



the
Hertz
FOUNDATION

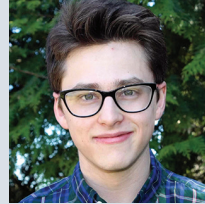
PHILANTHROPY REPORT | 2022

Class of 2022 Hertz Fellows

These 13 remarkable doctoral students demonstrate extraordinary potential to become foremost leaders in their fields and tackle the most pressing challenges facing the nation and the world.

RODERICK BAYLISS III

University of California, Berkeley
Power Electronics



SCOTT BARROW MOROCH

Massachusetts Institute of Technology
Physics

NIKHIL BHATTASALI

New York University
Neuroscience, Artificial Intelligence

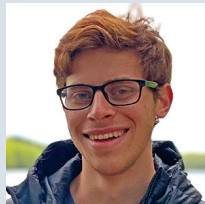


VIVEK NAIR

University of California, Berkeley
Computer Science

ALEXANDER COHEN

Massachusetts Institute of Technology
Mathematics



SYAMANTAK PAYRA

Stanford University
Engineering

WENJIE GONG

Massachusetts Institute of Technology
Physics



SHUVOM SADHUKA

Massachusetts Institute of Technology
Computational Biology

JONAH HERZOG-ARBEITMAN

Princeton University
Physics

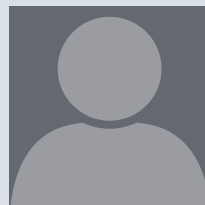


EMILY TRIMM

Stanford University
Biophysics, Medicine

DAVID LI

Stanford University
Bioengineering



ANONYMOUS

Massachusetts Institute of Technology
Physics

DANIEL LONGENECKER

Princeton University
Physics



Letter from Development Co-Chairs

Dear Hertz Fellows and Friends,

Over 60 years ago, John Hertz recognized that philanthropy had the power to shape innovation in our country by investing in our nation's top technical and scientific minds early in their careers. His generosity catalyzed the creation of the Fannie and John Hertz Foundation, and his aspirations — both prescient and relevant today — fostered a community of extraordinary and principled scientific leaders, uniquely capable of addressing the world's most pressing challenges. The Hertz Foundation's role in supporting these highly educated science and technology leaders has never been more important than it is today.

We are reminded daily of the incomparable role science plays in addressing complex problems — from improving human health to protecting our climate and ensuring our nation's economic vitality and security. Whether it is the ongoing fight against COVID-19 or threats from international conflicts, Hertz Fellows are meeting this moment with bold innovation and solutions, while strengthening our nation's well-being and leadership in the world.

This past year, we welcomed 13 new and remarkable doctoral students who demonstrate extraordinary potential to become foremost leaders in their fields and tackle the most significant challenges facing the nation and the world. Defending the nation's digital infrastructure against cyberthreats, developing more effective and efficient electronics via artificial intelligence, and creating biomedical devices to aid rehabilitation and cancer diagnostics are just some of the issues our new fellows are tackling. The 13 new students join 65 currently funded fellows, along with a distinctive community of over 1,240 Hertz Fellows who are the leaders, shapers, and disruptors of the nation's science, engineering and mathematics fields today.

Over the summer, the Hertz community had the opportunity to join together at the Hertz Foundation's Summer Workshop and lend their creativity and insights to pressing issues including cybersecurity, artificial intelligence and machine learning, and



climate change. After three years of virtual programs, being together in Boston underscored the value of bringing Hertz Fellows together to explore ideas and inspire solutions that strengthen our nation and help build a better future for all.

The generosity of our community has helped build and expand our national pipeline of bold and innovative leaders, while creating a powerful, solution-oriented network of our nation's top scientific minds. This past year, we experienced our most successful fundraising year to date, raising over \$9.5 million to support this critical work. An extraordinary gift of \$5 million from an anonymous donor is a significant part of this success and will allow the foundation to create more fellowships in perpetuity, while significantly expanding this pipeline of scientific leadership.

John Hertz's leadership during a tumultuous time in the world instilled philanthropy as a community value. He recognized that our future relies on the investments of, and partnership with, other generous donors. Today, we continue this investment through the intellectual freedom intrinsic to the distinctive Hertz Fellowships. We are grateful for your generous support and look forward to your continued partnership in this important work.

Rosemarie Havranek
Development Co-Chair

Lee Swanger
Development Co-Chair

ON THE COVER: HERTZ FELLOW RODERICK BAYLISS III IS INTERESTED IN DEVELOPING MORE EFFICIENT ELECTRONICS TO REDUCE DEPENDENCE ON FOSSIL FUELS.

Giving to Hertz:

Small Foundation Means Amplified Impact

For Hertz Fellow Alfred Spector, the most compelling reason to give to the Hertz Foundation is simple. “The organization is small enough that I can see the impact,” he said.

Spector and his wife fund the Alfred Spector and Rhonda Kost Family Fellowship, currently held by Iris Cong.

“There are many fantastic organizations in the world, but for most of us, our contribution is just a very small part. It’s meaningful to me to be able to do something in an organization where the goals are clearly valuable and my contribution is actually significant and makes a difference,” Spector said.

Why Hertz?

The Hertz Foundation has a powerful brand, talent pool and infrastructure for finding students who are likely to be impactful. To catalyze this combination, he said, “Add money and stir.”

The freedom to innovate afforded by the Hertz Fellowship had an enormous impact on his own career. A 1977 Hertz Fellow, he pursued a Ph.D. at Stanford University, where his thesis was “Multiprocessing Architectures for Local Computer Networks.”

“I was someone who had a research concept that was somewhat different than what the faculty at Stanford were then pursuing,” Spector said. “I was able to pursue my vision, which integrated ideas from Xerox Palo Alto Research Center, IBM Research and the Stanford computer science department. My thesis was well regarded and somewhat different because of that. It set a precedent for many years of work, which integrated topics in distributed science with the needs of large enterprise computing.”

Spanning Industry and Academia

Spector’s career has spanned academia and industry. Launching his career as a computer science professor at Carnegie Mellon University, where he also was director of the Information Technology Center, he then founded Transarc Corp. to commercialize the distributed systems software developed at CMU. He later moved into vice president roles at IBM and Google, where he was the global head of research. Following that, he became chief technology officer and head of engineering at investment company Two Sigma.

In January 2022, Spector circled back to academia, teaching part time as a visiting scholar at Massachusetts Institute of Technology. His recent book, “Data Science in Context: Foundations, Challenges, Opportunities,” co-authored with Peter Norvig, Chris Wiggins and Jeannette M. Wing (Cambridge University Press), has just become available.

The ubiquity of data and its challenges and opportunities are shaping the future, Spector said. “The techniques of data science will become, in varying ways, commonly used by all Hertz Fellows. Those techniques and that language will be a point of commonality across the foundation’s cohorts.”

In addition to data science, Spector would like to see more focus on developing leadership. “Ph.D.s are not necessarily focused on leadership,” he said. “Graduate programs are designed to teach focus — how to develop clear objectives, make an argument, follow it through, correct it if needed. Programs can also teach collaboration.

“But leadership itself is not really taught so much or discussed. Whether you’re going to be a professor, in industry, in a government lab or in politics, leadership is critical. In fact, I am co-catalyzing a new entrepreneurship program at MIT in order to try to tilt that focus a little bit.”

Spector said one way to learn leadership is through internships, which Hertz Fellows are free to pursue as part of their in-school experience. “Internships are an important place to watch how others lead inside and outside the university environment and see what works and what doesn’t work.”

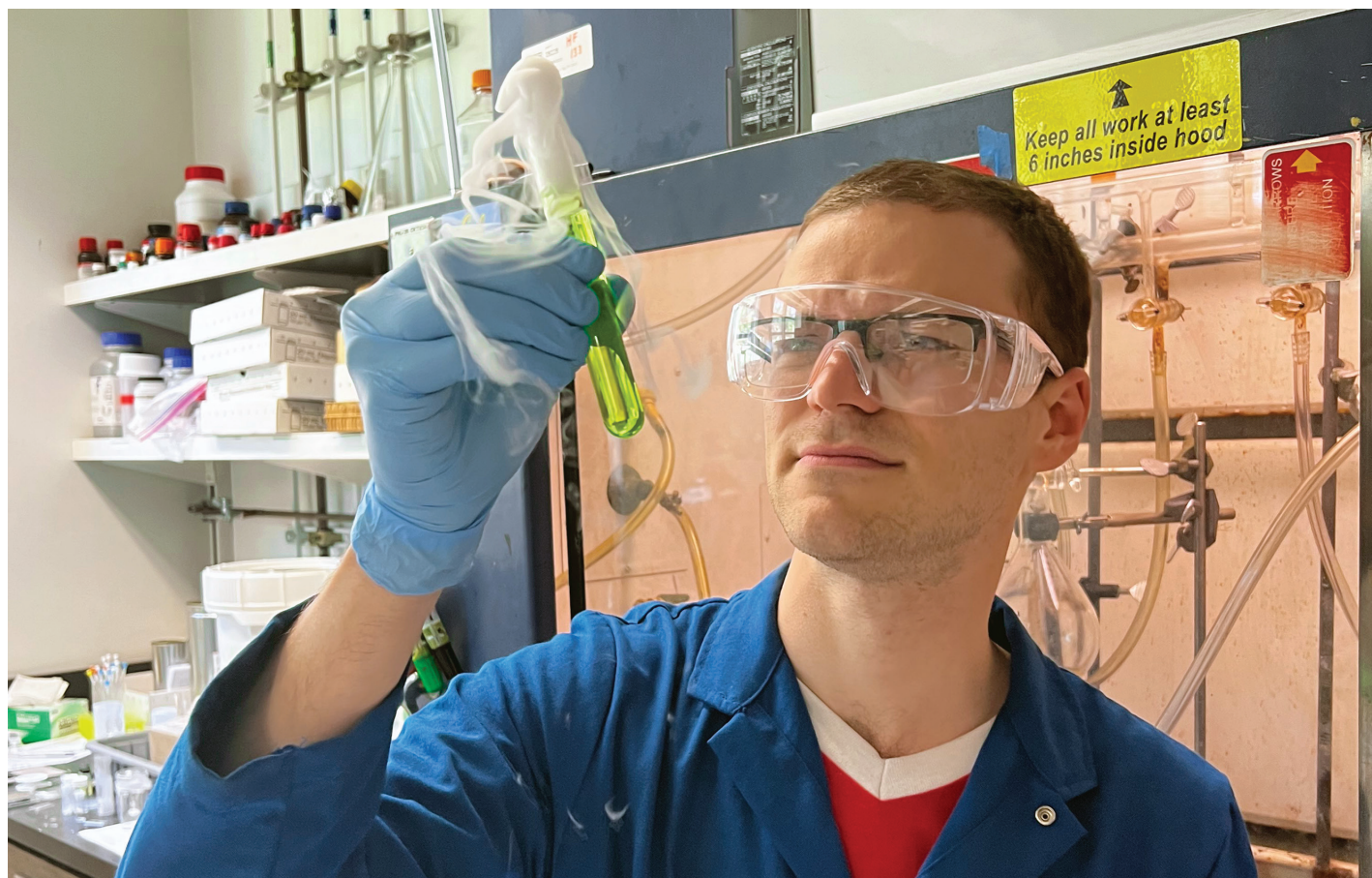
Some Reflections

Additional advice Spector offers to fellows on the cusp of their careers: Focus on clear and impactful results; do things you enjoy and have passion for; and recognize that in your career, you won’t do everything by yourself. “So make sure you devote time to listening to others, being with others and brainstorming. In addition to having clarity of goals and liking what you’re doing, pay attention to people and learn from them and contribute to what they’re doing. Those are good ingredients for making progress.”

“It’s meaningful to me to be able to do something in an organization where the goals are clearly valuable.”

ALFRED SPECTOR
HERTZ FELLOW
VISITING SCHOLAR, MASSACHUSETTS
INSTITUTE OF TECHNOLOGY





HERTZ THESIS PRIZE WINNER

Advancing Pharmaceutical Chemistry

The chemical reactions used by pharmaceutical companies to create drugs require costly chemical reagents, rely on rare earth elements and generate toxic waste.

Kurtis Carsch, a 2016 Hertz Fellow with support from the National Science Foundation, spent five years studying these reactions using earth-abundant resources, in the process discovering and providing substantial insight into how to bypass some of the most wasteful and energy-intensive steps and eliminate the dependence on rare metals.

Carsch's new chemical reactions are described in his Harvard University thesis, "Ligand Field Inversion in Sterically Confined Copper Architectures," for which the Hertz Foundation awarded him the 2021 Hertz Thesis Prize due to its innovative potential to streamline pharmaceutical chemistry. His Hertz Fellowship was funded through the Peter Strauss Fellowship.

"Being able to switch the chemistry to operate with universal

resources is in our best interest for many reasons," said Carsch, who carried out the work in the lab of Harvard chemistry professor Theodore Betley.

Carsch's research focused on how copper, a ubiquitous element, could replace the other metals in nitrogen-carbon bond reactions. In 2019, he published the first steps of the research in the journal *Science*, describing the chemistry of copper nitrene, which is an important intermediate in the process of making carbon-nitrogen bonds.

"Now we can run these two reactions side by side — the existing way and our new way — and show how much faster and more efficient our way is," said Carsch.

He did not work directly with pharmaceutical companies, but hopes that, due to his efforts in describing the more efficient reactions, chemists in the pharmaceutical industry will begin to use them in the near future.

Leadership by Example

Fueling the Next Generation of Geoscientists



For a woman in the 1970s, choosing a career in the energy industry meant pursuing a path fraught with challenge.

Yet over a 32-year career, Hertz Fellow Sandra Phillips ascended to the top of BP Alaska as senior geoscience adviser, providing technical expertise on projects from Nigeria to New Zealand, Venezuela to Vietnam, and ultimately leading exploration in Alaska. The Hertz Fellowship made it possible, Phillips said.

“The Hertz Fellowship was a key professional credential. It allowed me to advance to the level of senior geoscience adviser on the technical — rather than managerial — track, demonstrate the impact of technical leadership for delivering business value and, more importantly, pave a path for others to follow,” she said.

Giving Back

Now retired, Phillips is giving back to the Hertz Foundation by funding an endowed fellowship in geoscience. “I want to foster a sustainable future for growing the next generation of geoscientists,” Phillips said. “The Hertz Fellowship changed the trajectory of my life and career. Perhaps I can do that for others.”

Raised in the Houston oil patch by a widowed father who was determined that she and her sister be self-supporting, Phillips felt a career in petroleum geology was a logical choice. She was exposed to geology through an earth science class at an Arizona boarding school.

“The Hertz Fellowship changed the trajectory of my life and career. Perhaps I can do that for others.”

“Observing geological processes in the desert and developing an understanding of the planet made a deep and abiding impression on me,” Phillips said.

New Frontiers

While working on her master’s, she applied for a Hertz Fellowship to fund her last year of research, not planning to

pursue her Ph.D. “Once I received the fellowship, I realized what an amazing opportunity it opened up for me,” she said.

The fellowship enabled Phillips to transfer to Cornell University and pursue industry-sponsored research, an outgrowth of a summer intern project at Exxon Research. She was then hired as a senior research geologist at ARCO.

Although accustomed to being in the minority as a female student in geosciences, Phillips discovered there were even fewer women in the oil and gas industry. “The challenges spanned the gamut, starting with having to be twice as good as your male peers to be thought half as good by your colleagues.”

Being the only woman in the room became the norm. “It took nearly 20 years for that to gradually change. Affecting that change — creating a more level playing field for women — became a core goal of my career,” Phillips said. When she retired six years ago, the numbers of men and women on the teams she worked with were roughly equal.

Some Reflections

Phillips has helped level the playing field by mentoring both women and men. “There’s a tremendous amount of commonality in the kind of support that they are seeking and their issues and concerns. It’s true across men and women and different disciplines,” she said.

Lacking industry mentors herself, Phillips included mentoring in her performance contracts at BP. Now she is doing the same with the Hertz Foundation as a mentor to Hertz Fellow Emily Geyman.

After decades in leadership, Phillips has advice to share. “First, be very clear about your values and what you stand for professionally and personally. Second, lead by example, and through your actions and vision for the future, show others what leadership looks like. That has made all the difference for me.”

Ellen Pawlikowski

Serving the Nation and Hertz Community

After 40 years in the military, retired Air Force Gen. Ellen Pawlikowski is well acquainted with pressing issues facing the United States. A chemical engineer who rose to the highest ranks of the Air Force as a four-star general, Pawlikowski supported both peacetime and combat operations around the world. She has addressed issues of national security through science and technology, testing and evaluation, and supply chain management. She has had a front-row seat to the global impact of such issues as climate change.

Catalyzing Talent

Years of interviewing potential Hertz Fellows drives home an important reminder: As a nation, we're capable of overcoming the obstacles ahead.

"I just get overwhelmed with what amazing talent we have out there," Pawlikowski said. "It makes me feel good about this country when I hear about awful issues and then am reminded that we've got some really, really smart people to address them."

Pawlikowski, who received a Hertz Fellowship in 1979, began serving as an interviewer in the mid-1990s. "It was really during that time that I saw the Hertz Foundation as an ecosystem for fellows, where we could engage with one another," Pawlikowski said.

She continued interviewing eight to 10 candidates a year until 2015, when she became a four-star general — the third woman to hold that rank in Air Force history. As commander, Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio, she managed 80,000 employees and \$60 billion annually.

Keeping Our Nation Secure

Nationally recognized for her leadership in science and technology, Pawlikowski started out in chemical engineering. Intrigued by the military, she enrolled in the Air Force ROTC when scholarships were awarded only to pilots and limited to men. At the close of the Vietnam War, scholarships in engineering became available, and Pawlikowski committed to a four-year tour — a commitment she then delayed to pursue her Ph.D. at University of California, Berkeley.

Once she began active duty, Pawlikowski discovered her natural leadership ability.

"To be an effective leader, I learned it was less important that I initially understood all the technical and scientific points and more important to build rapport with people so that we could work collaboratively," she said.

She continued to rise in the ranks and, despite being warned by a woman general that marriage in the military would be difficult and being a mother would be impossible, Pawlikowski wed a fellow airman and had two daughters, and she wore the first version of the Air Force maternity uniform. Her husband ultimately left his military career to teach high school and focus on raising their family.

"It wasn't like I set out to trail blaze. I just set out to accomplish certain things," Pawlikowski said. After retiring from the military in 2018, Pawlikowski returned to interviewing Hertz Fellowship candidates.

"I enjoy the engagement with students. I can't figure out how I ever got one of these fellowships when I look at what some of these young people have accomplished," she said.

Prioritizing Climate Change

One of the issues she hopes to see Hertz Fellows address is climate change.

"At my heart I'm a technologist; I don't care about politics. But we cannot put our borders up and say we're safe here. If I look at it from the military element of national security, it's a threat to the capabilities we have today," she said.

When it comes to national security, the military is just one tool, she added. National security also depends on economic viability, which is heavily impacted by climate events.

"I like to say technology doesn't know its application until we tell it. That's where the Hertz Foundation comes in. Climate change is an unintended consequence of technology development, and we have to focus on fixing those unintended consequences," Pawlikowski said. "All of us Hertz Fellows agreed that we would come to the aid of our country if needed. In my opinion, climate change is a national security issue."

**“Technology doesn’t know
its application until we tell it.
That’s where the
Hertz Foundation
comes in.”**

ELLEN PAWLIKOWSKI
HERTZ FELLOW
GENERAL, U.S. AIR FORCE (RETIRED)





“In selecting and supporting Hertz Fellows, we’re nurturing the future leaders in science and technology for the United States.”

DAVID GALAS
HERTZ FELLOW

CHAIRMAN EMERITUS, HERTZ FOUNDATION BOARD OF DIRECTORS
PRINCIPAL SCIENTIST, PACIFIC NORTHWEST RESEARCH INSTITUTE

David Galas Named Chairman Emeritus

A visionary scientist and leader, David Galas has had a remarkable career. Among his many notable achievements are serving as the early leader of the Department of Energy's Human Genome Project, discovering a gene that led to a medication for osteoporosis, and developing technology that was the backbone of a COVID-19 rapid-response test from Abbott Labs and the influential lab technique known as "footprinting."

Simultaneously, Galas worked tirelessly to advance the Hertz Foundation's mission — serving as an interviewer of Hertz Fellowship candidates for nearly 50 years, a board member for more than two decades and chairman of the board of directors since 2008. After leading the foundation through the most transformative years since its founding, Galas transitioned to chairman emeritus this spring.

Galas is known for his passionate commitment to mentoring and his active presence at Hertz Foundation events across the nation. Galas is always available to take a call from a Hertz Fellow. A Hertz Fellow himself, Galas was asked to join the board in 1999, and in 2008, he became chair, a role that would have a transformational effect.

To raise more money for fellowships, the board decided the Hertz Foundation needed to move from being a private foundation to a public foundation, a goal that was accomplished in 2010. Since then, gifts have grown steadily nearly every year, from less than \$2 million in 2013 to a high of \$9.58 million in

2022. Partnerships with like-minded organizations have grown as well, with over 40 fellowships supported by individuals and organizations such as the Bill & Melinda Gates Foundation, Google, Draper and The Hertz Corporation.

Galas also reorganized the board to play to members' strengths. Some board members focused on fundraising while others became part of the council, responsible for overseeing the interviews, the fellowship selection process and volunteer work with the Hertz community. Under Galas' leadership, fellows' engagement with the foundation has grown exponentially, with more than 50 fellows engaged in the fellowship selection process or serving as directors or council members. Known as the "Hertz community," the fellowship program has expanded into a robust lifelong engagement opportunity, offering fellows ways to engage at every age and stage of their careers, including through internships, mentorship and opportunities for research collaboration.

Galas's focus in recent years has

been to make sure others have the opportunity to shape the future of science and technology. He and his wife, Diane Isonaka, support two fellowships. In 2020, the late board member Harold Newman and his wife, Ruth Newman, renamed the entrepreneurial initiative they established in 2012 in honor of Galas' many contributions to the Hertz Foundation. The initiative, which provides investments of up to \$25,000 and professional support to Hertz Fellows who propose the most innovative entrepreneurial projects, with particular emphasis on collaboration among fellows, is now called the Harold Newman and David Galas Entrepreneurial Initiative.

Galas' new role as chairman emeritus reflects his extraordinary leadership and generosity and unending dedication to enhancing our nation's scientific and technical leadership through the work of the Hertz Foundation and its Hertz Fellows. We are honored to have had him as our leader and friend throughout his many years of service to the Hertz Foundation, and we are grateful for all that he has done to strengthen our vibrant community.

Volunteers Drive Community

Building Connections through the Summer Workshop

The Hertz Summer Workshop is a great source of ideas and inspiration. As Hertz Fellows Hannah Lawrence and Katherine Van Kirk discovered, planning the workshop provides an even richer experience.

Lawrence, a Ph.D. student in computer science at MIT, and Van Kirk, a Ph.D. student in physics at Harvard, paired up to present “Building Bridges Between AI Research and Policy” at the 2022 Summer Workshop, which was attended by 150 Hertz community members July 14–17 in Boston.

“I loved the idea of educating myself and other Hertz Fellows on pressing topics that might have technical solutions,” Van Kirk said. “It sounded like fun to be part of the team choosing these topics and designing how they’re presented.”

Lawrence’s experience with machine learning and Van Kirk’s focus on quantum science provided a balanced backdrop to designing a session for scientists across disciplines. The created a session that not only illustrated the biggest policy issues in machine learning, but also explored the interactions between policy and research and provided tools to consider policy questions relevant to fellows’ own disciplines.

“I loved the idea of educating myself and other Hertz Fellows on pressing topics that might have technical solutions.”

KATHERINE VAN KIRK

The session opened with a moderated panel discussion on AI issues from the academic, corporate and government perspectives. The panel featured Hertz Fellow Jacob Steinhardt, assistant professor at the University of California, Berkeley; Julie Owono, executive director of Internet Sans Frontieres; and Jessica Fjeld, assistant director of the Cyberlaw Clinic at the Berkman Klein Center at Harvard.

Hertz Fellow Jennifer Roberts, assistant director for health technologies at the White House Office of Science Policy,



HANNAH LAWRENCE (LEFT) AND KATHERINE VAN KIRK

advised on the panel. The session was moderated by Lily Xu, a Ph.D. student in computer science at Harvard.

Following the panel discussion, fellows were invited to engage with one of three case studies. Fellows then had an opportunity to share what they learned, how they would solve the problems and how they would address policy related to their own fields.

“We were pleased with the results, thanks in large part to our excellent panelists and moderator. They did a great job diving into both the policy questions and the associated technical challenges,” Lawrence said.

The pair agree on the biggest rewards: getting to know the panel experts and the other fellows on the planning committee.

“It was inspiring to speak with Jen Roberts about how she transitioned from research to working at the White House,” Van Kirk said.

“Jacob Steinhardt is a prolific researcher in machine learning and someone whose research I have followed. It was great to hear his perspective,” Lawrence said.

Planning the Summer Workshop is a gratifying way to connect with the Hertz community, Van Kirk said. “When you’re tasked with organizing something for a community in which you are new, it automatically makes you feel like you’re a part of it and like you belong.”

The Power of Recognition

A Conversation with Neal Tanner



The Hertz Foundation believes in recognizing those who think boldly and put their ideas to work — whether in their professional pursuits or through the committed volunteerism that has been a hallmark of the Hertz Fellows community for decades. After all, every individual plays a unique role in shaping the lifelong experience of being a Hertz Fellow.

In a conversation with Hertz Foundation’s Director of Community Anne Kornahrens, Hertz Fellow Neal Tanner recently discussed his involvement with the community through the Fellowship and Programs Council. A robotics professional, Tanner explained how recognition is fueling connections among fellows and helping to put innovative ideas into action.

KORNAHRENS: How did you become a Hertz Foundation volunteer?

TANNER: Hertz Fellow Carol Burns, deputy director for research at Lawrence Berkeley National Laboratory and chair of the Fellowship and Programs Council, invited me to be a reviewer for the Hertz Thesis Prize, which is awarded annually to Hertz Fellows who publish exemplary doctoral theses with applications to real-world problems. Thesis reviewers play a critical role and make an immediate impact. My experience led to further involvement — first as the leader of the Hertz Thesis Prize review process and now serving as chair of the Prize Committee.

KORNAHRENS: How else have you been involved in the Hertz community?

TANNER: Most recently, I volunteered to be the Community Representative for the Austin, Texas, area as part of a nationwide effort to activate local gatherings of Hertz Fellows. It’s an opportunity to meet new colleagues, learn about their work and explore collaborations. I encourage others to jump at opportunities, regardless of their expertise or where they live.

KORNAHRENS: What is your primary goal as chair of the Prize Committee?

TANNER: The Prize Committee recognizes scientific and

technical achievements of Hertz Fellows while also providing meaningful support for ongoing or future endeavors. Recently, I’ve had the opportunity to work with Hertz Fellow Derek Lidow and Hertz Foundation Board Member Carla Newman to envision how we support early career fellows who want to explore entrepreneurial careers.

The Harold Newman and David Galas Entrepreneurial Initiative, for example, provides up to \$25,000 in funding for in-school and early career Hertz Fellows looking to launch an entrepreneurial venture, with emphasis on collaboration among fellows. It provides assistance as Hertz Fellows are developing ideas and exploring their career path. We recently awarded Jordan Edmunds for his efforts to more effectively maintain and care for technology-enabled fleet cars, vans and trucks, which is critical to the world meeting its sustainability goals. Applicants receive a thorough evaluation and have access to mentoring opportunities with other Hertz Fellows. We accept applications on a rolling basis, so I hope interested Hertz Fellows will submit one today.

KORNAHRENS: We recently awarded the first Raymond Sidney Volunteer Leadership Award since 2019. Tell us more about the award and this year’s winners.

TANNER: It’s great to recognize fellows who you’ve worked with and admire. This year’s awardees — Cameron Geddes, Jessica Seeliger and Shannon Yee — were nominated as a team for their collaboration in strengthening the Hertz community over the past 20 years. Together, they organized activities for in-school fellows, created programs to advance the careers of all fellows and supported the evolution of the Fellowships and Program Council. It’s a perfect way to honor Ray Sidney, who personifies the concept of the “Hertz community” through his mentoring of young fellows, support of the Hertz Foundation’s Summer Workshop and generosity in supporting five endowed Hertz Fellowships.

Investment Strategy and Results

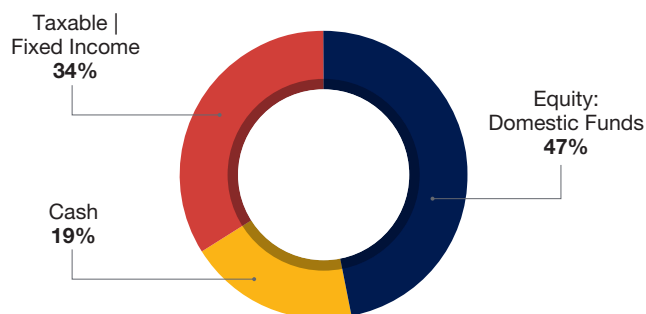
The investment portfolio is managed by Goldman Sachs with oversight by the board's Investment Committee, chaired by director Michael Ansour. Given the environment of rising inflation and other unfavorable market conditions, the investment balance declined during 2022. We must continue to expand our fundraising efforts going forward. Unlike universities, which also charge tuition, the Hertz Foundation relies solely on gifts to fund our students. Our costs to raise funds do not increase significantly as fundraising revenues increase; thus, additional gifts go entirely to support Hertz Fellows.

As of June 30, 2022, assets totaled \$31.9 million, a 9.3% increase from 2021. Assets include \$1.9 million in cash and cash equivalents, \$4.3 million in pledges receivable and \$25.7 million in the investment portfolio. Net assets also increased 12.5% in 2022. For the fifth year in a row, our endowment withdrawal rate is below 5%, maintaining the goal set by the board of directors in 2016 and achieved just two years later. We withdrew \$1.2 million in 2022, compared to \$4 million in 2016.

Paul M. Young
Paul Young, Treasurer

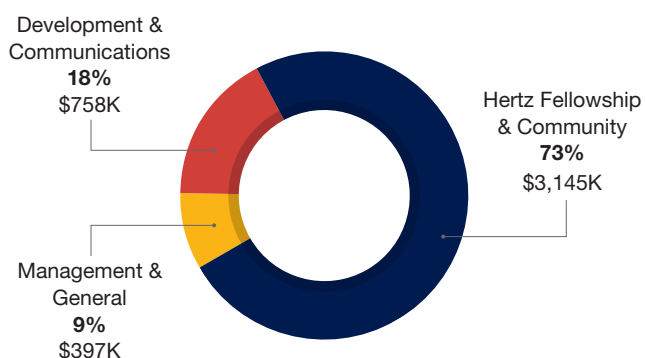
Asset Allocation

As of June 30, 2022



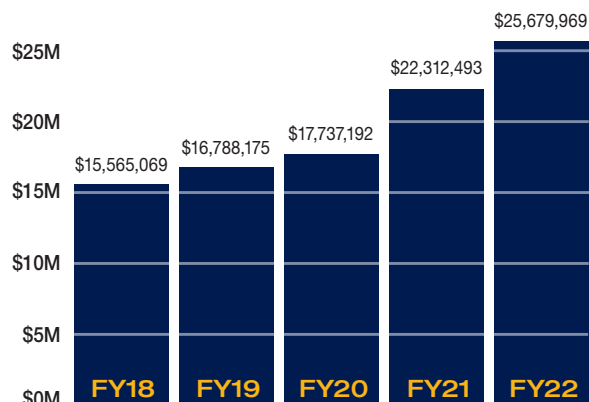
Expenses

Year ended June 30, 2022



Investment Portfolio Value

As of June 30, 2022: \$25,679,969



Fundraising Overview

While economic uncertainty and turbulent financial markets have been concerning, the Hertz Foundation experienced its strongest fundraising year in history. We also experienced growth in new donors in addition to durable, consistent support from our generous community. New gifts and pledge payments totaled \$9.58 million from 388 fellows, organizations and other friends, 43 of whom were new donors. One special highlight of this past year is that Hertz Fellow Nathan Myhrvold was honored with a \$5 million endowed fellowship gift. Endowed and named fellowships like this allow the Hertz Foundation to identify our nation's most exceptional students in applied science, engineering and mathematics, and provide the resources and lifelong support to accelerate their careers and amplify their research for ultimate Impact.

We believe it is more important than ever to continue to earn the support of our generous donors through financial discipline,

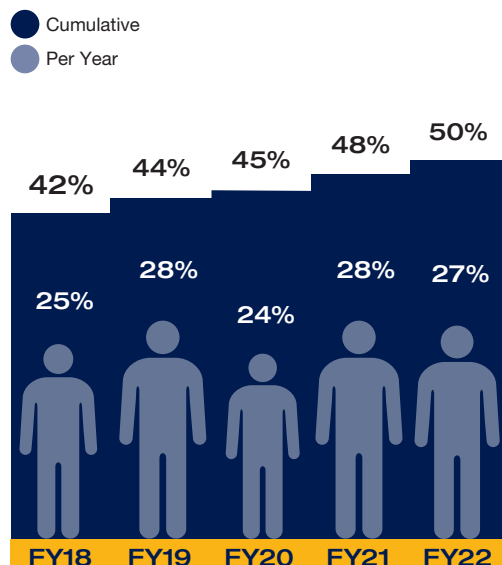
thoughtful programming and demonstrable impact of our work. Because of you, our visionary donors, we are advancing breakthroughs in science and technology that strengthen our nation's security and economic vitality, while tackling the complex and daunting challenges of today. We are incredibly grateful for your commitment to the Hertz Foundation and for your continued support.

Donor Participation

Half of all Hertz Fellows have made at least one gift to the foundation, and almost 30% of our community gives consistently year after year. Once again, the annual percentage of fellows who supported the foundation (27%) topped graduate alumni giving to every major U.S. research university except for one Ivy League university. We are incredibly grateful for the loyal support from our fellows, parents, friends and partners.

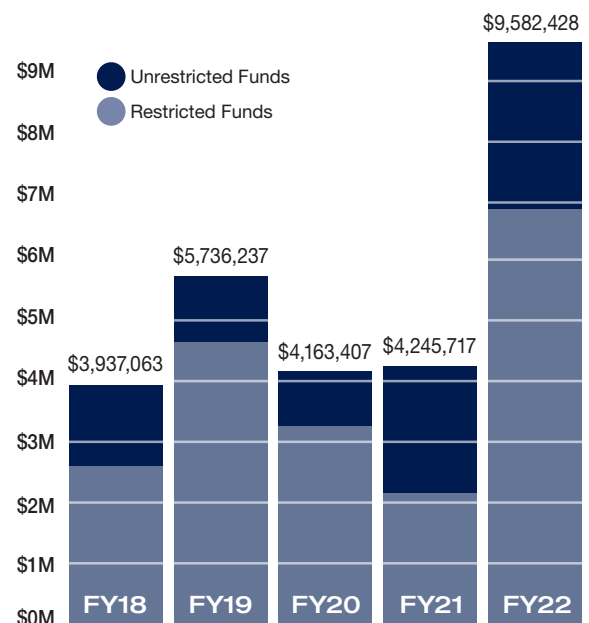
Fellow Participation

Total Donors in FY 2022: 388



Total Contributions

Cash, including new gifts and pledge payments as of June 30, 2022



Thank You to Our Donors

ORDER OF MAGNITUDE

The Order of Magnitude recognizes the special group of Hertz Foundation donors whose planned gifts will advance Fannie and John Hertz's vision exponentially in the decades to come.

Sherman Chan & Irma Velasquez
Storrs Hoen
Matthew Malkan
W. Neil McCasland
Joseph Nilsen
Sandra Phillips
Karen Pieper
Julius Smith
John R. Steinberg, M.D.
Lee Swanger
Greg & Joann Taylor
Michael Telson
Thomas & Brooke Turner
Joseph Weening
Anonymous (3)

LEADERSHIP CIRCLE

The Leadership Circle is the Hertz Foundation's highest recognition, honoring a dedicated group of fellows and friends whose cumulative giving to the foundation totals \$1 million or more.

Bill and Melinda Gates Foundation
P. Michael Farmwald
Bill & Melinda Gates
Google, Inc.
Myhrvold & Havranek Family Charitable Fund
Harold[∞] and Ruth Newman
Ray Sidney
Sidney Singer Estate[∞]
Peter Strauss[∞]
Lee Swanger
John F. Wakerly
Paul M. Young
Anonymous (2)

MONTHLY DONORS

We thank our monthly donors whose regular, sustaining support has a compounding impact. Their recurring gifts provide flexibility and longevity to the Hertz Foundation in its mission to recruit and support today's most brilliant young scientists and technologists.

Bruce Anderson
Zhou Fan
Kirk Haselton
Steven Herbst
Gwendolyn Hoben
Marcia and John Isakson
Richard Neahring, M.D.
Vyas Ramanan
Anonymous

[∞] Deceased

IN MEMORIAM

We are grateful for the friendship, fellowship, and leadership of the Hertz friends we lost since our last report. They will be missed.

Russell B. Merrill
Oberdan W. Otto



ENDOWED FELLOWSHIPS

Professor Yaser S. Abu-Mostafa Fellowship
Established by Ray Sidney and John Wakerly

Big George Ventures Fellowship
Established by Ray Sidney

Guzik Foundation Fellowship
Established by John Wakerly and The Guzik Foundation

Hertz Fellowship
Established anonymously

John and Jane Mather Fellowship
Established by Ray Sidney and John and Jane Mather

Professor Silvio Micali Fellowship
Established by Ray Sidney

Nathan P. Myhrvold Fellowship (5)
Established anonymously

Peter Strauss Fellowship
Established by Hertz Board of Directors

Professor Daniel Stroock Fellowship
Established by Ray Sidney and John Wakerly

Lee A. Swanger Fellowship in Engineering and Applied Science
Established by Lee A. Swanger

Lee A. Swanger Endowed Fellowship
Established by Lee A. Swanger

Wepsic Endowed Fellowship
Established anonymously

NAMED FELLOWSHIPS

Alfred Spector and Rhonda Kost Family Fellowship
Established by Alfred Spector and Rhonda Kost

Barbara Ann Canavan Fellowship
Established by Gregory H. Canavan

Chan-Velasquez Fellowship
Established by Sherman Chan and Irma Velasquez

Cohan-Jacobs-Stein Families Fellowship
Established by David Cohan, Sharon Jacobs, and Seth and Carol Stein

Elizabeth and Stephen Fantone Family Fellowship
Established by Stephen and Betsy Fantone

Frank-Nashat Fellowship
Established by Amir H. Nashat and Edward H. Frank

Galas Isonaka Family Fellowship (2)
Established by David Galas and Diane Isonaka

Hans Mark Fellowship
Established by Hertz Board of Directors

Harold[∞] and Ruth Newman Family Fellowship (2)
Established by Harold and Ruth Newman

Harold J. Newman Memorial Fellowship
Established by Hertz Board of Directors, Family, and Friends

Harold Newman Innovation Fellowship
Established by Chris Loose, Lee Swanger and Christian T. Wentz

Hertz Corporation Fellowship
Established by The Hertz Corporation

Hertz Fellowship (10)
Established anonymously

Hertz Fellowships, Global Health and Development (20)
Established by the Bill & Melinda Gates Foundation

Hertz-Forbes Family Fellowship
Established by Bert E. and Candace M. Forbes

John Soehrens Fellowship
Established anonymously

Lowell Wood Fellowship
Established by Paul M. Young

Mary and Jay Davis Fellowship
Established by Mary and Jay Davis

Paul Young Fellowship
Established by Paul M. Young

Professor Mauro Ferrari Fellowship
Established anonymously

Susan and Richard Miles Fellowship
Established by Susan and Richard Miles

The Myhrvold and Havranek Family Charitable Fund Fellowships (4)
Established by Nathan Myhrvold and Rosemarie Havranek

Tom Weaver Hertz Fellowship
Established by Ray Sidney

Wilson Talley Fellowship
Established by Hertz Board of Directors

Hertz Leadership

Our Board of Directors oversees foundation governance and compliance, fundraising, financial management and all other fiduciary responsibilities. Our Fellowship and Programs Council focuses on the annual selection of fellows, support and mentoring of in-school fellows, development of the Hertz community and selection of thesis and other award winners. We are deeply grateful for the service of these distinguished individuals.

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* Hertz Fellow

Fellows Making Headlines

A Snapshot of Hertz Fellows' Awards and Recognition from Leading Science and Technology Organizations

American Association for the Advancement of Science
Fellow

Kathleen Fisher—Professor, Tufts University

American Geophysical Union

Walter H. Bucher Medal

Seth Stein—Professor, Northwestern University

Breakthrough Prize Foundation

New Horizons in Physics Prize

Jeff Thompson—Associate Professor, Princeton University

Breakthrough Prize Foundation

Breakthrough Prize in Mathematics

Daniel A. Spielman—Professor, Yale University

Clay Research Fellowship

Hannah Larson—Junior Fellow, Harvard Society of Fellows

Eni

Advanced Environmental Solutions Award

Geoffrey Coates—Professor, Cornell University

Marshall Scholarship

David Li—Graduate Student, MIT

National Academy of Engineering

Elected Member

Stephen Fantone—Founder and CEO, Optikos Corporation

National Academy of Engineering

Arthur M. Bueche Award

Ellen M. Pawlikowski—Retired General for the United States Air Force

National Institute of Health

Transformative Research Award

Michael Fischbach—Associate Professor, Stanford University

National Science Foundation

Faculty Early Career Development Award

Emma Pierson—Assistant Professor, Cornell Tech

National Science Foundation Research Grant

Peter Kramer—Professor, Rensselaer Polytechnic Institute

PAC World

Named a Guru

Sherman Chan—President, Aspen Inc.

Paul & Daisy Soros Fellowship

Wenjie Gong—Graduate Student, MIT

Pew Charitable Trusts

Innovation Funds Investigator

Mikhail G. Shapiro—Professor, California Institute of Technology

Princeton University

Appointed Director of the Institute for the Science and Technology of Materials

Richard A. Register—Director, Princeton University

Purdue University

Elected President of Purdue University

Mung Chiang

Rita Allen Foundation

Pain Scholar

Gwendolyn Hoben—Assistant Professor, Medical College of Wisconsin

Rocket Lab

Elected to Board of Directors

Edward Frank—Executive Chair, Gradient Technologies

Sen-Jam Pharmaceutical

Appointed to Advisory Board

Alexander Wissner-Gross—President and Chief Scientist, Gemedi, Inc.



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The Fannie and John Hertz Foundation identifies the nation's most promising innovators in science and technology and empowers them to pursue solutions to our toughest challenges.

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Why Hertz? Your investment fuels innovation and helps create a powerful, solutions-oriented network of our nation's top scientific minds, working to address complex problems. At the Hertz Foundation, we identify our nation's most exceptional students in applied science, technology, engineering and mathematics, and then provide them with the resources and lifelong support to accelerate their careers and amplify their research for ultimate impact.

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