

THE NOYCE FOUNDATION 2012

"Optimism is an essential ingredient for innovation. How else can the individual welcome change over security, adventure over staying in safe places? A significant innovation has effects that reach much further than can be imagined at the time, and creates its own uses. It will not be held back by those who lack the imagination to exploit its use, but will be swept along by the creative members of our society for the good of all. Innovation cannot be mandated any more than a baseball coach can demand that the next batter hit a home run. He can, however, assemble a good team, encourage his players, and play the odds."

Robert N. Noyce

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About the Noyce Foundation

The Noyce Foundation aims to help young people become curious, thoughtful, and engaged learners. The Foundation focuses on a few key areas: expanding opportunities for students to experience hands-on science in out-of-school settings; supporting human capital efforts to develop effective teachers and principal leaders; and investing in models and policy for improving the teaching of math and science.

The Noyce Foundation was created by the Noyce family in 1990 to honor the memory and legacy of Dr. Robert N. Noyce, co-founder of Intel and inventor of the integrated circuit which fueled the personal computer revolution and gave Silicon Valley its name. Although he was an individual of daunting talents and intellect who was honored by two presidents as well as his academic and industry peers around the world, Bob Noyce also remained a humble and approachable man who believed fervently in democracy. In everything the Noyce Foundation undertakes, we are committed to promoting the qualities that Bob Noyce embodied: optimism, creativity, risk taking, and determination.

In recognition of Bob's concern about the shrinking pipeline of students interested in and committed to science-related careers, the Noyce Foundation has focused on model and policy efforts for improving math, science, and literacy. Until recently, much of our focus had been on improving instruction in math, science, and early literacy in public school districts. However, as schools focused on math and literacy in response to No Child Left Behind, leaving science behind, we began an emphasis on field-building initiatives for out-of-school science programs that show promise of sustaining and engaging students' interest in science, especially at middle school, a time when students tend to make critical decisions about subjects that interest them. Our informal science initiative includes support for leadership development in science centers. The Foundation's human capital investments have focused on organizations that are leading national thinking and initiatives to increase the quality and effectiveness of the teacher and principal workforce in particular, and to rethink human resource systems within school districts.

2012 Year in Review

Dear Friends and Colleagues,

At the Noyce Foundation, we strive to make investments that seed field-building efforts in areas that spark curiosity and engage youth to discover the wonder and importance of science, particularly during the middle school years when young people are making choices about their academic interests and becoming aware of career possibilities. We prefer to partner and collaborate with other funders, identify best-in-class organizations to lead efforts, ensure that impacts and outcomes are measured and evaluated, and take calculated risks on high leverage-high yield strategies. We are a learning organization that wants to help organizational leaders mine lessons learned for us and for the field. We are long on up-front vetting and short on bureaucracy. We don't take unsolicited proposals.

In our 2012 annual report, you will find a concentration of grantmaking in informal science and human capital. Highlights of our work in these two areas can be found in the report. In informal science, we continued and increased our field building efforts to integrate quality science programming into existing national out-of-school-time (OST) networks and youth development organizations. Major initiatives intensified with the Mott Statewide Afterschool Networks, the Collaborative for Building After-School Systems, the National 4-H Council and YMCA of the USA to promote and integrate science into existing OST settings and structures across the country, including efforts to develop the instruments to assess impacts on youth interest and engagement in science. To support the professional development of OST staff and volunteers as they learn to facilitate STEM activities, we worked with a number of leading OST organizations to conduct the market research for Click2SciencePD and selected the University of Nebraska-Lincoln to serve as the lead for this blended professional development initiative. And we joined with private and corporate funder colleagues in the STEM Funders Network to coordinate efforts around the development and release of the Next Generation Science Standards.

Our human capital investments helped build out the core strategies of several major national organizations that are leading the national thinking and development of work on teacher, principal, and district leadership effectiveness. Education Resource Strategies, New Leaders for New Schools, and The New Teacher Project are at the vanguard of national efforts to recruit, train, compensate, and evaluate teachers, principals, and central office managers of schools. These three leading organizations joined forces, with Noyce Foundation and local Baltimore city foundation support, to help Baltimore City Schools launch a three-year initiative to develop a principal pipeline focused on the identification, training, and mentoring of teacher leaders.

Additionally, we continued to make targeted investments in mathematics education with the Charles A. Dana Center and Agile Mind, multiple pathways to postsecondary and careers with Jobs For the Future and the Harvard Graduate School of Education, and cutting-edge educational technology with Silverback Learning. In math, our multimedia website, www.insidemathematics.org, offers tools for math professional development and coaching, best-

in-class videos and MARS tasks aligned to the new Common Core mathematics standards. The site's users have grown to 11,000 teachers and other educators per week.

We invite you to review our initiatives, grants, and resources, and send us your comments, at our website, www.noycefdn.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Ottinger". The signature is fluid and cursive, with a large initial "R" and "O".

Ron Ottinger
Executive Director

Grants Made in 2012

Major Grants

<p>Afterschool Alliance (Advancing STEM in Afterschool, year 1 of 2. Total amount is \$800,000 over 2 years.) <i>Washington, DC</i> Field-building efforts, including working with National Summer Learning Association and National Afterschool Association; continuing to map needs and opportunities for STEM in afterschool; providing technical assistance to the state afterschool networks around their own STEM education initiatives; defining youth outcomes and disseminating the research to practitioners and policy makers; and increasing advocacy and communications to ensure that afterschool STEM education remains a critical part of conversations within the STEM, general education, and afterschool fields.</p>	\$400,000
<p>Afterschool Matters (STEM Journal Issues and Fellowship) <i>Wellesley, MA</i> Publication of three issues of the <i>Afterschool Matters</i> journal that include STEM content, and support for an out-of-school time STEM practitioner fellowship and fellows research symposium.</p>	\$94,750
<p>Association of Science-Technology Centers (ASTC) (Noyce Leadership Institute, 2011-12 and 2012-13 Fellows programs) <i>Washington, DC</i> Continued development of the Noyce Leadership Institute to provide executive leadership programs for new chief executives and senior managers, primarily in the science center field.</p>	\$1,145,000
<p>Baltimore City Schools Leadership Pipeline initiative (Year 1 of 3. Total amount is \$3,300,000 over 3 years.) <i>Baltimore, MD</i> Collaboration among the Baltimore City Schools, Education Resource Strategies, New Leaders for New Schools, and The New Teacher Project to support Baltimore City Schools' human capital strategy to build a pipeline from teacher leaders to the principalship, its organizational capacity to support this strategy, and its allocation of federal, general and philanthropic funds to advance these efforts.</p>	\$550,000
<p>Click2SciencePD - Noyce Foundation Online Professional Development for Science in Afterschool Research and development of an online/blended model of professional development in science for afterschool program staff in collaboration with the University of Nebraska-Lincoln.</p>	\$146,980

<p>Cornell Lab of Ornithology (Citizen Science Collaboration with 4-H) <i>Ithaca, NY</i> Collaboration with 4-H in New York and one other state to test a variety of approaches to citizen science to learn how citizen science activities and projects can be adapted for integration into the 4-H network, and what kinds of training and support are necessary for widespread adoption by 4-H leaders nationally as well as other afterschool and youth development organizations.</p>	<p>\$233,728</p>
<p>Dana Center (Academic Youth Development Phase II, year 2 of 2. Total amount is \$500,000 over 2 years) <i>Austin, TX</i> Support for research and development of the AYD program to become a national model for introducing teachers and students—particularly students in underserved areas—to powerful ideas from the psychological and learning sciences that enhance engagement in learning, achievement, and productive persistence.</p>	<p>\$151,156</p>
<p>Education Resource Strategies <i>Watertown, MA</i></p>	
<p style="padding-left: 40px;">Key District Partnerships, year 2 of 2. Total amount is \$900,000. Targeted support of partnerships with leading-edge districts to develop innovative examples of transformational changes, increase the quality of benchmark data in its national database, and provide a cohort of district and other partners for collaboration.</p>	<p>\$450,000</p>
<p style="padding-left: 40px;">Communication and Capacity Building, year 1 of 3. Total amount is \$1,850,000 over 3 years. Implementation of the “Tough Times” campaign to convince decision makers nationally to take difficult but necessary actions to transform how school districts use talent, time, technology, and dollars to support their educational goals; build management capacity to support more rapid hiring and integration of new employees and more effective development and support of existing employees; and embed the CAPS frameworks and metrics more deeply into how districts and states measure resource use.</p>	<p>\$742,900</p>
<p>Editorial Projects in Education (STEM Media Coverage in <i>Education Week</i>) <i>Bethesda, MD</i> Coverage of STEM learning, both as part of the traditional school day and in informal settings, in <i>Education Week</i> in print, online at edweek.org, and via several other publishing platforms deployed by EPE.</p>	<p>\$162,000</p>
<p>Envision Excellence in STEM Education (STEM Funders Network) <i>Baltimore, MD</i> Support for an initial working group of 12 STEM funders from across the country to come together to share expertise and consider collaborating on high leverage STEM education initiatives.</p>	<p>\$25,000</p>

<p>Experience Corps (DC Learning Lab, year 2 of 3. Total amount is \$450,000 over 3 years.) <i>Washington, DC</i> Implementation of the DC Learning Lab Project, which tests innovations in literacy interventions to improve student outcomes among students in high-need Washington, DC elementary schools.</p>	<p>\$150,000</p>
<p>Growth Sector (Summer STEM Institute) San Francisco, CA Second round of the “STEM Teacher Pathway through Student Teaching in Afterschool” project. The project adds a STEM Institute to the existing statewide After School Teacher Pathway initiative, which targets economically disadvantaged individuals for K-12 teaching careers and combines employment in afterschool programs, post-secondary teacher training through partner community colleges and California State Universities, and intensive support to create an accelerated STEM teaching pathway in 4½ years.</p>	<p>\$176,200</p>
<p>Harvard Graduate School of Education (Pathways Institute) <i>Cambridge, MA</i> Support for a two-day institute to launch a multistate Pathways Network focused on redesigning secondary education systems. The institute brought together teams of employers, educators, workforce intermediary staff, and government officials from at least 6 states. The institute focused primarily on helping each state refine its work plan and develop its strategy for beginning implementation as quickly as feasible.</p>	<p>\$115,000</p>
<p>Louisiana Department of Education/The New Teacher Project (Data analyst for value-added data plan) <i>Baton Rouge, LA</i> Data analyst support to assist in the creation of a performance evaluation system incorporating teacher-level value-added data, as well as to develop a long-term solution for making teacher-level value-added data available to teacher certification programs.</p>	<p>\$100,000</p>
<p>MIT Museum (Working Conference on Public Science Engagement) <i>Cambridge, MA</i> A working conference on shifts in public science outreach and engagement and dissemination of a report on findings and proposals for action research.</p>	<p>\$50,000</p>

Mott-Noyce collaboration for STEM in statewide afterschool networks

The STEM in OST initiative, a collaboration between the Mott and Noyce foundations, is leveraging Mott’s national network of 41 state-level afterschool intermediaries by introducing science programming into statewide networks, with a goal of reaching 19 states over 3 years. Implementation is underway in 4 states – Indiana, Maryland, Massachusetts, and Pennsylvania – and 4 more states will launch systemwide work in Fall 2013. The total is \$1,413,200 over 3 years for the collaborative effort.

Preceding the formal collaboration with Mott, the Noyce Foundation began support of major work in 7 statewide afterschool networks -- California, Missouri, Kansas, Michigan, Nebraska, Oklahoma, and New York.

Florida (planning)	\$5,000
Indiana (implementation, year 1)	\$60,000
Kansas (implementation, year 2)	\$75,000
Maryland (planning + implementation, year 1)	\$65,000
Massachusetts (planning + implementation, year 1)	\$65,000
Michigan (implementation, year 2)	\$75,000
Missouri (year 3)	\$402,154
Nebraska (implementation, year 2)	\$75,000
North Carolina (planning)	\$5,000
Oklahoma (implementation, year 2)	\$75,000
Pennsylvania (planning + implementation, year 1)	\$65,000
Technical assistance	\$138,200

National 4-H Council (4-H Science Initiative, year 3 of 3. Total amount is \$4,929,331 over 3 years.) \$1,605,563

Chevy Chase, MD

Implementation of the evaluation plan for the 4-H Science Initiative and building capacity of 4-H state leaders, local leaders, and national infrastructure to reach 1 million new youth with STEM programming by December 2013.

New Leaders for New Schools (Core operating support, year 2 of 3. Total amount is \$2,500,000 over 3 years.) \$1,500,000

New York, NY

Development of capacity, tools, and knowledge to help districts change their approach to recruiting, training, and supporting principals. Years 2 and 3 of the grant included a matching fund requirement to help New Leaders for New Schools leverage funds from additional donors.

Oregon State University (Synergies Research Project, year 2 of 4. Total amount is \$1,216,177 over 4 years.) \$308,701

Corvallis, OR

Support for a study by John Falk, Lynn Dierking, and Bill Penuel of STEM interest development ecologically in everyday life and across multiple formal and informal education settings while also actively involving members of the community in a collective effort to enhance children’s STEM interest and engagement.

<p>PEAR (Program in Education, Afterschool and Resiliency) at McLean Hospital/Harvard (Noyce Foundation Common Assessment Instrument, year 1 of 2. Total amount is \$249,612 over 2 years.) <i>Belmont, MA</i></p> <p>Two-year research and evaluation project for the Common Instrument, a survey for youth age 10 and up, which measures interest and engagement in science. The two-year project includes improving validity and reliability of the Common Instrument with 600 students; collecting feedback on how the reports are interpreted and used by programs; conducting a longitudinal study of 2,000+ students to track their growth trajectories of science interest; and publication of journal articles.</p>	\$118,549
<p>Rennie Center for Education Research & Policy (Sustain and Deepen the Rennie Center’s Work in Massachusetts and Nationally, year 3 of 3. Total amount is \$900,000 over 3 years.) <i>Cambridge, MA</i></p> <p>Support to diversify the Rennie Center’s sources of funding, become the “go-to” resource for national organizations interested in lessons from education reform in Massachusetts, and establish a national network of other state-based organizations that are focused on using research to engage with and inform the decisions of policymakers.</p>	\$300,000
<p>Schmahl Science Workshop (Field Testing a Coaching Model for Expanding Afterschool Science, year 2 of 3. Total amount is \$282,962 over 3 years.) <i>San Jose, CA</i></p> <p>Implement Schmahl Science Workshop’s afterschool training model using its workshops adapted for afterschool settings, provide on-site coaching for afterschool staff, and continue to improve business operations to grow and sustain the program.</p>	\$132,962
<p>Science Friday Initiative (Matching Grant Support to Ensure Financial Sustainability, year 2 of 2. Total amount is \$500,000 over 2 years.) <i>New York, NY</i></p> <p>Matching grant for Science Friday to continue to expand its donor base and examine revenue-generating possibilities, including podcast subscriptions, mobile apps, and partnerships with iTunes, Amazon, and other commercial media distributors.</p>	\$250,000
<p>Silverback Learning Solutions, Inc. (Mileposts Project for Silicon Valley and Surrounding Area Schools) <i>Boise, ID</i></p> <p>Support schools and districts in the Silicon Valley area to use the Mileposts online data analysis product, which uses data at the point of instruction to focus teachers’ efforts where it will have the greatest impact, including individual student planning modules so every child and parent can monitor progress.</p>	\$100,000
<p>Smithsonian/National Science Resource Center (Expanding the LASER Program to High Poverty Urban and Rural Schools, year 3 of 5. Total amount is \$150,000 over 5 years.) <i>Washington, DC</i></p> <p>Matching grant to support the expansion and validation of the LASER program in high-poverty urban and rural schools in Texas, North Carolina, and Indiana over five years to reach 75,000 students and 3,000 teachers, and to test its impact with a rigorous, randomized control study.</p>	\$30,000

Teach Plus (Expanded Research Capacity, year 1 of 2. Total amount is \$250,000 over 2 years.) \$125,000

Boston, MA

Support for expansion of Teach Plus' research capacity to identify and support teachers with a strong track record of helping students learn, and to analyze data from its database of more than 4,000 teachers and survey teachers beyond its current base to draw out themes and trends for the field.

Techbridge (Girls Go Techbridge Scale Up: Encouraging Girl Scouts in Science and Engineering, year 2 of 2. Total amount is \$1,399,163 over 2 years.) \$660,583

Oakland, CA

Support to scale up Girls Go Techbridge to provide hands-on science, engineering, and career exploration resources for 15,000 Girl Scouts in 15 Girl Scout councils across the country.

The After-School Corporation (TASC)

New York, NY

In partnership with the Collaborative for Building After-School Systems, expand the Frontiers in Urban Science Exploration initiative to build nationwide momentum and capacity for high-quality informal science learning in afterschool hours. Sites during phase one included Providence, RI; San Francisco Bay Area, CA; Boston, MA; Palm Beach County, FL; and Baltimore, MD. Sites during phase two include Boston, Palm Beach County, Baltimore, and Chicago.

Phase I, year 3 of 3. Total amount is \$1,000,000 over 3 years. \$142,411

Phase II, year 1 of 3. Total amount is \$781,950 over 3 years. \$434,768

The New Teacher Project (TNTP) (Produce & Support Effective Teachers, year 1 of 2. Total amount is \$2,700,000 over 2 years.) \$1,375,000

Brooklyn, NY

Support to produce the most effective and dedicated teachers in the country, at reasonable cost; to prove that strategically managing teacher effectiveness improves student outcomes; and to become the nation's most authoritative voice on effective teachers.

University of Colorado Boulder (CU Teach, year 1 of 2. Total amount is \$150,000 over 2 years.) \$75,000

Boulder, CO

Matching funds to support the CU Teach program, which aims to increase the number of highly qualified math and science majors recruited into secondary math and science teaching.

Visitor Studies Association (Organizational planning) \$42,000

St. Paul, MN

Create an organizational plan to ensure that VSA is structured to best carry out its work, including laying the groundwork for transition to compensated, rather than volunteer, staff.

<p>WNET (International Summit on the Teaching Profession) New York, NY Support for the convening of Ministers of Education, heads of teachers unions, and other high-level delegates from 25 countries to discuss the recruitment, preparation, development, retention, evaluation, and compensation policies for teachers, including primarily STEM teachers, that will lead to the creation of a world-class teaching force.</p>	<p>\$50,000</p>
<p>Year Up (Business planning for STEM program) <i>Boston, MA</i> Support to that STEM education is addressed as a significant element of Year Up’s 2012-2016 strategic plan, including Year Up’s collaboration with YouthBuild on a mutually beneficial online STEM guidance system.</p>	<p>\$25,000</p>
<p>YMCA of the USA (STEM Integration, Phase I) <i>Chicago, IL</i> Phase I of a multi-year effort to integrate STEM into the YMCA’s national program offerings. The research phase included the identification of afterschool/out-of-school STEM program models, practices, and partnerships to impact student success and improve student performance of low-income and minority youth.</p>	<p>\$181,056</p>
<p>YouthBuild USA (STEM Pathways for Opportunity Youth) <i>Somerville, MA</i> Planning phase for a technology-driven approach to STEM career exploration and planning for opportunity youth, including user case scenarios, product recommendations, and workplan.</p>	<p>\$180,004</p>

Other grants

Afterschool Alliance (Science Subgroup) <i>Washington, DC</i> Support for the Noyce Foundation science subgroup with advice and feedback on proposed and current projects.	\$10,000
Center for Digital Storytelling (Strategic Planning) <i>Berkeley, CA</i> Matching grant to support strategic planning and development, including rebranding CDS as StoryCenter.org and developing a new R&D wing.	\$10,000
California State University (Math & Science Teacher Development) <i>Long Beach, CA</i> Support for the Transforming Teaching and Learning through Technology online learning and support program for beginning science and math teachers.	\$15,303
Cushman Foundation (School-to-career work) <i>San Diego, CA</i> Support for school-to-career programs.	\$8,400

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