# ANALYTICS AT WHARTON

Funding Opportunities



Inspire. Achieve. Scale.

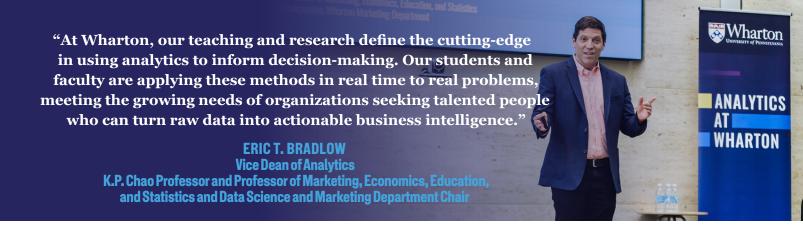


# Advancing business, innovating research, transforming education, and impacting society through analytics.

The scope of analytics in business is quickly expanding: big data now cuts across disciplines, industries, and economies. With the formation of Analytics at Wharton (AAW), the School has committed to growing its analytics research, curriculum, and in-the-field engagement. Led by Vice Dean of Analytics Eric T. Bradlow, Analytics at Wharton unites the School's trail-blazing programs to create the next generation of business leaders who use data and real-world experiences to improve decision-making.

# United under one strategic vision, Wharton's data-driven programs coordinate across verticals and expand analytics practice across disciplines.





## **ANALYTICS AT WHARTON STRATEGIC PRIORITIES**



Leverage big data and analytics to inform business practices and public policy that create lasting societal impact



Fuel faculty research by investing in novel ideas, internal data infrastructure, and operational resources to meet increasing demand



Expand student experiential learning opportunities to create tomorrow's business leaders through analytics



Incubate new ventures that support cutting-edge research and educational opportunities in diverse industries and academic fields

The worlds of business, policy, and the public need rigorous data analysis to inform decision-making. The programs that form Analytics at Wharton have a common goal: to responsibly use data to benefit global business and society. Each program engages with diverse audiences including policymakers, researchers, startups, corporations, nonprofits, and students and alumni to realize this goal.

Philanthropic support will create far-reaching impact as AAW fully realizes its goals:

- Amplify the work and impact of the seven programs under the AAW umbrella
- Elevate Wharton's leading reputation in the area of predictive analytics
- Prepare students to take leadership roles translating analytics into actionable business insights

The following pages provide details on the strategic priorities that will immediately benefit from funding.

# WORK THAT INFORMS BUSINESS PRACTICES AND PUBLIC POLICY FOR LASTING IMPACT

AAW's core value is responsibly using analytics to create impact. With its bench strength of faculty expertise, student talent, and renowned programming, Analytics at Wharton turns data into applicable and decisive insights for academic researchers, nonprofit organizations, and emerging business leaders.

#### **IMPACT OF PHILANTHROPY**

Funding will support the growth of Analytics at Wharton to integrate analytics even further into student, faculty, and alumni programs.

#### Accelerate Research that Informs Public Policy

The body of knowledge produced by AAW has far-reaching impact on topics such as AI and automation, economics, data privacy and governance, and public health. Wharton leverages its faculty's diverse research excellence and unprecedented volumes of digital, numerical, and text-based data to transform business and societal decision-making.

#### Expand Research that Impacts Business Practices

An emerging area of study within People Analytics is how organizations can increase opportunities for advancement among lower paid employees. Projects specifically explore how analytics and technology can improve front-line workers' professional gratification and growth.

#### ♠ Increase Access to Analytics Education for High School Students

AAW is committed to building the pipeline of business analytics leaders by creating educational pathways for underserved high school students.

- » High School Data Competition: offers an opportunity for talented high school students to apply their knowledge and skills in business analytics and data science to real world business problems. Participants acquire the analytics skills needed to enter the workforce and to succeed in higher education.
- » Wharton Global Youth Program: Wharton provides historically underrepresented local high school students the opportunity to participate in Wharton summer courses. The environment is a true college experience with students staying in dorms, sharing meals in dinig halls, attending weekend activities, and studying with peers.

Term gifts between \$250,000 and \$2,000,000 provide sustained support for research and programming. An endowed fund between \$1,000,000 and \$5,000,000 provides lasting impact, enabling Analytics at Wharton to develop new initiatives to serve a broader audience.

# CREATING LASTING IMPACT: AAW AND WHARTON GLOBAL YOUTH

Wharton Global Youth Program mobilizes the extensive opportunities of the Wharton academic community to educate and inspire pre-collegiate students to explore business practices, analyze the world's complex challenges, and take the first steps in becoming leaders who will transform the global economy. The portfolio of analytics programs for high school students includes: Data Science Academy, Moneyball Academy, Moneyball Training Camp and Sports Business Academy. Since 2019, Analytics at Wharton has provided more than \$100,000 in scholarship funding for students from historically excluded populations to attend these programs.

# EXPERIENTIAL LEARNING OPPORTUNITIES FOR TOMORROW'S BUSINESS LEADERS

Whether students are new to the field of analytics and data science or have advanced technical skills, Analytics at Wharton offers a diverse array of opportunities for students to start learning analytics or further refine their skills. AAW coordinates opportunities for students to work with their research centers and corporate partners to learn analytics by doing analytics.

#### **IMPACT OF PHILANTHROPY**

Support for experiential learning is critical for Wharton to stay at the forefront of analytics education. AAW will expand its programs to serve more students and create more opportunities to gain hands-on data science experience.

#### Scale the Analytics Accelerator

A curated multidisciplinary team of Wharton and Penn students works alongside a Wharton mentor and a company champion on an eightweek project to explore a real-world business challenge using supplied datasets and the latest techniques, including machine learning and AI.

# Increase Data Analytics and AI Knowledge

The Analytics Technical Workshops Series helps students develop and advance their AI and data analytics skill set. These online and in-person workshops are open to all Penn undergraduate and graduate students. Topics include SQL, Python, Data Visualization, R, Data Storytelling, Open AI, and Chat GPT.

#### **Enhance Analytics Speaker Series**

This speaker series inspires the Penn community with leaders who are trail blazers in the field of analytics and artificial intelligence. These events challenge assumptions through candid interviews and discussions with business leaders who are using their resources and influence, as well as their creativity and passion, to drive meaningful change through business analytics and data science.

# LEARNING BY DOING: WHARTON ANALYTICS AT WORK



The Wharton Analytics Fellows partner with Analytics at Wharton to host the Analytics Accelerator each semester. In spring 2022, a group of students — ranging from Wharton undergraduates to Penn Engineering grad students — helped the Kimmel Cultural Campus and the Philadelphia Orchestra, which merged last year, identify opportunities for growth of audiences and attendance frequency through an exploration of the joint data. The team identified various patronage journeys through clustering analysis, allowing the nonprofit to predict the total lifetime value for its customers and donors.

Term gifts between \$250,000 and \$2,000,000 provide sustained support for experiential learning programs. An endowed fund between \$1,000,000 and \$5,000,000 enables Analytics at Wharton to expand its footprint and deliver global experiential learning opportunities for students at scale.

## **INNOVATIVE FACULTY RESEARCH**

Each year, AAW allocates over \$250,000 to seed fund new ideas that expand the impact of data and analytics at Wharton. Faculty submit proposals, and selected projects utilize the infrastructure of AAW to promote, disseminate, and leverage their research. Current available funding falls short of the needed amount to capture all faculty proposals which span the breadth of Wharton's ten academic departments. Since 2019, AAW has been able to fund only 69 projects out of 133 proposals.

#### **IMPACT OF PHILANTHROPY**

Additional philanthropic support will increase financial support for more projects — including faculty-mentored student research projects and projects in specialized topics. Specific areas that will benefit the most include:

#### AI-focused research and education

Business leaders and policymakers need rigorous data analysis to inform decision-making around this nascent discipline. AI at Wharton accelerates the creation and dissemination of new knowledge for AI to help organizations across industries navigate rapidly changing technologies.

#### The future of hybrid work

Challenges around managing remote and hybrid work emerge almost daily. Wharton People Analytics offers researchers and organizations concrete recommendations for supporting employees' needs in hybrid arrangements to stay competitive — with employees, consumers, and stakeholders.

#### Sports analytics

As the application of big data in sports business continues to intensify, faculty and student research engagement will play an important role in discovering new insights and methodologies. The Wharton Sports Analytics and Business Initiative advances the opportunities for innovative research projects.

Term gifts between \$250,000 and \$2,000,000 provide sustained support for bold and innovative ideas that are redefining the use of data and analytics in every sector of society. An endowed fund between \$1,000,000 and \$5,000,000 funds trailblazing research and increases innovative projects in the most critical stages of development.

# WHARTON IMPACT

Kartik Hosanagar of AI at Wharton joined Dean Erika James for the inaugural Wharton Impact Tour in San Francisco on March 23, 2022.

Their conversation focused on how business leaders can leverage creative communities and technological advancements to spur innovation.



# NEW VENTURES THAT EXPAND THE IMPACT OF DATA AND ANALYTICS

Through analytics labs and innovative programming, AAW incubates new ventures that support cutting-edge research and education in diverse industries and academic fields. A broad community of scholars, students, policymakers, and industry professionals benefit from conferences and convenings designed to share scholarly work and stimulate further inquiry.

#### **IMPACT OF PHILANTHROPY**

Dedicated funding enables AAW to support faculty projects and activities that spark thought leadership and innovation in classrooms and boardrooms worldwide.

#### Labs

Since 2019, through AAW's generous support, both Computational Social Science at Penn and the ESG Initiative were incubated and launched under AAW's leadership. New labs include:

- » Wharton Healthcare Analytics Lab Harnesses the power of data analytics and technology to revolutionize the healthcare industry.
- » Wharton Forensics Analytics Lab Explores new applications of data analytics to issues related to insider trading, financial irregularities, and white-collar crime.

#### Convenings

AAW facilitates new discoveries across a wide range of topics. Convenings of researchers, practitioners, and students ensure knowledge sharing takes place and impact is far-reaching.

- » Women in Data Science Conference Cohosted with Penn Engineering, this celebrated annual conference inspires and educates data scientists — regardless of gender — and supports women in analytics and data science-related careers.
- » Wharton Neuroscience Summit The annual summit fosters new intersections for neuroscience and business. Innovative and collaborative ideas emerge through sessions, discussions, and networking.
- » People Analytics Conference Hosted by a cast of superstar faculty and attended by industry's most influential leaders, this conference spotlights the latest research on the future of work and the workforce.

# RECENT PROJECTS FUNDED BY ANALYTICS AT WHARTON

#### MindCORE Summer Fellowship Program

Analytics at Wharton and the Wharton Neuroscience Initiative provide financial support for underrepresented undergraduate summer students focused on Applied Neuroscience and Business Analytics to attend a ten-week summer internship program. These students are part of a new, larger applied brain and cognitive science summer undergraduate internship program which aims to combat systemic inequalities and a lack of diversity that plague neuroscience, brain and behavioral science, analytics, and data science careers.

Read more

# **Data Analytics for Economic Efficiency** in Energy Policy

This research builds a portfolio that gathers large data sets from the U.S. and across the world and uses sophisticated econometric tools to analyze this data with the goal of quantifying the unintended consequences of inefficient regulations and propose improved energy policy.

Read more

Term gifts between \$250,000 and \$2,000,000 provide sustained support to fuel data and analytics discoveries and insights for Wharton's highly-engaged global community. An endowed fund between \$1,000,000 and \$5,000,000 ensures lasting impact, allowing AAW to fund innovative and novel scholarly projects, enhance student activities, and expand interdisciplinary opportunities.

### **INDUSTRY ENGAGEMENT**



# 2023 Women in Data Science (WiDS) Conference at Penn

Pictured from left to right:
Wharton AI at Wharton Executive
Director Mary Purk; Julie Roehm,
Former Chief Marketing and
Experience Officer at Party City;
Sarah Norman, Vertical Manager
of Enterprise at TikTok; and
Krystal Barker Buissereth, Head
of Financial Wellness at Morgan
Stanley shared vital career advice
for women in data science.

### **ANALYTICS AT WHARTON ADVISORY BOARD**

As ambassadors of Analytics at Wharton and the Wharton School, advisory board members undertake the role of liaisons between AAW and its external constituencies. These visionary leaders from diverse sectors help advance AAW's mission and impact by serving as advocates and opinion leaders in the regions where they live, work, and travel.

Advisory board members contribute both time and financial resources to support Wharton AAW's work. They serve a three-year term and are requested to make a significant philanthropic commitment.



#### **CURRENT MEMBERS**

- David Blitzer, W'91 Global Head of Tactical Opportunities, Blackstone, Inc.
- Victor Cho, W'93 CEO, Evite, Inc.
- Chenwei (Roger) Gu President, Wacai Holdings Limited
- Nobel Gulati, W'94

  Head of Strategic Investments, Two Sigma Advisors
- Sajjad Jaffer, WG'01

  Head of Data, Analytics and Machine Learning,
  GrowthCurve Capital
- Eric Leathers, C'95, W'95
  Founding Partner, Further Global Capital Management
- Louis Salvatore, WG'96 Senior Managing Director, Blackstone Credit
- Daniel Craig Schwab, W'91 Co-president, D&H Distributing Company
- Kathy Xu
   Founding Partner, Capital Today
- Philip L. Yang, Jr., WG'83
   Founder, Chairman of the Board, Chief Investment Officer, Willowbridge Associates

### **EXCLUSIVE NAMING OPPORTUNITIES**

Endowed gifts to Wharton provide a stable source of income in perpetuity, ensuring generations of students, faculty, and business leaders benefit from Wharton's work. The School will recognize your philanthropy through mutually agreed upon acknowledgements and cultivate your desired level of engagement.

#### NAME THE ANALYTICS AT WHARTON INSTITUTE WITH AN ENDOWED GIFT \$50,000,000

Creating an Institute at Wharton demonstrates the School's definitive commitment and capacity to transform a specific business interest. The University supports an Institute's work by facilitating investigative collaborations across multiple disciplines to ensure the most cutting-edge research in the world today happens at Penn. The substantial increase of funding for an Institute enables faculty and students — pioneers in their fields — to generate ideas and technologies which can have a real-time impact on business practices or policies. This transformative gift fortifies the School's ability to provide rigorous curriculum, drive innovative research, and collaborate broadly and deeply with industry leaders across numerous sectors.

# → NAME ONE OF ANALYTICS AT WHARTON'S FOUR CENTERS WITH AN ENDOWED GIFT \$25,000,000

Endowing an individual area of focus under the AAW umbrella enables Wharton to deepen its research and academic commitment to a specific sector of analytics: **AI**, **neuroscience**, **people**, or **sports**. AAW can amplify its impact by supporting more innovative research and broadening its industry engagement. Moreover, this level of support provides the resources necessary to deepen cocurricular programming to a specific field. Students can confidently explore even more career pathways through hands-on, applied learning activities and events.

#### → NAME A COCURRICULAR PROGRAM OR CONFERENCE

A variety of programs and conferences are available for naming at a range of philanthropic levels, including:

- » AAW Speaker Series
- » AI Award for the Startup Challenge
- » Analytics Accelerator
- » High School Data Science Competition
- » People Analytics Conference

### **OVERVIEW OF PROGRAMS**

### Al at Wharton

#### **OVERVIEW**

Artificial intelligence and analytics are at the center of most firms' decision-making today. Led by a robust team of Wharton faculty, AI at Wharton explores the applications and impact of artificial intelligence across industries and society, inspires innovative teaching and research, and engages global business leaders to set a course for comprehensively addressing data ethics in an age of digital transformation.

#### IN PRACTICE

AI at Wharton funds multiple faculty research projects that explore the social implications of AI and showcase the business applications of machine learning. AI at Wharton has also invested in Wharton student startups including Félix, a platform that enables Latinos in the United States to send money abroad using blockchain and AI, making remittances convenient and trustworthy.

# **Computational Social Science for Business Lab (CSS)**

#### **OVERVIEW**

CSS highlights the research of Penn Integrates Knowledge (PIK) Professor Duncan Watts and Assistant Professor of Operations, Information and Decisions Dean Knox. Professor Watts' research uses methods from computational social science and network science to design, build, and test scalable collaboration systems and technologies to advance the fundamental understanding of industry processes. Professor Knox's research supports the development of statistical and AI methods to provide policy evaluation and public education to improve the literacy of policymakers, practitioners, and the general public on societal issues.

#### IN PRACTICE

Research on Policing Reform and Accountability Reform (ROPRA) uses cutting-edge statistical techniques to measure racial bias in policing, evaluate policing policy reforms, and improve the performance of policing organizations. ROPRA's goal is to provide methodological contributions for scholars and practitioners interested in conducting principled research related to policing, to provide actionable insights for police leaders and policymakers, and to contribute to efforts aimed at increasing safety and equity and reducing violence in our society.

## **Wharton Neuroscience (WiN)**

#### **OVERVIEW**

Up-to-the-minute breakthroughs in neuroscience help business leaders understand more accurately what holds people's attention and what motivates them. Led by Penn Integrates Knowledge Professor Michael Platt, Wharton Neuroscience works at the nexus of business and neuroscience to reframe how organizations do almost everything, from marketing to management. The interdisciplinary WiN community produces research, technology, and applications that lead to best practices in five mission-critical areas: business decision-making, brand strategy and customer experience, talent assessment, team dynamics, and communication.

#### IN PRACTICE

Organizations rely on the success of team-based projects. A number of WiN projects focus on group dynamics and team chemistry. In one current study, WiN is testing the role of physiological synchrony in group communication and decision-making by measuring neurometrics (EEG brainwave activity) and biometrics (e.g., heart rate, respiration rate, and facial action coding). Results suggest that compared to groups that do not reach a consensus or arrive at a wrong answer to the problem, groups that reach the correct consensus share unique information faster and exhibit greater biometric synchrony.

## **Penn Wharton Budget Model (PWBM)**

#### **OVERVIEW**

The nonpartisan Penn Wharton Budget Model provides accurate, accessible, and transparent economic analysis of public policy's fiscal impact in areas including health care, immigration, Social Security, tax reform, and public investment. PWBM uses its cloud-based simulators and briefs to respond in real time to policy debates on Capitol Hill, providing data on economic, distributional, and budgetary effects of legislation.

#### IN PRACTICE

Launched in 2019, the Wall Street Journal Tax Calculator, powered by PWBM, helps taxpayers understand the impact of changes in tax law as they prepare their taxes. Taxpayers only need to enter a few key characteristics such as income and marital status into the online calculator to get an estimate of their tax liability from 2018 to 2027.

## **People Analytics (WPA)**

#### **OVERVIEW**

People Analytics pursues the four interconnected areas of research, practical application, education, and community building to help individuals and organizations thrive using evidence-based decision making. Through carefully designed experiments, new assessments, and analyses of existing data sources, the WPA team focuses on delivering novel insights that have the potential for big impact.

#### IN PRACTICE

The 10th Annual Wharton People Analytics Conference, held on March 29, 2023, brought together a slate of speakers that included former Vanguard Chairman and CEO Bill McNabb, decision strategist Annie Duke, general manager of the Minnesota Vikings Kwesi Adofo-Mensah, Microsoft's Dawn Klinghoffer, and former vice president at Google Prasad Setty.

### **Wharton Research and Data Services (WRDS)**

#### **OVERVIEW**

WRDS provides the leading business intelligence, data analytics, and research platform to global institutions — enabling comprehensive thought leadership, historical analysis, and insight into the latest innovations in research. WRDS hosts 350+TB of data on the most robust platform to give users the power to analyze complex information.

#### IN PRACTICE

WRDS's comprehensive data and user-friendly materials inspire hands-on learning opportunities for students. "Seamless access to Wharton's financial datasets has been a key component of my curriculum development. Students can see the data unfold in real time," said Dr. Michael Phelan, Associate Professor of Statistics.

# **Sports Analytics and Business Initiative (WSABI)**

#### **OVERVIEW**

WSABI broadens Wharton's focus in teaching, research, and community engagement initiatives that use datasets to improve decision-making in the areas of player recruitment, player performance, esports, fan engagement, and the stadium experience. WSABI engages with students, alumni, and industry leaders through a range of programming, including student-led conferences, high school academies, and research seminars that advance analytical thinking, all through the lens of sports.

#### IN PRACTICE

Under Professor Adi Wyner's leadership, WSABI is pioneering sports analytics education. Moneyball academies, undergraduate education, and MBA research pave the way for industry leadership. Hands-on research and projects stem from industry partnerships. Student groups have competed in the NFL Data Bowl, worked with college sports data, and landed highly competitive jobs at teams in the NBA, MLB, NHL, and NFL.

