



Support for the Arts and Humanities

FY 2022

The arts and humanities provide valuable, accessible cultural enrichment to our communities and help to cultivate and support a broadly educated workforce ready to compete in the knowledge-based, global economy. Sustained federal investment in the arts and humanities is critical to our national interests and continued status as a world leader as rapid globalization, economic crises, and new challenges to our national security have heightened the need for a well-rounded citizenry.

Held in trust by the University of Rochester, the Memorial Art Gallery (MAG) it is one of the few university-affiliated art museums in the country that also serves as a community art museum. In response to the COVID-19 pandemic, the MAG shut its doors for more than three months, creating financial, as well as creative challenges. As an affiliate of the University, the MAG has not qualified the economic relief programs that other art museums were eligible for, and these financial challenges remain.

Support the National Endowment for the Arts (NEA)

NEA programs encourage creativity through support for performances, exhibitions, festivals, artist residencies, and other art projects throughout the country in a variety of disciplines that have a great impact on art education and local economies. In FY19, the NEA awarded more than 2,400 awards in every Congressional district in the U.S. Each NEA grant dollar is typically matched by nine dollars of additional investments in nonprofit arts organizations. In partnership with the NEA, state arts agencies serve more than 16,000 communities across the country through arts education programs, regional touring projects, and arts activities in underserved communities.

In the last three years, the MAG has received \$139,000 in grants through the NEA to support several exhibitions



have offered the Rochester community access to exciting, world renowned works of art, including *Monet's Waterloo Bridge: Vision and Process*; *Path to Paradise*; *Judith Schaechter's Stained Glass Art*, and on display in spring 2021, *Up Against the Wall: Art, Activism and the AIDS Poster*.

- **Support \$225 million in FY22 for the NEA to ensure sufficient support for the NEA's grantmaking programs.**

Support the National Endowment for the Humanities (NEH)

The humanities programs funded by the NEH are vital to ensuring that America can compete successfully in a global economy and advance sound public policy to address the challenges of the 21st century. These programs teach essential skills such as creativity, critical thinking, and effective communication that have brought world leadership and underlie the cultural intelligence that buttresses successful diplomacy. The NEH also funds humanities councils in every state and U.S. territory, which sponsor family literacy programs, speakers' bureaus, cultural heritage tourism, exhibitions, and live performances.

- Support \$225 million for the NEH in FY22.



Support for the Institute of Museum and Library Services (IMLS)

The IMLS is the primary source of federal support for the nation's 123,000 libraries and 17,500 museums. Grant support through the IMLS to libraries and museums, such as the University of Rochester's Rush Rhees Library and the Memorial Art Gallery, advances innovation, lifelong learning, cultural understanding, and civic engagement to connect people with information and ideas. Museums provide more than \$50 billion in U.S. economic activity annually, support more than 726,000 jobs, and generate \$12 billion in tax revenue. The IMLS works at the national level and in coordination with state and local organizations to sustain heritage, culture, and knowledge; enhance learning and innovation; and support professional development.

- Support funding for IMLS in FY22.

Arts in the Loop

In 2017, the Eastman School of Music at the University of Rochester launched Arts in the Loop. This initiative brings together community leaders to energize Rochester's Center City and Main Street corridor by leveraging the arts, entertainment and media sectors. The vision is to create vibrant and walkable street level arts experiences, support an artist-friendly ecosystem, and host a creative cluster of arts/technology/media/entertainment economic activity. Arts in the Loop, through the University's Ain Center for Entrepreneurship, accessed \$17,000 of grant funding from the U.S. Economic Development Agency (EDA) to produce ROC the Business of Art workshops, working closely with the City of Rochester, Monroe County and State of New York. While COVID-19 temporarily halted many of the in-person activities, this series of workshops was still able to be held virtually and continues to be available as a resource for the 125 community artists who registered.

FAST FACTS

- The MAG welcomed nearly **280,000 visitors** in FY19.
- **More than 12,000 students** visited the MAG last year from nearly 30 school districts last year.
- The MAG's **Centennial Sculpture Park**, opened in 2013, has recast 10 acres of the Gallery's grounds into a showcase of public art and urban space in the heart of the Neighborhood of the Arts.
- **500 low-income residents** receive free transportation, free museum admission and free family memberships through MAGconnect each year.
- All Rochester City School District students receive **free admission** to the MAG.



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Investing in High-Quality Health Care

FY 2022



Ensuring Access and Improving Quality

UR Medicine, its affiliates and collaborators are upstate New York's largest integrated health care system, serving 15 counties with a population of more than 2.6 million and directly employing 26,937 individuals. Our six hospitals have a combined 1,400 licensed beds and annually have more than 71,000 inpatient admissions, 250,000 emergency department visits, 137,000 urgent care visits, and perform nearly 52,000 surgeries.

We are working to transform care as part of an integrated academic health care system by sharing and maintaining services, improving access, sustaining a health care workforce, and providing quality care to our patients where they live, while reducing costs. UR Medicine provides \$65.9 million in charity and uncompensated care to patients annually and collaborates with our community partners to improve the health of our region.

The reimbursement we receive from Medicare and Medicaid for Graduate Medical Education (GME), Medicare bad debt payments, Medicaid provider assessments, Medicare Dependent Hospital payments, Medicare Low-Volume adjustments, and Disproportionate Share Hospital (DSH) payments is critical to the accessible, quality health care we provide, and impacts our ability to train the next generation of providers.

Protect the 340B Drug Discount Program

At UR Medicine, the savings our hospitals realize from participating in the 340B Program enable us to provide low and no cost lifesaving drugs and invest in the growth of many programs that serve a high proportion of low-income, uninsured, and underinsured patients, despite significant negative margins. 340B also helps to sustain essential care that is often under-reimbursed such as HIV/AIDS services, trauma and burn care, outpatient addiction treatment,



transportation, and transitional housing services that help to reduce unnecessary readmissions for high risk patients.

Several drug manufacturers have acted in violation of the 340B statute to eliminate discounts when drugs are dispensed through community pharmacies. Thus far, these actions will result in a \$35 million annual cut to UR Medicine. This cut comes in addition to the more than \$30 million annual loss we have had to absorb due to Medicare's 2018 cut to 340B reimbursement.

- **HHS must use its existing authority to require manufacturers to provide 340B discounts on all eligible drugs, including those dispensed through contract pharmacies, and also prohibit the shift of 340B to a rebate model.**
- **We urge Congress to take action to stop the Medicare cut to 340B reimbursement.**

Preserve Disproportionate Share Hospital (DSH) Payments and Rural Access to Care

The Medicare and Medicaid DSH payments and Medicare Dependent (MDH) and Low Volume Hospital (LVH) Payment Adjustment to hospitals are an essential mechanism for ensuring patient access to services in poor and underserved communities. Financially strained facilities like Jones Memorial and St. James Hospitals rely on these payments to remain viable. The MDH and LVH

programs were extended by Congress through FY22.

- We thank the New York Congressional delegation for its support in delaying and reducing the Medicaid DSH cuts, and urge Congress to pass a long-term solution for the Medicaid DSH, MDH and LHV programs.

Lower Prescription Drug Costs

The high cost of prescription drugs is putting a strain on Medicare, Medicaid, hospitals and health systems. The primary driver behind increased drug spending is higher prices, not increases in utilization. Hospitals like ours have experienced price increases in excess of 80% across certain classes of drugs including those for anesthetics, parenteral solutions, opioid agonists and chemotherapy. This comes amid repeated efforts to scale back the 340B Program - one of the few defenses hospitals have against rising drug prices.

- We urge Congress and the Administration to rein in rising drug costs by increasing competition among manufacturers; improving price transparency; advancing value-based payment models; and increasing access to drug therapies and supplies.
- Congress and the Administration must act against anti-competitive tactics such as denying patents for evergreened products, increasing oversight on "pay-for-delay" tactics, and limiting orphan drug incentives to true orphan drugs.

Protect Graduate Medical Education (GME) and Expand Residency Slots

The U.S. is expected to face a shortage of up to 139,000 primary and specialty care physicians by 2033. Many medical schools are increasing class sizes to accommodate this shortage, but limits on GME funding and Medicare-funded residency slots constrain our ability to train new physicians and meet this need. Strong Memorial and Highland Hospitals train a combined 780 residents and fellows per year - 278 more than our Medicare-funded cap.

- We applaud Congress for increasing Medicare GME slots for the first time in 25 years as part of the FY21 omnibus appropriations bill.
- Oppose reductions to GME's IME adjustment and DGME payments which are crucial as medical schools and teaching hospitals prepare the next generation of physicians and provide 24-hour care and critical services in the community.
- Support the Resident Physician Shortage Reduction Act to increase Medicare-supported residency slots and help address the physician shortage.
- Support the Opioid Workforce Act to provide an additional 1,000 GME slots.

Support the Rural Communities Opioid Response Program (RCORP) Rural Centers of Excellence (RCOE)

URMC hosts one of three Health Resources and Services Administration's (HRSA) Rural Centers of Excellence to address substance abuse disorder in rural communities. Established in 2019, URMC's Recovery Center of Excellence combines CDC evidence-based practices with emerging best practices from 23 Appalachian region counties, including New York's Southern Tier, to provide new rural-focused resources and hands-on technical assistance to reduce morbidity, mortality, and other harmful effects of substance use disorder - particularly synthetic opioids.

- Support the HRSA Rural Centers of Excellence in FY22.

Support the Substance Abuse and Mental Health Services Administration (SAMHSA)

SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities. UR's Mt. Hope Family Center hosts the only National Child Traumatic Stress Network (NCTSN) provider in upstate New York, which is funded in part by SAMHSA. Thanks to a 5-year, \$1.98 million SAMHSA grant, the Center is training professionals in trauma-informed care and providing evidence-based models of intervention for children and families exposed to trauma and violence.

- Support funding for the NCTSN in FY22.

Support HRSA's Title VII Health Professions and Title VIII Nursing Workforce Development Programs

The Title VII and Title VIII programs provide education, financial aid, and training opportunities to health professions students in high-need disciplines and settings. These programs are crucial to ensuring a strong workforce and access to care, particularly in underserved areas. With a focus on primary care and interdisciplinary, community-based training, Title VII and VIII are the only federal programs focused on filling gaps in the supply of health professionals not met by traditional market forces.

- Provide \$980 million for Title VII and \$530 million for Title VIII in FY22 to help ensure our nation is prepared for the next public health crisis.





Support for Higher Education

FY 2022

Keeping College Affordable

A robust higher education sector that is affordable, accessible, and accountable is vital to American economic competitiveness. Higher education provides immeasurable value to students and is one of the best investments a society can make. The University of Rochester is one of only a few institutions nationally that is committed to ensuring every qualified student has access to a world-class education regardless of family finances. In addition to student aid, limiting regulatory burden and preserving federal programs that help low-income, first generation, and other underrepresented students prepare for and succeed in college, as well as those that bolster national expertise in important fields of study, are critical to maintaining our nation's global competitiveness.

Reauthorizing the Higher Education Act (HEA)

Since 1965, the HEA has been a critical vehicle for expanding access to postsecondary education for low- and middle-income Americans. Any federal policy changes pertaining to the reauthorization of the HEA should:

- Consider the appropriate federal and state roles in higher education and acknowledge the steps institutions have already taken to reduce costs and improve quality.
- Support and expand efforts to increase access and affordability, including through the Pell Grant, SEOG, Federal Work-Study, TRIO, GEAR UP, and federal student loan programs.
- Improve financial support available to graduate students through loans and loan forgiveness.
- Oppose a "one-size-fits-all" accreditation process, as it would not take into account student populations or current performance, and would take resources from lower performing schools.

- When proposing new regulations and reporting, Congress should carefully weigh the benefits to students, families, government, and the public against the costs of compliance.

Support College Readiness Programs

TRIO. With funding through Upward Bound, Upward Bound Math/Science, and Talent Search, the University is providing outreach to more than 125 first generation, minority, and low-income Rochester City School District students this year. The Ronald E. McNair Post baccalaureate Achievement Program is helping 50 low-income, first-generation and underrepresented minority undergraduates at the University of Rochester pursue graduate and doctoral study. 97% of our Upward Bound students graduate from high school and 98% of our McNair students pursue advanced degrees.

- Support at least \$1.316 billion for TRIO in FY22.

GEAR UP. The Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) provide tutoring, mentoring, academic, financial aid, and career counseling services to prepare low-income middle and high school students to enter and succeed in college. The GEAR UP program is helping to serve students at East High School, which is under an Educational Partnership Organization with the University of Rochester.

- Support \$435M for GEAR UP in FY22.

Support Graduate Education Programs

The Graduate Assistance in Areas of National Need (GAANN) program helps ensure a strong pipeline of talented experts and educators to meet the demands of our 21st century workforce. Several University of Rochester departments, including Chemistry and Engineering, as well as the School of Nursing, have received funding through

GAANN to help students from underrepresented backgrounds with financial need pursue doctoral degrees.

- **Support at least \$35 million in funding for GAANN in FY22 and ensure the arts, humanities, and social disciplines are eligible fields for grant competition.**

Support the Title VI and Other International Education Programs

The Department of Education's Title VI programs support institutional and fellowship grants that contribute to our nation's long-term national security, global leadership, and economic competitiveness.

The University of Rochester is also one of the leading participants in the State Department's Fulbright Program with 11 finalists in 2020. Since 1946, the Fulbright Program has promoted mutual understanding and peace between the United States and other nations through educational and cultural exchange. The U.S. needs a steady supply of graduates with expertise in less commonly taught languages, world areas, and transnational trends to maintain diplomacy and future global engagement.

- **Support at least \$151 million for the International Education and Foreign Language programs in FY22, and provide robust funding for the State Department's Fulbright Program.**

Support Education Research

The Department of Education's Institute of Education Sciences (IES) offers high quality, evidence-based research and innovations in teaching and learning to inform education practice and policy in formats that are useful and accessible to parents, educators, researchers, policy makers, and the public.

- **Support \$700 million for IES in FY22.**

Support Programs to Assist Students with Developmental and Other Disabilities

The Warner School's Center on Disability and Education helps people navigate the world of disability and is working to increase inclusive higher education initiatives. Since 2010, the Center has received more than \$5 million through the Department of Education's Transition and Post-Secondary Programs for Students with Intellectual Disabilities (TPSID). TPSID supports students with intellectual disabilities in the transition to



adulthood through access to higher education, vocational training, and job placement.

- **Support at least \$XX million for TPSID in FY22.**

Support Veteran Education Programs

The University of Rochester is committed to serving our military and veterans. In addition to hosting a Navy ROTC program, Rochester is proud to partner with the U.S. Department of Veteran Affairs as a Yellow Ribbon school. The Rochester Pledge Scholarship in combination with the Post-9/11 GI Bill®, provides full tuition and mandatory fees for U.S. military veterans with coverage at the 100% level who are admitted to the College.

- **Support the Post-9/11 GI Bill, VA Yellow Ribbon Program, and other programs benefiting veteran education.**



Repeal or Amend the "Scholarship Tax"

The 2017 Tax Cuts and Jobs Act (TCJA) included a "Scholarship Tax" that instituted an unprecedented 1.4% excise tax on the net investment income of private colleges and universities with assets valued at \$500,000 or more per full-time student. University endowments are a critical source of support for educational, scientific, and charitable missions that we rely upon philanthropy to provide generous aid packages to low- and middle-income students, shoulder the rising costs of providing quality higher education, and build new facilities and infrastructure. Continuation of the Scholarship Tax will diminish these charitable resources available to improve access and invest in scholarship.

- **We urge Congress to support the Don't Tax Higher Education Act," which would repeal the TCJA's "Scholarship Tax" which has imposed a 1.4% excise tax on some university endowments.**



Immigration and International Education FY 2022

International Talent is Critical to U.S. Global Leadership

For decades, federal investment in research made the U.S. a magnet for international talent that enhanced the U.S. higher education system and contributed to countless discoveries and innovations that have improved human health, created new technologies, and strengthened our economic and national security.

However, recent policies have left many international students at the University of Rochester feeling uncertain about their future here. In 2019, our nation experienced a fourth consecutive year of decline in new international student enrollment. Even more concerning, early data on Fall 2020 shows international student enrollment declined by 16% and new enrollment fell by 43% due to COVID-19.

Without action, we will continue to lose global market share of R&D expenditures to other countries that have established policies that reflect the value these students bring not only to colleges and universities, but to job creation, research, and innovation.

- **U.S. policies must balance efforts to safeguard public health, research, and national security with the need to attract the best and brightest individuals and exchange of ideas that fuel our global leadership.**
- **The Department of Homeland Security (DHS) must protect the status of F-1 students taking classes online and issue guidance allowing new and returning students and scholars to safely travel to the U.S. to complete their studies for the duration of the COVID-19 public health emergency.**
- **The Administration and Congress must encourage timely processing of F-1, J-1, and H-1B visas and Optional Practical Training (OPT) and STEM OPT in order to preserve these talent pathways.**

Preserve Duration of Status

For decades, students have been granted immigration status for the period of time they are engaged in studies and practical training, known as Duration of Status (D/S). D/S provides needed flexibility for common goal changes as well as preceptorships, certificate programs, OPT, and other common enrichment activities outside of the course of study. Ending D/S would interfere with academic progress and create a massive influx of new extension of status filings to U.S. Citizenship and Immigration Services (USCIS), exacerbating the existing backlogs and delays that have already caused processing times to increase nearly double since fiscal year 2014.

- **Maintaining Duration of Status for F-1 students and J-1 exchange visitors is essential to ensure an uninterrupted course of study and avoid adding to already excessive USCIS filing backlogs.**

Protect the H-1B Program

The H-1B program is critical for filling real and significant gaps that exist in the U.S. workforce with highly skilled workers from other nations. To hire H-1B professionals, U.S. companies already must meet strict criteria set by the U.S. Department of Labor designed to protect American workers.

- **Congress should expand the H-1B program and maintain the higher education cap exemption.**
- **We are grateful for the recent U.S. District Court decision to set aside the DHS H-1B and DOL H-1B Wage Level Interim Final Rules which would severely restrict the H-1B program and cause major gaps and disruptions in U.S. higher education, research, and health care. We urge DHS and DOL to rescind these rules in their entirety.**

Expand Access to J-1 Visa Waivers for Physicians

The J-1 exchange visitor program has allowed countless promising scholars and physicians to come to the U.S. to teach, study, conduct research, or receive on the job training. As the U.S. faces a shortage of physicians that may reach 139,000 by 2033, UR Medicine relies on the J-1 visa waiver programs to hire qualified physicians to fill critical needs in care in underserved areas - positions that are historically difficult to recruit American doctors to fill.

The availability of J-1 visa waivers is insufficient to meet the need for providers in New York's Southern Tier. In 2020, St. James Hospital in Hornell exhausted all of its available waivers through the Appalachian Regional Commission (ARC) program, despite needing least five more specialists to ensure coverage for the region.

- **We urge Congress and the Appalachian Regional Commission to expand access to J-1 visa waivers for New York's Southern Tier Region, including Steuben and Allegany Counties.**

Support the Optional Practical Training (OPT) Programs

The OPT programs allow foreign U.S.-educated students time-limited, practical work experience immediately upon completion of their academic studies. In addition, graduates in STEM fields are granted additional work authorization. The OPT program and STEM extension are important experiential learning opportunities that attract top foreign students to study in the U.S., but also permit them to contribute to America's innovation economy.

- **We urge the Administration to maintain OPT and the OPT STEM extension to allow U.S. educated international students to continue to participate in enriching work experience and incentivize "the best and brightest" to continue to seek higher education experiences in the U.S., and clear backlogs in OPT processing.**

Preserve Deferred Action for Childhood Arrivals (DACA)

Since 2012, the DACA program has allowed 800,000 young people across the country who were brought here as children through no fault of their own to more fully engage in American life without threat of deportation. In addition to the roughly 350,000 individuals with DACA status currently enrolled in college, an estimated 29,000 DACA recipients work in the U.S. health care industry and are supporting the effort against COVID-19.

- **Congress must pass legislation like the American Dream and Promise Act or the Dream Act (S.264) to provide legal status and a firm statutory basis for DACA recipients to continue to work, study, and contribute in the U.S. without fear or uncertainty about their legal status.**

Support Smart Enforcement and Border Security Policies

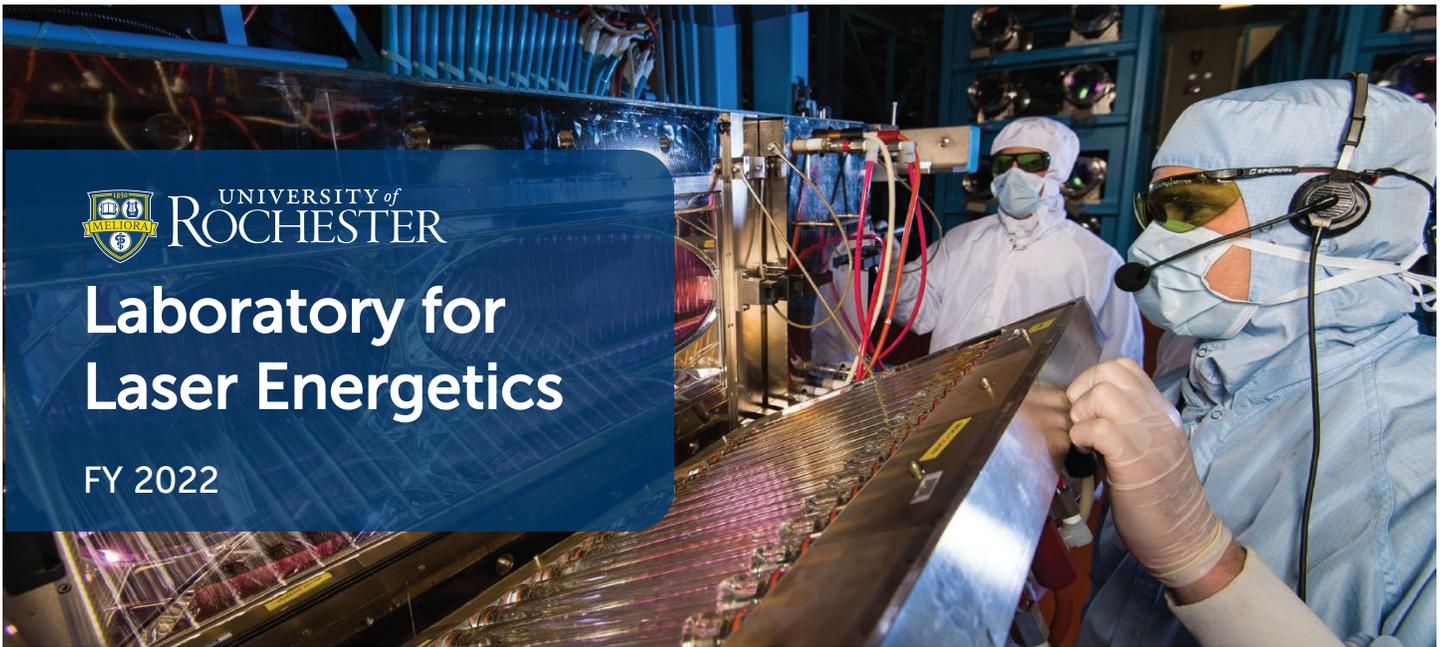
Border security and interior enforcement are essential to a functioning immigration system and our national security, but must be done in a way that upholds American values, preserves our nation's economic vitality, and ensures public safety in a fair and just manner.

The 2017 executive orders limiting immigrant and non-immigrant entry to the U.S. threaten our nation's standing as the destination of choice for the world's best and brightest students and scholars. We thank the Administration for revoking these policies.

In addition, checks and detentions of foreign students, researchers, and faculty in recent years – among the most closely vetted and monitored groups of any international visitors – have caused undue hardship and created an unfriendly environment that has disrupted research and educational activities at the University of Rochester and many other institutions.

FAST FACTS

- In the last academic year, the University of Rochester hosted more than **4,568 international students and 450 scholars** from 140 countries.
- International students contributed nearly **\$38.7 billion** to the U.S. economy – including \$5.3 billion in New York State – through tuition, room and board, and other expenses in 2019-20.
- International students and scholars at the University of Rochester contributed **\$239 million** to the local economy in 2018, supporting **2,871 jobs**.
- Last year, **the University of Rochester saw a 7% decline in international student enrollment** - a downward trend seen across the country since 2015-16.
- The National Science Board's *2020 Science and Engineering Indicators* report shows that **the economies of East-Southeast and South Asia have surpassed the U.S. and E.U. in global R&D expenditures.**



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Laboratory for Laser Energetics

FY 2022

FY 2021 ICF Final: \$575,000,000
FY 2022 ICF Request: \$600,000,000
FY 2021 LLE Final: \$82,000,000
FY 2022 LLE Request: \$86,000,000

Bill: Energy & Water Development
Agency: National Nuclear Security Administration
Account: Inertial Confinement Fusion & High Yield

About the Laboratory for Laser Energetics

The University of Rochester's Laboratory for Laser Energetics (LLE) is a unique national resource for education and research in inertial confinement fusion, high-energy density-physics (HEDP), and high-power lasers. LLE is home to the Omega Laser Facility, which houses two of the largest and most capable lasers at any academic institution in the world and is the largest U.S. Department of Energy (DOE) funded university-based research center in the nation. As part of the National Nuclear Security Administration's (NNSA) Inertial Confinement Fusion (ICF) program, LLE is an integral component of the science-based Stockpile Stewardship Program (SSP) that maintains a safe, secure, and effective nuclear deterrent. LLE is cost-effective, performing approximately 80% of all target shots used in the ICF and HEDP programs (over 2,300 per year) with only 14% of the ICF program budget. Over half (~60%) of scheduled shot time is for external users. As the only fusion research program jointly supported by the federal government, New York State (NYS), industry and a research university, LLE is a vital contributor to our national security, an invaluable source of scientific education and leadership, and an engine of regional innovation and growth for the laser, optics, photonics and imaging sectors.

Federal and State Funding

LLE and DOE/NNSA have a \$409,900,000 Cooperative Agreement (CA) for FY 2019-2023 that outlines the necessary resources to support LLE's research programs, operations and experiments in support of the SSP, an ignition demonstration on the NIF and basic science and education. For FY 2022, LLE is requesting \$86 million to meet the agreed objectives of the CA. LLE is also leveraging its core laser and scientific expertise to expand into other mission areas and receives support from other agencies, including the DOE Office of Science, ARPA-E, the National Science Foundation (NSF) and the Department of Defense. In addition, LLE receives critical annual support from New York State's Energy Research Development Authority (NYSERDA). These additional avenues of research leverage NNSA's investment in Omega; expanding the benefits LLE delivers to the nation and helping to attract talented students.

Economic Impact

LLE has attracted more than \$2.3 billion to NYS since its inception. This funding supports cutting-edge research, jobs for the region's optics, photonics and imaging industry and the creation of new companies. LLE employs ~350 full-time employees, but indirectly supports an additional 500 jobs for a total impact of about 850 jobs, \$56 million of income and \$3.7 million in revenue to state and local governments. Since FY 2011, LLE has made more than \$58 million in purchases from hundreds of companies across NYS. LLE provides a strong stimulus to the local economy by helping attract and develop new companies and investors. For example, Sydor Technologies is one of several companies created through transfer of technology developed at LLE and is one of the fastest growing companies in the area.

Scientific Leadership and Impact

LLE has a history of transformational research leadership. Chirped-Pulse Amplification (CPA), first discovered at LLE by a graduate student and her advisor supported by federal funding, was recognized with the 2018 Nobel Prize in Physics. CPA has become the basis of all modern high-power lasers and is now used in numerous applications, from advanced materials processing to cancer treatments and LASIK eye surgery. Other recent major awards for research conducted at LLE include the 2020 DOE Ernest Orlando Lawrence Award, 2020 Landau-Spitzer Award for collaborative research in plasma physics, 2020 David J. Rose Excellence in Fusion Engineering Award, 2019 John Dawson Award for excellence in plasma physics, 2019 LeRoy Apker Award for outstanding achievements in physics by undergraduate students, and 2019 Bridgman Award in high pressure physics.

LLE is one of the three primary ICF facilities, along with the National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL) and the Z Pulsed Power Facility at Sandia national Laboratories (SNL), working toward the goal of demonstrating fusion ignition, a grand scientific and engineering challenge for the 21st century. Using machine learning, LLE has achieved fusion yields that scale to ~80% of the theorized threshold for ignition. Pursuing the goal of becoming the first nation to demonstrate ignition in the lab helps to maintain the United States' global technical leadership and avoid "technical surprise" from other nuclear weapons states such as Russia or China, a concern noted in the 2018 *Nuclear Posture Review (NPR)*.

The Center for Matter at Atomic Pressures (CMAP), a new Physics Frontier Center and the first major initiative from the NSF in the field of high-energy-density science, will help discover the nature of planets and stars, as well as the potential for new revolutionary states of matter. The interaction of light and matter under extreme conditions is currently limited by laser performance; however, LLE scientists are developing new light sources and amplification techniques that would overcome these limitations, opening new windows on the universe through quantum and relativistic science in ultra-strong fields and enabling new applications for ultrafast lasers that would revolutionize fundamental physics research. In addition to basic research, applications such as novel high temperature superconductors are possible spin-offs from LLE's HEDP program.

LLE is continuing its leadership through the proposed next-generation laser concept, EP-OPAL, which would build on LLE's existing infrastructure to develop the two most powerful lasers in the world. EP-OPAL specifically responds to concerns that U.S. leadership in ultrafast lasers is at risk. LLE's laser expertise is also applicable to directed energy systems, an area of growing emphasis in the Department of Defense's efforts to deal with the proliferation of missile

technology, and is currently collaborating with industry to demonstrate military utility of short-pulse lasers.

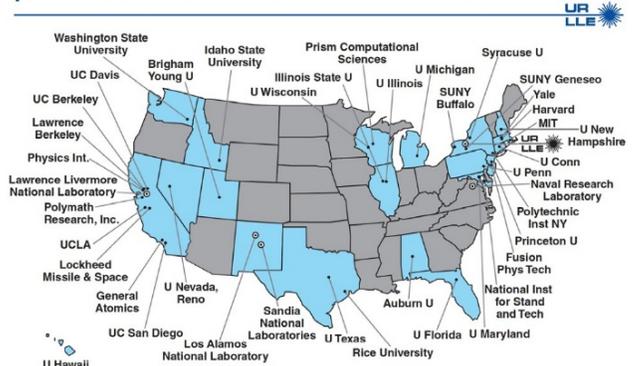
Faculty, Staff & Students

LLE employs more than 370 scientists, engineers, and staff and plays a critical role in attracting talented scientists and engineers to work in national security, a need highlighted in the 2018 *NPR*. As the only major facility that trains graduate students in ICF and HEDP, LLE is a critical pipeline for the future national security workforce. Currently, over 200 students are engaged in research at LLE and more than 500 students from the University of Rochester and other leading U.S. institutions have completed advanced degrees with LLE's support. One-third go on to work for the national labs, one-third stay in academia, and another one-third go on to work in the private sector. LLE also provides research opportunities for undergraduates from local universities, such as SUNY Geneseo and Cornell, as well as a High School Summer Student Program that has hosted over 390 students since 1989.

The Nation's Laser User Facility

LLE's Omega facility is the nation's major ICF and HEDP user facility and a center for the study of matter at the extreme conditions found in nuclear weapons, stars and the center of planets. About 500 people from other universities, industry, and the national laboratories utilize LLE each year for fundamental research, training, and education. Access for external users is made possible through the National Laser Users Facility (NLUF), part of the Joint Program in High-Energy-Density Laboratory Plasmas funded by NNSA and DOE, and LaserNetUS, a new DOE Fusion Energy Sciences' supported network of ten high-intensity laser user facilities formed to expand access and increase collaboration. Users have conducted experiments in many fields, including inertial fusion, high energy density physics, plasma physics, laboratory astrophysics, X-ray and XUV spectroscopy and instrumentation development. More than 180 outside students and postdoctoral researchers from other universities have conducted research at LLE with support from the NLUF program.

The National Laser Users' Facility (NLUF) program provides access to LLE's facilities for academic users



- Most of the U.S. Ph.D. recipients in SSP-relevant HEDP rely on LLE's laser facilities

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Support for University-based Scientific Research

FY 2022

Stable and sustained federal investment in peer-reviewed and competitively awarded research is critical to driving U.S. leadership in innovation, job creation, and long-term economic growth. Over the past five years alone, the University of Rochester has attracted more than \$1.94 billion in sponsored research funding to the region and is a national leader in translating discoveries into new technologies, applications, and companies that treat and cure disease, improve national security, and help our nation move toward a sustainable clean energy future.

More than 85% of our nation's economic growth since World War II is attributed to innovation and scientific and technological progress, much of which is the result of federally funded scientific research. University-based scientific research is essential to fueling the new ideas and technologies on which our economy, health, and national security depend. With the federal government's continued support and partnership, institutions like the University of Rochester can do more to harness innovation and discoveries into commercially viable technologies and companies.

Science and Security

The University of Rochester takes seriously the economic and national security threats posed by foreign adversaries who seek to interfere with our nation's highly successful innovation enterprise. We are working with the federal government and research agencies, updating our policies, and communicating with our campus on these concerns. Like other institutions, we are committed to balancing efforts to safeguard research with our responsibility to maintain the free flow of fundamental scientific information and international collaboration, which is key to fostering new ideas and facilitating novel research directions which lead to discoveries.

National Institutes of Health (NIH)

NIH-funded biomedical research performed at universities has led to U.S. leadership in the life sciences revolution of the 21st century. Funding through the NIH has helped to shape the University of Rochester Medical Center (URMC) into one of the nation's premier academic health systems. In FY 2020, URMC received \$154.2 million in NIH funding – the University's largest source of sponsored research support – which is assisting 3,000 researchers across more than 250 centers, institutes, and labs pursue treatments and cures. Across New York State, NIH awarded \$2.5 billion in grants and contracts in FY20 to support 4,536 awards at 178 institutions. This research underscores the promise of today's NIH-supported medical science. A recent study by the National Bureau of Economic Research found that every additional \$10 million in NIH funding generates 3.1 private-sector patents – one patent for every two NIH grants.

- **Provide \$46.1 billion for NIH in FY22.**

National Science Foundation (NSF)

As the cornerstone of America's basic research enterprise, the NSF is committed to fundamental, interdisciplinary, high-risk, and groundbreaking research and education across all science and engineering disciplines. Competitively awarded NSF-funded research has led to fiber optics, the Internet, nanotechnology, and improved science, technology, engineering, and math (STEM) education. Robust and sustained investment in NSF supports research and education, as well as the scientific equipment and infrastructure necessary to develop a STEM-capable workforce and ensure our nation remains the world innovation leader in the decades ahead.

- **Provide at least \$10 billion for the NSF in FY22.**

Department of Energy (DOE)

The DOE's Office of Science is the nation's primary supporter of physical sciences research, including fields such as high energy physics and fusion that support the University's Laboratory for Laser Energetics (LLE). In addition to the physical sciences, sustained and predictable funding for the Office of Science is critical to ensuring continued U.S. leadership in other fields including the biological sciences, computing, and engineering. The DOE's Advanced Research Projects Agency-Energy (ARPA-E) supports critical research unlikely to be supported by industry, but has the potential to dramatically change how we acquire and use energy in the future.

- **Support \$7.7 billion for the Department of Energy Office of Science in FY22 to ensure sufficient support for core scientific research programs and scientific user facility operations.**
- **Support at least \$500 million for ARPA-E and provide additional support for the Office of Fusion Energy Science, which funds the Fusion Science Center for Extreme States of Matter at the University of Rochester's LLE.**

Department of Defense (DoD) Research

Defense 6.1 basic research programs support cutting-edge scientific and engineering research as well as undergraduate scholarships, graduate research assistantships, and fellowships that maintain our military superiority and strengthen our nation's scientific and technical workforce. DoD funded research is known for high risk, high reward endeavors that have led to paradigm shifts in the nation's technical capabilities. As our battlefronts and enemy capabilities evolve, new materials and disruptive technologies, which enable our military to preserve a leading edge and avoid strategic surprise, are essential. DoD must invest in foundational science and technologies to confront these challenges.

- **Support \$2.831 billion for Defense 6.1 basic research and \$3.712 billion for DARPA in FY22.**

National Aeronautics and Space Administration (NASA)

For more than 60 years, NASA has revolutionized our understanding of earth and space sciences, the life sciences, aeronautics, and has led to new technologies. Since 2004, the University of Rochester has partnered with NASA's Jet Propulsion Laboratory to lead development of the Near-Earth Object Camera (NEOCam), an infrared telescope and wide-field camera designed to discover and characterize potentially hazardous asteroids near earth. In addition to the space program and mission directorates, NASA's university-based programs help educate America's future technological and scientific workforce. For the U.S. to remain the global leader in space, the nation must continue to make robust investments in NASA's science, aeronautics, and space technology directorates.

- **Support \$9 billion for Science, \$900 million for Aeronautics, and \$1.5 billion for Space Technology Mission Directorates at NASA. Also support \$157 million for the Office of STEM Engagement and 60 million for the National Space Grant Scholarship.**

FAST FACTS

- According to the National Science Board's *2020 Science and Engineering Indicators*, **the U.S. has fallen to 10th in the world in the ratio of R&D-to-GDP expenditures**, as the share of U.S. R&D funded by the federal government has consistently declined since 2000.
- Since 2005, the University of Rochester has launched **50 startup companies** that are developing products for the management of chronic disease, advancing the science of multiplexing, designing instruments that enable noninvasive optical biopsy in real time, and much more.
- In 2020, URMC's Infectious Disease Division received an **\$18 million NIH grant** to continue conducting vaccine and treatment trials and engaging with communities affected by HIV. The award also allows Rochester researchers to study other high-priority infectious diseases, including COVID-19.
- With funding through the Army Research Office and NSF, a UR lab developed a new class of optical coatings called Fano Resonance Optical Coatings (FROCs) that can be used on filters to reflect and transmit colors of remarkable purity. The technology is envisioned for several applications including hybrid thermal-electric power generation.
- The NSF granted its most prestigious award in support of junior faculty, the Faculty Early Career Development (CAREER) award, to several University of Rochester researchers last year.



Support for Student Aid

FY 2022

Making Higher Education Accessible to All Students

Higher education provides immeasurable value to students and is one of the best investments a society can make. At the University of Rochester, we believe that no student's financial status should inhibit them from pursuing high-quality higher education. We are one of only a few institutions in the nation committed to meeting 100% of the demonstrated need of all undergraduates earning admission to the College. While we provide \$293 million in institutional aid annually to undergraduate and graduate students, the federal student aid, college readiness, and federal student loan programs at both the undergraduate and graduate levels remain essential to ensuring students from all backgrounds can pursue the academic path of their choice.

Support for Pell Grants

The Federal Pell Grant Program provides need-based grants to low-income undergraduate students who might otherwise not have access to college. In 2019-20, the University of Rochester enrolled 1,154 students who received assistance through the Pell Grant program, with an average award of \$4,942.

- **Doubling the maximum Pell Grant is the single most important step Congress could take to make college possible for low-income and first-generation college students. We urge Congress to double the maximum Pell Grant award to \$13,000 in FY22.**

Support for Federal Work-Study (FWS)

Federal Work-Study helps students finance the cost of college through part-time employment. In 2019-2020, the University of Rochester received \$1,283,567 to support 1,067 work-study students. Including the University match, \$2,116,481 in wages was provided to



students in work-study positions. Over 24% of the University's FWS funding supports the Career Services Job Location and Development Program and UReading, a tutoring and mentoring program that pairs undergraduates with preschool and kindergarten students from the Rochester City School District.

- **Provide at least \$1.48 billion for Federal Work-Study in FY22 and maintain program eligibility for graduate students.**

Support Supplemental Educational Opportunity Grants (SEOG)

SEOG provides grants to low- and middle-income students and funds programs that help at-risk students get into and stay in college. In the 2019-20 academic year, the University of Rochester received \$703,205 in federal funding for SEOG, that, when combined with the University's matching funds, provided 947 students with an average award of \$956.

- **Support at least \$1.061 billion for Supplemental Educational Opportunity Grants in FY22.**

Support the Federal Student Loan Programs

Federal student loans are a critical tool that helps millions of Americans access a college education. Through the William D. Ford Federal Direct Loan Program, University of Rochester students received over \$34 million in the 2019-20 academic year to help pay for college. Thanks to the institutional aid the University provides, the average University of Rochester student in 2020 graduated with only \$22,597 in federal student loans, and less than 2% of University of Rochester students default on their loans.

- The availability of federal loan programs, including Subsidized and Unsubsidized Stafford Loans, and PLUS loans must be preserved with adequate borrowing limits that encourage choice and help students avoid more costly private loans.
- Student loan options are critical for graduate students. We support the reauthorization of GRAD PLUS and Parent PLUS loans, allowing student borrowing up to the cost of attendance, maintaining graduate and professional student eligibility for unsubsidized Stafford loans, strong repayment terms, and loan forgiveness benefits that put graduate and professional studies within reach for all interested students.

Support the Public Service Loan Forgiveness Program (PSLF)

The PSLF program is an important tool to attract talented individuals to work in critical jobs within their communities as educators, emergency responders, librarians, nurses, government employees, and many other professions. As the nation faces physician workforce shortages, PSLF also helps to encourage new doctors to enter public service and practice in non-profit settings. Eliminating PSLF would disproportionately impact rural, urban, and tribal communities that are underserved.

- Preserve the Public Service Loan Forgiveness program to ensure the future workforce of public servants.



FAST FACTS

- UR ranked **#22 nationally** as a 2021 Best Value School by *U.S. News World & Report*.
- The University of Rochester provided **\$293 million** in institutional scholarships and grants to students last year.
- The University provided an average of **\$26,927** in grant aid to undergraduates in the 2019-20 academic year.
- **81%** of University of Rochester students receive financial aid.
- **48%** of University of Rochester students graduate with no loan debt.
- The average Class of 2020 undergraduate student who took out loans graduated with **\$22,597 in federal loan debt**.
- **Less than 2%** of our students default on their loans.
- **17%** of University of Rochester undergraduates receive Pell Grants.
- The Simon School of Business was recently named the **most diverse MBA program in the U.S.** by *U.S. News and World Report*.



340B Drug Discount Program



Improving Access to Care for Patients Across the Community

340B at UR Medicine

UR Medicine provides care to all patients who seek it, regardless of ability to pay. Savings from 340B supports investment in programs across the region that serve a high proportion of Medicaid and other underserved patients, despite significant negative margins. **The 340B program helps us to:**

- Fund a robust charity care program that provides millions annually in no cost and discounted medications to patients in need.
- Provide oncology care at 12 locations across 7 counties, allowing patients in rural communities to receive care closer to home.
- Discharge patients with their prescriptions, helping to improve medication compliance and reduce readmissions.
- Deliver comprehensive mental health and wellness care for adults, adolescents and pediatrics.
- Provide transitional supportive housing for discharged high risk patients who are homeless or have unstable housing.
- Expand substance abuse treatment programs and Naloxone training.
- Mitigate losses from rapidly rising drug prices and chronic underpayment by public payers like Medicare and Medicaid.

HOW THE 340B PROGRAM WORKS

The 340B Program was created by Congress to help safety-net providers serving low-income Medicare, Medicaid, and uninsured patients. It is not funded with taxpayer dollars, and instead requires pharmaceutical manufacturers participating in Medicaid or Medicare Part B to sell outpatient drugs at a discount to eligible safety-net providers, including UR Medicine's Strong Memorial and Highland Hospitals in Rochester, Noyes Memorial Hospital in Dansville, and Jones Memorial Hospital in Wellsville. In turn, hospitals use the savings from the discount to stretch scarce resources to establish and support programs that improve access to quality care for low-income and uninsured patients.

PATIENT STORIES

The discounts and savings that our hospitals realize from 340B directly impact our ability to meet the health care needs of patients like these:

- A Rochester patient's insurance did not cover the oral chemotherapy and radiation combination that would best treat her aggressive cancer. Thanks to 340B, she received the \$7,400/mo treatment free of charge.
- An under-insured kidney transplant patient who worked full time could not afford the \$750/mo out of pocket cost for his anti-rejection drugs. 340B allowed UR Medicine to provide his medication free of charge.
- A patient in between insurance coverage at the time of her cancer diagnosis received her oncology care at no cost during the gap in her coverage so that she could begin treatment as soon as possible.

ABOUT THE COMMUNITY SERVED BY UR MEDICINE

2.6M

Covered lives served across more than 15 counties in upstate New York

40%

of patients served by Strong Memorial receive Medicaid, are low-income Medicare, or uninsured

33%

of Rochester residents live in poverty, the 3rd highest concentration of poverty in the nation

75,000

office visits for cancer treatment and 95,000 infusion treatments at 12 UR Medicine clinics across upstate New York

80%

of patients served at UR Medicine's Highlands at Brighton have Medicaid, at a loss of \$2.2M per year (2017)



2019 IMPACT

MEDICINE
of THE
HIGHEST ORDER



IN 2019, UR Medicine provided:

\$393M IN COMMUNITY BENEFIT

Through its core missions, UR Medicine is dedicated to providing high-quality patient care, developing new treatments and cures, and training the next generation of providers to improve the health of our community.

OUR HOSPITALS



UR Medicine is the largest health care system in upstate New York, with 6 affiliated hospitals and many active relationships and collaborations across the region.

ABOUT UR MEDICINE:

UR Medicine is the safety-net provider and most specialized academic health care system in upstate New York. Its six hospital system provides care across more than 15 counties with a population of more than 2.6 million.

- Strong Memorial Hospital is home to the region's only Level 1 Trauma Center, children's hospital, and other highly specialized services such as organ transplant, trauma and burn care, complex cardiology, and neurology.
- The School of Medicine and Dentistry is the leading source of new physicians in the area, training more than 750 residents and fellows per year.
- The University of Rochester is the largest employer in upstate New York and the 5th largest private employer in New York State.
- The University of Rochester Medical Center has received more than \$1.94 billion in biomedical research funding over the last 5 years to study common and rare illnesses, from cancer and heart disease to Parkinson's and pandemic influenza.

\$65.9M

provided in uncompensated and charity care



\$22M

in approximate unreimbursed cost of care for cancer patients



\$1.4M

in unreimbursed cost of care for substance abuse treatment, including opioid treatment and Naloxone training



\$6.9M

in losses for Pediatrics, where nearly 60% of patients receive Medicaid (2017)



\$2.2M

for community health programs, including the EIOH Smile Mobile and UR Street Outreach programs

For more information, please contact:

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