Thank you for believing in us, for supporting us and for making this unprecedented success a reality. From solving fundamental problems of the world today to preparing students for the world tomorrow, we lead together with you and continue to be inspired by you.

Washington University Engineering is defined by its people — students, faculty, staff, alumni, parents and friends — and the work we do together. I have great pride in sharing special thanks with you and the more than 14,000 other donors and volunteers who supported the school during Leading Together: The Campaign for Washington University. Together we raised a record-breaking $161.2 million, shattering our initial goals.

Your investment in us through the Leading Together campaign is an investment in our future. For that, I and all my colleagues in the school are profoundly grateful. These are exciting times for WashU Engineering, and it is now up to all of us to achieve even greater success for which we are now poised.

With sincere appreciation,

Aaron Bobick
Dean and the James M. McKelvey Professor

“Remarkable students learning from and working with world-class faculty in state-of-the-art facilities. It’s who we are. And none of this is possible without you.”
The nine years of the campaign have already brought tremendous change that has transformed our campus, academics and research initiatives.

2009

1,003 undergraduate students in Spring 2009
318 master’s students in Spring 2009
312 doctoral students in Spring 2009
84 tenured/tenure-track faculty

$225M research awards received from 2009-2018

2018

1,312 undergraduate students in Spring 2018
705 master’s students in Spring 2018
363 doctoral students in Spring 2018
96.5 tenured/tenure-track faculty

32 new academic programs created during the campaign
Boeing increases support for scholarships and student programs

Continuing years of generous giving to Washington University in St. Louis, The Boeing Company has pledged $1.5 million over five years to support scholarships for undergraduate engineering students.

At the engineering school, the company’s latest commitment for Boeing scholarships will benefit 45 students each year. This includes awards for engineering students and students enrolled in the University of Missouri–St. Louis and Washington University in St. Louis Joint Undergraduate Engineering Program. The commitment also supports Washington University’s Summer Engineering Fellowship Program, which enables a diverse group of undergraduate students from across the country to engage in engineering research.

Boeing is committed to inspiring and preparing the next generation of innovators through scholarship support for exceptional young engineering students of all backgrounds.”

— Kristin A. Robertson

Vice President and General Manager, Autonomous Systems

Boeing Defense, Space & Security

Washington University is a place where so many people love what they do and love learning, and if you embrace that, you will be much more successful no matter what you do.”

— Gary Wendlandt

Commitment to scholarship

Gary Wendlandt retired at the end of 2010 as vice chairman of the board and chief investment officer of New York Life Insurance Co., where he was overseeing more than $260 billion in investments. Although his was not a traditional career for a graduate from the School of Engineering & Applied Science, Gary attributes his success to the education and experience he received in St. Louis.

A native of Milwaukee, Gary graduated from Washington University’s Summer Engineering Fellowship Program, which enables a diverse group of undergraduate students from across the country to engage in engineering research.

A lasting impact: Langsdorf Scholars

The Langsdorf Scholars Program awards full-tuition merit scholarships to high-achieving students enrolled in Engineering. More than 500 alumni have graduated with WashU degrees through this program and have gone on to successful careers in engineering, medicine, law, research, the military, consulting and higher education. In 2011 Matt Ettus and his wife, Sara, made a gift of $500,000 to support a Langsdorf Scholar award. More than 125 alumni, friends and parents participated in this challenge and ultimately created a $1 million permanent endowment to support the Langsdorf Scholars Program.

596

students received scholarship and fellowship support in 2018

$35K

average need-based scholarship awarded in 2018

Support for students

2016 WUSEF fellow Jennifer Liu (right) conducted research in the lab of Simon Tang (left) on the Medical Campus.

UMSL/WashU Joint Program class in the Machine Shop.

2016 WUSEF fellow Jennifer Liu (right) conducted research in the lab of Simon Tang (left) on the Medical Campus.

UMSL/WashU Joint Program class in the Machine Shop.

Nobel Laureate and Langsdorf alumnus W. E. Moerner (left) meeting with Langsdorf Scholars.

2016 WUSEF fellow Jennifer Liu (right) conducted research in the lab of Simon Tang (left) on the Medical Campus.

UMSL/WashU Joint Program class in the Machine Shop.

Nobel Laureate and Langsdorf alumnus W. E. Moerner (left) meeting with Langsdorf Scholars.

2016 WUSEF fellow Jennifer Liu (right) conducted research in the lab of Simon Tang (left) on the Medical Campus.

UMSL/WashU Joint Program class in the Machine Shop.

Nobel Laureate and Langsdorf alumnus W. E. Moerner (left) meeting with Langsdorf Scholars.

2016 WUSEF fellow Jennifer Liu (right) conducted research in the lab of Simon Tang (left) on the Medical Campus.

UMSL/WashU Joint Program class in the Machine Shop.

Nobel Laureate and Langsdorf alumnus W. E. Moerner (left) meeting with Langsdorf Scholars.
Women & Engineering

The School of Engineering & Applied Science established Women & Engineering as a means for engineering alumnae to support each other, mentor female students and support STEM outreach to female students of all ages.

An umbrella and omnibus organization, Women & Engineering connects and supports students and alumnae by hosting myriad events, including networking opportunities, with the goal of establishing a community for students and alumnae and enhancing the resources WashU offers them. It also works with and helps support student-led groups populated with women: Women in Computer Science, the Society of Women Engineers, the National Society of Black Engineers and Alpha Omega Epsilon, an international technical science and engineering sorority for women.

“...It is important to provide the opportunity for our students to have development and support in addition to what they get at the university.”

— Jan Holloway

Engineering alumna Cheryl Perlmutter (left) and Women & Engineering student mentor Emily Gay.

Women & Engineering supports student organizations such as the National Society of Black Engineers.

Building a support network
Jan Holloway (right) and Michele Liebman established the first Women & Engineering Challenge to inspire other alumni and friends to support diversity, encourage a strong community to enhance the experience of female students during their time on campus, and provide additional opportunities for their development and growth.

As senior vice president, chief of staff and community relations of Monsanto Company, Holloway oversaw the multinational company’s community relations activities and business services organization, as well as managed the office of the chairman and CEO. Holloway earned a bachelor of science degree from Augusta College and a master of science degree in applied mathematics and computer science from WashU in 1983.

Liebman formerly served as a principal at Edward Jones in St. Louis. She led the effort to evaluate, select and implement the St. Louis headquarters’ first office automation software, satellite vendor and integrated usability lab techniques. She earned a bachelor of science degree in technology and information management from WashU in 1986 and a master of business administration from Southern Illinois University at Edwardsville.

Expanding student programs

Discovery Competition launches
WashU Engineering launched the annual Discovery Competition in 2012 to promote new and innovative discoveries to solve challenges or needs. The competition provides engineering undergraduate students the forum to explore their entrepreneurial interests with support from mentors, to use their creativity to develop solutions for real-world problems and to compete for financial resources that could help turn their ideas into businesses. The Discovery Competition has been underwritten through gifts from alumni and friends, including Vince Belviso, Harry Cheung, Sunil Hirani, Mark Levin, Richard Martzke and Stephen Sands.

$25K top prize for Discovery Competition teams

Meeting the demand for computing programs
Over the past 10 years, the demand for computer science courses and programs has grown dramatically. There are more undergraduates studying computer science than any other discipline at WashU. The school has added five academic programs with a computing-focused curriculum.

New academic programs added during the campaign

Undergraduate majors:
- Applied Science (Computer Science + Math)
- Applied Science in Mechanical Engineering
- Business and Computer Science (joint degree with Olin Business School)
- Electrical Science (second major)
- Financial Engineering (second major)
- Individually Designed Major

Undergraduate minors:
- Applied Physics and Electrical Engineering
- Energy Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Mechatronics
- Nanoscale Science and Engineering
- Systems Science and Engineering

Master's degrees:
- Applied Multidisciplinary Systems Analysis and Integration
- Biomedical Innovation (MEng)
- Computer Science and Engineering (MEng)
- Cybersecurity Engineering (MS)*
- Cybersecurity Management *
- Data Analytics and Statistics (MS)
- Health Care Operational Excellence *
- Information Systems (MS)
- Mechanical Engineering (MEng)
- Robotics

PHD degrees:
- Computational and Data Sciences
- Materials Science and Engineering
- Imaging Science

Graduate certificates:
- Construction Management
- Data Mining and Machine Learning
- Engineering Management
- Information Management
- Medical Physics
- Systems Integration

* includes graduate certificate options
Helping those in need

Tony and Andrea (Andy) Nocchiero have made a gift to support need-based scholarships to students in the School of Engineering & Applied Science and in the College of Arts & Sciences. Together, they have sponsored annual scholarships in the School of Engineering & Applied Science and in the College of Arts & Sciences for the past five years. The new gift, the Nocchiero Family Scholarship, will continue those and add endowed scholarships in both Arts & Sciences and in Engineering.

Tony earned a bachelor’s degree in chemical engineering in 1973 from WashU. Andy earned a degree in English and a secondary teaching certificate in 1974 from WashU. She earned a master’s degree in English literature from the University of Michigan in 1975.

They remain very involved with the university. Tony is a member of the School of Engineering & Applied Science National Council. Andy is working with the Arts & Sciences Honorary Scholars Program alumni, and both are active members of the Chicago Regional Council.

We think the Washington University experience is unique and wonderful. We want to help others, regardless of means, to be able to have it, too.”

— Tony Nocchiero
Each year, we compete with the very best engineering schools to recruit extraordinary faculty members. This new cohort is incredibly talented, and we are excited about the new research areas these faculty will bring, as well as their knowledge and experience they bring to our students.”

— Dean Aaron F. Bobick

Supporting research and faculty

MilliporeSigma gift enhances research efforts across university

For more than 70 years, Washington University and MilliporeSigma have been connected by a shared history and a deep commitment to creating knowledge that improves the quality of life for people around the globe. During that time, the university has become one of the world’s premier research institutions, and MilliporeSigma has grown into a global leader in the life sciences industry. The longstanding relationship between the two partners was strengthened in 2016 when MilliporeSigma contributed more than $13.8 million worth of laboratory equipment and supplies to help scientists and engineers advance important research across the university. In recognition of the gift, the second floor of Stephen F. and Camilla T. Brauer Hall in the School of Engineering & Applied Science has been named the MilliporeSigma Floor.

“The longstanding relationship between Washington University and MilliporeSigma has helped advance scientific research and discovery in meaningful ways,” said Udit Batra, chief executive officer of MilliporeSigma. “We look forward to continuing our association with the university.”

Strategic research areas

- Clean Energy Systems
- Data Sciences for Humanity
- Imaging Sciences & Technology
- Mechanobiology
- Nano-scale Engineering
- Quantitative Biology & Pharmacology
- Smart Environmental Systems

Research centers

- Cardiac Bioelectricity and Arrhythmia Center (CBAC)
- Center for Aerosol Science & Engineering (CASE)
- Center for Biological Systems Engineering (CBSE)
- Consortium for Clean Coal Utilization (CCCU)
- Center for Engineering Mechanobiology (CEMB)
- Institute of Materials Science and Engineering (IMSE)
- International Center for Energy, Environment and Sustainability (InEES)
- Nano Research Facility (NRF)
- McDonnell Academy Global Energy & Environment Partnership (MAGEEP)
- Center for Sensor Signal & Information Processing
- Center for Biomedical Informatics
- U.S.-India Joint Clean Energy Research & Development Center

At a time of tight research funding, this gift has made a significant difference to our scientists, particularly those early in their careers who are setting up their labs.”

— Chancellor Mark S. Wrighton

Assistant Professor Damena Agonafer (right) hosted a NSF summer workshop for high school students in June 2018.

Professor and Department Chair Lori Sutter (right) with a graduate student.
Lee Hunter Distinguished Professorship in Engineering

Lee Hunter was the founder and chairman of Hunter Engineering, a member of the Washington University Board of Trustees, and an honorary graduate of the university. Shortly before his death in 1986, Mr. Hunter established the Lee Hunter Endowed Professor in Mechanical Design in the Department of Mechanical Engineering. Mr. Hunter’s stepson, Stephen Brauer, currently leads Hunter Engineering and is also a Washington University Trustee, honorary graduate and member of the Engineering National Council. During the Leeding Together campaign, Mr. Brauer—with his wife Camilla—honored Mr. Hunter’s legacy with an additional commitment to enhance the professorship to create the Lee Hunter Distinguished Professor in Engineering.

The David P. and Carol K. Gast Professorship

David and Carol Gast met at a football game while undergraduates at Washington University. David earned bachelor’s degrees in physics and in electrical engineering in 1953 and a master’s in electrical engineering in 1954, and Carol was in the Liberal Arts class of 1956.

David’s career included installing the first sound system in Graham Chapel, serving as an instructor in the U.S. Army’s Guided Missile School and working his way from salesman to CEO of Carl F. Gast Co., which his parents had founded in 1935, and for which Carol later became the bookkeeper. Throughout their lives together, they have demonstrated that service, loyalty and commitment are key ingredients to making Washington University a world-class institution.

Over the years, the Gasts have supported annual engineering scholarships and the Gast Window in Preston M. Green Hall. In 2014, the Gasts made a commitment through their estate to establish the David P. and Carol K. Gast Professorship. They are members of the Washington University Loyalty Society and the Eliot Society at the Patron level. Longtime supporters of the Weidenbaum Center, David and Carol were the first donors to the center’s Benefactor Fund for Student Research Opportunities and sponsored the center’s Gast Family Meeting Room. In 2017, the Gasts were presented with the Engineering Dean’s Award.

Mark and Becky Ruhmann Levin Professorship

Mark Levin is an industry visionary with over 25 years of experience building and operating leading biotech companies. Mark co-founded Third Rock Ventures in 2007, where he focuses on the formation, development and business strategy of biotech companies in its portfolio.

Mark was co-founder of Mayfield Fund’s life sciences effort, where he was the founding CEO of several biotech companies, including Millennium Pharmaceuticals. Earlier in his career, Mark was a scientist at Lilly and Genentech.

He earned bachelor and master of science degrees in chemical engineering from WashU. A member of the National Council, Mark received an Alumni Achievement Award from the school in 2011 and the Washington University Founders Day Distinguished Alumni Award in 2002. In 2016, the Levins made a commitment to establish the Mark and Becky Ruhmann Levin Professorship.

Becky Levin is the executive director of The Possible Project, a entrepreneurship program that provides a framework to close the skills and opportunities gap facing the untapped potential for students enrolled in public high schools in Boston and Cambridge, Massachusetts. She serves as a board member for The Schwartz Center for Compassionate Healthcare. Becky earned a bachelor’s degree in business administration from the University of North Carolina at Greensboro.

The Stephen and Maxine Sands Professorship in Engineering

Stephen Sands is vice chairman of U.S. Investment Banking and chairman of the Global Healthcare Group at Lazard. He has been with the firm since 1994, providing strategic and financial advice to senior executives and boards of directors at leading health care and life sciences companies globally.

Maxine spent her career working in the financial services sector for companies such as American Express and Citigroup. She has been involved with a number of charitable organizations, including Supplies for Success and Oxfam, and currently volunteers as a court appointed advocate for children in the foster care system in Bergen County, New Jersey.

Stephen is a member of the Engineering National Council, as well as the New York Regional Cabinet. He serves on the Rockefeller University Council and Columbia University Science Advisory Committee and is a trustee of the New York Hall of Science.

Stephen was honored with a WashU Engineering Alumni Achievement Award in 2014. An Engineering dual degree student, Stephen earned both a bachelor and a master of science in chemical engineering from Washington University in 1979, a bachelor’s degree from Oberlin College and an MBA from New York University. In 2016, the Sands made a commitment through their estate to establish the Stephen and Maxine Sands Professorship in Engineering.
Building the future

The transformation of the east end of the Danforth Campus includes four new academic buildings for the School of Engineering & Applied Science. Jubel Hall and McKelvey Hall are under construction and will soon join Brauer Hall and Green Hall, which were also added during the campaign. These buildings, in conjunction with Whitaker Hall, will create a new engineering complex that will enable us to expand our impact in interdisciplinary research and 21st century education.

James M. McKelvey, Sr. Hall

McKelvey Hall is being named in honor of James M. McKelvey, Sr., who served as dean of the School of Engineering & Applied Science for 27 years. McKelvey Hall will be located south of Preston M. Green Hall. In addition to faculty spaces and labs from each of the school’s five departments, McKelvey Hall will also house the entire Department of Computer Science & Engineering, supporting Washington University’s data science efforts.

McKelvey Hall Donors

James McKelvey, Jr.
Jerome and Rosalie Brasch
Gaurav Garg and Komal Shah
David and Carol Gast

“With this generous gift, Jim Jr. further enhances his family’s commitment to the university and helps us honor his father’s remarkable legacy at the School of Engineering & Applied Science.”

— Chancellor Mark S. Wrighton

James M. McKelvey, Sr. Hall

The McKelvey family’s university roots run deep. The former dean earned his master’s in chemical engineering in 1947 and a doctorate in chemical engineering in 1950, both from Washington University. McKelvey, Sr.’s vision helped transform the School of Engineering & Applied Science from a regional program to a nationally recognized research institution. During his more than quarter century tenure as dean, he led the school to prominence in engineering research, education and innovation. He launched the Engineers’ Scholarship Program, the Dual Degree Program and the Cooperative Education Program. Under his visionary leadership, the school’s endowment grew more than tenfold, from $4 million to nearly $52 million, and research expenditures grew substantially.

The building was made possible by a $15 million lead gift from McKelvey’s son, Jim McKelvey, Jr. He is an accomplished engineer, artist and entrepreneur, as well as a Washington University alumnus and a member of the university’s Board of Trustees.
Set to house the Department of Mechanical Engineering & Materials Science, Jubel Hall will offer infrastructure and research facilities that are key to fostering the interdisciplinary nature of engineering. At Washington University, engineering faculty and students collaborate across disciplines to focus on medicine and health, energy and the environment, and security. In this building, mechanical engineers will work closely with physicists, chemists, biologists, and chemical and biomedical engineers to promote the convergence of mechanics, materials science and nanotechnology.

The Spartan Makerspace will provide students and faculty with sophisticated fabrication capabilities that will allow them to have an even greater impact on our world.”

— Philip Bayly
Chair and Lilyan & E. Lisle Hughes Professor of Mechanical Engineering
Preston M. Green Hall

Preston M. Green Hall is much greater than one building: it is a multidisciplinary hub that brings together numerous researchers, educators and students—all focused on creating revolutionary new knowledge and preparing leaders for a global, technology-driven world.

Green Hall was dedicated in 2011 and is located at the northeast corner of the Danforth Campus. It is home to the Preston Green Department of Electrical & Systems Engineering. This investment by Washington University in St. Louis and the School of Engineering & Applied Science represents a commitment to the region, nation and world.

83,849
square feet in Green Hall

17
labs throughout the building

The Greens
Born in 1915 in St. Louis, Preston M. Green earned his bachelor of science degree in electrical engineering from Washington University in 1936. After graduation, Mr. Green worked in a local factory until he joined Southwest Steel Supply Co. in 1950 as vice president of purchasing and production.

He became president in 1955 and chairman of the board in 1957.

In 2006, Washington University Chancellor Mark S. Wrighton announced an $8 million commitment from the late Preston Green to support the School of Engineering & Applied Science and the Preston M. Green Department of Electrical & Systems Engineering.

Nancy Green, his widow, lives in St. Louis and serves on the advisory board for the Preston M. Green Charitable Foundation, which continues to support several charities within the St. Louis community. In 2010, the Preston M. Green Charitable Foundation committed an additional $5 million to support construction of Preston M. Green Hall.

“Having a state-of-the-art lab is not only helpful for my research, but it is helpful when applying for grants because I can show that I have the cutting-edge facility to do the research.”

— Lan Yang
Edwin H. & Florence G. Skinner Professor
Stephen F. & Camilla T. Brauer Hall

Brauer Hall represents a bold vision for the future of the School of Engineering & Applied Science. Brauer Hall is an incubator for tomorrow’s technologies and the home of the Department of Energy, Environmental & Chemical Engineering. Dedicated in 2010, the building features state-of-the-art research laboratories in air quality, aquatics, metabolic engineering, aerosol science and engineering, multiscale engineering, combustion and nanoparticle technology.

Brauer Hall Donors
Stephen F. and Camilla T. Brauer Charitable Trust
Stephen and Camilla Brauer
Leo Bressler
Gloria Feldman
Philip George
Henry & Elaine Kaufman Foundation
Stanley and Lucy Lopata Charitable Foundation
Richard and Yasuko Mattione
Robert McCormick
Neal and Marilyn Schaeffer
Estate of Mr. Russell Schulze
Siemens Medical Solutions USA
William Tao & Associates
David Ke-Chiang Tao
Estate of Mr. Robert Steven Whitcomb
Margaret Williams
Robert and Marcia Ziek

Brauer Hall is a beautiful space, and there is tremendous lab space to help meet our academic research goals.
The Brauer Hall labs for the environmental engineering program are among the very best in the country.”

— Daniel Giammar
Walter E. Browne Professor of Environmental Engineering

The Brauers
In 2008, Stephen F. and Camilla T. Brauer made a generous commitment to the School of Engineering & Applied Science to build a second building in the then-new Engineering complex on the northeast corner of the Danforth Campus. The 150,875-square-foot, three-story building was dedicated Oct. 1, 2010, as the Stephen F. and Camilla T. Brauer Hall.

Stephen Brauer is president of Hunter Engineering. His involvement with Washington University began in 1987 when he joined Engineering’s National Council. He was elected to the university’s Board of Trustees in 1991 and is currently vice chair.

Camilla Brauer is a cultural and civic leader in the St. Louis region. She has served on the board of the United Way of Greater St. Louis and as a member of the Danforth Circle committee of the William Greenleaf Eliot Society at Washington University.
What do the gifts support?

By the numbers

14,101
Total number of donors to Engineering

9,028
Alumni

3,416
Parents

1,062
Friends

486
Corporations

73
Foundations

30
Agencies and organizations

6
Honorary alumni

Gifts by source

Alumni $49,806,712

Students $14,141,702

Academic Programs $13,108,589

Other areas $3,581,581

Annual Fund $28,529,831

Facilities $52,268,725

Faculty

Honorary alumni

Corporations

Foundations

Parents

Friends

Agencies/Groups

$49,806,712

$14,141,702

$13,108,589

$3,581,581

$28,529,831

$52,268,725

$3,381,581

$13,141,702

$4,915,091

$4,315,091

$4,949,631

$6,549,620

$30,621,261

$4,949,631

$52,268,725

$13,141,702

$4,915,091

$4,315,091

$3,381,581

$28,529,831

$52,268,725

$13,141,702

$4,915,091

$4,315,091

$3,381,581

$28,529,831

$52,268,725

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$28,529,831

$52,268,725

$13,141,702

$4,915,091

$4,315,091

$3,381,581

$28,529,831
Thank you to our school leadership

Aaron F. Bobick
Dean
July 1, 2015-present

Ralph S. Quatran
Dean
2010-June 30, 2015

Salvatore P. Sutera
Dean
2008-2010

Renovated Lopata Gallery
After a nine month renovation project, the Lopata Gallery reopened in Feb. 14, 2011, offering modern and expanded collaboration space, and a food and coffee service in the School of Engineering & Applied Science. The renovation included a new eatery, Stanley’s Café, named after engineering alumnus and benefactor Stanley Lopata.

National Council members during the campaign

Libby Allman
Sam Gupta
Brenda D. Newberry

Allen R. Atkins
Stefanie Hill
Anthony J. Nocehiro

Vincent J. Belusko
Sunil Herani
Frederick (Rick) J. Oertli

John Berra
Jan Holloway
Anna Patterson

Joseph F. Boston
Matt Holton
Nancy Pendleton

Gregory H. Boyce
Michael Holtz
Mike Perlmutter

Jerome F. Brash
Dennis Houston
Richard E. Pinckert

Stephen F. Brauer
Donald A. Jubel
Stanley Proctor

Charles A. Buescher, Jr.
Dennis Kessler
Richard Roloff

Christopher Chivetta
David M. Kipnis
David J. Rossetti

C. Baker Cunningham
Milind Kulkarni
Stephen H. Sands

Santana Das
Harold Y. H. Law
Gregory A. Sullivan

Carl Deutsch
Peter G. Leemputte
Anthony Thompson

Arnold Donald
Mark J. Levin
Susan Mary Welsh, MD

Matt Etts
Christine Lorenz
Gary Wendlandt

Gaurav Garg
Richard P. Mattione
Mark Wolsey-Paige

Michael K. Gibbons
John F. McDonnell
Peter Leung-tung Young

Alexander J. Gray
Robert L. Mullenger