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Comprehensive Survey of STEM Programs in Chicago Released First-ever Report Identifies Breadth of After School Programs and Challenges, Recommends Action Plan

Chicago, IL, June 6, 2013—The Chicago STEM Pathways Cooperative has released the first comprehensive city-wide survey and analysis of Science, Technology, Engineering and Math (STEM) opportunities in out-of-school time (OST), identifying the breadth of programs and gaps in service, and recommending better city-wide coordination and expanded outreach to underrepresented communities, especially Latinos. *The State of STEM in Out-of-School Time in Chicago* Report lays out a roadmap to enable diverse young people to get – and stay – involved with STEM experiences from kindergarten through college.

The Report draws upon 2011 data and survey results from city agencies and other organizations and networks involved with STEM education, workforce development and youth development, along with feedback from the December 2012 "State of STEM" Conference. Chicago's existing STEM and OST programming is diverse, energized and widespread, the Report found, but there is a lack of coordination, a common language, and a clear set of goals. Of most concern, Latino students were underrepresented in programs relative to their population in Chicago Public Schools.

"Adoption of a city-wide STEM Pathways strategy would not only ensure that the full spectrum of Chicago's young people have the opportunity to make discoveries about the world and themselves, it could have a dramatic influence on the diversity of the STEM workforce development pipeline," said Gabrielle Lyon, Cofounder and Senior Explorer at Project Exploration and Chair of the Chicago STEM Pathways Cooperative.

The Final Report from the STEM Pathways Cooperative, a community-based alliance of stakeholders in STEM education and youth development, spearheaded by Project Exploration, noted these key findings:

- More than 2,032 STEM OST programs were run by more than 500 organizations in 2011, serving an estimated 88,576 students.
- The greatest number of programs were in middle schools (42%), followed by elementary schoolage students (34%) and high school students (24%).
- Programs were generally available throughout most, but not all, Chicago neighborhoods.



- Programs served more girls than boys (56.2% and 43.8%, respectively).
- Latinos were underrepresented in programs compared to their representation in Chicago Public Schools 28% of participants vs. 44% of CPS population.
- Data is hard to access and sometimes doesn't exist, with no defined set of metrics and no channel for students to share insights and experiences.

"STEM education is a critical path to success and opportunity for many students throughout Chicago, and I am supportive of any and all efforts to expand STEM opportunities in the city to more students, especially in after-school and summer programs," said Chicago Mayor Rahm Emanuel. "I have worked with some of the nation's largest companies to open five new STEM high schools in Chicago, and, additionally, I have provided resources for teachers to learn to teach coding in partnership with Starter League. I will continue to work with all groups to promote more and more of this programming for our young people."

To ensure equitable, accessible programming in STEM in out- of-school time and to deepen its impact on youth, the Report recommended:

- The City of Chicago and CPS create a city-wide STEM OST clearinghouse and a coordinator to connect disparate STEM providers, communities, CPS, funders and policymakers through a public portal for young people, parents, educators and youth-advocates.
- Focus funding to enable organizations to collaborate and coordinate services and learning between and amongst youth organizations.
- Reduce barriers to entry to create multi-lingual programs, reduced-fare public transportation on weekends for high school students, and increased free and low-cost programs in public venues.
- Invest in building and strengthening relationships with parents, teachers and networks of program providers who can serve as allies. Focus on the most vulnerable students, and engage the most economically disadvantaged parents.
- Providing enhanced professional development.

"A data-driven approach suggests we will need different strategies if we are going to involve underrepresented and disenfranchised students and increase the numbers of students who not only participate in STEM out of school, but who pursue STEM in college and careers after high school," said Lyon.

The full report, survey and raw data are available at: http://stemchicago.wordpress.com. Funding for *The State of STEM in Out-of-School Time in Chicago* Report was provided by the Noyce Foundation and the Chicago Foundation for Women, with additional support from After School Matters.



Members of the Chicago STEM Pathways Cooperative Leadership Team: Jennifer Axelrod, Deputy Commissioner for Youth Services at Department of Family and Support Services; Jim Cheshire, Executive Director, Chicago Allies; Cat Crowder, Special Projects Coordinator, Project Exploration; Mike Davis, Associate Vice Chancellor of STEM, Chicago City Colleges; Jerry Doyle, Vice Provost Student Access, Success and Diversity Initiatives, Illinois Institute of Technology; Dean Grosshandler, Research Assistant Professor at the University of Illinois at Chicago; Stephanie Levi, STEM Program Evaluation Specialist, YMCA of the USA; John Loehr, Senior Science Test Development Specialist, American Institutes for Research; Gabrielle Lyon, Co-founder and Senior Explorer, Project Exploration; Rabiah Mayas, Director of Science and Integrated Strategies, Museum of Science and Industry; Jeff McCarter, Executive Director, Free Spirit Media; Rafael Rosa, Vice President of Education at the Peggy Notebaert Nature Museum; David Sinski, Executive Director of the Heartland Human Care Services and Vice President of Heartland; Alliance; Tony Streit, Senior Project Director at the Education Development Center, Inc.; John Tolva, Chief Technology Officer, Office of the Mayor, City of Chicago.

About Project Exploration: Project Exploration is a nonprofit science education organization that works to ensure communities traditionally overlooked by science—particularly minority youth and girls—have access to personalized experiences with science and scientists. www.projectexploration.org