraged and welcome to join via telephone.

Pre-term activities
Project identification
Team formation
Identification of Team Liaison to Client
Identification of Team Liaison to Professor
Client Introduction
Project description
Schedule first group meeting with Professor
Schedule first client meeting with Client

Week I:
Class Session I
Getting Started with ACL
Managing Project Ambiguity
Managing Teams
Overview of the Consulting Approach
Dealing with Data, Descriptive Statistics
Using Tools: JMP, Excel, Tableau

Week II:
Group Meeting I:
Developing a Work Plan, Project Analysis
Examples of Past Analysis
Use of Graphics, Best Practices in Presentation of Data
Building Points Through Analysis

Week III:
Group Meeting II:
Preliminary Analysis of Data
Teams to bring descriptive statistics to meeting with Professor

Work Plans due to Professor

Week IV
Group Meeting III: Focus on Data and Analysis
Address questions and issues in analysis

Week V
Group Meeting IV: Prep for Midpoint Check-in

Class Session II
Mid-term progress review and team mini-presentations
Mid-point document due at beginning of class
Mid-point team and mid-point peer feedback due to professor

Week VI:
Group Meeting V:
Mid-point feedback, planning for next phase

Week VII
Group Meeting VI:
As per team needs

Week VIII
Group Meeting VII:
As per team needs

Week IX
Group Meeting IX:
Dry-run of presentation with Professor

Week X
Class Session III
Project Findings
Final project deliverable due to Professor and Client on last Wednesday.
Meetings with Clients to be held and presentations made to client in person during or before final week of classes.

As in any professional consulting engagement, the students are requested to regularly meet with the client to receive input, data, direction of project goals, and feedback on the progress as needed. All clients are committed and dedicated to fulfilling the learning and business aspect of the project.

Teams may schedule additional time with the Professor as needed and as available.

Grading

Grading of the project is driven largely by the quality of the team project. The Professor will evaluate the project, its analysis, presentation, and delivery on the following major points:

- Analysis:
  - Quality of analysis (thoroughness, appropriateness)
  - Clarity and quality of model summary and description
  - Intellectual impact (was the analysis creative, novel, clever, or otherwise compelling?)

- Project Document
  - Quality of project description
  - Quality of analysis summary
  - Quality of recommendations and conclusions
  - Use of meaningful graphs, graphs, and presentation of data

- Presentation Documents
Quality of presentation
Professional impact of the presentation
Ability to communicate main points of the analysis and recommendations

• Team Meetings
  o Preparation
  o Organization
  o Progress

The Professor will ask the client company to provide feedback on the same above points.

Peer evaluations will also be collected from each member. Each student must rate their teammates on the following dimensions:
  • Intellectual and creative contribution
  • Workload and willingness to take initiative
  • Organization, preparation, and availability
  • Collaboration and respect for peers

Peer evaluations will be on a 1-10 scale with 10 being excellent and 1 being poor. All peer evaluations will be treated confidentially.

All ACL students must participate, as participation is also important to make this a meaningful learning experience for all involved.

Grade Breakdown

Professor Evaluation of Final project materials and presentation: 30%
Professor Evaluation of Work plan and Mid-point review: 20%
Client Evaluation of Final project materials and presentation: 10%
Peer Evaluations (*): 20%
Professor Evaluation of Preparation during meetings and participation: 20%

* Note: The Professor reserves the right to adjust any student’s final grade up or down by a full letter grade in the event that the student’s peers unanimously score his or her contributions significantly above or below the overall team effort.

Role of the Professor

The Professor serves as an aide, counselor, and advisor for the team. The Professor does not conduct the analysis, but will provide detailed direction on analytical approaches. The Professor does not serve as the team liaison or representative to the client. The team must organize itself and identify such a liaison. The Professor may accompany the team to select team meetings and or participate in calls, but the Professor cannot in practically, attend all such meetings.

In the event that the client or the ACL student team encounter an incompatibility or encounter an issue, the Professor will intervene to remedy the situation.

The Professor may also resolve project assignments, as needed.
Role of the Team

The team will consist of 3 to 5 Foster MBA students working as a team to complete analysis, as defined by the client as agreed to before the start of the academic term.

The team should be mindful to control the amount of time that is required of the client. This means being prepared for meetings, having a designated liaison to schedule meetings, request information, and follow-through with next steps. This level of preparation and understanding is needed as most clients sponsor this project but do not allocate a full-time associate to work with the ACL team.

The team should expect to contribute about 400-500 hours over the 10-week period to this ACL project. This is a reasonable expectation for a team working on a project and is consistent with other experiential and lab courses in other MBA programs. This translates to 8-10 hours per person per week.

The team will produce a white paper that documents the study, results, and recommendations. The team will also prepare a presentation and deliver it in person to the client and its team. A reduced version with emphasis on key findings is also to be presented at the last class.

Role of the Client

The client provides the real-world learning opportunity, data needed to complete the appropriate analysis, and feedback on the quality of the project and its analysis. The Client is not expect to solve the problem, but should provide ample expertise, data, and contextual information to the ACL team.

Prerequisites

All students in the ACL must have completed a statistics class. There are no other requirements.

Some FAQs:

What is the Analytical Consulting Lab?
It is a course available to Foster MBA students that are interested in the use of analytics in business. Students must take specific prerequisites and have strong academic performance in such classes to take the Analytics Consulting Lab. Students work in teams to resolve a real-work business problem using analytics.

What do you mean by Analytics?
It is meant to be broad but includes the use of specific quantitative approaches, such as regression analysis, time series analysis, forecasting, market segmentation, data mining,
optimization, logistical analysis, scenario simulation, and risk analysis, as examples. In particular, we mean solving a business problem using data and applying one of these quantitative approaches.

**How does this experience benefit the students?**

Foster MBA students taking the ACL will work on a real-world problem under the direction of Dr. Walker. The opportunity to apply analytical theory and learn about a business, make recommendations, and bring together many aspects of their business education is unparalleled. We also ask that the students focus on how to communicate the results of analysis in the context of business decision-making. For students interested in moving to an industry to deep in analytics after graduation or developing new business skills in analytics, this course will be very attractive.

The Analytics field is one of the most demanded in the workforce and students have expressed deep interest in developing strong skills in analytics. This course meets an interest in our students and provides them an exceptional experiential learning opportunity.

**How does the Client benefit from this opportunity?**

The ACL is an intensive analytics elective that attracts some of our most analytically talented MBA students. It is expected that the student group of 5 will commit about 500 working hours to the project. Additionally, the student project will be overseen by Dr. Walker, who has 20 years plus experience and deep expertise in analytics and its application in business.

We expect that the project deliverables, recommendations, and report will provide direct value to your organization. However, we also believe that the project provides your organization and opportunity to determine how and where to invest in more analytics. If this includes the acquisition of more analytical talent, the project provides an excellent conduit to members of our student body that are talented and interested in this space.

**How does the team work with the Client?**

For the student team, the partnering company is a client. They will conduct their analysis and provide recommendations through a report and presentation in the same format and in the same manner as a consulting service. The faculty member also serves as an important liaison between the partner and the student, serving to manage time commitments and negotiate deliverables. It is expected that the student team can meet with and speak with key members of your team that can help them answer questions relevant to the analysis.

**Which software will we use?**

It really depends on the project and your familiarity with software packages. This course is software agnostic, meaning most software packages are acceptable. The course does not have as a goal to teach a particular package, but rather to enable analytics in a
business project. You are welcome to use software of your choice. Most projects can well be completed with a combination of Excel and one statistical package. If you are unsure or unfamiliar with statistical software, we will discuss that during our first meeting. Some packages may have a minimal cost.

**What about the data?**
To make this experience valuable to the students and the to solve the business problem at hand, we do need access to data. It is important that the data be available before the project begins. Additionally, the project should make use of “scrubbed” data, that is data that is free of specific information that would be sensitive or otherwise governed by a law, such as social security numbers of customers or names of customers.

**What types of business problems can be considered?**
As analytics is helpful in many business functions, we are open to many applications of analytics. Specific business problems in marketing, forecasting, customer segmentation, pricing, commodity analysis, logistics, risk management, operations, inventory leveling, supply chain improvement, and scenario planning are sure to provide great analytical opportunities.

**Will the analysis become public?**
The work between the students and your organization is considered confidential. If necessary, the students may be asked to sign a non-disclosure agreement. If this is necessary, we ask that the non-disclosure agreement be such that it does not prevent the students from seeking employment or from building on their experience gained on the project.

From time to time, such company-student projects lead to very interesting business lessons. As a leading business school, we are interested in sharing such lessons with our next generation students and business leaders. We do this through business cases. If such an opportunity exists with your project, we will seek your permission to relate the business lesson through a case study.

**How to I join the Class?**
First, you must meet the prerequisites. Then submit your project selections to Dr. Russell Walker upon entering the course.

**Contact Information**
Please contact Russell Walker, Ph.D.
Via e-mail: rwalker1@uw.edu
Spring 2020
ACL Projects
Changing Tastes

Project 1: Understanding Protein Choices

Protein is the macronutrient of the moment. Americans are consumed with eating enough protein, as we've become fearful of fats and carbs. Simply adding the word "protein" to a food item almost guarantees higher sales. But beneath the surface, Americans aren't just eating more protein. We're also undertaking a rare transformation in what proteins we eat. Red meat consumption is declining and, despite the headlines, chicken and not plant-based foods are gaining market -- and belly -- share. This is the consequence of a decades' long effort by all types of protein producers — beef, pork, poultry, dairy and more recently fish and shrimp farmers — to more efficiently produce protein, and farmers also are becoming more efficient at producing corn and soy for animal feed.

What role has efficient production and price had on consumption? At what point has the relative price of different proteins resulted in change in what we eat and how does price compare as a driver of diet compared to the "headlines about to current consumer tastes, cultural preferences and concerns about our diet and health, antibiotics, and other factors. With this project, we hope to answer the question: how does the price of different proteins affect our food choices and diet as a nation? And what further price changes would be needed to raise up shrimp, plant-based, or other less popular proteins to be the new national favorite?

Note on Data and Analysis: Students will download and assemble price and consumption data on protein (from various US governmental sites) and through analysis develop insights on protein trends in the US overtime and what this says about the future.

Project 2: Fishing for Plastics

Is plastics the future of the global fishing industry? Scientific studies regularly highlight that the world's commercial fisheries are largely at or above their peak yields, and many are being overharvested and will soon collapse. Recent studies about the impact of climate change and ocean acidification indicate the global wild-fish harvest will decline by at least a third in the coming decade or so. Forecasts show that by about that time the oceans may even contain more plastic waste than fish by weight. So here's the challenge: can we convert some of the world's industrial fishing fleet to instead reclaim plastics? And based on what we know about the market for both, at what price should plastics be bought
to make that transition a viable one, and what industries are best suited to make the market and repurpose reclaimed ocean plastics?

Note to the team who are considering this project: This is a BIG idea that may become a new feedstock for today’s plastic or other industries and also be included in national and international efforts to subsidize the transformation of the legacy fishing industry. This is also a way to preserve the livelihoods of coastal economies as wild fishing declines and also becomes more expensive, while farming or cellular aquaculture gain market share.

Note on Data and Analysis: Focus will be on the price and viability of recycled plastics. The team will do various price sensitivity analyses.

 Teams may select one of the projects.

Arlin Wasserman and Changing Tastes are each ACL alumni clients my Kellogg program!
Lawrence and Scott
Selling High-end Luxury Items On-line

Project description:

Lawrence & Scott is one of the longest-running Seattle original high-end luxury brand for home decor and lighting products "to-the-trade" since 1961 ("To-the-trade" means selling exclusively through interior designers). The new ownership acquired the business in 2019 and is looking to revitalize the business, and bring it up to 21st century. While the end-user clients "write the checks", most of the design decisions are made by the clients' interior designers. To raise awareness among designers, Lawrence & Scott has been doing in-person marketing and online advertising through Google Ads (to increase brand awareness) and Instagram/Facebook ads (to generate leads and sales). The project will identify the optimal mix of marketing methodology, based on previous Ads data, and includes market research to "crack the code" of this quickly changing market.

Leo Lam, PhD is the owner and is a UW and Foster alumnus!
UW Athletics

Optimizing Alcohol Sales at UW Athletic Events

Project

UW Athletics would like to pursue a research project for Spring 2020 regarding Power 5 Football Stadiums and alcohol sales. The landscape has changed since our last study and it would be beneficial for our future sales considerations to have new info and data. UW Athletics wishes to improve its alcohol sales.

The Foster MBA team will work closely with the UW Athletic leadership on its performance in alcohol sales and how the performance can be optimized to meet the needs of all constituent groups.

UW Athletics is excited to partner with the Foster ACL. Go Dawgs!
Mindspand is a local startup building a lifelong learning community that helps people learn anything, anywhere, at any time. We have courses that range from technical and professional learning to cooking classes. We have courses that are one-hour workshops and courses that span multiple weeks. We help people navigate in person, online, and on-demand classes. We have found in our efforts to bring customers to our site that different marketing channels work best to draw people to different courses. For example, a hand lettering class brought most of its referral traffic from Facebook campaigns, while an introduction to developing programs for Amazon Alexa did best through Google search.

We are looking for a team to help us define the best campaigns to bring people to our site. What are the channels and forums we should look at beyond Google, Facebook, Instagram, and Pinterest? What should the campaign copy and target audience be? How can we get our customers to be more engaged to draw out the communal aspect of lifelong learning? We can make available data from various platforms to help in this effort – both channel-specific information as well as Google Analytics details to show the customer flow through our site. Teams will have regular access to Mindspand’s co-founders (CEO and CTO) as part of this project.

**Note on Data and Analysis:** The team will need to process Mindspand performance data and look to best practices to develop a compelling marketing channel strategy. This is also a great opportunity to learn about starting a new firm from two local entrepreneurs.

Mindspand and their founders are Seattle-based and great supports of UW!
Project 1: Marketing High-end Wine to Women
While women make up the majority of wine consumers at the category level (about 60%), they are generally underrepresented at higher end wine price points. What are the barriers to women playing a more frequent role in these higher price points and can a realistic size of the opportunity be estimated? Once barriers are identified, what can be done to help break down these barriers for women and what is the right way to get the message and communication of the breakdown of those barriers to them?

Project 2: Demographic Analysis of the Middle Class – Implications on Wine Consumption and Purchasing Power
There seems to be constant news regarding the booming economy and growth in jobs, but in pulling back some of those numbers the continued polarization of income is becoming a greater and greater issue. Those at the high end of the income scale continue to do well, but the middle class continues to shrink and those in lower income class continue to have to do more with a stagnant or decreasing level of discretionary spend. Using US Census data from their discretionary spending reports and our tracking data for frequency of consumption by income, can a risk model be developed for the threat to category volume due to shrinking middle class, does continued income growth of the upper class continue to drive up wine dollars and/or volume, or does dollars and/or volume flatten out at a certain point, what impact does continued increase in number of consumers in the bottom part of the income scale do to long term category growth and is this more of an issue than simply generational dynamics?

This project is sponsored by the Gallo family, who previously partnered with Kellogg and now are here at Foster by Professor Walker’s invitation.
A Seattle VC Firm

Analyzing Portfolio Performance

Venture Capital Portfolio Returns Factors

Our VC firm has invested in 85 companies over multiple economic cycles spanning over two decades. Some investments made money, some lost money. We have historically spent a great deal of time on each individual investment looking at the underlying business, but we have not done a deep retrospective exploring various factors and what the data have to say about their effects on our returns.

We can supply company-level investment data for a large plurality of our historical investments, including dates and amounts of our investments, and dates and amounts of eventual realizations. We could also supply, based upon an interview with consultants, some degree of "color" on qualitative factors on each deal. Teams will want to link our data with Pitchbook data or other database(s), such as PWC MoneyTree or stock market indices to provide other historical factors about the companies as well.

This would be an exploratory data analysis, as we do not have a specific deliverable desired at present. Some areas for inquiry might include: what have been the best co-investment relationships (syndicate members) for us? How long do the "winners" take vs. the "losers?" What is the effect of broad public market (or private market) indicators such as the S&P level or the P/S or P/E ratio of the Nasdaq at time of investment on exit? When do exits happen and who buys them (perhaps looking at data on acquirers at time of acquisition)? As this is exploratory, we are open to a student team's creative ideas for what factors to examine.

Due to the nature of the analysis, the VC firm identity is protected. Students will have to enter an NDA.
Equity Residential REIT

Selecting Property Amenities for the Future

Equity Residential is an S&P 500 company focused on the acquisition, development and management of rental apartment properties located in urban and high-density suburban markets where today's renters want to live, work and play. Equity Residential owns or has investments in 308 properties consisting of 80,299 apartment units, primarily located in Boston, New York, Washington, D.C., Seattle, San Francisco, Southern California and Denver.

Equity Residential is actively pursuing new development opportunities in these seven markets. The importance of creating great amenity spaces within our apartment communities can not be understated. We spend a tremendous amount of time and energy designing these spaces. The lounge, rooftop and game room -- these are the areas where memories are made. An inviting and comfortable amenity space not only extends our residents personal living space, but it also allows for a sense of "community" within the property.

However, we can't just build more and more amenity space, we need to find the right balance. Increasing land and construction costs combined with the difficult regulatory environment are making development increasingly more difficult to pencil. The amenity spaces are often the most expensive (in price per square foot) of all the space we build. In addition, often the more amenity space we build results in fewer apartment homes.

What amenities do our future residents want to see in their communities?

How can we best judge the success or failure of an amenity space?

How can we maximize the amenity space we build?

The project sponsor advises the UW Foster Real Estate program and are excited to partner in the ACL!
UNDERCLUB, INC.

Marketing Luxury Underwear to Busy Women

Organization Name: Underclub Inc
Location: Austin, TX
Website: underclub.co
Industry: online retail

Company description:
Underclub (underclub.co) is a subscription-model luxury underwear service for busy women. Based on the belief that the right underwear can bring confidence and comfort, the company is committed to delivering curated designer underwear selections via its subscription and gifting options. Underclub has been featured in publications including InStyle, Fast Company, Cosmopolitan and more as the new way to shop for underwear. Underclub is headquartered in Austin, TX.

Project abstract:
As Underclub continues to grow, we are reaching an increasingly broad set of customers as well as increasing our product offerings. We are interested in understanding the differences in customer lifetime value associated with both our increased advertising spending as well as our more expansive product mix. In particular, we would like this project to focus on discrete descriptions on the indicators of high LTV customers and how best to allocate advertising spend to attract the best possible customer mix.

Required deliverables:
- Analysis of current and historical Underclub customer base related to LTV, demographics, and customer behaviors; explanations / hypothesis of shifts in metrics
- Clear customer segments which can be used to both inform product mix and advertising spends
- Recommendations for methods to increase customer LTV
- Recommendations on how best to grow the “long tail” of high value customers
- Segmentation recommendations specifically for Facebook/Instagram and Google Adwords advertising

Inputs provided:
- Historical (anonymized) customer data including core subscription, add-on purchase behavior, internal numerical and textual reviews
- Management team interviews & regular check-in times

Desirable team profiles: We welcome students of all types, backgrounds, and experiences, but we are specifically excited about the opportunity to work with students who have relevant ecommerce experience and / or are interested in supporting a growing consumer business in the future.

This project is sponsored by Thomas Blank, COO of the firm, and an ACL alumnus of Professor Walker’s Kellogg class.
Farmers Insurance Group

Digital Marketing: Business Insurance Analytics and R&D

Project Name: Making the Leap into Digital Marketing: Launch Strategy & Target Customers
Project Target Group: Students in the MBA program
Project Description:
Farmers Insurance has primarily relied upon more traditional marketing channels (TV, radio, direct mail). While these can be personalized and targeted to some degree, Farmers predominantly wields marketing to promote brand awareness and increase brand affinity. Farmers Business Insurance is beginning to investigate how to leverage the multitude of digital marketing channels that are readily available (e.g., Search Engine Optimization, Pay-Per-Click Ads, Content/Website Marketing, Social Media Marketing). In order to achieve success – defined as positive return on investment and incremental growth in new business that can be attributed to marketing – we need to create a strategy on how to enter the digital marketing space. This includes the ideal channel (or combinations of channels) to pursue, along with a deep understanding of the customer segments these channels are most successful in targeting. The definition of “customer” is further complicated in business insurance, since our end customers are a diverse range of small businesses (e.g., small retailers and offices, restaurants, apartment complexes). A successful project consists of formulating a data-backed strategy to target new customer segments through digital marketing, and when available, comparisons to our core competitors (Travelers, Liberty Mutual, The Hartford, Nationwide) and other organizations in the broader financial services sector.
Overview:

The Lerner Group manages $1.3B in assets for high net worth individuals, foundations and employee sponsored plans. We provide a comprehensive suite of financial services (investments, financial planning, estate planning, etc.) to our clients to enable them to reach their financial aspirations. Our team has grown organically since its founding in 2002 and is now looking to accelerate the pace of growth in a highly fragmented market. M&A activity has accelerated in recent years as additional capital has flowed into the wealth management space.

The Project:

Our team is looking to identify growth opportunities with new and existing clients. For existing clients, we will incorporate new value added services to strengthen relationships and improve overall retention. To drive growth with new clients, our team is considering acquiring select advisors or RIA firms (up to ~$500M in AUM). To determine the right M&A target, we are looking across multiple geographies based on overall size, growth rate, etc. With a targeted list of expansion opportunities, we will need to understand the various entry methods and the associated cost / benefits.

The project team can assist us with –

- Identifying trends in the Wealth Management space (e.g., consumer trends, service models)
- Sizing the opportunity for expansion into new markets with prioritization
- Cost / benefit analysis for different types of entry (e.g., acquire RIA, add an advisor)

This project is sponsored by an executive at the Lerner group that is an alumnus of Professor Walker’s classes at Kellogg and sponsored projects in the Kellogg ACL!
Seattle Mariners

Predicting Player Performance

The Seattle Mariners desired to better understand player and situational performance in baseball games. The available studies will look at the role of weather and pitching sequences to develop models that can be used by manager and coaches in training and game situations.

The candidate projects include:

1. Weather effect on pitching -- compare pitch properties and weather conditions.

2. Velo-bump candidates -- see if we can find a pattern for the types of pitchers that are more/less likely to gain velocity over time by looking at historical results and pitcher characteristics.

3. Predicting pitch sequencing -- look at historical pitch selection given the pitcher, batter, situation, how accurately can we predict the next pitch type

The Mariners are Seattle-based and great supports of UW!
NFL Game Predictions - Further Refinements To a Data Science Model

Dr. Andy Guyader
www.theq5.com

The sports gambling market is expanding due to the recent United States Supreme Court overturning of the Professional and Amateur Sports Protection Act. This creates more opportunities to attack market imbalances that may exist, especially in early-week NFL points spread offerings. This project aims to build upon the existing model versions run during the 2017, 2018 and 2019 NFL seasons. Extensive training and real-time testing has been established to validate the model performance. More can be read on the website www.theq5.com and on twitter at @aguyader17 about the creation and validation of the predictive model. The data available is extensive and extremely little data management will be required unless new parameters are introduced that require it. Currently the data set includes over 120,000 lines of drive data in chronological order with starting field position, plays, yards covered, drive result and unique IDs for game and drive. Game score results are also included.

A successful project could extend and refine the existing point spread models or create an ensemble approach using several seasons to train and test. It also may add new data or analysis not currently being used in the modeling process. A strong possibility also exists to test the predictive signal in an exploration of parlays and teasers. A direction of the project could also look at tuning the model to maximize win/loss predictions - a moneyline approach to the model ROI. An opportunity also exists to build a similar model using conference games in college football from the SEC and/or PAC12. The college dataset is smaller but involves a team that could be of interest to you.
The effort will focus on improving ROI and investment decisions in predicting football outcomes, from the perspective of an investor.

Dr. Guyader and theQ5 are ACL client alumni clients from my Kellogg programs!