

## STATE OF STEM IN OUT-OF-SCHOOL TIME IN CHICAGO CONVENING — DECEMBER 17, 2012

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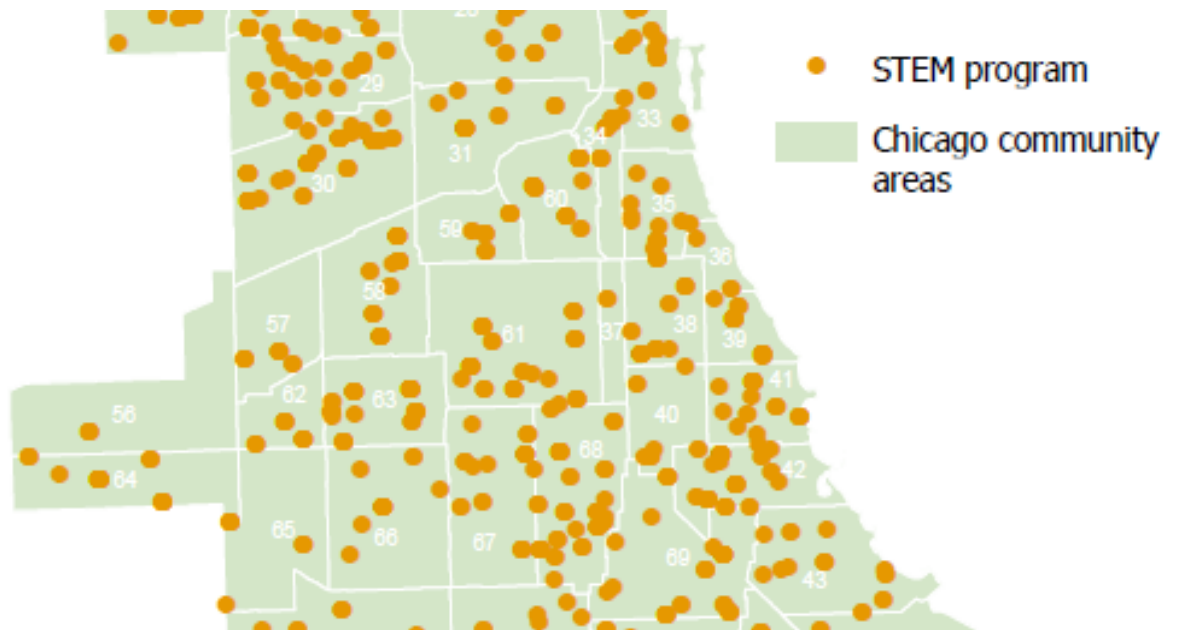
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# The State of STEM in Out-of-School Time in Chicago

Conference

December 17, 2012

Chicago, IL



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# AGENDA

DECEMBER 17, 2012

STATE OF STEM IN OUT-OF-SCHOOL TIME IN CHICAGO

Illinois Institute of Technology

- 8:00 REGISTRATION & BREAKFAST**
- 8:30 WELCOME**
- **Alan Cramb**, Provost, Illinois Institute of Technology
- 8:45 THE STATE OF STEM IN OUT-OF-SCHOOL TIME IN CHICAGO: PRELIMINARY FINDINGS**
- **Gabrielle Lyon**, Project Exploration
  - **Andrew Rice**, Chicago Allies for Youth Success
- 9:30 BREAK**
- 9:45 POSSIBILITIES & POTENTIAL FOR STEM PATHWAYS.**
- **Akeshia Craven-Howell**, Chicago Public Schools
  - **Jessica Donner**, Collaborative for Building After School Systems
  - **Damian Ewens**, Providence After School Alliance
  - **Dan O'Neil**, Smart Chicago (Moderator)
  - **Michael Ramirez**, University of Illinois Chicago
  - **John Tolva**, Office of the Mayor, City of Chicago
- 11:00 EXPLANATION OF BREAKOUT SESSIONS**
- **Rabiah Mayas**, Museum of Science & Industry
- 11:15 MOVE TO LUNCH & BREAKOUT SESSIONS**
- 11:45 WORKING LUNCH; BREAKOUT SESSIONS**
- 2:00 REPORTING BACK & RECOMMENDATIONS**
- 3:00 REFLECTIONS & NEXT STEPS**
- **Jerry Doyle**, Illinois Institute of Technology
  - **Gabrielle Lyon**, Project Exploration
- 3:30 NETWORKING RECEPTION**

## **BREAKOUT SESSIONS**

***About the Breakout Sessions.** Breakout sessions run from 11:45am-1:45pm over lunch. All breakout sessions will follow a similar format and participants' recommendations will be incorporated into the final report on the State of STEM in Out-of-School Time in Chicago.*

**CONNECTED & NETWORKED LEARNING**—Connected learning is a student-centered approach to teaching and learning that puts students' interests at the center of programs, is academically oriented. Organizations that move to using a connected learning approach will share goals-and data-in the interest of creating an integrated network for young people. *Facilitator: Christian Greer, HIVE Chicago Learning Network.*

**DATA & DATA SYSTEMS**—Organizations (or agencies) sometimes have a hard time accessing their own data or sharing data with other organizations. Deciding what data to collect can be even more formidable. What's worth investing in and why? Josh Kalov from OpenGov and Heather Thiry Mapping Out-of-School Time Science (MOST-Science) research study will work with participants to unpack how data can be made into usable tools, help identify critical needs or gaps in programming, and inform strategies to maximize access to high-quality STEM opportunities for all youth. *Facilitators: Josh Kalov, OpenGov; Jameela Jafri, Project Exploration; Heather Thiry, University of Colorado.*

**SUMMER & STEM**—Much of the academic achievement gap can be attributed to a lack of opportunities outside of school, including summer learning loss for students who can't afford or don't have access to high-caliber enrichment experiences during the summer. How should a summer strategy fit into an overall STEM pathways ecosystem? How might summer activities in Chicago connect to year-round activities for students and program providers? *Facilitators: Peggy Espada & Hillary Stroud, National Summer Learning Association; Liz McChesney, Chicago Public Library.*

**PATHWAYS TO COLLEGE & CAREERS**—Chicago wants to be a “science and technology” city – and workforce readiness in STEM areas is a priority. The city's long-term economic plan predicts significant job growth in sectors such as bio-technology, engineering and applied manufacturing among other fields. What is the role of after-school in building a STEM ready workforce? What challenges do we as a field face in doing this work? What models for STEM workforce development exist for after-school? What are the opportunities for partnering to facilitate these experiences? *Facilitators: Tony Streit, EDC; Mike Davis, City Colleges of Chicago.*

## **BREAKOUT SESSIONS CONT'D**

**YOUTH EXPERIENCES**-What experiences matter most to young people in STEM and out-of-school time programs? What are the challenges and opportunities facing organizations which want to put students at the center of how they plan and deliver programs? *Facilitators: Jeff McCarter, Free Spirit Media; Michael Ramirez, UIC Student.*

**PARTNERING WITH CPS & CITY AGENCIES**-Approximately half of 2011 STEM out-of-school time programs were run in partnership with Chicago Public Schools. The move to extended day may open up opportunities to provide STEM programming at schools or may cut in to critical “after-school” time. How can cooperation and collaboration be supported in the interest of creating STEM Pathways? *Facilitator: Rafael Rosa, Peggy Notebaert Nature Museum.*

**FUNDING STEM & OUT OF SCHOOL TIME IN CHICAGO**-This invitation-only session is intended to enable funders to network and discuss their STEM and out-of-school time interests and funding strategies. Participants will consider a set of recommendations for investing in a city-wide STEM and OST pathways strategy and provide feedback on drafted recommendations. *Facilitator: Christy Uchida, Brinson Foundation.*

## SPEAKER BIOS



**ALAN CRAMB, Provost and Senior Vice President for Academic Affairs, Illinois Institute of Technology.** Alan William Cramb is responsible for the academic programs and mission of the Illinois Institute of Technology. He is also the Charles and Lee Finkl Professor of Metallurgical and Materials Engineering. In 2005 Alan was appointed the Dean of Engineering and the John A. Clark and Edward T. Crossan Professor of Engineering at Rensselaer Polytechnic Institute. In his role as Dean, he was responsible for current and future directions in research and education for one of the leading engineering schools in the USA. He is the author of over 200 publications and 2 patents and the recipient of many awards for his contributions to the fields of engineering and engineering education.



**AKESHIA CRAVEN-HOWELL, Officer, Pathways to College and Careers, Chicago Public Schools.** Akeshia Craven-Howell is the Officer for Pathways to College and Career at Chicago Public Schools. In this role, Akeshia is leading the district's strategy to ensure all students are on track throughout their K-12 career toward graduating high school college and career ready. Key strategies include Career & Technical Education, multiple pathway options for chronically truant and recently dropped out youth, academic & learning supports as well as social and emotional learning supports, out of school time opportunities and the recently launched early college STEM high schools. Prior to serving as the Officer for Pathways to College & Career, Akeshia was a Chief Area Officer for high school Area 19. She holds a BS in Mechanical Engineering from North Carolina State University and an MBA from the Kellogg School of Management at Northwestern University.



**JESSICA DONNER, Director, Collaborative for Building After School Systems.** Jessica manages CBASS's efforts to develop policy recommendations and solutions, test the feasibility of policy and practice recommendations and disseminate findings, and deliver technical assistance to jurisdictions to build after-school systems. She oversees the national demonstration project, Frontiers in Urban Science Education, to build citywide STEM systems, adapted from the TASC model. Prior to assuming her position with CBASS, Jessica managed statewide and national service-learning initiatives as a program director at the National Service-Learning Partnership at the Academy for Educational Development and as a Service-Learning Specialist at the Massachusetts Department of Education. She holds a

## SPEAKER BIOS CONT'D

master's degree in urban policy analysis and management from Milano, the New School for Management and Urban Policy, and a bachelor's degree in English from the University of Pennsylvania.



**JERRY DOYLE, Vice Provost for Student Access, Success, & Diversity Initiatives, Illinois Institute of Technology.**

Educated at the University of Chicago (Economics) and at the Harvard Graduate School of Education, **Jerry Doyle** has spent over 30 years working on issues related to access, equity, attainment, achievement, and advanced degrees, with a strong focus on developing pipeline initiatives for underserved communities. Professionally, Jerry

has worked in admissions at the University of Chicago, the Tuck School of Business (Dartmouth College), and at Emerson College before joining Illinois Institute of Technology in July 2006. While at Harvard University and the University of Chicago, Jerry and his family served as Resident Tutors/Heads in the residence halls. In addition, Jerry has worked at the University of Brunei and taught A-Level Economics and Mathematics at Usa Seminary in Tanzania.



**DAMIAN EWENS, Director, Providence After School Alliance High School Initiatives.**

As the Director of the Providence After School Alliance's high school initiatives, Damian oversees The Hub, PASA's credit bearing after-school system for high school youth. Damian is also the Co-Founder and Chief Open Educator of Codery, a technology firm offering technology services for the growing digital badges field. A Providence, RI native,

Damian taught in 6th-12th grade classrooms for 7 years and can be found surfing the Northeast coastline year-round. He holds an MA in Education from Stanford University and a BS in Economics from Santa Clara University.



**GABRIELLE LYON, Cofounder and Executive Director, Project Exploration.**

Dr. Gabrielle Lyon is the Cofounder and Executive Director of Project Exploration, a nationally-recognized nonprofit organization dedicated to changing the face of science by ensuring students of color and girls have personalized experiences with science and scientists. Lyon has nearly two-decades of experience as an education activist, convener and nonprofit leader. She received her BA and MA in History from the University of Chicago and her PhD in Curriculum Studies from the University of Illinois Chicago.

## SPEAKER BIOS CONT'D



**DAN O'NEIL, Executive Director, Smart Chicago Collaborative.** Daniel X. O'Neil is the Executive Director of the Smart Chicago Collaborative, a civic organization devoted to making lives better in Chicago through technology. Prior to the Smart Chicago, O'Neil was a co-founder of and People Person for EveryBlock, a

neighborhood news and discussion site serving 16 cities. He was responsible for uncovering new data sets through online research and working with local governments. In August 2009 EveryBlock was purchased by msnbc.com. Prior to EveryBlock, O'Neil spent 10 years as an Internet strategist and project manager for Streams Online Media, one of the first web design firms in Chicago. In June of 2011 he was honored by the White House as a Champion of Change for Technology and Innovation. O'Neil has a degree in English and Anthropology from the University of Illinois at Chicago.



**MICHAEL RAMIREZ, University of Illinois Chicago, Third Year Communications Major.** Michael attended ACE Technical Charter High School and is currently a third-year undergrad at UIC majoring in Communications. He serves as a museum educator/docent at the Jane Addams Hull House Museum.

Throughout High School Michael was involved with many STEM programs including: multiple Project Exploration programs, including serving as a team leader and teaching assistant; being a docent at the Field Museum; serving on the ACE Tech Robotics team with FIRST Robotics. He also headed both the newspaper and yearbook clubs at his high school. Michael is a member of was part of Urban Students Empowered and the National Honors Society.



**ANDREW RICE, Senior Policy and Research Analyst, Chicago Allies for Youth Success.** Andrew Rice is a Senior Policy and Research Analyst at Chicago Allies for Youth Success, where he helps to coordinate cross-organizational information sharing and analysis. Prior to Chicago Allies, Andrew was a full-time consultant to the Chicago Department of Family and Support Services' Children Services Division for Chapin Hall at the University of Chicago. He has also consulted for the Chicago Out

of School Time (OST) Project and Teach for America. Andrew has a Bachelors Degree in English Literature from Emory University and a Masters in Public Policy from the Harris School for Public Policy at the University of Chicago.



## SPEAKER BIOS CONT'D



**JOHN TOLVA, Chief Technology Officer, Office of the Mayor, City of Chicago.**

In May 2011, John Tolva began as the City of Chicago's first Chief Technology Officer under Mayor Rahm Emanuel. Tolva was hired to set high standards for open, participatory government for all Chicagoans. The role of the CTO sets as its goals the establishment of city-wide technology and innovation priorities, interfaces with the global technology industry, and modernized, streamlined city IT systems. Before joining the City, Tolva worked at IBM for over 13 years. In his most recent capacity, he served as the Director of Citizenship & Technology where he led the City Forward project, a public analytics site for city data worldwide. Tolva began his career at IBM Interactive Media, building systems for live event coverage and cultural heritage projects. His team developed programs that performed a wide range of tasks, ranging from contributing idle processing power to the search for a cure to HIV to matching employees with community volunteer opportunities. Tolva received an MS in Information Design and Technology from Georgia Tech in 1998. He lives in Chicago with his wife and three children.

## BREAKOUT SESSION FACILITATOR BIOS

**MICHAEL DAVIS, City Colleges of Chicago.** Mike Davis is the Associate Vice Chancellor for Science Technology Engineering and Math. Mike started working with the City Colleges of Chicago in the Fall of 2001 as a professor of chemistry. Since then he achieved tenure, was elected department chair, and has moved into administration. He has a Master's degree in Chemistry from Northwestern University and is currently working towards a PhD in science education from the Illinois Institute of Technology. Mike has a passion for sharing science with the community at large. In 2006 he created the world's largest periodic table of the elements in downtown Chicago. Since 1996 he has performed hundreds of science demonstration shows for tens of thousands of students around Chicago. Current projects include the establishment of a robust early college program at the City Colleges of Chicago, and promoting excellence in STEM education. Mike works on programs that encourage persistence and completion of college level STEM programs that result in degrees and/or transfer.

**PEGGY ESPADA, National Summer Learning Association.** As the Director of Professional Development for the National Summer Learning Association, Peggy Espada develops and implements professional development strategies, products and tools that educate and empower a broad base of stakeholders to improve the quality of summer learning opportunities available to youth. Major areas of work include the Comprehensive Assessment of Summer Programs (CASP) improvement model, professional learning communities, conference presentations, virtual PD opportunities and consultation services.

## **BREAKOUT SESSION FACILITATOR BIOS CONT'D**

**CHRISTIAN GREER, HIVE Chicago Learning Network.** Christian Greer is the Program Director for the Hive Chicago Learning Network, a project of the Digital Media & Learning (DML) Initiative funded by the MacArthur Foundation. He holds a Bachelor's degree in Physics from Morehouse College and a Master's degree in Learning Technologies from Pepperdine University. His background is in STEM education and has served zoos, aquariums, museums, and out-of-school time organizations for over 20 years. Christian is a Northwestern University Kellogg School of Management Executive Scholar in nonprofit leadership, a former Chicago Community Trust Leadership Fellow, and President of the Board of Directors for the Chicago Public Schools Student Science Fair, Inc..

**RABIAH MAYAS, Museum of Science and Industry.** Rabiah Mayas, PhD, is the Director of Science and Integrated Strategies in the Center for the Advancement of Science Education (CASE) at the Museum of Science and Industry, Chicago. In this capacity, Rabiah's primary role is to oversee several cross-departmental initiatives and program areas, including evaluation and research, public science events, science content support, and youth engineering and innovation in the Museum's Fab Lab. Rabiah holds a Ph.D. in Biochemistry and Molecular Biology from The University of Chicago. Prior to assuming her current position in 2009, she was the Science Director of Science Chicago, a year-long campaign spearheaded by the Museum that highlighted science and technology achievements, increased access to science learning experiences, and promoted dialogue about the importance of science and technology.

**JEFF MCCARTER, Free Spirit Media.** As its Founder and Executive Director, Jeff McCarter created Free Spirit Media in order to share his expertise as a media professional (Emmy Award-winning producer, cameraman, and editor) with underserved urban youth in Chicago. In his experience working in mainstream media, he witnessed the lack of representation and opportunity for people from low-income and minority communities. Jeff is dedicated to youth development, youth voice, and media access and serves on the Hive Learning Network's Member Advisory Board, Chicago's Committee for Media Access, and was a founding co-chair of the Chicago Youth Voices Network. Jeff studied Humanities and Film at the University of Colorado in Boulder and Non-Profit Management at the University of Illinois at Chicago. He has worked on feature films directed by Steven Soderbergh and Ron Howard, and on documentary television with ABC News, PBS, and WTTW Chicago. Jeff is an alumnus of Leadership Greater Chicago. He lives with his family on Chicago's west side, where Free Spirit Media is based

## **BREAKOUT SESSION FACILITATOR BIOS CONT'D**

**MICHAEL RAMIREZ, University of Illinois Chicago Communications Major.** I attended ACE Technical Charter High school and am currently a third-year undergrad at UIC majoring in Communications. I am a museum educator/docent at the Jane Addams Hull House Museum. During my free time I like to play video games and watch movies from my 300+ movie collection. I love to listen to music and could not go one day without it, and I also like to draw and just hang out with friends and family. Throughout High School I was involved with many STEM programs including: four Project Exploration student programs, including serving as a team leader and teaching assistant; being a docent at the Field Museum; serving on the ACE Tech Robotics team with FIRST Robotics. I also headed up both the newspaper and yearbook clubs at my high school. I was part of Urban Students Empowered (USE), and I was a member of the National Honors Society.

**RAFAEL ROSA, Vice President of Education, Peggy Notebaert Nature Museum.** Rafael Rosa is Vice President of Education at the Chicago Academy of Sciences and its' Peggy Notebaert Nature Museum. Appointed in 2008, he oversees programming and resources that reach nearly 70,000 school children, 1,700 teachers, and hundreds of thousands of Museum visitors each year. He has been part of the Academy and Museum's education team for 20 years in a variety of roles: he led the institution's student and teacher programs, oversaw online learning, coordinated the Teenagers Exploring and Explaining Nature and Science (TEENS) program and the Science on the Go! program. Previous to his tenure at the Academy, he worked at Chicago's Museum of Science and Industry where he developed and implemented public programs. During his over 20 years in the field of museum education, he has given dozens of presentations at state, regional and national conferences focused on environmental, technology and science education. He currently serves as chair of the Museums in the Park Education Committee and co-chair of the Chicago Wilderness Education Committee.

**HILLARY STROUD, Director, Strategic Initiatives and Evaluation, National Summer Learning Association, National Summer Learning Association.** Hillary Stroud directs the Association's summer program evaluation projects and portfolio of work aimed at expanding and enhancing programs for older youth that help them transition to and graduate from high school successfully. She also manages community initiative projects, specializing in the collection and analysis of data on existing community resource gaps and program quality in order to facilitate a strategic planning with partners to fill gaps and increase the quality of opportunities. Prior to joining the Association in 2008, Stroud worked in institutional research and assessment for the Johns Hopkins University's School of Education and Carey Business School. She also served as a school liaison for The Ohio State University's P-12 Project, managing educational programs and events and professional development opportunities for school-age children and their teachers.

## BREAKOUT SESSION FACILITATOR BIOS CONT'D

**TONY STREIT, EDC.** Tony Streit is a Senior Project Director at Education Development Center, Inc. and a recognized leader in the fields of youth development, alternative media, and community technology. He is the Director of EDC's YouthLearn Initiative, which develops technology integrated curriculum and training materials for educators in a range of settings, both domestically and overseas. He also serves as Co-PI for the NSF-funded *ITEST National Resource Center*, is conducting evaluation research for the Time Warner Foundation on youth media programs, and is designing professional development under the USAID-supported dot-EDU Initiative for educators in the Democratic Republic of Congo.

**HEATHER THIRY, University of Colorado.** Heather Thiry is a Research Associate with Ethnography & Evaluation Research (E&ER) at the University of Colorado, Boulder. Her current and prior work has focused on students' career pathways and decision-making in the sciences, and improving educational outcomes for students traditionally underrepresented in STEM disciplines. She is co-principal investigator of **Mapping Out-of-School Time Science (MOST-Science)** research project, funded by the Noyce Foundation and National Science Foundation. She received her doctorate in Educational Foundations, Policy and Practice.

**CHRISTY UCHIDA, Brinson Foundation.** In her role as Program Officer Christy Uchida implements The Brinson Foundation's philanthropic strategies focusing on the education and endorsement portfolios. She interfaces with nonprofit grantees and a close-knit family board of directors. Prior to joining Brinson, Christy worked for nearly five years in Global Corporate Citizenship at The Boeing Company where she executed strategies aligned to the function's five focus areas: education, arts & culture, health & human services, civic and environment. Prior to working in the philanthropic sector, Christy held several positions in nonprofit arts organizations including Performing Arts Chicago, Writers' Theatre and most recently as managing director of Redmoon, a nonprofit spectacle theater company in Chicago, which specializes in transforming public spaces into places of celebration.

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