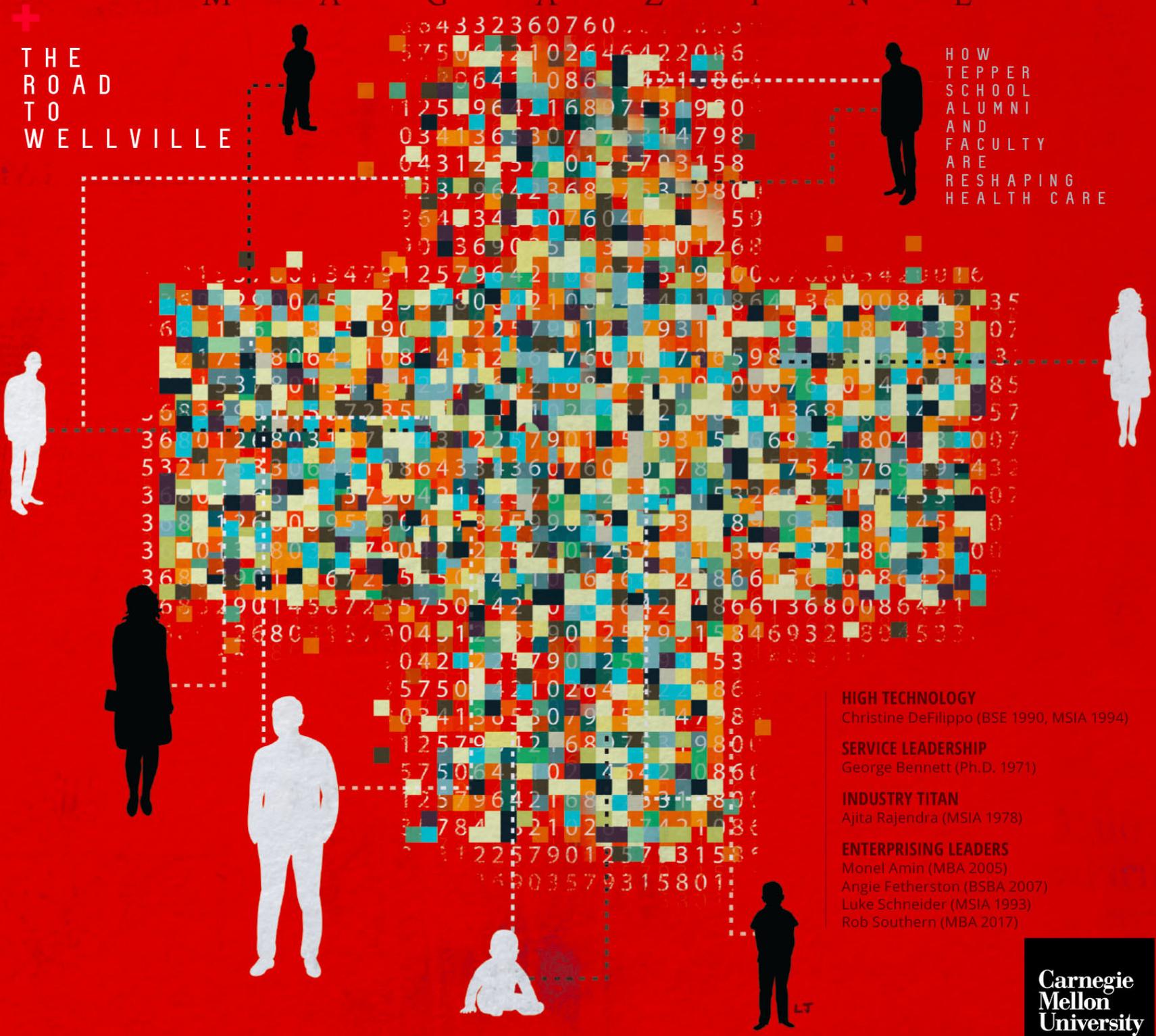


# TEPPER

M A G A Z I N E

THE ROAD TO WELLVILLE

HOW TEPPER SCHOOL ALUMNI AND FACULTY ARE RESHAPING HEALTH CARE



- HIGH TECHNOLOGY**  
Christine DeFilippo (BSE 1990, MSIA 1994)
- SERVICE LEADERSHIP**  
George Bennett (Ph.D. 1971)
- INDUSTRY TITAN**  
Ajita Rajendra (MSIA 1978)
- ENTERPRISING LEADERS**  
Monel Amin (MBA 2005)  
Angie Fetherston (BSBA 2007)  
Luke Schneider (MSIA 1993)  
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# Dean's Letter

**This** summer marks a full year since our move to the Tepper Quad, and the energy in the building is palpable. We managed a successful transition into a space that is more than twice the size of our previous home in GSIA/Posner Hall. The new Tepper School building has become the epicenter of campus, with hundreds of students, faculty, and staff from all across CMU visiting us daily to collaborate, study, socialize, and dine together.

It has been a welcome change for the Tepper School to finally have all of our graduate and undergraduate programs together under one roof, with dedicated classrooms and study spaces for students from each of our programs, in addition to the shared collaboration spaces that exist throughout the entire building. The entrepreneurial spirit of Carnegie Mellon is on display every day in the Swartz Center for Entrepreneurship, which has become a vibrant hub of activity for the entire campus. The building has also allowed the Tepper School and CMU to host a number of academic conferences to showcase the thought leadership of our faculty and has provided space for innovative student events like the CMU Global Challenges Competition hosted by the Tepper School's undergraduate economics program.

We continue to innovate our academic programs and curricula, leveraging our strengths in business, technology, and analytics. We recently launched two new master's programs, one in business analytics and the other in product management, in partnership with the School of Computer Science. Our full-time MBA program recently was ranked #12 by Bloomberg Businessweek and outpaced all other

top 20 MBA programs in the quality, depth, and preparedness of student learning. Recently, our part-time MBA offered in Pittsburgh was redesigned using a more flexible format to accommodate the needs of working professionals, while maintaining the same high standards of our full-time program. Our part-time online MBA continues to grow and remains the standard by which all other online MBA programs are judged. At the undergraduate level, our business and economics programs continue to attract outstanding students, with applications growing by nearly one-third over the past two years.

At the same time, our faculty and Ph.D. students continue to provide intellectual leadership through their groundbreaking research. We have launched a series of faculty research initiatives that focus on specific areas of interest, such as blockchain and health care technologies. I invite you to read about some of our faculty's research insights in the cover feature in this issue.

## Thank you for all that you do in support of the Tepper School.

With appreciation,

*Robert M. Dammon*

Robert M. Dammon  
Dean



NEWS FROM THE TEPPER SCHOOL OF BUSINESS

# Bloomberg Businessweek BEST B-SCHOOLS

2018 ranking of full-time MBA programs



To complete this ranking, Businessweek surveyed MBA students graduating between Oct. 1, 2017, and Sept. 30, 2018; MBA alumni who graduated between Oct. 1, 2009, and Sept. 30, 2012; and nearly 3,700 companies that recruited MBA graduates in 2016 and 2017.



### 2019 Best Online Programs

#3  
Tepper Part-Time Online Hybrid

### 2020 Best Business Schools

- #17 Tepper Full-Time MBA
- #9 Tepper Part-Time On-Campus MBA
- #2 Information Systems
- #7 Supply Chain and Logistics
- #2 Production and Operations
- #13 Finance



“If my students can explain how technology can help shape businesses and society, then I’ve done my job as their professor.” Param Vir Singh, Carnegie Bosch Associate Professor of Business Technologies, profiled by Poets & Quants for Undergrads as one of the 2018 Top 50 Undergraduate Professors.



**UNDERGRADUATE ECONOMICS INTRODUCES BACHELOR'S DEGREE IN ECONOMICS AND POLITICS**

Together with the Institute for Politics and Strategy, the Undergraduate Economics Program has launched a degree program in economics and politics, emphasizing a data-driven approach to understanding economic and political decision-making.

The program features foundational and analytical economics curriculum, including courses in microeconomics and macroeconomics, econometrics, and data science. It also includes courses in political science and international relations offered by the Institute for Politics and Strategy.

As of this spring, the Bachelor of Science in Economics and Politics is offered as both a primary and an additional major.

**NEW PART-TIME FLEX MBA INCORPORATES ONLINE COURSEWORK FOR PITTSBURGH-AREA STUDENTS**

The Tepper School has launched a new three-year, part-time MBA degree for Pittsburgh-area professionals. Designed to offer more flexibility than the former part-time on-campus option, the Part-Time Flex MBA provides local students access to the same online courses offered in the Part-Time Online Hybrid curriculum, as well as evening and weekend study on the Carnegie Mellon campus.

Like the online format, the Part-Time Flex MBA includes six weekends each year of intensive in-person classes combined with twice-weekly live class sessions taken online. In addition, students may choose to take elective courses offered on campus during the day or evening, as well as online, to supplement their core curriculum.

The new format was developed in response to feedback from current part-time students seeking more flexibility in their course schedules; the on-campus option required students to attend three hours of evening courses in person twice a week.

A unique element of the Part-Time Flex MBA is the "Tepper Roadmap," a personalized professional development plan that takes students through a series of activities to build career and leadership skills and help students advance in their current careers.

The first cohort of Part-Time Flex MBA students begins its program this fall. —

**CMU Alumni Awards**

**CARNEGIE MELLON ALUMNI AWARDS HONOR FOUR BUSINESS SCHOOL GRADUATES**

Carnegie Mellon University recognized 11 university alumni with Alumni Awards during Commencement Weekend for their professional accomplishments and university service. Four of the honorees were business school graduates, including — for a second year — the Founders Medal for Outstanding Service and Exceptional Achievement.

Created last year, the Founders Medal recognizes an alumnus who is uncommonly dedicated to the university and whose professional accomplishments are unparalleled. This year, the university recognized **TOD JOHNSON** (BSIM 1966, MSIA 1967). Johnson significantly increased the size and influence of The NPD Group, where he is now Executive Chairman, and is frequently called upon as an expert in the

field of marketing research. He is Vice Chair of the university's Board of Trustees and recently pledged a \$50 million endowment in support of scholarships. Johnson follows fellow Graduate School of Industrial Administration alumnus **JIM SWARTZ** (MSIA 1966) in receiving this honor.

**ERIC BUTLER** (E 1981, MSIA 1986) received an Alumni Achievement Award in recognition of his leadership and impact as Executive Vice President and Chief Executive Officer of Union Pacific Railroad, from which he is now retired.

Two business school alumni were recognized with an Alumni Service Award, presented for volunteer service to the university and the alumni community. **BILL JAMES JR.** (BSIM 1978), Senior Vice President of Loop Capital Markets, is a volunteer partner to the Carnegie Mellon Advising Resource Center

and led the establishment of the CMU Black Alumni Association Endowment Fund to support the group's activities. He is also a member of the Andrew Carnegie Society Board. **PAUL WELLENER IV** (MSIA 1986), Vice Chair for the U.S. industrial products sector at Deloitte, led an initiative at Deloitte to support the Tepper Quad and name the Deloitte Foundation Innovation Hub.

During the Alumni Awards ceremony, graduating student **ELEANOR TAFT MUELLER** (MBA 2019) was honored with a 2019 Student Engagement Award, which recognizes a graduating student for their contributions to the quality of life at CMU. —



### INTERNATIONAL ASSOCIATION FOR APPLIED ECONOMETRICS ELECTS ROBERT MILLER AS FELLOW

The International Association for Applied Econometrics, an academic association devoted to research and public education in the field of econometrics, has elected as a fellow **ROBERT MILLER**, Richard M. Cyert and Morris DeGroot Professor of Economics and Strategy. Miller is the only Carnegie Mellon University researcher among the current roster of IAAE fellows.

In 2017, Miller was also elected as a fellow of the Econometric Society, an international society of economic researchers that publishes the research journals *Econometrica*, *Quantitative Economics*, and *Theoretical Economics*. —

### UNDERGRADUATE ECONOMICS SENIORS EARN UNIVERSITY-LEVEL RECOGNITIONS

Two graduating seniors in the Undergraduate Economics Program were recognized by Carnegie Mellon University for their academic and leadership achievements.

**SETH HENRY**, a senior economics major with minors in international relations and politics and in innovation and entrepreneurship, was selected as an Andrew Carnegie Society Scholar. University administrators honor 40 students each year as ACS Scholars for their academic excellence, leadership, and extracurricular involvement.

**JULES ROSS**, a senior economics major with an additional major in international relations and policy, was initiated into the Phi Beta Kappa Society, a national academic honor society. Ross is one of 21 CMU seniors selected for early initiation. —



### LAURENCE ALES BECOMES FIRST DIRECTOR OF UNDERGRADUATE RESEARCH IN ECONOMICS

Intended to serve as a resource for undergraduate students pursuing research opportunities, the Undergraduate Economics Program has developed the new role of Director of Undergraduate Research in Economics. **LAURENCE ALES**, Associate Professor of Economics, assumed the post this fall.

Research is an essential aspect of the economics curriculum, and this new position will support students in conducting research both in their coursework and for independent study. Ales will also help connect economics students with faculty who share their research interests, helping to foster mentor relationships and providing opportunities for research assistantships. —

## RESEARCH and INNOVATION Initiatives

New interdisciplinary initiatives at the Tepper School of Business unite researchers, students, and industry leaders whose work contributes to important topics shaping business and society.

In the modern era of rapid innovation, business leaders must constantly adapt to new ideas, models, and technologies that affect business practice and society in complex, multifaceted ways. Educating tomorrow's leaders requires the thoughtful confluence of theoretical knowledge and practical experience across diverse areas of expertise.

Addressing these challenges, the Tepper School of Business has launched a series of interdisciplinary research initiatives designed to bring together research, coursework, and industry partnerships that work toward advancing understanding of prominent topics.

These initiatives serve two key purposes: The first is to identify and consolidate the research efforts of Tepper School faculty and students across disciplines and the business expertise of corporate and academic partners along related subject matter. The second is to foster further collaborations and support curriculum development.

The first of these initiatives concerns blockchains and cryptocurrencies, led by Sevin Yeltekin, Professor of Economics, Senior Associate Dean of Education.

The inaugural INTERSECT@CMU conference featured a panel titled “Decentralizing Trust: Blockchain’s Radical Potential,” which included Tepper School alumni and business partners alongside **ARIEL ZETLIN-JONES**, Associate Professor of Economics, who is a part of the initiative.

The initiative incorporates Tepper research and curricula in cryptocurrencies and tokenomics, smart contracts, financial technologies, and monetary policy. It includes partnerships with Carnegie Mellon University’s CyLab Security and Privacy Institute and with the PNC Financial Services Group.

Earlier this year, three additional initiatives launched: health care, inclusive growth and prosperity, and sustainability.

The health care initiative, led by Yeltekin and **ALAN SCHELLER-WOLF**, Richard M. Cyert Professor of Operations Management, Senior Associate Dean of Faculty and Research, spans such issues as diagnosis, pharmaceuticals, staffing, insurance, and organ donation. More than a dozen faculty at Tepper across disciplines like organizational behavior and theory, business technologies, operations, and strategy are researching aspects of health care delivery. The topic is integral to several courses in the doctoral, MBA, and undergraduate programs.

An economics and policy initiative titled Inclusive Growth and Prosperity, led by **CHRIS SLEET**, Professor of Economics, Head of Economics, investigates how issues like labor markets, education, taxes, and social policy contribute to uneven local and global

prosperity. The newly launched office for Undergraduate Research in Economics is an integral part of this initiative, providing opportunities for undergraduate students to engage in new research in economic growth and policy design, and their impact on business and society.

The latest initiative—led by **Nicholas Muller**, Associate Professor of Economics, Engineering, and Public Policy; **Lester and Judith Lave** Development Chair in Economics, Engineering, and Public Policy—concerns sustainability, including energy and environmental policy, health and social well-being, engineering, and architecture. This initiative aims to integrate research at Tepper and across campus with focused educational offerings at the undergraduate and master’s levels.

As societal issues affecting the global economy evolve, these initiatives will grow and adapt, and new initiatives will be created. “Our goal is to demonstrate how our expertise and research shed light on and provide solutions to these important issues in a multidisciplinary, long-lasting way,” Yeltekin said. “These initiatives are designed to communicate our discoveries, offer solutions to topical problems businesses and society face, match with academic and nonacademic collaborators, and educate the next generation of leaders in business and society.” —

# INCOME

ECONOMISTS ARE INVESTIGATING THE CAUSES AND POLICY IMPLICATIONS OF A CHANGING INCOME DISTRIBUTION IN THE U.S.

# INEQUALITY

Understanding the distribution of people across incomes and the implications of policies for this distribution have long been central concerns for economists. Perhaps surprisingly then, a unified and comprehensive description of the U.S. income distribution has been lacking and is only now beginning to emerge.

In the last few years, economists have combined survey, tax, and national income data to gain a more complete picture. Linking those data sets and presenting income distribution data require certain technical assumptions. Should the focus be on the distribution of individuals or of households across incomes? Should it be on pretax or post-tax incomes? Should adjustments be made for household size? How should inflation be controlled for?

Averaging across studies suggests steady after-tax income growth for the median earner of about 1 percent a year between 1979 and 2014. However, top earners had significantly greater income growth, with the top 10 percent capturing close to 50 percent of total growth between 1979 and 2014. The evidence points to rising income inequality, but the extent of that rise remains a matter for debate. More needs to be done in standardizing methodologies, tracking individuals as they progress through the income distribution, identifying mobility bottlenecks, explaining emergent facts, and understanding their causes.

**AROUND 60 PERCENT OF NATIONAL INCOME IN THE U.S. IS DISTRIBUTED AS WAGES AND SALARIES, WITH THE REST PAID OUT AS RENTS, INTEREST, OR DIVIDENDS, OR RETAINED WITHIN FIRMS.**

*Much attention has focused on wages and salaries, which have become both more unequally distributed and a smaller share of national income.*

It is useful to think of people as portfolios of skills, some natural and some acquired. The wage and salary distribution is shaped by the relative supplies and demands for skills. The drivers of skill supply and demand are complex and include technological and organizational change, dampened labor market competition, international trade, and evolving patterns of worker flows across geographic, occupational, and skill space.

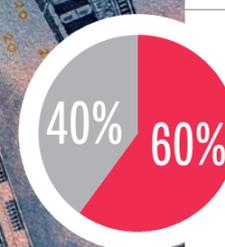
Disentangling the role of these different factors in creating and disrupting labor market opportunities and driving relative wages is one of the fundamental challenges for modern economics — a challenge Tepper School economists are pursuing vigorously through the new “Inclusive Growth and Prosperity” initiative.

In the face of these forces, how should tax policy be (re)designed? There are two challenges in answering this. The first is to establish goals. Everyone can agree to a reform that makes us all better off. Moving beyond this and selecting among outcomes that benefit some at the expense of others requires trading off different people’s welfare. Economists leave this tradeoff to ethicists or the political process. Instead, they focus on how a given aggregation of preferences can be best converted into policy.

This leads to the second challenge: To what extent can a particular group be assisted without disrupting incentives for effort and initiative? In practice a policymaker cannot easily observe a person’s inherent skills and opportunities, only the economic outcomes that are created when these are combined with effort. A tax redistribution from high to low incomes that benefits the unlucky inevitably dampens incentives for skill acquisition, job search, and work. Mitigating chance distorts choice and economic activity. The key question is: By how much? This is a hard question since economists cannot run controlled experiments to evaluate the impact of alternative policy choices. Instead they must combine data on past tax policies with economic models to evaluate the response to proposed reforms. Building such models, cultivating them with data, and guiding policymakers toward better-designed policy are central components of the mission of the Inclusive Growth and Prosperity initiative. —

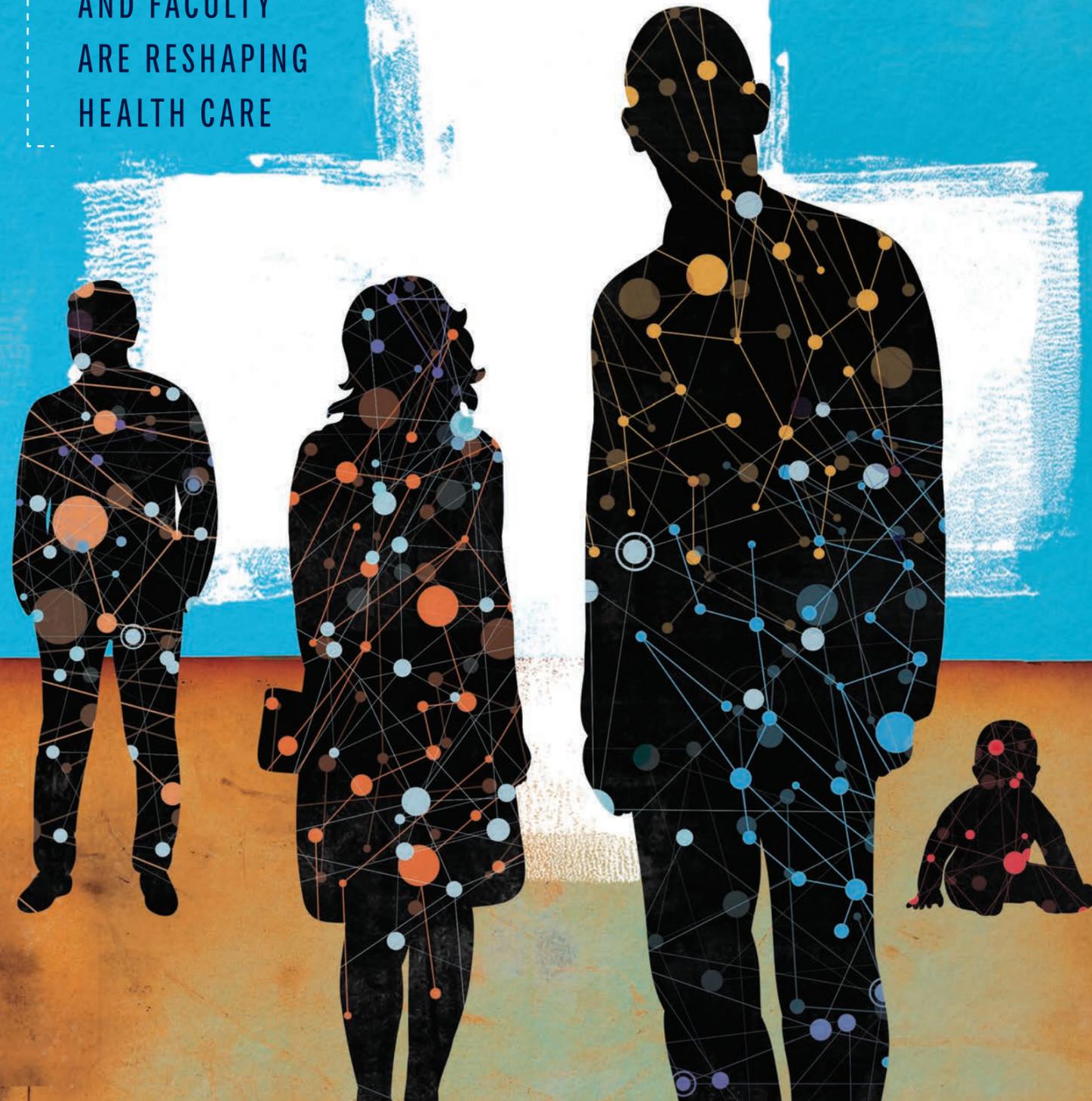


**BY CHRISTOPHER SLEET**  
Professor of Economics,  
Head of Economics  
Tepper School of Business





## HOW TEPPER SCHOOL ALUMNI AND FACULTY ARE RESHAPING HEALTH CARE



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MAGAZINE

BY NIKI KAPSAMBELIS

# THE ROAD TO WELLVILLE

ACCESS TO HEALTH CARE HAS BEEN A PRIME ISSUE FOR VOTERS AND POLITICIANS IN THE LAST FEW ELECTION CYCLES. NEW INNOVATIONS ARE REFORMING THE INDUSTRY TOWARD CARE THAT IS MORE INDIVIDUALIZED THAN EVER BEFORE.

Take an industry that constitutes almost one-fifth of the U.S. gross domestic product, add a generous dose of rapid-fire technological advancements, a complicated relationship with public policy, and a high-risk, high-reward value proposition, and you have what could be the perfect incubator for business innovation: health care.

It touches virtually every person in the nation, and its sheer size and complexity have proven daunting for some of the most astute thought leaders society has to offer. Health care is an 800-pound gorilla we all hope to tame, or at least harness, with the end result of helping people live longer, more comfortable lives. It means using data analysis to find cures for rare diseases that once were overlooked by the system. It also means finding solutions to really big problems, including such behemoth targets as organ transplants, cancer, and cystic fibrosis. As health care continues to grow — it is expected to hit 20 percent of the GDP within the next five years — it has become a favorite target for some of the most robust research and business applications in recent memory.

At the forefront of this research are Tepper School faculty who study health care

problems across a variety of disciplines. And from diagnosing diseases at the earliest possible stages to finding the best possible drug therapy for an individual patient, Tepper School alumni are making significant strides in advancing the field.

#### TEPPER'S QUANTITATIVE APPROACH

"You're looking for solutions or ideas that are robust enough that [they] can continue to be useful, even as the landscape changes," says **ALAN SCHELLER-WOLF**, Richard M. Cyert Professor of Operations Management, Senior Associate Dean for Faculty and Research. "This is a field where you can see there is a large potential to have a direct, immediate impact on people's lives — often people in significant need."

The Tepper School, which specializes in using quantitative analysis to untangle and clarify dense, intricate issues, is uniquely suited to train the minds that are disrupting health care and adapting to the shifting forces that are shaping it.

"We are not the physicians, but we are giving them data-driven methods, including machine learning algorithms, for making decisions to make their lives better — which means they make their patients' lives

better," explains **SRIDHAR TAYUR**, Ford Distinguished Research Chair, Professor of Operations Management.

The stakes couldn't be higher. Even as costs climb, the U.S. population continues to age, leading to a greater need for more complex care. Meanwhile, an increasingly savvy public is demanding more precise, personalized care and greater accessibility — all forces that are shaping the market and driving demand for better solutions in both the public and private sectors.

"It's a huge challenge. It's a huge amount of dollars," says **C. TALBOT HEPPENSTALL JR.** (MSIA 1985), President of UPMC Enterprises and Executive Vice President and Treasurer of UPMC. Those two factors combined are why tech giants such as Apple, Microsoft, and Amazon are eager to invest in health care, he notes. Likewise, UPMC has partnered with Carnegie Mellon University and the University of Pittsburgh to form the Pittsburgh Health Data Alliance, which is focused on harnessing big data to better predict, prevent and treat disease.

"I'm 58, and the health care industry will not run out of problems in my career," he adds.



## ORGANJET OPTIMIZES OPERATIONS

What do organ transplants and optimization have in common? Plenty, if you're waiting for a life-saving surgery. That's why **SRIDHAR TAYUR**, Ford Distinguished Research Chair and Professor of Operations Management, saw an opportunity to merge the two concepts.

In the United States, approximately 115,000 people are currently on a waiting list for a lifesaving organ transplant, according to the American Transplant Foundation. Only about 30,000 transplants occur each year. It is widely known within transplant circles that the time a person waits for an available organ varies widely depending on where they live; wait lists on the East and West coasts can be double those of the Midwest.

Tayur, who previously had no background in transplants but had created algorithms that optimized scheduling for time-shared private jets, thought he could apply the same principle to assist transplant recipients and patients. The result was a new company, OrganJet, which provides both an information service and air travel to connect waiting patients with matching organs.

After that, Tayur began exploring new projects. Understanding both supply and demand, and the tradeoffs between efficiency and fairness, as well as providing objective guidance on data, allows doctors to do their jobs better, he realized.

To date, through a combination of its advisory services and transportation options, OrganJet has helped more than 300 patients who were waiting for a transplant, according to Tayur. And the impetus for the company's formation has inspired him to branch out by exploring other health care optimization problems.

One of his current projects includes developing data-driven methods for the United Network for Organ Sharing to use in determining the optimal distribution of livers for transplants. In patients who have liver cancer, Tayur and his collaborators at Carnegie Mellon and Massachusetts General Hospital created a scoring scheme that calculates information about tumor growth and other factors to determine which patients should be prioritized for transplant.



"THIS IS A FIELD WHERE YOU CAN SEE THERE IS A LARGE POTENTIAL TO HAVE A DIRECT, IMMEDIATE IMPACT ON PEOPLE'S LIVES."

ALAN SCHELLER-WOLF, RICHARD M. CYERT PROFESSOR OF OPERATIONS MANAGEMENT, SENIOR ASSOCIATE DEAN FOR FACULTY AND RESEARCH

### SCARCE RESOURCES, BETTER DISTRIBUTION

For Tayur, health care has been fertile ground for optimization research for years. He co-authored a handbook to help guide research in health care operations, including a comprehensive explanation of the industry's organizational structure as well as specialty topics.

It also led him to an entrepreneurial venture, OrganJet, designed to help alleviate a pressing logistical problem: matching transplant patients with donor organs across geographical regions. A current project with the United Network for Organ Sharing creates data-driven methods for optimal allocation of the scarce livers that are available for transplants to the most suitable patients.

Tayur created a scoring scheme that factors in whether a patient has a complicating condition, the size of the patient, the size of the liver, and other information and then helps to prioritize the matches.

In a similar line of research, Scheller-Wolf has studied ways to optimize the distribution of blood platelets. The idea is to create a policy model that distributes the freshest platelets to those in greatest need, while blood that is older but still viable can go to patients who will still benefit, reducing waste and improving outcomes.

In addition to his work in optimization, Tayur serves on the scientific advisory board

of Mitra Biotech, a Boston-based startup backed by venture capitalist **JAMES SWARTZ** (MSIA 1966). The company is developing tools to help personalize cancer therapy by better defining both the tumor and its microenvironment.

Oncologists send a live sample of a malignant tumor along with the micro-environment around it to the Mitra lab, which tests various drug combinations on the sample. Algorithms then analyze a huge unstructured data set, including information on genetics, how the tumor changes, cytochemistry, and other factors, before calculating a score.

If the score is over 25, the drug combination is likely to help the patient, with a prediction accuracy of about 87 percent. If it scores under 25, it is highly unlikely to help. Mitra sends the scores back to the oncologist, helping determine which treatments to give the patient.

The analysis results in "incredible cost savings, but more importantly, you're not wasting time" by administering the wrong treatment, Tayur says.

"This is an example of what CMU folks do: We do data-driven analytics. I tell people, 'I don't know how to do transplants, but we can help you decide who to transplant.' Additionally, we are able to increase the number of transplants by reducing organ discards."

### FROM NETFLIX TO NANOPARTICLES

**ANDREW LI**, Assistant Professor of Operations Research, applies his expertise in optimization and machine learning to cancer as well as Alzheimer's. He worked on new liquid biopsies, which are blood tests that can detect diseases in their earliest stages by measuring thousands of proteins all at once. The technique involves injecting the patient's blood sample with nanoparticles that stick to the proteins associated with a tumor, or with Alzheimer's.

By measuring the amount and type of proteins stuck to the nanoparticle, the test yields what Li calls a sort of fingerprint of the disease, which artificial intelligence can then analyze to predict the diagnosis.

Mathematically, the analysis is the same as systems that companies such as Netflix or Amazon use to recommend movies or products to customers. It gathers data based on a user's behavior: clicking on a particular item, watching a trailer, putting a product in a virtual shopping cart. Known as tensor recovery, the process builds a matrix of the data it collects to make its predictions. Data from a single person is not very accurate, but the accuracy improves dramatically when data is collected from many people and machine learning refines it.

"The general work I like to do is mathematical, but it also has impact," says Li, who also has worked in e-commerce applications. "I think that was the appeal

of getting to apply these same techniques. It was a totally different setting, and possibly more impactful."

As technology improves in its ability to process massive quantities of data, the predictions become more precise; five years ago, the measurements from the nanoparticles in the liquid biopsies would not have been possible.

But the challenge in applying intelligent data analysis to health care now lies in collecting enough data online to make the analysis possible, Li notes. Privacy laws restrict how much of that information can be shared, posing another problem that business may seek to solve. Currently, the companies competing in the liquid biopsy space are competing in the area of data collection — and Li predicts that will be true for the next five to 10 years.

### NARROWING THE TARGETS

While **SUJAL SHAH** (MBA 2004) thinks the term "personalized medicine" is overused, he does believe that health care has become more customized in general.

Shah serves as President and Chief Executive Officer of CymaBay Therapeutics, a biopharma company that develops drugs for liver and other chronic diseases. A better understanding of the biology and genetics of the patient's condition does allow for more targeted therapies, he notes.

"I do believe there is a significant opportunity across drug development for better understanding how various patients are going to respond to your drug, both in efficacy and safety," he says. And artificial intelligence helps the pharmaceutical industry understand the differences in patient response.

For example, if patients are measured for 1,000 parameters, AI can help discern which of those factors contributed to a bad reaction, and the patients can be screened for those factors to prevent similar responses in the future, he says.

**CAROLINE LOEWY** (MSIA 1990), who serves on the board of directors for CymaBay and several other biopharma companies, says AI can also help drive the development of treatments for rare disorders. Genetic sequencing can help narrow down the causes of these conditions, and big data helps in particular to isolate a mutation from a sequence that includes billions of nucleotides.

"It's still, in many cases, more of an art than a science," Loewy says, but the process is more efficient than it used to be.

Loewy's son, James, is among those who carry a rare genetic disease — in his case, a mutation on the KCNQ2 gene, which causes recurrent seizures and severe cognitive impairment. When he was first diagnosed, there were only 10 or so people worldwide who were known to have the same condition. Today, there are about 700.

Developing drugs for rare diseases is costly, but Loewy points out that companies might be able to run more efficient clinical trials or repurpose existing drugs for these indications.

For a more targeted drug for a smaller population to be commercially viable, there has to be enough value and a clear change in the course of the disease," Loewy says.

#### BETTER TEAMS, BETTER OUTCOMES

Vertex Pharmaceuticals targets cystic fibrosis and currently manufactures drugs that treat the cause for about half of the people who have the disease. Another 40 percent could benefit from a drug the company plans to file with the U.S. Food and Drug Administration later this year, according to **AMIT SACHDEV** (BSIM 1990),

the company's Executive Vice President and Chief Regulatory Officer, and the remaining 10 percent would require genetic therapy. The company is also interested in pursuing a treatment for sickle cell disease, a genetic disorder that Sachdev considers part of the early frontier for gene editing.

"When you think about drug discovery, it's all about solving problems," says Sachdev, and a deep understanding of business, particularly through a quantitative lens, is helpful in achieving success. "I think that Carnegie Mellon trains some of the best and brightest."

Problem solving can extend beyond machine learning. **LINDA ARGOTE**, the David M. Kirr and Barbara A. Kirr Professor of Organizational Behavior and Theory, has studied the optimal makeup of teams in hospitals for creating the best outcomes. She focuses on transactive memory, which is how well each team member understands who is good at what tasks.

"I think hospitals are interesting from a societal as well as a research point of view," says Argote, because the stakes are so high — both for patients, who don't want to be there any longer than they have to be, and for hospitals, which want to use their facilities efficiently and to their best effect.

In one of her current projects, with Drs. Jeremy Kahn and Matthew Rosengart of UPMC and Tepper Ph.D. students **JERRY GUO AND KI-WON HAAN**, Argote is studying interactions in teams working at trauma units in hospitals that treat the most injured people. The research team examines whether trauma teams that have a well-developed "transactive memory," or knowledge of who knows what, perform better than teams lacking such knowledge. Knowledge of who knows what enables teams to assign tasks to their most qualified members, to trust each other's expertise, and to coordinate that expertise effectively.

Performance is assessed by a variety of clinical outcomes, including how long it takes for the patient to get to the next stage of care, such as a surgical or intensive care unit, and how long patients spend in that next phase as well as their entire length of stay at the hospital. Time is a critical factor in determining the patient's clinical outcomes. The initial data indicate that having a stronger transactive memory resulted in patients' having a shorter length of stay. Later, the research will examine what promotes better transactive memory, including the composition of the team, their experience working together, and their experience at their tasks.

**"WE ARE NOT THE PHYSICIANS, BUT WE ARE GIVING THEM DATA-DRIVEN METHODS, INCLUDING MACHINE LEARNING ALGORITHMS, FOR MAKING DECISIONS TO MAKE THEIR LIVES BETTER — WHICH MEANS THEY MAKE THEIR PATIENTS' LIVES BETTER."**

SRIDHAR TAYUR, FORD DISTINGUISHED RESEARCH CHAIR,  
PROFESSOR OF OPERATIONS MANAGEMENT



**"HOW DO WE MANAGE COSTS, BUT AT THE SAME TIME GET BETTER OUTCOMES?"**

KATHERINE KOHATSU (E 1997, MBA 2005)

Ultimately, Argote would like to help hospitals determine how to optimize teams to improve patient care outcomes.

"Emergency care is not an individual sport; it's a team sport," she says. She describes the goal of the research as "developing guidelines for how teams can work together effectively."

Scheller-Wolf similarly has studied factors impacting quality of care, including the number of individual caregivers the patient sees. The higher the number of new caregivers, the more often the patient has to explain their needs, which can create inconsistency of care at hospitals and long-term care facilities.

"A huge part of the problem is that people call off, and then you get any random staff member as a replacement in there — or the facility calls an outside pool, and it's automatically a new person," says Scheller-Wolf.

One of his students, **VINCE SLAUGH** (Ph.D. 2015), came up with the idea of creating a voluntary on-call pool that draws from in-house staff already familiar with the patient. In another project, Scheller-Wolf found mathematical models that optimize nurse phone lines that people can call with questions about non-urgent medical concerns. The idea is that such services can offload demands for emergency services.

Overall, the health care industry continues to grow more complex, Scheller-Wolf notes.

"With the advent of medical advances, with the advent of more information, the problems just become more complicated," while "money continues to be tight," he says.

#### A ROAD TO SINGLE PAYER?

Heppenstall, the UPMC Executive Vice President, contends that the crux of the problem lies in the way health care is financed in the United States — which also contributes significantly to the dearth of data that Li points out.

Most of the 6,000 or so hospitals in the U.S. are nonprofit, and since they compete locally, they don't want to share data, he says. And the current tax structure, which puts employers in the middle of the funding conversation, is another problem that is driving inefficiencies.

"You don't have to look too far to see the U.S. health care system is broken," he says.

**KATHERINE KOHATSU** (E 1997, MBA 2005), a principal with PricewaterhouseCoopers who has focused exclusively on health care for the past eight years, says efforts to reduce costs and administrative burdens typically draw a lot of pushback.

"There's that tension in the system in terms of who gets the dollars," she says. "At a macro level, I think we're all trying to do better, but at the individual level, who bears the burden of cost reductions? Also: How do we manage costs but at the same time get better outcomes?"

For Heppenstall, the answer is simple: Public policy surrounding health care will change, because it is unsustainable in its current form.

"We're on a path that we can't afford," he notes, and the U.S. population demographics explain why.

Longer lifespans and the aging of the baby boomer population are both contributing to more people entering the Medicare system, while fewer people are left behind them to

pay for their care, particularly as it becomes more complicated in old age.

Kohatsu cited a regional plan's Medicare program, which has been segmenting its care teams for people from 65 to 85 and then for people who are 85 and older.

Regarding a single-payer system, she suggested that states may take steps toward single procurement systems, in which the government negotiates what prices they'll pay for prescription medications for their Medicaid beneficiaries — a model that is being tested in California. Louisiana is going even further and investigating a subscription model for unlimited access to hepatitis C drugs.

"I think there are a lot of levers there," she says, "That may be the impetus by which you go to single payer."

Kohatsu notes that when she graduated from the Tepper School, she spent time consulting with other industries before she made the jump into health care. Like many fellow alumni — regardless of what aspect they work in — she says she stays because she wants to help advance the field.

"I feel like I can sit back and think about this big picture that I'm trying to move and solve, and I feel like I've had a small, tiny part in it," she says. —



**"YOU DON'T HAVE TO LOOK TOO FAR TO SEE THE U.S. HEALTH CARE SYSTEM IS BROKEN."**

C. TALBOT HEPPENSTALL JR.  
(MSIA 1985)

# DRIVEN TO DISRUPTION

HIGH TECHNOLOGY FEATURES A LEADER IN THE TECHNOLOGY INDUSTRY WHOSE WORK INVOLVES INCORPORATING NEW TECHNOLOGICAL INNOVATIONS INTO BUSINESS PRACTICE.

"IT'S GREAT TO WORK FOR A COMPANY THAT VALUES EQUALITY AND CHALLENGES THE STATUS QUO."



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When people learn that **CHRISTINE DEFILIPPO** (BSE 1990, MSIA 1994) is a Director of Operations at Apple, the first thing they ask is often which of the company's products she works on.

The answer isn't so clear cut, says DeFilippo. "I build operations for software and services," she explains. "I ramp up and manage large teams to support product builds, drive all the service agreements and statements of work, and manage the production and quality processes."

It's an unusual role at Apple, but it gives her an unusual perspective on the organization. As "a builder and not a sustainer, by choice," as she puts it, she's spent almost all of her time there moving among projects that need her problem-solving skills.

#### THE TEPPER TOUCH

As an undergraduate at Carnegie Mellon University, DeFilippo earned her bachelor's in economics through a joint degree program shared by the Tepper School of Business and the Dietrich College of Humanities and Social Sciences. After working in finance, she returned to CMU for her MSIA. From there, she became a manager of business development at the Walt Disney Company. After a brief detour into investor relations at a manufacturing company, she led strategy and marketing operations for mapping and navigation company NAVTEQ, and later at Nokia after it acquired NAVTEQ. She joined Apple in a financial role in 2012.

DeFilippo draws a direct line from her time at Tepper to her success at the company. Both emphasize innovation and experimentation. Both promote broad-based problem-solving. And then there's the Tepper ethos of fostering collaboration among people with a wide range of backgrounds, skills, experiences, and learning styles.

"A lot of people in the operations world can't scale or be effective because they struggle to work with engineers, but I'd already had a lot of practice," DeFilippo says.

Tepper also gave her the ability to work effectively at an intense and rigorous pace. "Apple moves faster than any other company I've worked for," she says. "It feels like I've been here my entire career because I've done so much, and that only happens when you work with a great team, which Tepper's mini system taught me how to do really well. Everyone was very different at Tepper, but we all had to work hard to get where we were, which allowed us to let go of stereotypes and focus on working together."

#### TACKLING THE GENDER QUESTION

That brings up an issue that's gone from a simmer to a rolling boil in recent years: the question of how the male-dominated technology industry perceives and treats women. "I would not say, though maybe it's just me, that tech is better or worse than any other field," she begins, before listing off examples of her own experiences since graduating from Tepper.

At her very first job, she says, she was ordered never to wear trousers to the office, only skirts. Years later, she worked for a company that offered no maternity leave, only disability leave, with a manager who was openly skeptical about her intention to return to work after using up her six allotted weeks. And then there was the boss who propositioned her during meetings and gave her a seven-page handwritten love letter, which the HR department brushed off as a joke.

"A LOT OF PEOPLE IN THE OPERATIONS WORLD CAN'T SCALE OR BE EFFECTIVE BECAUSE THEY STRUGGLE TO WORK WITH ENGINEERS, BUT I'D ALREADY HAD A LOT OF PRACTICE."

At one point, during the final round of interviews for a top position, she mentioned to the company's founder that she and her husband had six children between them. "He visibly lost interest," she recalls. "It was obvious there was no room in his mind for a woman at the senior executive level with any responsibilities at home. Ironically, if he had only asked, I'd have told him that my husband stopped working to be a stay-at-home father."

The culture at Apple was a welcome change, given the company's emphasis on the importance of diversity and inclusion. She gives a lot of credit to the top-down mission of CEO Tim Cook to ensure that women and men earn the same for similar roles in every country where Apple operates. The company also provides training and education for all employees to raise awareness around these important issues.

"It's great to work for a company that values equality and challenges the status quo," she says. "It's one key driver that keeps me here."

**ADVICE FOR STUDENTS AND ALUMNI**

Despite a busy schedule, DeFilippo makes a point of supporting the Tepper community. In addition to contributing to the building campaign for the Tepper Quad, she's hosted a summer event at her home to welcome incoming MBA students from throughout the Bay Area and second-year MBA interns in the area. She also returned to campus in April for her 25th Reunion, where she joined other alumni speaking on a technology panel.

In a recent keynote speech to part-time online students at an Access Weekend in San Jose, she connected with the audience with humor and candor, describing how she navigated a job that wasn't a good fit in a challenging year that culminated with a fire that burned down the family home. The part-time MBA student cohort, many of whom are juggling coursework, careers, and families themselves, were inspired by her story of regaining her self-confidence and appetite for risk so she could move on.

Asking her what nascent technology innovations today's Tepper students should be aware of as they plan their business careers makes her pause and say thoughtfully, "I don't really think about it that way."

"Plan your career around thinking about which parts of your environment are ready to be disrupted and what kinds of disruption will improve the world overall," she advises. Beyond that, don't do that thinking alone or assume that leaving school means you know everything you need to know for the rest of your career. Being collaborative, curious, and willing to continue learning as technology continues to expand is key to managing a successful career.

Most of all, she says, the most successful careers are based on understanding what, at your core, motivates you. "Everyone has two or three things that have really driven them forward, ever since they were small," she says. "Make sure those two or three things are the common thread through what you're doing at all times. That's what pushes you, beyond anyone you're competing with." —



Christine DeFilippo  
(BSE 1990, MSIA 1994)  
Director of Operations  
Apple

“IT FEELS LIKE I'VE BEEN HERE MY ENTIRE CAREER BECAUSE I'VE DONE SO MUCH, AND THAT ONLY HAPPENS WHEN YOU WORK WITH A GREAT TEAM.”

# Strategize Your Giving



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“My two years at Carnegie Mellon's business school were a great preparation for my career. Now, I feel it is my duty and privilege to give back to provide for future generations at Tepper. Giving through a donor-advised fund offers the flexibility to adjust my pledge throughout my retirement and allows me to maximize the value of my gift.”

Bob Rifkin (MSIA 1976)  
Treasury Services Analyst  
Texas Instruments



# LIFETIME OF IMPACT

SERVICE LEADERSHIP HIGHLIGHTS A TEPPER SCHOOL ALUMNUS OR ALUMNA WHO IS USING THEIR BUSINESS ACUMEN TO ACHIEVE SUCCESS IN THEIR ALTRUISTIC PURSUITS.

The low hum of conversation fills the air at an elite fundraiser for New Hampshire senator Jeanne Shaheen. It's 2008, and serially successful entrepreneur and CMU alumnus **GEORGE BENNETT**, (Ph.D. 1971) only months removed from the \$775 million sale of his health care services company HealthDialog, is making the rounds. He's no stranger to fundraisers — after a career of founding and consulting for lucrative businesses, he's shared the fruits of his success with numerous charities, organizations, and candidates. But when Jeanne Shaheen's adult daughter Stefany introduces herself to him, she's not seeking a donation to her mother's campaign — she's seeking his business advice.

Stefany Shaheen's young daughter had recently been diagnosed with Type 1 (juvenile) diabetes. Her daughter's strict nutrition regimen now required Shaheen and her husband to spend considerable time each day measuring their daughter's portion sizes. Her company, called Good Measures, would sell kitchenware products with integrated measurements to help those newly diagnosed with diabetes manage their nutrient intake.

Bennett himself had recently been diagnosed with a nutrition-sensitive condition, and he quickly learned how much effort managing his own nutrient intake required. He had tried several types of software programs to assist him but found them all to be cumbersome and difficult to use.

Before long, they founded Good Measures, a company that uses technology to help those contending with chronic conditions like diabetes, heart disease, and obesity manage their nutrition, exercise, and overall health

regimens. Bennett believes it could not only change how the health of chronically ill patients is managed — it could change how the world eats.

#### GETTING A LEG UP

For Bennett, it was just the latest in a lifetime of giving deserving individuals and organizations a leg up — an effort sparked by the first leg up Bennett himself received. While studying engineering as an undergraduate at West Virginia University, Bennett took an internship at IBM. He spent a summer developing a computer language for IBM's first graphical cathode-ray tube terminal. Unbeknownst to him, IBM had already employed a team of 140 for a year to do the same thing without success. Working solo, Bennett created a computer language by the end of the summer that would later be released with IBM's first commercially released graphical cathode-ray tube.

Word of his feat spread quickly, and before summer was out, **WILLIAM DILL** (Ph.D. 1956), then a Vice President at IBM, but previously a faculty member with the business program at the Carnegie Institute of Technology — now CMU — paid the young prodigy a visit. He said, "This is amazing. Where are you going to graduate school?" Bennett wasn't planning on graduate school — he couldn't afford it.

Dill would have none of it. Over the next year, Dill helped Bennett navigate the Graduate School of Industrial Administration's various entrance applications, paperwork, and tests. This assistance culminated in the offer of a lifetime: an all-expenses-paid, five-year fellowship that would include a master's and Ph.D. in industrial administration.

Bennett describes his time at GSIA as transformative. "I learned the value of interdisciplinary thinking and the power of pushing the frontiers of current wisdom," he said. "I remember seeing Richard Cyert — the dean at the time — on the cover of Businessweek with a flattering caption that read something like, 'Richard Cyert: The Leader of an Elite Brain Trust.'"

# “I WANT MY TOMBSTONE TO SAY ‘HE HELPED PUT A DENT IN THE SCOURGE OF DIABETES.’”

While at GSIA, Bennett enjoyed the opportunity to interact with faculty who were producing groundbreaking work: Cyert and James March, whose work forms the foundation of organizational behavior studies; Nobel laureate Herb Simon; Yuji Ijiri, the inventor of triple-entry accounting; and William Cooper, who led the application of linear programming to management settings. “I am very grateful for the skills I learned from these faculty members and others at the school,” Bennett said, “but the biggest impact on my life and career has been what they taught me about the value of pushing boundaries and routinely thinking out of the box.”

### LIFETIME OF GIVING

Dill’s kindness would set Bennett on a path of lifelong service and philanthropy. “I have spent my career trying to pay back Bill Dill’s act of goodwill,” Bennett says. From serving on the boards of organizations like the National Youth Science Foundation and the Grace Commission to supporting nonprofits that help underprivileged youth attend college, Bennett has been generous with both his time and the wealth of resources he’s acquired throughout his successful career.

His skills in business and entrepreneurship are extensive. Bennett consulted for Boston Consulting Group; co-founded Bain Consulting; co-founded Braxton Associates, which he and his colleagues sold to Deloitte; co-founded Symmetrix, a re-engineering consulting firm; and co-founded Health Dialog, a company that provides telephonic support to chronically ill patients. “Suffice it to say, my Ph.D. from Carnegie Tech provided an incredible ROI,” Bennett jokes.

At Health Dialog, to streamline operations, Bennett and his colleagues implemented “whole person” coaching. Rather than have numerous clinicians on staff handle a patient’s multiple conditions, Bennett explains, “my colleagues and I had the bold idea of having one coach be responsible for understanding the full constellation of a person’s needs, including his or her various medical conditions. That one idea revolutionized the telephonic support business.” Bennett realized that if the health care industry as a whole took the same approach to patient care, it could similarly rein in costs and battle health care overutilization.

By the time Bennett and his partners sold Health Dialog in 2008 for \$775 million, 24 million people had access to the service, and the firm had nearly 2,000 employees. It is now a wholly owned subsidiary of Rite Aid.

### PERSONALIZED WELLNESS MANAGEMENT

When Shaheen approached him that night in 2008, Bennett realized he could expand on the work he began with Health Dialog. With effective virtual coaching using phone, text, and/or email, and with effective digital assets including an online portal and software app, Good Measures could help chronically ill patients manage their nutrition and health regimens.

Each Good Measures patient is assigned a clinically trained coach, such as a registered dietitian or certified diabetes educator. Together, they develop a nutrition and exercise regimen that takes into account many interconnected personal factors, including age, gender, goals, medical conditions, food preferences, schedule, budget, allergies, and medications, among others. Then, using its patented technology called the “Good Measures Index,” it makes specific recommendations about what foods will help satisfy their nutrient needs.

Whether patients are trying to adhere to certain diets or trying to manage chronic conditions, Good Measures gives them personalized meal and snack suggestions that meet their highly personalized nutrient needs. “Before Good Measures, no one had ever developed an easy way to keep 40 nutrients in balance. It’s a complicated puzzle. Luckily, I learned how to solve complicated puzzles at Carnegie Tech.”

Good Measures is currently in discussion with several global partners interested in deploying its technology to help chronically ill patients and to help consumers build meal plans and create shopping lists. The Boston-based company counts 29 founding members, including mathematicians, engineers, and food and nutrition experts, and employs full- or part-time staff in all 50 states. Bennett himself has never taken a salary.

### BROAD PHILANTHROPIC SUPPORT

Bennett’s dedication to the fight against diabetes goes far beyond business. “When we launched our company,” Shaheen recalls, “he immediately became passionate about supporting organizations that were making an impact on the lives of those that we were serving, like the Joslin Diabetes Center and the Juvenile Diabetes Research Foundation.”

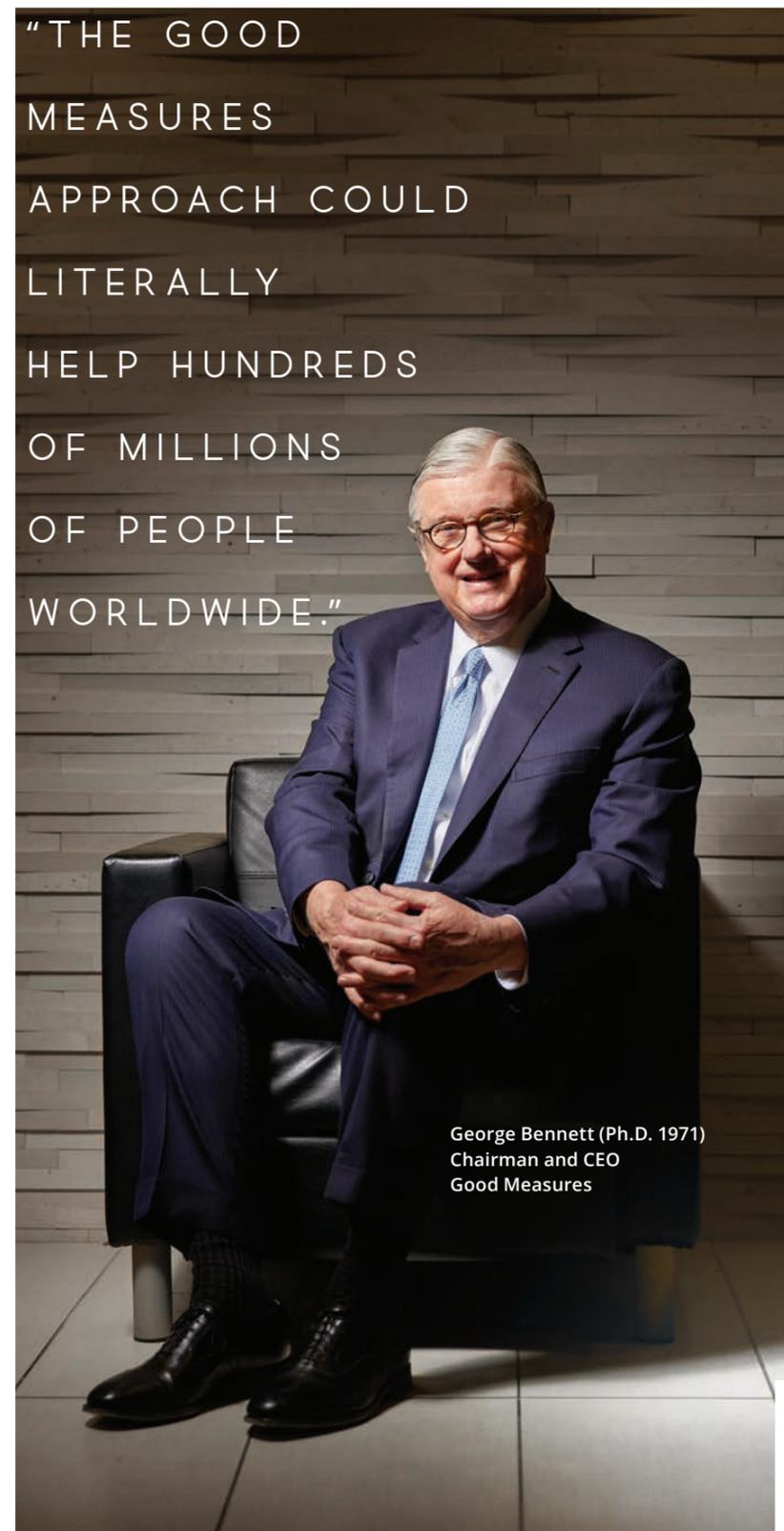
Bennett says, “The Good Measures approach could literally help hundreds of millions of people worldwide.” Diabetes statistics alone are sobering: In the United States, 30 million people are diabetic, and 86 million more are at risk of contracting diabetes — representing one-third of the entire U.S. population.

“Average annual medical costs for an adult living with diabetes can be two or three times higher than the average medical costs of most adults,” Bennett says. “As those individuals move onto Medicare, we’re heading toward a huge crisis. Good Measures can help slow that down.” And since Good Measures can also help healthy patients as well as those with conditions like heart disease or high cholesterol, it could help rein in costs across the health care industry.

Most importantly, though, Bennett believes Good Measures could save lives. Bennett jokes, “I want my tombstone to say, ‘He helped put a dent in the scourge of diabetes.’” —

“IT’S A COMPLICATED PUZZLE. LUCKILY, I LEARNED HOW TO SOLVE COMPLICATED PUZZLES AT CARNEGIE TECH.”

“THE GOOD MEASURES APPROACH COULD LITERALLY HELP HUNDREDS OF MILLIONS OF PEOPLE WORLDWIDE.”



George Bennett (Ph.D. 1971)  
Chairman and CEO  
Good Measures

# ENTERPRISING LEADERS

ALUMNI STARTUPS // BEGINNINGS AND BACKSTORIES **BY NIKI KAPSAMBELIS**



**MONEL AMIN** (MBA 2005)  
FOUNDER, DILIGENCEVAULT  
NEW YORK CITY

**A**fter spending several years working in asset management at Citigroup Inc., software engineer Monel Amin (MBA 2005) knew there was an opportunity to streamline the process of information exchange between managers and investors.

Since 2014, Diligence Vault has been building a strong network of users on both sides of the asset management industry and automating the extensive list of administrative tasks involved in managing investment relationships. —

**Q** What is your elevator pitch?

**A** Diligence Vault does for the fund investing industry what the Common Application did for the college admissions industry or what eBay did for classifieds. We keep it simple, because this is a complicated industry.

**Q** Why CMU?

**A** There is a strong network of alumni in every city where I go for business, and it's a good way to understand the industry. It's a good way to keep in touch. It's a good way to share experiences with alumni. That's been quite helpful. It's a good network — if you reach out.



**HOW LONG SHOULD YOU STAY DEDICATED TO YOUR VENTURE BEFORE JUDGING ITS SUCCESS?**



**LUKE SCHNEIDER** (MSIA 1993)  
AUSTIN, TEXAS

**N**onplussed by the prospect of a career in engineering, Luke Schneider (MSIA 1993) came to CMU to broaden his horizons and pivot into the business world. He spent seven years at Ford Motor Co., working in practically every facet of the company, before the bug to create drove him to set out on his own.

Schneider's most recent venture was Silvercar, now a wholly owned affiliate company of Audi AG. In December 2018, Schneider stepped down as Silvercar's CEO. Until he figures out his next move, he'll keep creating things for his own enjoyment. —

**Q** What is your elevator pitch?

**A** Nobody ever says, "Gosh, the best part about my entire vacation was the airport car rental." Silvercar was launched to improve that by combining technology, design thinking, and smart operations in a platform that elevates the customer experience in car rental and many other forms of personal transportation.

**Q** Why CMU?

**A** Table stakes for me was CMU's legacy — a quantitative perspective. But I was also enamored of the broader, multidisciplinary approach the university takes. I remember reading about Herb Simon's work using technology to model qualitative, even emotional concepts. I came in expecting a lot, and it overdelivered.



**WHAT DOES IT MEAN TO "FAIL FORWARD," AND HOW CAN AN ENTREPRENEUR LEARN FROM IT?**



**ROB SOUTHERN** (MBA 2017)  
CEO, ASCEND SOFTWARE  
PORTLAND, MAINE

**W**hile Rob Southern (MBA 2017) was growing up, he heard a lot about his father's career running a series of businesses via one of the first search funds ever created. As a Tepper MBA student, Southern built his own search fund via a strong network of investors he connected with through the Swartz Fellowship.

Southern's first acquisition, Ascend Software, helps businesses to automate invoice processing and reduce its administrative costs. —

**Q** How do you define a search fund?

**A** A search fund enables a recent MBA graduate to buy and run a company with a history of profits and growth. Searchers raise capital from investors to find and buy the business and then step in as CEO to grow the business over the long term.

**Q** Why CMU?

**A** A Harvard Business School professor my dad worked with had gone on to start the Center for Entrepreneurial Studies at the Stanford Graduate School of Business. I called him and I asked, "What are the best entrepreneurship programs in the country?" Tepper was in his top five.



**WHAT KINDS OF BUSINESSES WOULD SOUTHERN CONSIDER GOOD CANDIDATES FOR SEARCH FUND ACQUISITION?**



**ANGIE FETHERSTON** (BSBA 2007)  
CEO, DRINK COMPANY  
WASHINGTON, D.C.

**F**or Angie Fetherston (BSBA 2007), attending Carnegie Mellon University was a family tradition. Her older sister studied ethics, history, and public policy at what is now the Dietrich College of Humanities and Social Sciences, and her younger sister attended the Mellon College of Science as a biology student.

After earning her bachelor's degree, Fetherston spent some time in the television industry before joining renowned bartender Derek Brown to launch Drink Company, a D.C. pop-up bar business. —

**Q** What is your elevator pitch?

**A** Drink Company makes best-in-class bars and restaurants filled not just with people and products but with passion and imagination.

**Q** Why CMU?

**A** Carnegie Mellon University was my choice because instead of tradition, I was pitched innovation. I felt Carnegie Mellon had a mission to change the world, and they were doing it with agility and with intention. I wanted to be part of that movement.



**HOW DID AN IMPROMPTU DINNER WITH AN ALUMNA GRADUATION SPEAKER INSPIRE ANGIE FETHERSTON TOWARD ENTREPRENEURSHIP?**



# HEATING UP

INDUSTRY TITAN  
PROFILES AN  
OUTSTANDING  
BUSINESS LEADER  
FROM THE TEPPER  
SCHOOL ALUMNI  
COMMUNITY AND  
PRESENTS THEIR  
VIEWS ON  
SUCCESSFUL  
LEADERSHIP.



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**A**JITA RAJENDRA (MSIA 1978), the Executive Chairman of A. O. Smith Corporation, notes that you don't see many 145-year-old manufacturing companies that are still thriving. Rajendra, who served as CEO of A. O. Smith from January 2013 through August 2018, was hired in 2005 to run its water products division. He built a team and developed the strategy that has resulted in the company's current success in water technology.

A. O. Smith's products are ubiquitous. Its water heaters, which have been sold under Whirlpool, Kenmore, and other brands, in addition to the A. O. Smith brand, account for about 40 percent of the residential market in the United States, and it has more than a 50 percent share of the commercial market in buildings such as hotels, restaurants, and schools.

While he was CEO, in recognition of A. O. Smith's growth in market capitalization, Fortune magazine named Rajendra to its 2016 list of 50 businesspeople of the year, a list that included Mark Zuckerberg of Facebook and Jeff Bezos of Amazon. Rajendra credits his success to a leadership philosophy cultivated at CMU.

"One of the things that CMU stresses is working within teams," he said. "Collaboration is a big part of my leadership style. I like to create an environment where people feel comfortable expressing their opinion, pushing back, and even challenging what I'm saying. At the same time, it's not a democracy. At the end of the day, once I have heard all the viewpoints, I make the decision and we move forward, as a team. The buck stops with me."

#### FOUR PILLARS OF LEADERSHIP

Rajendra names four pillars of his leadership approach: strong values, an outstanding team, an obsessive focus on the customer, and investment in technology and innovation.

Rajendra said his own emphasis on strong values, such as honesty, integrity, and treating everyone with dignity and respect, is matched in A. O. Smith's written guiding principles and in the culture the Smith family established. The company is aggressive in the marketplace, and business associates are treated fairly.

Rajendra stresses the importance of hiring the right people. A strategically aligned and inspired team always makes the difference between success and failure. If an employee is not a good fit, the first step is acknowledging that changes need to be made and then seeing whether the person can make those changes. If not, he said, it's better for both parties to separate sooner rather than later.

“  
I LIKE TO CREATE AN ENVIRONMENT WHERE PEOPLE FEEL  
COMFORTABLE EXPRESSING THEIR OPINION, PUSHING BACK,  
AND CHALLENGING EVEN WHAT I'M SAYING.  
”

Rajendra requires his team to have an "obsessive" focus on the customer. That means that every employee, from the most senior person at corporate headquarters to someone who runs a machine in a remote factory, understands that the team must do its best to care for each customer and fulfill its promises to them. He recalled a specific example in 2010, when A. O. Smith's biggest factory, in Nashville, was under water because of flooding. The company cranked up its other North America factories and communicated with customers every day about what they would be able to deliver and when.

"Every person in the organization had to really work with the customer to make that happen, and because of the team's hard work and dedication, we didn't lose a customer," he said.

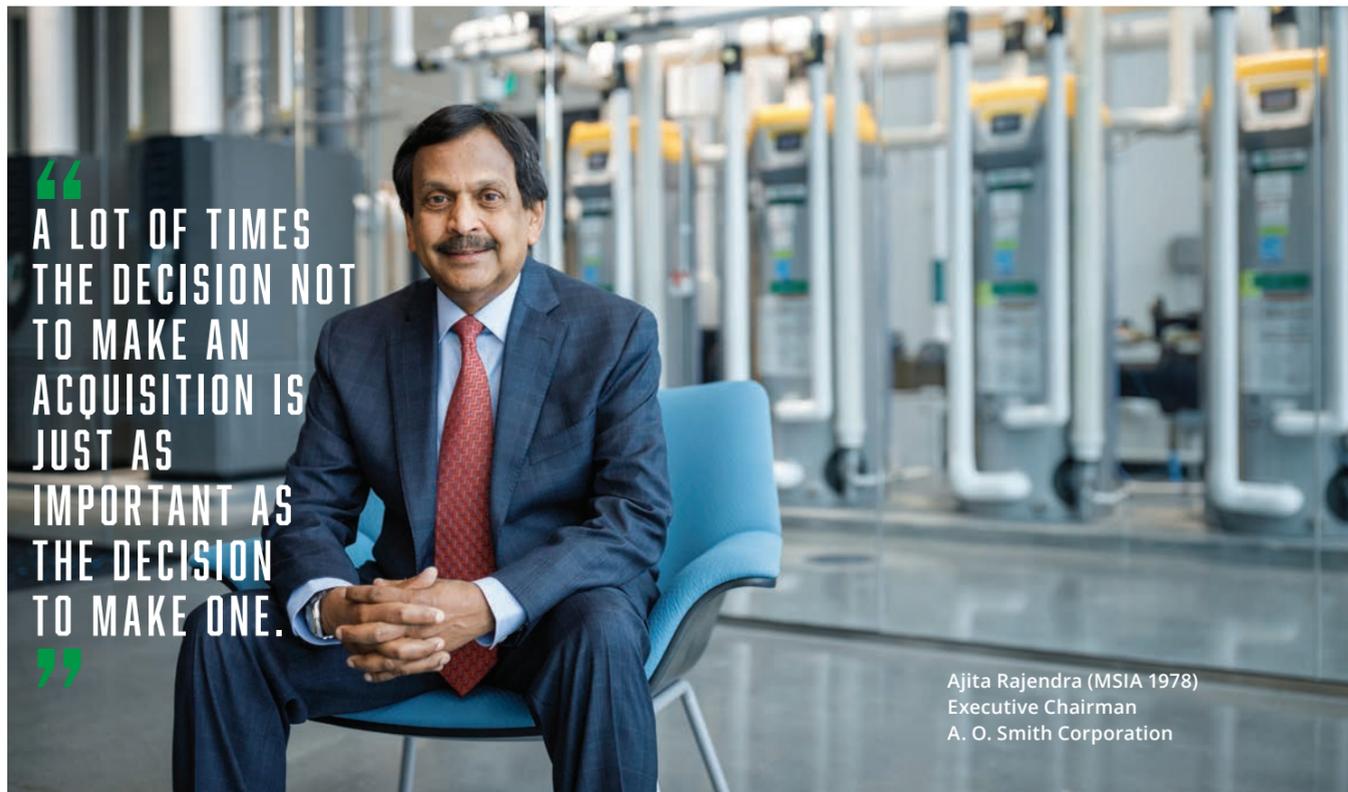
In addition to having the right team in place and building a customer-focused culture, Rajendra said it is critical to invest in technology and capabilities to ensure that you have a competitive advantage in your products and processes. As a recent example, Rajendra said the company invested in sensor technology, which has given it an advantage in water and air purification products.

#### SUCCESS AS CEO

When Rajendra joined A. O. Smith as president of the water products group in 2005, water products accounted for about 45 percent of the company's revenue.

At that time, the water division was suffering from operational problems that had resulted in a loss of growth and profitability. After assessing the situation, Rajendra assembled a team that had a mix of internal and external talent, and together they developed a strategy to restore growth and improve profitability. He set aggressive goals and ensured that the team was aligned in support of the strategy. The team went on to execute the strategy with great success. A. O. Smith subsequently divested its motor business and focused on water products.

Rajendra was promoted to COO in 2011 and to CEO in 2013. Under his leadership, A. O. Smith has undergone significant growth, acquiring five companies since he joined in 2005, including two water treatment companies in North America while he was CEO.



“A LOT OF TIMES THE DECISION NOT TO MAKE AN ACQUISITION IS JUST AS IMPORTANT AS THE DECISION TO MAKE ONE.”

Ajita Rajendra (MSIA 1978)  
Executive Chairman  
A. O. Smith Corporation

The process of acquiring other companies can become a competitively driven need to win, but Rajendra said he always takes a step back to ensure that the acquisition supports A. O. Smith's strategy. He seeks opportunities for the newly acquired company to create value that provides an adequate return for A. O. Smith's shareholders.

“A lot of times the decision not to make an acquisition is just as important as the decision to make one,” he said.

Rajendra partly credits his experience at the Tepper School for helping him develop his collaborative, yet demanding style of leadership along with an analytical and quantitative approach to problem-solving.

“You need to be strategic and have instinct and gut feel, but you also need to back it up with facts and data,” he said. “In God we trust. Everybody else bring numbers.”

“YOU NEED TO HAVE INSTINCT AND GUT FEEL, BUT YOU NEED TO BACK IT UP WITH FACTS AND DATA.”

During his tenure as CEO, earnings per share grew at a compound annual rate of over 20 percent, and the market capitalization of the company grew from \$3 billion to over \$10 billion. Rajendra credits a clear strategy and the outstanding performance of his team for this outcome.

#### RELATIONSHIP WITH CURRENT CEO

In September 2018, Rajendra became Executive Chairman, and A. O. Smith promoted then-President and Chief Operating Officer Kevin Wheeler to CEO. Now, Rajendra runs the board of directors and serves as a mentor and sounding board for Wheeler. Rajendra had a similar relationship with the CEO who preceded him, and he said it's a great way to make a seamless CEO transition.

Rajendra's current role as executive chairman is not permanent; eventually he will become an independent board member at A. O. Smith. He also serves on the boards of Donaldson Company Inc. and The Timken Company. As a board member he brings the perspective of a former CEO. When he gives advice, it's grounded in real-world experience. —

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### CHANGE WORK SPACES TO NURTURE CREATIVITY AMONG EMPLOYEES

Companies that hope to avoid long-term stagnation can jolt employees into creative thinking by forcing them to sit alongside unfamiliar coworkers in open work spaces, according to new research from the Tepper School of Business at Carnegie Mellon University.

In his paper “Learning-by-Moving: Can Reconfiguring Spatial Proximity Between Organizational Members Promote Individual-level Exploration,” **SUNKEE LEE**, Assistant Professor of Organizational Theory and Strategy, found that reconfiguring work areas to force people to sit closer to co-workers with whom they did not previously sit naturally encouraged interactions, which helped employees develop new product ideas.

When people are forced to interact with unfamiliar colleagues, “you have more chances to learn things useful for developing new business ideas,” Lee says. He tested his theory in a South Korean e-commerce firm that changed the seating arrangements of 60 sales

employees. Those who sat near new colleagues engaged in more risk-taking and experimentation. These employees also performed better financially than individuals who did not experience much change in their seating arrangements.

Lee also noted that the employees who seemed to learn the most from their new neighbors were those who had higher levels of experience in the organization. They were better at learning new knowledge and applying it to their own tasks, and new interactions with unfamiliar colleagues prompted more learning.

He did note that open work spaces do have some drawbacks with privacy and distractions. Therefore, in a company where productivity is more important than innovation, such as an accounting firm, an open work space actually could be detrimental, Lee said.

He also cautioned against creating a hybrid environment with quiet silo areas where employees could go for more privacy, as it could remove such learning opportunities for more introverted employees. —



SEE THE RESEARCH



### FINDING THE BEST ONLINE LEARNING FORMAT IN THE BINGE-WATCHING ERA

In the age of Netflix, Hulu, and other content streaming, bingeing — or watching several episodes in a group, instead of spacing them out over weeks and months — has become something of a national pastime.

New research by **TONG (JOY) LU**, Assistant Professor of Marketing, and her co-authors examines how binge patterns affect the ability of people to expand their knowledge using online learning platforms.

In “Binge Consumption of Online Content: A Boundedly Rational Model of Goal Progress and Knowledge Accumulation,” Lu distinguishes between two different types of bingeing: watching multiple episodes of a single show (or online course) is called “temporal bingeing,” while spacing out viewing but watching nothing but that show or course is termed “content bingeing.” The question she sought to answer was: Which is better for retaining information?

To find out, Lu studied how users watched lectures in business courses according to different

viewing patterns and took quizzes to measure how well they learned the content. The authors found that people who watch a lot of material all at once — in other words, temporal bingers — had higher course completion rates, but lower average quiz scores despite cramming.

By designing courses to include intermediate assignments and quizzes, content providers could discourage people from cramming at the last minute, which also hampered their ability to learn.

Lu pointed out that while sequential learning is better for building knowledge, releasing all lectures to an on-demand platform — which encourages bingeing — is better than not engaging at all.

The research also seeks to predict variations in test scores based on the person’s consumption habits, which may one day guide the design of future online learning platforms. —



SEE THE RESEARCH



### WIND FARM RESEARCH ILLUSTRATES WHY IT’S NOT EASY BEING GREEN

Clean power sources aren’t constant, and constant sources aren’t always clean. For example, in the U.S., wind energy farms tend to produce more energy at night, when wind is strongest, than during the day, when consumer demand for electricity is highest. To help bridge that gap, a few wind farms have added batteries to store excess energy for when demand peaks.

But managing such systems can be very challenging, according to new research from the Tepper School of Business. “Managing Wind-Based Electricity Generation in the Presence of Storage and Transmission Capacity,” recently published in *Production and Operations Management*, was co-authored by **HELEN ZHOU** (Ph.D. 2012); **ALAN SCHELLER-WOLF**, Richard M. Cyert Professor of Operations Management, Senior Associate Dean of Faculty and Research; **NICOLA SECOMANDI**, Professor of Operations Management, Head of the Ph.D. Program; and Stephen Smith from CMU’s Robotics Institute. If electricity prices are always positive, the optimal operating

policy is fairly straightforward, notes Scheller-Wolf, factoring in price, wind speed, and the amount of energy stored. However, for some traditional electricity producers — notably coal and nuclear power plants — adjusting output can be expensive. Thus, they may keep generating and selling power in excess of demand, driving prices into negative territory.

These negative prices can lead to significant effects at wind farms with storage: When prices are negative, wind farms can get paid to store potentially dirty power from other generators and sell it when demand is high, but in doing so, they may use up storage space intended for their own clean power and potentially displace the very clean energy they were built to provide.

The paper offers a model for negative energy prices that optimizes how wind farms manage their electricity storage. An adaptation of the optimal policy for the case when electricity prices are always positive works remarkably well also when they can be negative, says Secomandi. —



SEE THE RESEARCH



### CREATING A SUSTAINABLE GOVERNMENT PLAN FOR RETIREMENT FINANCING

For years, politicians have known that the existing structure of the Social Security Administration is unsustainable. A longer life span — combined with the population bubble of the aging Baby Boomers — has placed pressure on available funds. Projections suggest that Social Security will run out of funds completely by 2030.

That’s what motivated **ALI SHOURIDEH**, Assistant Professor of Economics, Frank A. and Helen E. Risch Faculty Development Professor of Business, and his co-author to pursue a new model that would reform retirement financing and make it more sustainable. In his paper “Retirement Financing: An Optimal Reform Approach,” Shourideh sought to strike a balance that would appeal to policymakers across the political spectrum.

“Politically, the reason these policies are not materializing is because they create winners and losers,” said Shourideh. Existing proposals include removing the cap on payroll taxes for the wealthy (favored by the left)

and privatizing Social Security so people can invest money on their own (favored by the right). But neither idea came to fruition.

Shourideh’s proposal strives for neutrality by creating progressive subsidies on savings and focusing on annuities.

The basic principle is that living longer is costly. In addition, longer life spans correlate with higher wealth. Shourideh’s paper suggests offering subsidies to people while they are young and still working to encourage them to save money for retirement. Higher subsidies would be offered to people with the least amount of savings, allowing them to contribute to their own retirement without dipping into resources needed to make ends meet while they are young.

The paper suggests the model is easier than reforming tax laws because it simply adjusts the existing structure of Social Security: Instead of tying benefits to earnings, it ties them to savings. But there is no need to build a new administration.

“This is the easiest and most politically expedient way” to reform retirement, Shourideh says. —



SEE THE RESEARCH



## Dear Alumni,

Our Tepper School alumni family is growing and becoming stronger than ever. More alumni than ever before have been returning to campus to celebrate their reunions and reconnect with the school and one another. This year was our first Alumni Reunion Weekend in the new Tepper Quad, and a record number of alumni joined as we begin to create new traditions in our new world-class home.

Increasing numbers of alumni are attending events and becoming engaged as volunteers with admissions, as recruiters, as chapter leaders, and in other roles. A record number of alumni are also supporting the Tepper School's Annual Fund, which makes it possible for us to train the business leaders of the future.

Yet, we all know more needs to be done to make our global alumni community more vibrant and robust. Important initiatives are being undertaken to further strengthen our Tepper family.

A Tepper Undergraduate Alumni Task Force launched in 2018 to develop a strategy for increasing engagement among our undergraduate business and economics alumni and students. A passionate group of recent

undergraduate alumni volunteers is actively engaged in providing insight and analysis to school leadership on how to energize the alumni of these top-ranked academic programs.

Our Alumni Board was charged by the dean to focus on the Tepper School Strategic Plan's call to increase opportunities for lifelong learning for our alumni. Collaborating with a faculty committee and incorporating input from the alumni community, Tepper will make more resources available to allow you to access the cutting-edge research from our faculty. In the last year alone, more than 1,200 alumni viewed our Alumni Webinar Series.

We are excited to announce the relaunch of the Tepper AlumniHub. Our new platform will provide a better experience for all CMU and Tepper alumni. By bringing together the Carnegie Mellon Online Alumni Community and Tepper AlumniHub, we have enhanced your access to resources, creating a one-stop shop for all things CMU and Tepper. The new AlumniHub will enable more personalized delivery of news, events, discussions, groups, and the alumni directory. Once launched, the community will provide a more interactive connection to your class and regional networks and to the Tepper School, as well as to the university at large. Keep an eye out for the invitation with instructions on how to access the new AlumniHub, create your profile, and start your journey.

As always, your ongoing involvement and support is vital to the future of the school and the strength of our alumni community. We challenge you to not stand on the sidelines but become engaged with your classmates and with your alma mater. Your alumni family needs you!

Sincerely,

**John M. Sengenberger Sr.**  
Executive Director, Alumni Relations



### PNC PROMOTES PAT PASTORE TO CLEVELAND REGIONAL PRESIDENT

PNC Bank named **PAT PASTORE** (MSIA 1994) the new Regional President of the Cleveland, Ohio, market. Pastore most recently served as the Executive Vice President and Market Leader for PNC Corporate Banking in Northern Ohio.

"Pat has extensive banking experience and deep roots in this community. He is a lifelong Northeast Ohioan who is active in this community and has played a significant role in our efforts to serve this market," said Louis Cestello, Executive Vice President and head of PNC's regional markets.

Pastore is co-Vice Chairman of the board of JumpStart, serves on the board of United Way of Greater Cleveland, is a member of the Leadership Cleveland Class of 2011, and previously served on the boards of the United Cerebral Palsy of Greater Cleveland and The Salvation Army of Greater Cleveland.

He has worked for the bank for a total of 25 years, leaving for a five-year stint to serve as a Vice President in the investment banking group of Parker/Hunter Inc. and as a Relationship Manager in ABN AMRO Bank's corporate banking group. At National City and then PNC, Pastore worked in the corporate finance group of PNC Capital Markets. At National City, he was named Head of Corporate Banking for Cleveland in 2005 and a regional manager of corporate clients in Northern Ohio, Michigan, and Pennsylvania in 2007. He assumed his most recent role as PNC's Market Leader of Corporate Banking for Northern Ohio in 2009.

Pastore earned a bachelor's degree in finance from Miami University of Ohio before his CMU master's degree. —

## CLASS NOTES



### PWC PLACES JUSTIN KAUFMAN AS PITTSBURGH MANAGING PARTNER

**JUSTIN BRETT KAUFMAN** (MBA 2004) was named the new Managing Partner for PwC's Pittsburgh, Pennsylvania, office, the second-biggest accounting office in Pittsburgh. He is also PwC's Midwest Advisory Market Leader and a Partner/Principal in the management consulting/

advisory business. He has 18 years of experience in management consulting covering various industries, such as banking, energy, government, health care, insurance, retail, telecom, technology, and wealth management. Across all of these industries, Kaufman and his teams continue to lead and collaborate with clients on engagements that typically have a transformational driver/catalyst—for example, digital transformation, post-merger integration, business separation, organization redesign, new business/product, or technology platform/application/infrastructure buildout.

A native of the Boston, Massachusetts, area, Kaufman earned his undergraduate degree in finance and operations management at the Isenberg School of Management of the University of Massachusetts. After graduating from Tepper, Kaufman joined Diamond Management & Technology Consultants, acquired by PwC in 2010.

In 2015, he was named one of Pittsburgh's 40 Under 40 by Pittsburgh Magazine. He is also a board member at the Pittsburgh Zoo & PPG Aquarium and serves on the Tepper School Alumni Board. —



### BBVA APPOINTS ONUR GENÇ AS CEO

**ONUR GENÇ** (MSIA 1997) was named Chief Executive Officer of Banco Bilbao Vizcaya Argentaria. Since January 2017, he has served as CEO of BBVA Compass and Country Manager for all BBVA operations in the U.S., where he achieved significant progress, not only in the financial results of the franchise, but also on the development and improvement of digital capabilities, customer satisfaction, and employee engagement.

"Onur has had an extremely positive impact in our operations in the U.S. and in Turkey, and now that contribution will be extended to the whole group," Chairman Carlos Torres Vila said. "The Board has selected Onur as he is the ideal CEO to continue pushing forward our strategy and boosting our transformation."

A native of Turkey, Genç received his bachelor's degree in electrical and electronics engineering from Boğaziçi University in 1995 before earning his master's at Carnegie Mellon. He began his career at American Airlines in Dallas, Texas, before joining McKinsey & Company in 1999, where he served as Director-Senior Partner, Country Manager in Toronto, Ontario, and Istanbul, Turkey. He then joined Turkish lender Garanti in Istanbul in 2012 as Executive Vice President for Retail and Private Banking and was later that year given additional responsibilities for Garanti Payment Systems. In 2015, he was named Garanti Bank deputy CEO, assuming wholesale banking responsibilities as well. —



### JON PANZER TAKES EXECUTIVE LEADERSHIP ROLE AT UNION PACIFIC

Union Pacific announced that **JON PANZER** (MSIA 1996) was promoted to the executive role of Senior Vice President for Technology and Strategic Planning. In this role, he will be responsible for technology throughout the company, including application development, infrastructure, and information security. He is also responsible for network planning and the design of the railroad's service network.

A 23-year Union Pacific veteran, Panzer was most recently Vice President for Financial

Planning analysis. He has held leadership positions in planning and analysis, finance, and marketing and sales. He reports to Chief Operating Officer Jim Vena. Panzer is also the recruiting lead at Union Pacific for Carnegie Mellon University.

One of America's most recognized companies, Union Pacific Railroad connects 23 states in the western two-thirds of the country by rail, providing a critical link in the global supply chain. —



**ALUMNI RELATIONS LAUNCHES TEPPER UNDERGRADUATE ALUMNI TASK FORCE**

The Office of Alumni Relations launched the Tepper Undergraduate Alumni Task Force in collaboration with the Undergraduate Business Administration and Undergraduate Economics programs. The goal of the task force is to provide insight and recommendations to Tepper senior academic leadership regarding the recent alumni experience. The task force will identify opportunities for further engagement (in-person and virtual events/experiences), review and recommend resource allocations, and develop a strategic plan for undergraduate alumni engagement for the next 10 years. The task force had its first two meetings on campus in October 2018 and April 2019.

Co-chairs leading the task force are economics alumnus **ALEX DICLAUDIO** (BA 2009, HNZ 2011), of DiClaudio Productions LLC, and **TAMMY LOUCKS** (BSBA 2000, MBA 2005), Business Leader for Property and Acquisition Comparison Experiences at Progressive Insurance and past director on the Tepper School Alumni Board. They are leading two committees, one focusing on the student experience and the other on the alumni experience.

**CAROL GOLDBURG** (S 1984, DC 1986, Ph.D. 1994), Executive Director of the Undergraduate Economics Program, Adjunct Professor of Economics; John Sengenberger, Executive Director of Alumni Relations; and Jennifer Wegner, Executive Director of the Undergraduate Business Administration Program, are coordinating the task force. —



**ROB RICE RISES TO GLOBAL CORPORATE FINANCE MANAGER FOR EXXONMOBIL**

Tepper School Alumni Board President **ROB RICE** (MSIA 2000) was named Global Corporate Finance Manager at ExxonMobil Corporation. He will be relocating from the Houston-area campus in Spring, Texas, to the corporate headquarters in Dallas, Texas. Rice had been Controller for the ExxonMobil Exploration Company. He joined ExxonMobil after graduating from Tepper. —



**PAYMENT PLATFORM COMPANY NAMES BYAS NAMBISAN AS CEO OF DIGITAL PAYMENT**

Ezetap appointed **BYAS NAMBISAN** (MSIA 1994) as new CEO of Digital Payment. Byas had been the CFO and Senior Vice President of Finance and Operations at Bengaluru-based Ezetap Mobile Solutions Pvt. Ltd. since 2014. A key member of the top leadership team, he had served as interim CEO since November 2018.

"I am looking forward to leading the company into break soon and also chart new territories in the global FinTech narrative — both geographically and technology-wise," he said.

He had spent 20 years at Intel Corporation and served as CFO at Intel India until relocating to the Santa Clara headquarters as Senior Finance Controller of Mobile Client Platforms. He left Intel in 2014 to join Ezetap. —



**DAN + SHAY WIN GRAMMY AND CMT MUSIC AWARDS**

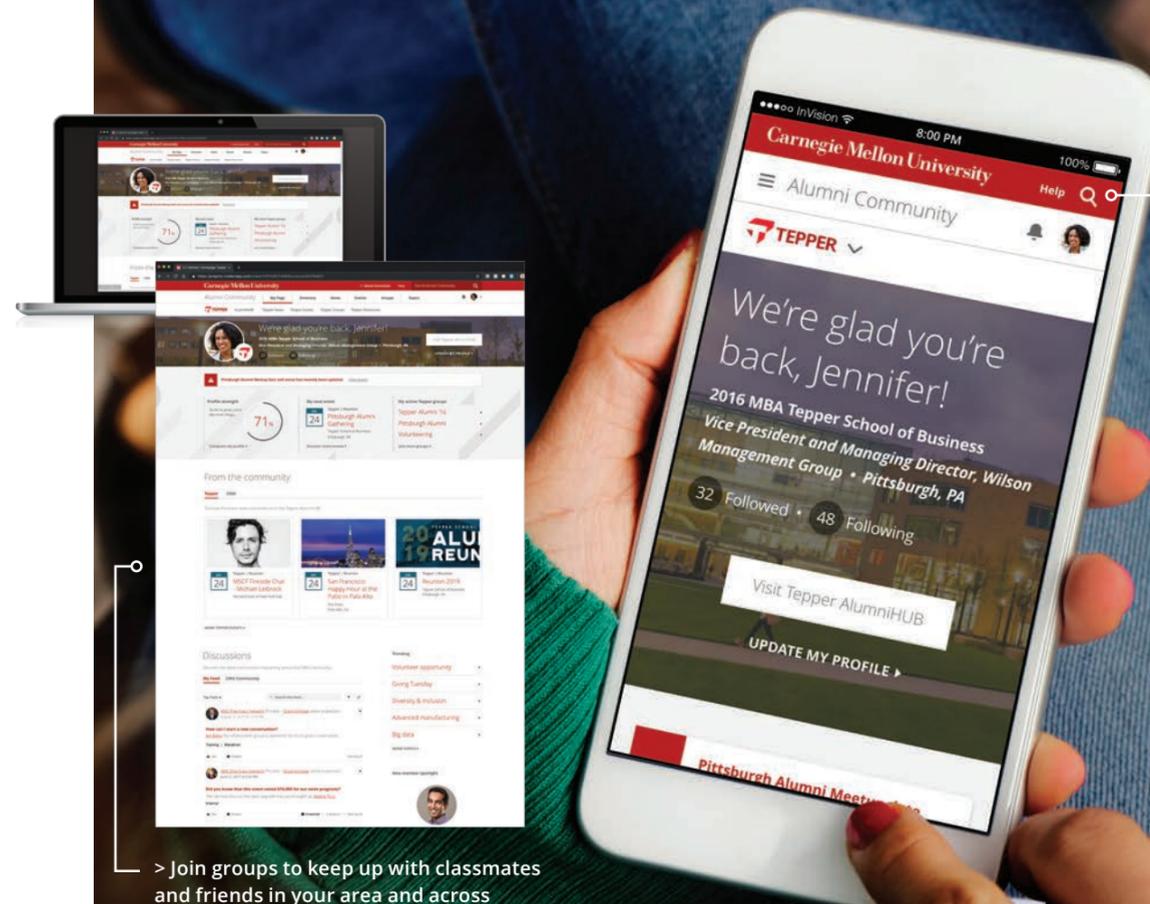
The country duo Dan + Shay, featuring Pittsburgh-area native and Tepper alumnus **DAN SMYERS** (BSBA 2010), received their first award for Best Country Duo/Group Performance for their hit song "Tequila" at the 61st Annual Grammy Awards. The duo won Best Duo Video of the Year at the CMT Music Awards in June for "Tequila." Dan + Shay record in Nashville and have released three albums, "Where It All Began," "Obsessed," and "Dan + Shay."

Smyers attended North Allegheny High School before studying finance at Tepper and playing football at Carnegie Mellon. A talented songwriter and vocalist, he began playing guitar and singing when he was very young and played in numerous bands over the years. —

Coming Soon, the New **Tepper AlumniHub**

**NEW LOOK, NEW FEATURES, SAME POWERFUL ALUMNI NETWORK**

The exclusive online community for Tepper alumni, the AlumniHub, is being upgraded, redesigned, and relaunched with more features to enhance your alumni experience than ever before bringing in the resources of the broad Carnegie Mellon University alumni community to strengthen your Tepper alumni network. Keep an eye on your e-mail for the formal announcement of the new online home for Tepper Alumni.



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- > Network within the new Tepper alumni directory and customizable personal pages.
- > Read up on the latest news and happenings from the Tepper School.
- > Find out about the next alumni event in your area.

> Join groups to keep up with classmates and friends in your area and across the globe.

> Connect with the Masters Career Center for tips on resumes, networking, interviewing, and more.

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Tepper School of Business alumni recognized at Reunion Weekend for *professional excellence and impact* on the Tepper School community



**Alumni *Lifetime Achievement Award***

**ANN MARIE PETACH (MSIA 1984)**

Ann Marie Petach received the Alumni Lifetime Achievement Award in honor of her impressive career accomplishments and innovative leadership in the field of corporate finance. Among her current roles, she serves as a finance adviser to Google LLC and its parent, Alphabet Inc. She is a board member for the BlackRock Institutional Trust Company and a trustee for the Financial Accounting Foundation.

Petach began her career with the Ford Motor Company, rising to Vice President and Treasurer in 2004. She joined

BlackRock in 2007 as Global Head of Business Finance and Chief Financial Officer, and was instrumental in transforming its stock ownership structure. She was named the Most Powerful Woman in Finance in 2012 by American Banker.

She is a highly active senior-level alumna, hosting alumni leadership events on Wall Street. She has spoken at Welcome Weekend for prospective MBA students and as part of the W.L. Mellon Speaker Series. —



**Alumni *Achievement Award***

**BRIAN OLSAVSKY (MSIA 1989)**

Now its Senior Vice President and Chief Financial Officer, Brian Olsavsky joined Amazon.com in 2002 after spending his early career in finance and operations roles with Fisher Scientific, BF Goodrich, and Union Carbide. He led the finance department for Amazon's worldwide operations before being named Vice President of Finance for its North America retail business unit, and then CFO for its global consumer business.

In honor of his impressive career accomplishments and service to the Tepper community, the Tepper School presented Olsavsky with the Tepper Alumni Achievement

Award. He was a founding member of the Tepper School Alumni Board and is a current member of the Business Board of Advisors. He and his wife, Susan, remain generous supporters of the Tepper School, naming a classroom in the Tepper Quad building and establishing an endowed scholarship for MBA students.

He is a leading recruiter of Tepper MBA students and alumni at Amazon. He speaks at many events for students and alumni and was the first president of Tepper's Seattle alumni chapter. —



**Alumni *Service Award***

**RYAN BAUM (MSIA 1992)**

Ryan Baum received the 2019 Tepper Alumni Award for Service for his dedication to students and alumni of the Tepper School. He has demonstrated a high level of dedication and loyalty to the school, and inspires his classmates and other alumni in the San Francisco Bay Area to support Tepper. He coordinated his Reunion organizing committee and champions the Bay Area alumni chapter's annual fund contributions.

Baum is a Commander in the U.S. Naval Reserve and earned a special Master of Arts degree in National Security and Strategic Studies from Navy War College in Newport, Rhode Island. He is a Senior Vice President at Wells Fargo & Company involved in business control and risk management. He is also an avid historian specializing in the history of banking and currency. —



**Recent Alumni *Service Award***

**JUSTIN KRAUSS (MBA 2009)**

The Tepper School recognized Justin Krauss with the 2019 Tepper Recent Alumni Service Award for his impressive service to the Tepper community. Krauss is a highly engaged volunteer. He and his wife, Valentina, established the Krauss Family ACS Legacy Scholarship in support of undergraduate students enrolled at the Tepper School based on financial need.

Krauss studied theater arts at the University of Pittsburgh. He had been serving as Assistant Vice President at Credit Suisse before coming to Tepper for his MBA. He launched a successful

career in financial services, first with the PNC Financial Services Group as Vice President, Relationship Manager, and now with JPMorgan Chase & Co. in the Pittsburgh area, where he is Vice President of Middle Market Commercial Banking.

He supports the admission team and assists the Masters Career Center with recruiting students into financial services. He hosts alumni events and has led the Pittsburgh alumni chapter since 2013. He also rallies his classmates to participate in their Reunion celebrations. —

Tepper School Degree and Program Codes

AB	Alumni Board
BSIM	Bachelor of Science in Industrial Management
IWM	International Wealth Management
MBA	Master of Business Administration
MSCF	Master of Science in Computational Finance
MSEC	Master of Science in Electronic Commerce
MSIA	Master of Science in Industrial Administration
MSQE	Master of Science in Quantitative Economics
PFE	Program for Executives (Executive Education)
Ph.D.	Doctor of Philosophy

 W.L. Mellon Society Members [tepper.cmu.edu/wlms](http://tepper.cmu.edu/wlms)

Carnegie Mellon College Codes

A	College of Fine Arts
CS	Computer Science
DC	Dietrich College of Humanities and Social Sciences
E	College of Engineering
HNZ	H. John Heinz III College (Public Policy & Information Systems)
S	Mellon College of Science

CLASS OF 1968

**JEFF KALLIS** (BSIM 1968) was granted Professor Emeritus status in marketing and business analytics from the Lucas College of Business at San Jose State University. His family now lives on Bainbridge Island in Washington, where he practices civil rights law and occasionally consults for Seattle businesses. After 38 years in coastal California, he is still amazed by rain and snow.

**BART NORTON** (MSIA 1968) is the CEO of KONTAK in Redmond, Washington. The company just received its first patent for releasing hydrogen from a short-chain, organic molecule that is recyclable. This technology is key for launching a completely novel method for storing and transporting hydrogen that is safer. KONTAK expects four more patents in 2019, with an additional 40 patents to be filed in the near future.

CLASS OF 1969

After six years of exhaustive research and writing, **KEN DEROW'S** (BSIM 1969, MSIA 1970) book, "Take 5 — Count Your Way to Lasting Weight Loss, Better Health & Improved Wellbeing," written in collaboration with Harvard neuroscientist Dr. Rudy Tanzi, is now complete. He is searching for a publisher.

**DARRYL DOBIN** (BSIM 1969) continues to grow his consulting practice focused on business development, advising on M&A opportunities and providing marketing expertise. In the year celebrating the 50th anniversary of his graduation from CMU, the number of clients remains at a high level. Darryl is also on the board of several companies, which has enabled him to support these companies with his expertise. He also finds time to spend with his five terrific grandchildren!

**LOUIS B. MENDELSON** (BSIM 1969) is CEO of VantagePoint LLC, a financial trading software company which he founded in 1979. His latest book, published in 2018, is titled "Supercharged Trading With Artificial Intelligence: The Secret to Success in Today's Financial Markets."

CLASS OF 1975

 **MITCHELL FRIED** (BSIM 1974, MSIA 1975) and his wife, Margery, have recently moved to Delray Beach, Florida. They would love to connect with other South Florida CMU alumni. If you are interested, please reach out to him.



 **HEMANT SANGHVI** (MSIA 1975) and his wife, Darshana, reconnected with five other classmates at the 40th Reunion in 2015 and recalled that each one expressed interest in visiting India. As a result, the Great Sightseeing Indian Adventure was born, and all five former classmates and their partners — **MARC ALLINSON** (MSIA 1975), **MAC CHIULLI** (MSIA 1975), **LINDA PRINGLE** (S 1973, MSIA 1975), **STEVE ROTHMAN** (MSIA 1975), and **JOHN SCHILLER** (MSIA 1975) — were treated to a whirlwind tour of India in February. The jam-packed itinerary included New Delhi, Agra, Udaipur, Jaisalmer, Jaipur, Cochin, Kerala backwaters, Kovalam, and Mumbai. The history, splendor, and many achievements of India were on full display, and the sounds and colors and foods of India won't be forgotten.

CLASS OF 1978

**GREG ELLIS** (BSIM 1978, MSIA 1979) is Chief Commercial Officer at PhyzData, a San Antonio, Texas-based company that provides superior patient access services for biologic therapies in support of patients, prescribers, brands, and specialty pharmacies. Greg and his wife, Delores, are enjoying life in beautiful San Antonio.

CLASS OF 1984

**ROBERT BYRNE'S** (MSIA 1984, MSIA 1992) Reunion committee has decided to establish the Class of 1984 Ilker Baybars Endowed Fellowship, which will be awarded to an MBA student each year. If the class contributes \$40,000 to this fund by the end of CMU's fiscal year on June 30, 2019, Robert will contribute an additional \$60,000 to the fellowship.

CLASS OF 1985

Since 2017, **SHANTHA MOHAN** (Ph.D. 1985) has been mentoring individuals who want to become entrepreneurs and those considering career transitions, as well as those who have just graduated. At Carnegie Mellon University in Silicon Valley, as an alumni mentor, she mentored students, delivered course content, and participated in curriculum development. In 2018, she was named by CMU-SV as an Executive in Residence. Shantha became an author in August 2018 with the release of her book, "Roots and Wings: Inspiring Stories of Indian Women in Engineering." You can find the book on Amazon, in paperback and Kindle formats.

CLASS OF 1986

**ANNETTE VICKERS** (E 1983, MSIA 1986) is back in the workforce after spending time to raise two beautiful daughters. She is working in strategy and market research for Advanced Robotics for Manufacturing, a public-private partnership between the government and Carnegie Mellon University. She is happy to be back!

CLASS OF 1987

**DOUGLAS HITCHCOCK** (MSIA 1987) was in Pittsburgh recently for a wedding and was hugely impressed with the new Tepper Quad. The school has grown so much since the GSIA years. All parties involved with that project are to be congratulated. He looks back on his two years at GSIA and how special an education he received. As he now moves into

"pseudo-retirement" with a small real estate advertising business in Cleveland, Ohio, he continues to leverage his experience and training from CMU.

CLASS OF 1988

**LALEH HASSIBI** (BSIM 1988) works remotely out of Seattle, Washington, as a Vice President of Datica, a cloud technology company in the health care industry. Outside of work, she's been busy guiding her four children into adulthood, running half-marathons, hiking through our national parks, mentoring other women in marketing and technology, and writing her first book.

CLASS OF 1989

 **ROBERT BARRETT** (MSIA 1989) retired as a Partner from PwC China in November 2018 and moved back to Pittsburgh with his wife, Jude. Upon his return, he acquired a business that manufactures and sells organic industrial powders for the remediation of oil spills. The product was developed by NASA. The United Remediation Technology company will be distributing the product around the world.

**LAUREN ROBERTS** (A 1985, MSIA 1989) became the first woman to win a U.S. Poker Open title when she defeated Koray Aldemir heads up in Event #3 — No-Limit Hold 'em to win \$218,400 and earn 200 USPO player of the series points. This win marks the first live tournament career win for Roberts, and she was ecstatic to take it down.

**CASSIE RUANE'S** (MSIA 1989) second startup is Mental Health Metrics Inc., with the first and only individualized prognostic tool that can detect the earliest stage of relapse in order to prevent hospitalization. Of the 380 mental health startups in the U.S., none offers products, including AI and wearable products, that address this need. Their SAAS product is to mental health what Moneyball was to baseball in the 1990s.

CLASS OF 1991

**JON PACE** (MSIA 1991) discovered the world's largest known prime number, and 50th known Mersenne prime, as part of the Great Internet Mersenne Prime Search distributed computing project. At 23,249,425 digits, it bests the previous world record by almost one million digits. His discovery resulted in global coverage, ranging from articles in Popular Science, The New York Times, and The Wall Street Journal to interviews on NPR, Radio New Zealand, and G1 Brazil.

CLASS OF 1992

This past December, **JENNIFER JANISCH** (BSIM 1992) had the great fortune to travel to India for the first time. She traveled with a good friend and saw the "real" India. While in Mumbai, she met up with Tepper alumna **KAREN DOFF** (BSIM 1992), who runs a very special girls' home there. She got to spend an afternoon with many of the girls living in the home and spent time with Karen catching up on what each of them had been doing in the last 20+ years! It was great to reconnect.



**ANNE LE MAISTRE** (MSIA 1992) completed a master's in history in September 2018. While studying at the University of Bristol, she tried out for the quiz team and captained the team on the 2018-19 season of BBC's "University Challenge." As of March 2019, the team was through to the quarterfinals. Her husband, **LLOYD FLETCHER** (MSIA 1992), is now a lecturer in management at the University of Bristol.

**RICH ROBINSON** (BSIM 1992) is currently leading data strategy, standards, and open symbology at Bloomberg LP, and was recently published in the peer-reviewed Risk net publication “The Journal of Financial Markets and Infrastructures.” The paper, “A Linguistics Approach to Solving Financial Services Standardization,” puts forward that a universal language for financial services is not possible and current standardization efforts are therefore misdirected. He was also elected as second Vice-Chair for ISITC, an international volunteer professional organization focused on creating best practices for the financial services industry.

**CLASS OF 1993**

**JAKE SEDLOCK** (MSIA 1993) has been named Director of Sales, Marketing, and Strategy at Seattle, Washington, startup Alitheon. Alitheon develops novel identification and authentication technology that protects supply chains from illicit intrusions and provides secure, private biometric identification of people.

**CLASS OF 1995**

**KENNY ENG** (BSIM 1995) held a get-together at his Westchester house with 1995 industrial management classmates **HEAWON YOO, ALLIS GHIM, DON MOLINA, DANIEL MOFSENSON, NATHANIEL MCNAMARA,** and 1996 industrial management classmate **DARREN WAN.**

**CLASS OF 1997**

**BRIAN AUGUST** (MSIA 1997) is the Chief Operating Officer of the Oregon Humane Society. The Oregon Humane Society serves the pets and community of Portland through more than 11,000 adoptions and 12,000 medical procedures and helps across the country and region in responding to both man-made and natural disasters.

For **BENJAMIN COWEN** (MSIA 1997), life changed dramatically two years ago when he took over the running of a biotech company developing novel cancer drugs, ImmunoMet Therapeutics. Their lead product is in early human clinical trials, and they have compelling preclinical data in a number of resistant solid tumors. He worked seven days a week his first year and six days a week last year, and is hoping to manage down to five and a half days a week. Also, Benjamin and his wife are celebrating their 30th anniversary. Their son graduated from college in 2017.

**PINAR KESKINOCAK** (Ph.D. 1997) was elected president of INFORMS. She will serve as President-Elect, President, and Past President from 2019-2021. She is currently the William W. George Chair and Professor at Georgia Tech and the Director of the Center for Health and Humanitarian Systems at the institute.

**JAMES SZUCH** (MSIA 1997) is incredibly excited to announce a new partnership and a new program aimed at helping creative makers unlock the business potential of their creativity! He has teamed up with the folks at Fort Houston’s Artisan Support Project to launch the Creative’s Business Accelerator @ Fort Houston. This unique program consists of a collection of nine monthly workshops on topics critical to building a successful creative business.

**CYNTHIA WANG** (MSCF 1997, MSIA 1997) recently joined Bridgewater Associates as a Client Adviser, based in Beijing, China. Cynthia will be responsible for Bridgewater’s institutional relationship in China.

**CLASS OF 1998**

**RICHARD HULME** (MSIA 1998) recently launched BFranklin to help consumers easily convert their whole home to energy-efficient, long-lasting LED light bulbs. Converting an entire home can save \$300 or more every year for 20+ years in reduced electricity bills. Payback is usually less than two years. It’s the easiest home improvement project you’ll ever do.



**JENNIFER NG** (BSIM 1998) and a few friends from the class of 1998 — give or take a year — got together this past fall in New York City for an impromptu 20-year reunion. It was great catching up with old friends, looking at old pics (in actual physical photo albums), and meeting families.

**CLASS OF 1999**

**MIKE MORRIS (MSIA 1999)** has co-founded SuperFat, a brand of nut butter products made from macadamia nuts, almonds, and functional ingredients like coconut, medium-chain triglycerides oil, probiotics, plant protein, and cacao.

**CLASS OF 2000**

**DANIEL KUHLMAN** (MSIA 2000) just moved back to the U.S. from a life-changing five years in Europe. Daniel and his family spent a year in mini-retirement in southeast Asia and southern France. They did stints in Brussels, Belgium and Bonn, Germany. He worked in Zurich, Switzerland; Rome, Italy; Paris, France; and Dublin, Ireland. They trekked to Japan, the Middle East, and most of Europe. Now, they are back in Colorado and ready for the next chapter in life. Daniel is starting his sixth career — in real estate sales and rental property management.

**RODRIGO PINTO** (MSIA 2000) is celebrating his 12th anniversary at NewLog Consulting. They provide services in operations improvement, supporting their customers to achieve a higher level of efficiency. The material from courses like Operations Management or Operations Research taken back in 1999–2000 at GSIA are still very much up to date and help us bring value to our consulting work.

**F**ollowing a decades-long career at the global management and technology consulting firm Booz Allen Hamilton, **Paul Anderson (MSIA 1963)** settled into retirement in 2004. He has given generously of his time and support to the business school in the years since his graduation from Carnegie Mellon University. For this donor spotlight, Anderson shares his fondness for his alma mater and his commitment to giving back.

When I applied for admission to GSIA (as it was then called) in the spring of 1961, I was serving in the U.S. Army in Texas. As I recall, my balance sheet at that time consisted of the clothes on my back, an old Ford, and not much else. I applied to Harvard and GSIA and was accepted at both. Harvard told me they would loan me all the money I needed to attend. GSIA said they would give me all the money I needed to attend — a free ride, full boat. My decision did not take long.

While I was sort of aware that GSIA was trying to create a new model of graduate business education as an alternative to Harvard’s established case study approach — a model based on analytic and quantitative approaches to problem solving and decision-making — I did not fully appreciate the significance of this fact until I arrived in Pittsburgh. Because of the then still experimental and innovative nature of the GSIA program, a remarkable group of faculty who wanted to be part of this experiment came together in Pittsburgh for those few years: names like Simon, Cooper, Kuehn, Bach, March, Leavitt, Cyert — the list goes on — and of course the inimitable Leland Hazard. What a team!

Before very long, I realized that this new approach to graduate business education was an almost perfect match to my abilities and proclivities. So I received what for me was absolutely the best kind of preparation for my future business career. But in addition,

I received something that I had not anticipated — a real education. My mind was opened to literature, to history, to different ways of thinking about the world. What a gift I had been given!

The rest is history. On graduating, I joined the management consulting firm of Booz Allen Hamilton and, except for a one-year stint as a White House Fellow in 1968–69, spent my entire 40+ year career there. My Booz Allen life took me all over the world — 10 years in Paris, the last three years working in Japan — with most of my client experience focused on dealing with issues facing the global automotive industry as it experienced one massive transition after another. Throughout this period, the lessons that I learned at GSIA never became obsolete. —

**“I have always felt an obligation to give back to Carnegie Mellon in return for what was given to me and have done so consistently since graduation. Our recent bequest to fund a couple of scholarships like the one I received is just the latest attempt to repay the investment that GSIA made in me and, before passing on, I hope to be able to do even more.”**

PAY IT FORWARD



**PAUL ANDERSON (MSIA 1963)**  
CHICAGO, ILLINOIS



**YUJI IJIRI  
ENDOWED PH.D.  
STUDENT FUND**

This fall, **Tepper Ph.D. alumni spearheaded the development of an endowed fund in support of accounting research from Ph.D. students at the Tepper School.**

Alumni and friends of the accounting Ph.D. program established the Friends and Students of Yuji Ijiri Endowed Ph.D. Student Fund in memory of the late Yuji Ijiri, R.M. Trueblood University Professor of Accounting and Economics. The fund provides support for accounting-related research conducted by students in the Ph.D. accounting program. Yinqing “Janet” Zhao (Ph.D. 2007) and Haijin Lin (Ph.D. 2004) led the effort that has successfully raised more than \$53,000 to date.

Professor Ijiri passed away on Jan. 18, 2017 at the age of 81. Ijiri was well-known for his innovative accounting research that led to the founding of triple-entry accounting. He was inducted into the Accounting Hall of Fame at Ohio State University and is the only four-time winner of the American Accounting Association (AAA) Notable Contributions to Accounting Literature Award.

For more information, or to make a gift to this fund, please contact Jake Strang, Director of Annual Giving and Alumni Engagement, at [jstrang@cmu.edu](mailto:jstrang@cmu.edu) or 412-268-2697.

**ERIC STRAFEL** (MSIA 2000) was recently named Vice President of Supplier Management for Boeing Global Services. Eric is also President and CEO of Aviall, a Boeing Company. He was recently featured on a podcast where he spoke about immersive leadership and his passion for engaging an entire workforce.

**JACE THOMPSON** (MSIA 2000) completed an acquisition in December of ProfessionalChats LLC in Kansas City, Missouri, on behalf of Ruby Receptionists Inc., which now extends its services and brand of stellar customer impressions and lead capture for its 10,000 small business customers across the U.S.

**CLASS OF 2001**

**CHAD CALLANDER** (MBA 2001) worked at Deloitte Consulting and later joined Ford Motor Company. Chad has had a series of roles in finance and marketing. His current position is Truck Product Marketing Manager, and Ford is currently launching the all-new 2019 Ford Ranger. Chad lives in Michigan with his wife, Crystal, and two children, Caroline and Clark.

**SERGIO RASCON** (MBA 2001), former Managing Director at Blackstone, raised a \$200 million debt fund in Mexico City, which is the second-largest and fourth of its kind in this market. The fund is backed by the country’s largest pension fund, the multinational LifeCos. Nexus Mezzanine Fund is a liquidity source sector-agnostic fund which finances middle market projects and companies seeking flexible sources of capital. Sergio is part of Nexus, the largest and oldest private equity firm in Mexico.

**JAMES SPRADLEY** (MBA 2001) was recently selected to co-chair the Envision Eanes committee for the Eanes Independent School District. The charge of this 32-member volunteer committee is to explore the future of public education and make recommendations to the board of trustees. This is a new committee in the district and one of the only committees of its type in the nation. As this is a new committee, James is getting to create the committee’s vision.

James has a long history of community involvement and volunteer work for the school district and is a strong supporter of public education.

**CLASS OF 2003**

**FERNANDO BARRICHELO** (MBA 2003) is now Brazil COO at AON (Health).

**JOSH GERLICK** (BSBA 2003, MBA 2004) was recently accepted as a doctoral student in management at Case Western Reserve University in Cleveland, Ohio. He will serve as a nonprofit management fellow during the duration of his studies. His research focuses on disruptive change that occurs at the intersection of the experience economy, technology systems, and organizational learning and development. In September, he received second place in the Inamori International Center for Ethics and Excellence essay contest. Despite his relocation to Cleveland, he still proudly waves his Terrible Towel.

**SCOTT HACKLER** (MBA 2003) was recently invited to the studios of KTCU in his hometown of Fort Worth, Texas, to discuss his experience as an entrepreneur. Since its founding four years ago, his food-manufacturing firm Halo del Santo has sold cocktail garnish and Mexican-style lollipops to bars, restaurants, candy shops, and specialty grocers in 20 states and D.C., and to individuals in every state in the country.

**TU LE** (MBA 2003) recently founded a Beijing, China-based market research and advisory firm called Sino Auto Insights which specializes in helping companies deliver innovative, customer-focused automotive and mobility-related products and services that will drive their future growth. Tu is recognized as a thought leader in China by CNN, Financial Times, Business Insider, Wired, and other media outlets for his perspective on the transformation that’s currently taking place globally in the automotive and transportation sectors.

**CLASS OF 2005**



**KAI EBERSPAECHER** (MBA 2005), Debby, Max, and Amelie recently became Australian citizens, having spent nine years in the luck country down under. After a few years in consulting, Kai also set up his own advisory helping clients in the oil and gas industry. Most of Kai’s time is spent in his new role as Country Manager for a junior Canadian exploration and development company with exploration and production licenses in Australia.

**CLASS OF 2006**

**VIKASH GUPTA** (MBA 2006) invested in and subsequently joined the board of a new challenger bank in the UK called Monument, which is going through the licensing process.



**BEN MCCANN** (CS 2006, MBA 2006) and Stephanie Lin welcomed their first child to the family with the birth of their daughter, Alexis. The family is living in Mountain View, California, where Ben is taking time off between entrepreneurial journeys and Stephanie is working as a project manager at cybersecurity firm CrowdStrike.

**CLASS OF 2007**



**RACHEL DUNCAN** (MBA 2007, MSCF 2008), **ALIX BOWMAN** (MBA 2007), and **ERIC VALKO** (MBA 2007) have continued their (almost) annual tradition of getting together. This year Alix and Eric traveled to Rachel, who is living in Cuenca, Ecuador. The three, along with their significant others and families, went hiking in El Cajas National Park.

**MUDIT GARG** (MBA 2007) joined D2L, a learning intelligence startup, running the global GTM, sales, and marketing operations, enablement, and channels. He also lost 15 pounds with a mix of juicing and yoga/gym last year.

In Chicago, **YURI GORYUNOV** (MBA 2007) was elected Partner at McKinsey & Company.

**CLASS OF 2008**

**PINKI MISHRA** (MBA 2008) is pleased to have joined KPMG’s Strategy practice as an M&A Director. Pinki lives in Philadelphia, Pennsylvania, and travels frequently.

**CLASS OF 2010**

Paisley Lyn Keith entered the world and the Tepper family on July 26 near Sacramento, California! She joined her parents, **MICAH PAUL KEITH** (MBA 2010) and Sarah Keith, along with a very enthusiastic and excited set of siblings! Asher, Elsa, Hazel, and Sadie are enjoying finding more excuses to kiss or hug the new little sister that they love. The Keith clan wishes the best to the ever-growing Tepper family and hopes everyone is doing well!



**JACKIE CAVENDISH  
STUDENT  
ENHANCEMENT  
FUND**

This fall, an endowed fund was established through the passion of **Tepper Ph.D. alumni in support of Ph.D. students participating in conferences and events.**

John Watts (Ph.D. 1988) established the Jackie Cavendish Student Enhancement Fund to provide a permanent source of funding for students in the Ph.D. program. The fund supports ongoing activities, such as travel and participation in conferences, student-run activities, community events, and recognition for achievements. Watts and Terri L. Griffith (Ph.D. 1989) led a fundraising effort that has been successful in raising nearly \$70,000.

A Carnegie Mellon staff member for more than 40 years, Jackie Cavendish worked tirelessly on behalf of Tepper Ph.D. students. Her time on staff is remembered fondly for her problem-solving and organizational skills, for her persistent kindness, and for the numerous ways she supported her students. She made a significant impact upon many students and played an important role in their success.

For more information, or to make a gift to this fund, please contact Jake Strang, Director of Annual Giving and Alumni Engagement, at [jstrang@cmu.edu](mailto:jstrang@cmu.edu) or 412-268-2697.

# STEADY SUPPORT

**KIMBERLY BRANNON** (MSIA 1998)  
DIRECTOR, GLOBAL CAPABILITIES  
STRATEGIC INITIATIVE,  
GLOBAL BUSINESS SERVICES  
RAYTHEON  
WASHINGTON, D.C.

## DONOR SPOTLIGHT

**K**imberly Brannon (MSIA 1998) is dedicated to giving back. Since her graduation, she's contributed generously to the Tepper School.

"I believe in Tepper — that education and having that opportunity," she explained. "I've made it a point to be consistent because of the impact Tepper has had on me and my career."

Today, Brannon serves as Director of the Global Capabilities Strategic Initiative for Global Business Services at Raytheon, where she leads teams in implementing strategy regarding shared services across the corporation.

"The work that I'm doing now involves solving enterprise types of problems," she said. "A big part of [how Tepper helped me] was learning fundamental business skills. The other part was the ability to think from an enterprise perspective."

"Management Game, for example, helped me understand the connection among sales, operations, production, finance, etc. Really getting that perspective has helped me in both my consulting work and the work I've been doing at Raytheon to fully understand that I'm not just a silo here, and how what I'm doing connects to the other work across the organization."

Raised overseas but based in Delaware, Brannon pursued her degree in math at Penn State University. She then spent five years with GE Aerospace as an IT professional working with its financial systems.

"I figured out very early in my career that I enjoyed that interface between IT and business, but I needed the business language," she said. "I realized that I wanted to get an MBA to gain that business background."

Looking for a top-tier school, she turned to Carnegie Mellon's Tepper School.

"The ability to get an MBA with a quantitative emphasis, with a mathematical, engineering approach, appealed to my interests," she said.

Degree in hand, Brannon headed toward management consulting, rounding out her experience in industries from financial services to chemicals in the IT strategy practice of A.T. Kearney. But while she loved solving problems, she found she was looking for more permanence and the chance to see her work come to fruition. She took a position at Raytheon, where for the past 16 years she has continued to rise.

Brannon remains connected to the Tepper community by attending events with her Washington, D.C., alumni chapter and staying in touch with friends from her class.

In giving, one of her special passions is providing more opportunities for women to succeed in leadership roles. And she encourages others to take advantage of matching gift opportunities at their organizations.

"I'm really excited that I work for a company that also values giving back to education," said Brannon. "I always make sure that when I make my contribution, I also put in the request at Raytheon to match my gift — as well as at my husband's company, which also matches. It's a great benefit and opportunity to make your gift even more significant."

Giving helps her ensure that others experience a thrill she feels fortunate to have known.

**"I remember when I received the acceptance letter from GSIA, there were two letters in the envelope," she said. "One said congratulations, and the second said that I was the recipient of a scholarship. I wasn't expecting that at all and remember how excited I was to receive that, as I was putting myself through school. I want to be able to do those kinds of things for others."**

## CLASS NOTES

CHAPTER HIGHLIGHTS, AWARDS AND ACCOLADES



**ELISSA MCGEE** (MBA 2011) has stepped into a new role as General Manager of the Nalgene Consumer Products business at Thermo Fisher Scientific. After several years in New York at Diageo as a marketer across several iconic brands including Smirnoff and Guinness, and a brief stint at Lindt & Sprungli leading marketing efforts behind the Lindor truffle, Elissa is thrilled for this new challenge. Elissa and her husband, Ish McGee (MBA 2011), left New York City for New England with their two kids (Eve, 2, and Stacia, 5) to move closer to family. While the couple misses all the access to fantastic food and delivery options, they're thrilled to have a nice, big backyard living in a beach town on the north shore of Massachusetts.

**BRITTANY RHODES** (MBA 2010) recently founded Black Girl MATHgic LLC, the first and only subscription box dedicated to increasing math confidence and decreasing math anxiety in black girls ages 8–16. To prepare for the launch, she applied for and won first place in the Michigan Women Forward Empower Change MI Pitch Competition and second place in the Rashad Howard Virtual Pitch Competition. Black Girl MATHgic will officially launch this spring.

### CLASS OF 2012

After spending 6.5 years with Kaiser Permanente IT under the CTO, completing a second part-time master's degree from CMU in Silicon Valley in software management, attaining a Private Pilot FAA certification, and participating in YC Startup School two consecutive years in a row, **FELIX AMORUWA** (MBA 2012) has joined Splunk Inc. in San Francisco, California. He will continue his appointment as an adjunct faculty member in the computer information systems department at De Anza College in Cupertino, California.

**CHRIS GASSMAN** (MBA 2012) is excited about "The Market and the Good" podcast his team launched, co-chairing an international innovation conference in Salt Lake City, Utah, and the recognition he helped his fellow volunteers win for mentoring young men. His Manhattan rooftop is always available for anyone who wants to catch up over a BBQ!

### CLASS OF 2011



**HIMANSHU BAFNA** (MBA 2010) is part of a rapidly growing Tepper alumni contingent at Facebook. Spread across various functions like product management, growth, finance, and engineering, they are a diverse and expanding group. They look forward to engaging more deeply with the Tepper community and growing their presence here!

**JONO MATUSKY** (E 2011, MBA 2012) is proud to announce the upcoming crowdfunding campaign for his new IoT music streaming device, Plynth. Plynth relies on image recognition to play any form of media. He and his team plan to launch the campaign this summer and deliver products by the holidays. In his spare time, Jono is the Program Manager for PXL LAB, a Philadelphia, Pennsylvania-based design cooperative, serving as the head of maker outreach for the Philly Mini Maker Faire, and advises green roof irrigation startup Sage. He'd love to meet more folks in the Philadelphia startup, hardware, and maker scene!

### CLASS OF 2013

**JUSTIN BORNTAEGER** (MBA 2013) is enjoying a few months of family and skiing after the firehose learning experience of a software startup that didn't quite make it. If you're in the Bay Area, get in touch with him!

**MICHAEL DICK** (MBA 2013) and Rebecca Fink are excited to be moving back to Pittsburgh, Pennsylvania, just in time for their summer wedding. Michael will be joining Google as a Product Manager at their Bakery Square office, and Rebecca has accepted a position at the University of Pittsburgh as an Associate Director of Personalized Stewardship and Recognition.

Since graduating from Tepper, **MICHAEL LAWRENCE** (MBA 2013) has married and now has two sons, Daniel and Brandon. He completed his rotation program at Boehringer Ingelheim. He moved on to found a new company, True Autonomy LLC, to develop and manufacture autonomous navigation systems for use on small construction machines.



CLASS OF 2014

**MATTHEW CHAPMAN** (MBA 2014) and Courtney Strauss wed on Sept. 2 at the Carnegie Science Center. They honeymooned in France and Italy. The couple now lives in San Diego, California, where Matthew works at Collins Aerospace.



After five years at Union Pacific Railroad, **JESSE TROWBRIDGE** (MBA 2014) and **JOANN TROWBRIDGE** (MBA 2015) are contemplating a return to Pittsburgh, Pennsylvania, to pursue startup opportunities. In the meantime, their son Joel has teamed up with new twin sisters Elsie and Tillie to keep their parents free from peace, quiet, and any hope of an uninterrupted night's sleep.

**JOSH REX** (MBA 2014) accepted a role at Workday as a Senior Business Development Manager within their planning and analytics professional services team. He now leads professional services business development for Workday's newly acquired adaptive insights planning solution for all education and government accounts within the U.S. Although he's now working for a growing Silicon Valley tech company, he is thrilled to continue working from his downtown home overlooking PNC Park.

**AMANDA COOX** (MBA 2014) has returned to Silicon Valley after taking a one-year hiatus in Guantanamo Bay, Cuba for her husband's job. She is back at Apple in an operations engineering role on the content delivery network team.

Insights Success Magazine recently selected **BARRY RABKIN** (MBA 2014) among the Top 10 Most Influential CMOs to Watch of 2018 for his results at Identified Technologies, a construction drone leader. Barry is also doing marketing consulting for some of the region's fastest-growing companies and guest teaching marketing strategy at CMU. Barry recently moved to Squirrel Hill with his wife, Sarah, and soon-to-be three kids. Reach out to grab coffee or run through Frick Park to prep for the next obstacle course race!

CLASS OF 2015

**ROSHY RAJAN** (MBA 2015) and **SAKET GUNJAN** (MBA 2015) have founded a company, Bhoomi Herbals, and launched their first smart product (Squegg) in February. The product is a smart squeeze ball that helps measure grip strength and also provides an option to play single-player and multiplayer games. There is great hype about the product, and the company is also being picked up in articles and blogs that specialize in technology.

Help a friend take their first step toward a Tepper MBA.

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DONOR SPOTLIGHT



**EVAN SEGAL**  
(BSIM 1982, MSIA 1983)  
NEW YORK CITY

A LASTING LEGACY

**E**van Segal (BSIM 1982, MSIA 1983) feels privileged to carry on the legacy of his father, both in his career and in his life. To honor this special man, the Tepper School alumnus established and supports both the Jerome J. Segal Undergraduate Scholarship and the Jerome J. Segal Graduate Scholarship for four students each year attending his alma mater.

He gives back to provide others the same opportunities he gained through his education, a value his father instilled. The scholarships emphasize academic performance, innovation, and leadership.

"My dad always believed in education," Segal said, "something that no one could ever take away from you."

"At Tepper," he continued, "I gained a broad and valuable array of functional skills, problem-solving processes, and decision-making experience, along with the ability to use these in time-sensitive situations with varying degrees of information."

Segal, a Pittsburgh native, grew up spending weekends and summers working at his family's firm, Dormont Manufacturing. Set on a business career, he enrolled at Carnegie Mellon's Tepper School for its excellent reputation. He was proud to follow his

grandfather and uncle to a university with a "high caliber of students and faculty." Within a few years of graduation, he took the helm of the family business. Building on his father's invention, the flexible gas appliance connector, Segal (with his father's valued guidance) grew the company from a regional business into a global manufacturing firm. "Tepper really was a springboard," he explained. "You have potential for a higher trajectory with that knowledge and network behind you."

And he was happy to draw on that network. "I actually hired my best friend from GSIA [Stacy Brovitz (MSIA 1983)] to help me run the business," he pointed out. "We'd had all these ideas while we were working in teams at GSIA. We would say, 'Wouldn't it be great if we worked together in the real world?' And we actually made that happen."

After the sale of the business in 2006, Segal went on to serve as CFO of the U.S. Department of Agriculture, on the White House Innovation and Information Policy Task Force, and on the Federal CFO Council. He authored "From Local to Global: Smart Management Lessons to Grow Your Business" and has made numerous media appearances.

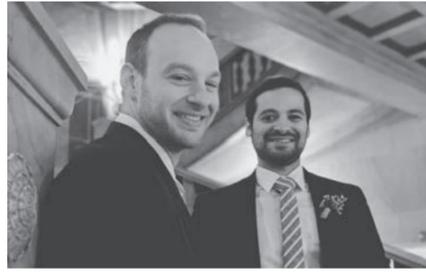
He stays active investing in the future as both a venture capitalist and philanthropist. Through the family foundation, the Segals hold particular interest in furthering the Pittsburgh community with an emphasis on human kindness and social justice, as well as social entrepreneurship. Segal's venture investments emphasize late angel/early seed Pittsburgh startups.

Segal has served as Executive-in-Residence at the Tepper School. He continues to look for ways to stay connected, including showing corporate leaders "the great things going on here." In the spirit of his father, Segal is committed to mentoring: In fact, he returns to CMU each year to personally meet with his scholarship recipients.

"My dad's leadership style was really wonderful because he cared about people," Segal said. "I want to stay in touch. I'm glad to help others make connections and think about career opportunities." —

**"To me, it's a way of giving back," he added. "I'm not looking to make the next X million dollars; I'm looking to make a difference. It may sound a little trite, but I really want to make the world a better place."**

CLASS OF 2017



**MICHAEL BERNARDI** (MBA 2018) and **EDUARDO GUARDIA** (MBA 2017) are excited to announce that they tied the knot last November in Chicago. Mike and Eduardo met as students at Tepper through the Out&Allied club, started dating shortly after, and have been together ever since! They live in the Ravenswood neighborhood of Chicago,

Illinois. Mike is on his way to finishing the first year of the executive development program at Allstate, and Eduardo continues to work in marketing for Boston Scientific.

**HALLIE (COFFIN-GOULD) MORRIS** (MBA 2017) and **DREW MORRIS** (MBA 2017) tied the knot in September. They are in Pittsburgh, living in Mt. Lebanon, with Hallie finishing her second rotation of the GLDP at Thermo Fisher Scientific and Drew joining LifeX Capital as a General Partner.

getting engaged in Bali, Indonesia. Sharif is in his second year of Cigna's finance leadership development program, and Sherry is Manager of Mergers and Acquisitions and of FP&A at Intertape Polymer Group. The two reside in Sarasota, Florida.



CLASS OF 2018

**SHERRY LOBO** (MBA 2018) and **SHARIF ISMAIL** (MBA 2018) were happily married on Sept. 3, 2018, in Varenna, Italy. They met as students at Tepper and, shortly after, sparked the beginning of their world travels,

PARTING SHOT

ACCELERATE LEADERSHIP CENTER

THE ACCELERATE LEADERSHIP CENTER HAS LAUNCHED A SERIES OF INTERDISCIPLINARY ACTIVITIES CALLED SHIFT: ENHANCED APPROACH TO LEADERSHIP SUCCESS. THE PROGRAM EMPHASIZES EMPATHY, ETHICAL JUDGMENT, CRITICAL THINKING, AND CULTURAL SENSITIVITY. ONE NOVEL ELEMENT, CALLED "EMERGENCE," IS AN ART INSTALLATION SERIES LOCATED IN THE MBA COMMONS AT THE TEPPER QUAD AND WILL FEATURE ROTATING EXHIBITS THAT ARE INTENDED TO PROVOKE A GREATER AWARENESS OF SELF, OF OTHERS, AND OF THE LARGER WORLD.



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## In Remembrance Egon Balas

University Professor of Industrial Administration and Applied Mathematics,  
The Thomas Lord Professor of Operations Research

June 7, 1922 – March 18, 2019

We pay tribute to University Professor Egon Balas, a remarkable scholar, author, friend, and a pioneer in integer and disjunctive programming, who will always be remembered for his courage fighting oppression and as one of the world's foremost experts in mathematical optimization.

To make a gift in memory of Professor Balas, contact Jake Strang, Director of Annual Giving and Alumni Engagement, at [jstrang@cmu.edu](mailto:jstrang@cmu.edu) or 412-268-2697.

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“Contributing to Tepper makes a transformational impact by **giving students like myself the wings to fly, the courage to choose unconventional paths, and the license to dream big.** It’s a beautiful partnership between alumni and current students to take Tepper to the next level.”

Students like Aashay benefit from the generosity of the Tepper community every day. Please join fellow alumni, friends, faculty, staff, and parents by supporting current Tepper School students like Aashay by making your gift before our fiscal year ends on June 30.

**Every gift of every size makes a difference. Please visit [tepper.cmu.edu/give](http://tepper.cmu.edu/give) to make your gift today.**

**AASHAY DOSHI** (MBA 2019), recipient of the Class of 2015 Award funded through the 2015 MBA Graduating Class Gift

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