



COLORADO SCHOOL OF
MINES

DEPARTMENT OF ECONOMICS & BUSINESS

2024 NEWSLETTER



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Reflecting on the Year



EB Department Head Scott Houser reflects on 2024: Updates and news you should know

Dear EB alumni and friends,

We hope that you are enjoying the start of the new year. Mines was busy celebrating its 150th anniversary in 2024, and we are excited to see what's beyond Mines@150. We've been celebrating, too. It's been another exciting and rewarding year in Economics and Business. We're excited to share some of the good news from the department along with updates about our students, faculty, degree programs, and research.

We are so grateful to Lowell and Cheryl Shonk for a gift that will be transformational for the department. Lowell and Cheryl have created an endowment that will support a chaired department head in EB and doubled their support of fellowships for Mineral and Energy Economics master's students. We'll be kicking off the national search for the Shonk Department Head later this year.

2024 was another year of transitions. We welcomed three new faculty members, growing the EB faculty from 12 to 18 over the past 5 years. Dr. Ian Lange took over the Coulter Chair in Mineral Economics and stepped down from his very successful eight years as the head of our Mineral and Energy Economics degree program.

We also said farewell to much-loved staff. Most of you remember Kathleen Martin and can't imagine EB without her. We are very grateful to John Tilton for establishing the Kathleen Martin Graduate Fellowship for Mineral and Energy Economics.

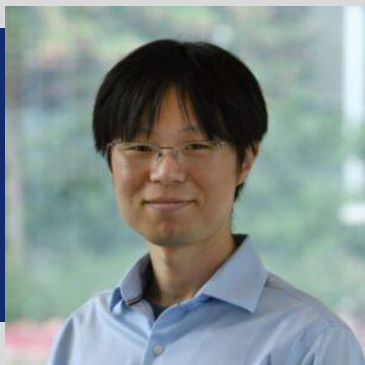
Degree programs continue to grow. We now have 255 total students pursuing our undergraduate and graduate degrees. That's almost double the 137 students in EB programs in 2020. You'll read about some of our students in the newsletter. We are so proud of our students and the impact they are having on campus and beyond!

As always, our alumni, friends, and industry partners are key to the growth and success of EB. Thanks to alumni and friends who helped to kick off our Industry Advisory Board. Thanks to Joe Eazor for sharing his expertise and connections as our ETM Executive in Residence again this year.

Thanks to all of you for your continued support of Economics and Business at Mines. We hope to see you at our annual alumni gathering on March 6th.

Saying Hello!

Meet Our New Faculty and Staff Members



Hojun Choi
Assistant Professor

Hojun Choi joins the department of Economics and Business after receiving a PhD in Operations from Northwestern University. He also holds a BS in Industrial Engineering.

Professionally, Hojun has had internships in multiple different industries, including public policy and finance. He was also a recon/ranger in the Korean army.

Hojun's research centers around stochastic models, game theory, and optimal controls in resource allocation problems. He is excited to be working with his new colleagues at Mines and looks forward to using collaboration to solve practical problems.



Michael Helwig
Teaching Associate
Professor

Before joining us at Colorado School of Mines, Mike Helwig earned an undergraduate degree in Liberal Arts and Sciences from the University of Illinois, an MS in Operations Research from the Naval Postgraduate School, and a PhD in Engineering Management from George Washington University.

Mike spent 20 years as a naval officer flying F-14s and driving aircraft carriers, conducted multiple analyst tours in Washington, DC, and was the commanding officer of the naval reserve center in Albuquerque. He has also been a research analyst for the IDA, a senior engineer at the National Renewable Energy Laboratory, and an instructor at ISU and KSU.

He is happy to return to Colorado and excited to create new connections with the faculty, staff, and students at Mines.

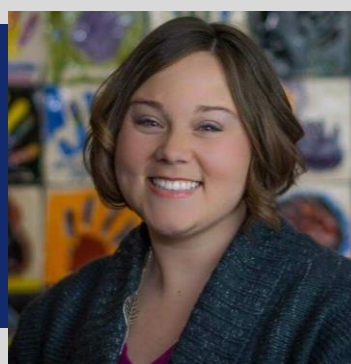


Daniel Jarrett
Professor of Practice

Daniel Jarrett is actually *returning* to Mines, having earned his PhD here in 2010 with a research focus on time-series econometrics and commodity markets.

After graduating, Daniel taught and developed curriculum at UC Denver for 11 years, working in the economics department, school of public health, and business school. He was also the chief investment officer of a global macro hedge fund for four years, developing cross-asset strategies and leading macro research efforts.

Currently, he is engaged in applied research in macroeconomics and commodities with a focus on gold. He is excited to return to Mines to bring applied industry experience into the classroom and strengthen industry ties with the department.



Lynn Lundebrek
Department Manager

A native Minnesotan, Lynn fell in love with Colorado in her formative years during family vacations. After graduating with her BA in Communication from Concordia College, she moved to Colorado to embark on a career in non-profit fundraising with United Way.

This career took her to Wisconsin and then the allure of the mountains called her back to Colorado wherein she started a new career in the field of education. Lynn began working at Mines in 2017 in the Registrar's office and then transitioned into a department manager role in Geophysics before starting as the new EB department manager in July 2024.

She recently completed her MS in Organizational Leadership from Colorado State University Global and spends her free time reading, learning Spanish, spending time with family and friends, and baking.

Saying Goodbye

Our Retiring Staff Members



Kathleen Martin

Department Manager

Kathleen Martin was with the Economics and Business Department for over twenty years. As the former Department Manager, Kathleen has been personally instrumental in the successes of students and faculty alike. Everyone on campus will miss her friendly face, unwavering support, and willingness to go above and beyond for her department.

Good luck in retirement, Kathleen! You will be missed by all.



Denise Vigil

Administrative Assistant

Denise Vigil was an employee with the State of Colorado for 36 years and worked for the Department of Economics and Business for almost five years. As the department's Administrative Assistant, she has worked hard to support the faculty and kept the department well-organized and planning ahead. Denise was also dedicated to taking the initiative to help all students succeed.

We will miss you, Denise! Best of luck, and congratulations on your retirement!

AUDREY BEATY

Business Engineering and Management Science



HOMETOWN: AUBREY, TEXAS

DREAM JOB IN INDUSTRY: TECH SALES OR PROJECT MANAGEMENT

INTERESTS/PASSIONS IN PROGRAM: I AM DEEPLY PASSIONATE ABOUT THE INTEGRATION OF BUSINESS AND TECHNOLOGY...THE CURRICULUM HERE AT MINES HAS STRENGTHENED MY ABILITY TO ANALYZE AND TACKLE CHALLENGES FROM A BUSINESS PERSPECTIVE.

Featured Student Profile

The Department of Economics and Business likes to take some time to recognize exceptional students by featuring their profiles in our newsletter.

This year, our featured student is Audrey Beaty, an undergraduate student in the Business Engineering and Management Science program.

Keep up the good work, Audrey!

2025 Alumni Event



From 5-7 PM on March 6th, the Department of Economics and Business is hosting our annual alumni event at the Beck Venture Center! Alumni and friends of the department are invited to come reconnect with the Economics and Business Department.

We were thrilled to host over 100 people at last year's EB alumni gathering. We presented the inaugural Friends of Economics and Business Award to Lowell and Cheryl Shonk for their support of master's students in Mineral and Energy Economics. Lowell met several Shonk Fellows and shared how his MS in Mineral Economics in 1979 changed his life. This year, the Friends of EB Award will be presented to Jerome Broussard, whose generosity helped to launch our Engineering and Technology Management degree program and continues to support exceptional ETM students.

Be sure to register for the event and come by the Beck Venture Center this year to watch the award ceremony, network, listen to important updates and recent news within the department, and enjoy food and beverages on this special night.



Come to the Beck Venture Center at 5 PM on March 6th to...

- Watch speakers and presentations
- Network with alumni, faculty, and friends of the Department
- Catch up on recent events and upcoming news
- Enjoy food and beverage
- Celebrate another year of economics and business at Mines!

[REGISTER HERE](#)

Major Gifts to EB

Historic Gift Made by Lowell and Cheryl Shonk

Lowell Shonk and wife Cheryl made historic \$5.5 million gift to the department



Lowell Shonk (right) accepting the Friends of Economics & Business award presented by Scott Houser (left) at the 2024 Alumni Event

Lowell Shonk, and his wife, Cheryl, made a transformative \$5.5 million donation to the department in 2024. The gift established the Lowell and Cheryl Shonk Endowed Chair for the Head of the Economics and Business Program and doubled their endowment for graduate fellowships for Mineral and Energy Economics students.

Lowell explains their gift best: “With our endowed chair gift, Cheryl and I want to make a permanent difference in the ability of the department to advance its mission. In addition, with the fellowship, we hope to lighten the financial burden of students and propel them to make a difference in their academic success. Both gifts are designed to further enhance the world-class Mines education that we believe in and that contributes to the next generation of minerals, energy and environmental leadership.”

Thank you, Lowell and Cheryl, from all of us in EB! You may read more about the Shonks’ gift [here](#).

Kathleen Martin Graduate Fellowship for Mineral and Energy Economics

Fellowship started in honor of retiring Department Manager Kathleen Martin aims to provide opportunities to graduates paying out-of-state tuition



Kathleen Martin, Department Manager for the Department of Economics and Business, retired this year, and will be sorely missed by everyone in the department, students and faculty alike.

Professor emeritus Dr. John Tilton and his wife Elizabeth Tilton sought to honor her by creating the Kathleen Martin Graduate Fellowship for Mineral and Energy Economics, which will provide financial supports for graduates in the MEE program with a preference for students from foreign countries paying out-of-state tuition.

Contributions to the fellowship have also been made by Dr. Rod Eggert and his partner Ruthann Moomy, Dr. Graham Davis and his partner Andrea Ahrens, and Dr. Carol Dahl.

To support the Kathleen Martin Fellowship, donate [here](#).

Kathleen Martin, who loved working with students from around the globe, said that she is honored to have a fellowship established in her name that can help ensure qualified students seeking knowledge and opportunities at Mines are not turned away due to cost.

Congratulations to our 2024 Graduates!



BS in Business Engineering and Management Science

Lexus Carton
Will Drogosch
Jaden Healy
Brynn Moncur
Mitchell Morehead
Uriah Nevins
Grant Pressly
Ryan Sarojak
Ben Takata
Rachel Tat
Kristian Taylor
Cory Vik
Rohan Wallace

Certificate in Business Analytics

Eb Alfred-Igbokwe
David DeGeare
Lowell Kalman
Tina Le
Jack Peterson

Certificate in Project Management

Eman Abu Alrahi
Caden Best
Jeffrey Immel
Karen Lopez
Jack Peterson
Natashia Power
Collin Romero
Jalen Thomas

Certificate in Resource Commodity Analytics

Ella Baldwin
Aishwarya Bhawe
Fitrah Pratama
Maria Saavedra

MS in Engineering and Technology Management

Eman Abu Alrahi
Molly Adams
Eb Alfred-Igbokwe
Haider Alqudaihi
Jose Ascencio Guizar
Grant Badstebner
Caden Best
Matthew Blackburne
Anthony Boyd
Cameron Bridges
Ethan Cefus
Joseph Echigoshima
Cameron Forrest
Evan Foster
Camden Gillis
Dylan Gomez
Hayden Gregg
Michael Haas
Joseph Hall
Andrew Hartman

Zachary Heckman
Jeffrey Immel
Marcus Lee
Michala Lee
Karen Lopez
Alyssa Martinez
Riley McGrath
Max McLeod
Alexander Miller
Trevor Moore
Shelby Nichols
Drew Petersen
Jack Peterson
Natashia Power
Alexa Rennert
Sadriena Rodriguez
Collin Romero
Noah Roper
Peyton Rose
Preston Rose
Colby Royer
Joshua Rutledge
Sabrina Schlather
Ben Schoneman
Weston Siefken
Furkan Soy
Ashley Steffek
Keene Tanaka
Jalen Thomas
Gabbi Varela
Brady Veltien
Jack Walters
John Weiler
Kyle West
Andrew Whitcomb



MS in Mineral and Energy Economics

Mama Nissi Abanga Abugnaba
Sultan Alsuwaidi
Askar Alyami
Rueben Anafo
Emmanuella Asiedu
Felix Ayaburi
Aishwarya Bhave
Maurizio Campana
Jakob Dammen
Mesut Erk
Liam Gilbride
Isabel Guajardo Retamales
Hassan Hassan
Abu Shahadat Md Ibrahim
Jordan Ida

Jared Klebanow
Ebenezer Manful-Sam
Ned Nauroth
Pierluigi Nichilo
Jennifer Ntiamoah
Andréa Pascual
Taylor Price
Taylor Quinn
John Shapland
Spencer Snow
Sito-Abasi Udoh
Iyanna White
Haoyuan Yang
Blaise Yendemeh

PhD in Mineral and Energy Economics

Deniz Ege Boz
Alex Gebben



Congratulations!

Department Publications and Presentations

Multiple Department members have recently had their articles highlighted in the November 2024 issue of the *Journal of the Association of Environmental and Resource Economists*. Check out the articles below!

“Tax Credits for Clean Electricity: The Distributional Impact of Supply-Push Policies in the Power Sector”

Authored by Maxwell L. Brown, Jon M. Becker, Jared Carbone, Teagan Goforth, James McFarland, Destenie Nock, Kristina Pitman, and Daniel C. Steinberg



Maxwell L. Brown



Jared Carbone

“We evaluate distributional and efficiency consequences of the bulk power clean electricity tax credits authorized by the 2022 Inflation Reduction Act. To do so, we link detailed electricity capacity expansion, computable general equilibrium, data-rich microsimulation, and air pollution models to estimate the policy incidence in terms of economic welfare and health impacts across a wide range of demographic groups. We evaluate the tradeoff between policy efficiency and income progressivity by comparing the tax credits to cap-and-trade policies that vary revenue recycling approaches. Under the scenarios analyzed the bulk power tax credits lead to increased clean electricity technology deployment resulting in a reallocation of capital from elsewhere in the economy, higher prices for capital and other goods, lower power prices, and lower emissions. The tax credits yield progressive outcomes for both economic welfare and health impacts. The health benefits exceed total policy costs and provide greater benefits for low-income and historically-marginalized households given the coincidence of household and emission source locations.”

“Distributional Equity in the Employment and Wage Impacts of Energy Transitions”

Authored by Ben Gilbert, Ben Hoen, and Hannah Gagarin



Ben Gilbert

“We use restricted-access, geocoded data on the near-universe of workers in 23 US states to quantify the impact of wind energy development on local earnings and employment, by race, ethnicity, sex, and educational attainment. We find significant impacts that persist for several years beyond the project construction phase. Our estimates are larger than those from previous studies but still small relative to typical economic multipliers for fiscal spending or investment in other industries. We find the largest percentage increases for black workers and workers who either do not have a high school diploma or who have a college degree. We also find the economic gains for men to be much larger than those for women. Finally, we find estimates from data aggregated to the county level to be significantly lower than our worker-level estimates. We suggest a number of areas for further study building off the justice implications of our findings.”

Assistant Professor Maxwell Brown also coauthored a piece in the Journal Science:



“Impacts of EPA’s finalized power plant greenhouse gas standards”

Authored by John Bistline, Aaron Bergman, Geoffrey Blanford, Maxwell Brown, Dallas Burtraw, Maya Domeshek, Allen Fawcett, Anne Hamilton, Gokul Iyer, Jesse Jenkins, Ben King, Hannah Kolus, Amanda Levin, Qian Luo, Kevin Rennert, Molly Robertson, Nicholas Roy, Ethan Russell, Daniel Shawhan, Daniel Steinberg, Anna van Brummen, Grace Van Horn, Aranya Venkatesh, John Weyant, Ryan Wisser, and Alicia Zhao

“The US Inflation Reduction Act (IRA) subsidizes the deployment of clean electricity, hydrogen production, and carbon capture and storage (CCS), which could enable additional actions by other federal, state, and local policy-makers to reduce emissions. Power plant rules finalized by the Environmental Protection Agency (EPA) in 2024 are one such example of complementary policies. The rules establish emissions intensity standards, not technology mandates, meaning power plant owners can choose from a range of technologies and control options provided that emissions standards are met. This flexibility makes electricity systems modeling important to understand the potential effects of these regulations. We report below a multimodel analysis of the EPA power plant rules that can provide timely information, including for other countries and states, on emissions impacts, policy design for electricity decarbonization, power sector investments and retirements, cost impacts, and load growth. We also discuss related technical, political, and legal uncertainties.”

Teaching Associate Professor Crystal Dobratz coauthored a piece presented at the Diana International Research Conference:



Crystal Dobratz

“Gendered verbiage in entrepreneurship texts: An institutional mechanism for gender inequality in entrepreneurship”

Authored by Golshan Javadian, Vishal Gupta, Crystal Dobratz, Alka Gupta

The Diana International Research Conference is the premier international research conference on women’s entrepreneurship. The paper won ‘Best Empirical Paper’ of the 2024 conference held in Stockholm, Sweden.

“While institutional forces can produce and maintain social inequality and division of labor, theoretically grounded evidence for the existence and influence of such forces remains scarce. Our research proposes gendered-stereotypical wording (reflected in masculine and feminine verbiage) as a possible – hitherto unappreciated – institutional mechanism underlying existing group-based inequality in entrepreneurship. Combining archival and experimental approaches, we demonstrate that gendered wording in texts can perpetuate gender inequality in entrepreneurship. The role of gendered wording in reinforcing long-held gender divisions consistent with social dominance theory, implications for gender equality, and consequences for gender gap in male-typed domains are discussed.”

#IDigMines

Giving Day on February 6th



Set your alarms, Orediggers! #IDigMines Giving Day starts Thursday, February 6th at 12:01 AM and will last all day long, until 11:59 PM.

#IDigMines Giving Day celebrates Colorado School of Mines' 150th anniversary by encouraging students, families, and alumni to donate to their favorite communities at Mines and offering bonus funding for causes and communities with the most engagement and donors. Contributions to Colorado School of Mines are always appreciated, but only those made on February 6th, 2025 will be eligible for bonus prizes! So, mark your calendars or pledge now for #IDigMines Giving Day.

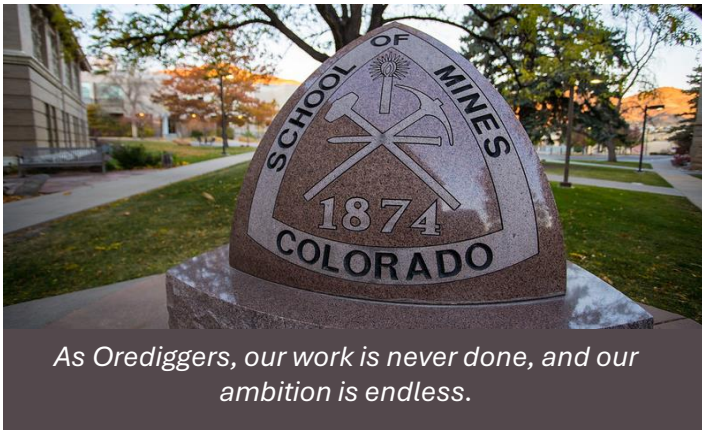
Giving isn't the only way to contribute to your favorite organizations for #IDigMines; digital and in-person events are also planned in the week leading up to February 8th. Photo and art contests, digital and on-campus treasure hunts, and hunts for Blaster both online and on campus will take place the week of February 2nd. Winners in each event will be able to pick their favorite cause to receive additional \$150 in funds. Have fun while supporting your favorite causes on campus!

This year, the most popular causes will split a grand bonus of \$35,000, so make sure to donate to represent your favorite communities!

Featured Causes to Support

- △ Additive Manufacturing
- △ Advanced Energy Systems
- △ Applied Mathematics & Statistics
- △ Arthur Lakes Library
- △ Athletics
- △ Blaster's Basket Food Pantry
- △ Capstone Design
- △ Carbon Capture, Utilization & Storage
- △ Center for Academic Services & Advising
- △ Chemical & Biological Engineering
- △ Chemistry
- △ Civil & Environmental Engineering
- △ Club Sports
- △ Computer Science
- △ Data Science
- △ Diversity, Inclusion & Access
- △ Economics & Business
- △ Electrical Engineering
- △ Engineering, Design & Society
- △ Entrepreneurship & Innovation
- △ FEA Professional
- △ Geochemistry
- △ Geology & Geological Engineering
- △ Geophysics
- △ GIS & Geoinformatics
- △ Graduate Studies
- △ Humanitarian Engineering & Science
- △ Humanitarian Engineering
- △ Humanities, Arts & Social Sciences
- △ Hydrologic Science & Engineering
- △ Interdisciplinary Graduate Programs
- △ Materials Science
- △ McBride Honors Program
- △ Mechanical Engineering
- △ Metallurgical & Materials Engineering
- △ Mines Museum of Earth Science
- △ Mines Online
- △ Mining Engineering
- △ Multicultural Engineering Program
- △ Nuclear Science & Engineering
- △ Operations Research w/ Engineering
- △ Oredigger Camp
- △ Petroleum Engineering
- △ Physics
- △ Quantitative Biosciences & Engineering (Undergraduate)
- △ Quantitative Biosciences & Engineering (Graduate)
- △ Quantum Engineering
- △ Robotics
- △ Space Resources
- △ Student Activities, Involvement & Leadership
- △ Student Emergency Fund
- △ Student Experience Fund
- △ The Mines Fund
- △ Underground Construction & Tunnel Engineering
- △ Vallejo Irvine Professional Development
- △ Women at Mines
- △ Writing Center





Bonuses aren't just for the biggest causes, though; the Raising the Bar Challenge is offering \$1,000 total prize money for causes with the highest percent increases in donors compared to #IDigMines in 2024.

Additionally, on February 8th, the first ten donors to send a gift from outside the United States will split a \$1,500 prize, per the Global Giving Challenge.

To check the leaderboards and keep tabs on the standings of your favorite featured causes, visit idigmines.edu!

To gift on #IDigMines Giving Day, go online to idig.mines.edu, call (303) 273-3275 at any time on February 6th, or visit the Starzer Welcome Center between 9 AM and 5 PM on the 6th!

All gifts to Mines on #IDigMines Giving Day are tax-deductible, and donors will receive an electronic receipt for their records.

For questions about #IDigMines Giving Day, Please contact the Mines Foundation at 303.273.3275 or csmfoundation@mines.edu.

Due Diligence Committee Formed

Economics and Business students take initiative to participate in the proper allocation of grant money

In 2024, The Foundation requested that the Department of Economics and Business create a committee that performs due diligence examining and approving materials requesting grant money and decide on which projects would make the best investments. Todd McLean, Scott Houser, Becky Lafrancois, and Crystal Dobratz in collaboration with the National Organization of Business Engineers (NOBE) led the initiative to create the Due Diligence Committee, an organization of students who participate in the due diligence process.

Now, students in NOBE can actively participate in the allocation of grant money to proposals. They are led by Nick Huber, the president of NOBE, and collaborate with Todd McLean and Paul Zink to perform due diligence on each proposal that comes in.

Todd McLean gives his special thanks to Scott Houser, Becky Lafrancois, and Crystal Dobratz for their help with organizing this effort, and expresses how impressed he and Paul Zink have been with the initiative taken by students and the quality of their work.

By critically examining grant requests, students are both utilizing their financial knowledge in an applied setting and making a difference by advancing projects at Mines.



Upcoming Opportunities

Society of Decision Professionals Conference

The Society of Decision Professionals (SDP) will hold its annual conference in Vancouver, British Columbia the week following Spring Break: March 24th - 28th.

Monday the 24th and Friday the 28th there will be half-day workshops, and the conference itself is the 25th - 27th.

For details, go to [2025 SDP Annual Conference & Workshops - Society of Decision Professionals](#). Students get a special rate!



EnergyTech UP Ideas Competition

The U.S. Department of Energy's Office of Technology Transitions (OTT) is sponsoring the EnergyTech University Prize (EnergyTech UP) collegiate competition. The goal of this competition is to identify a promising energy technology, assess its market potential, and create a business plan that leverages National Laboratory-developed or other high-potential technologies for commercialization. This competition offers more than \$485,000 in cash prizes for the winning teams.

This year, the McNeil Team has partnered with NREL to work on this national challenge. We believe that this competition would be a fantastic opportunity for ETM students, as the entire premise is rooted in creating a business plan—skills that all ETM students have developed in their core classes.

Please reach out to the McNeil Center at franklin@mines.edu for more information.



Thank you to our supporters!

Contributions from our alumni and friends truly make a difference. These gifts fund student recognition events, scholarships, faculty research efforts, outreach activities, and the opportunity for students to attend professional conferences. We sincerely appreciate your continued commitment.

- Gilbert Barker
- Sharon Barker in memory of Darlene Pauli
- Jonathan M. Bloomfield
- Dan and Tami Boltz
- Jerome Broussard
- Chevron
- Tony and Mary Church
- Carol Dahl
- Nicholas D. Darschewski
- James Ian Easton
- Ellen Ewart
- Sam Hewitt
- Changkeun Lee and Heeji Yoon
- Patrick and Deb Lineberry
- Brian McNeillie
- Moreno Todd Trust
- Steve Rasey and Cheryl Wise-Rasey
- Neal and Margaret Schmale
- Lowell and Cheryl Shonk
- John Tilton in recognition of Kathleen Martin
- Edie Trimmer and Thomas Brill
- Viola Vestal Coulter Foundation



A gift to the Department of Economics and Business is an investment in our future. Private philanthropy empowers the department to achieve greater excellence in research and education. Your gift helps fulfill our mission of facilitating student success, faculty scholarship, and patron research by providing access to information and knowledge, which helps strengthen the quality of the University. Gifts support scholarships, fellowships, professorships, academic programs, faculty research, and other initiatives that would not be possible through state and university appropriations alone.

To give, please visit weare.mines.edu/supporteb.