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IERC InformED

Ensuring research-informed education policy for Illinois

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Exploring the Rollout of Illinois' Principal Preparation Redesign

This month the IERC, in partnership with the University of Chicago Consortium on School Research, publicly launched *Navigating the Shift to Intensive Principal Preparation in Illinois: An In-depth Look at Stakeholder Perspectives*, a report summarizing findings from a 2-year study of Illinois' principal preparation redesign. The study details changes that have occurred as a result of 2010 legislation (Public Act 96-0903) and assesses progress toward achieving the ambitious reforms from the perspective of key stakeholders. See the report to learn what stakeholders had to say about program enrollment, quality of partnerships, and much more!

Panel Event for Release of New IERC Reports Focuses on Teacher Leadership



In June, the *Joyce Foundation* hosted IERC's policy briefing highlighting actionable takeaways from our *Innovations in Human Resource Management: Highlights from Illinois' Charter*

School (2016) sector policy brief. At the event, Dr. Erika Hunt from the Center for the Study of Education Policy at Illinois State University moderated a panel featuring Dr. Ellen Sherratt, Deputy Director of the Center on Great Teachers and Leaders at American Institutes for Research, who spoke about findings from a survey of State Teachers of the Year, and Lynne Gaddis, President of Illinois State Teachers of the Year, who shared lessons learned from case studies on teacher leadership. This builds on the IERC's earlier report, Laboratories for Reform? Human Resources Management Strategies in Illinois Charter Schools (2016). Check out our infographic (snapshot above), a handy reference outlining important points regarding the recruitment, development, and retention of educators from the policy brief.

Teaming Up with STL Graduates to Boost College Graduation Rates for Local Students

Not only are more jobs requiring some level of postsecondary education, but college graduates have higher median earnings than non-graduates and they are less likely to experience unemployment or underemployment. For all these reasons and more, IERC is pleased to launch a newly forged research partnership with *St. Louis Graduates*, a collaborative network aimed at increasing the proportion of St. Louis area low-income, first-generation students and students of color with a college degree to 60% by 2025. The IERC is assisting the Higher Education Recognition Task Force develop a metric for recognizing 2-year and 4-year institutions that support students of color, first-generation students, and low-income students. Stay tuned!

The IERC Wishes Associate Director Dr. Brenda Klostermann Farewell

Dr. Brenda Klostermann will transition from her role as Associate Director at IERC this August to a new role at Southern Illinois University at Edwardsville (SIUE). Dr. Klostermann first joined IERC in 2002 and has held several positions at the IERC including Acting Director and most recently Associate Director. She has also served as an Assistant Research Professor at SIUE since 2006. Her expertise in



qualitative research studies, project management, survey research, and program evaluation has been invaluable to many IERC initiatives. Some of Dr. Klostermann's successes at the IERC include leading the recent reports, *Restructuring Principal Preparation in Illinois* (IERC 2015-3) and *Use of the 5Essentials Survey Data* (IERC 2014-2), as well as key studies on the early childhood workforce and teacher induction and mentorship. "Brenda has been a very positive force within the IERC for many years and she will greatly be missed! We thank her for her outstanding service to the Council and to the state and wish her the best in her new career in student affairs," says Janet Holt, IERC Executive Director.

Guest Feature

Interview with Dr. José Torres, President of the Illinois Math & Science Academy



The IERC recently had a chance to catch up with Dr. Jose Torres, President of the Illinois Math & Science Academy (IMSA), for a discussion on expanding STEM education and developing lifelong learners. Read more on the exchange below!

Q: Tell us a bit about your professional background and how you came to your role as President of the Illinois Math and Science Academy (IMSA).

A: Before joining IMSA in 2014, I served 6 years as Superintendent for U-46 in Elgin. There I helped lead a transformation of the District's dual language and gifted program among other efforts.

Q: Can you describe the unique high school model that IMSA employs to prepare students in STEM fields?

A: IMSA was designed to serve the needs of highly gifted students who are passionate in math and science. Visitors are surprised when they tour classrooms and see that students sit at tables rather than in rows of desks. Students work in groups and are pushed to deepen their knowledge and conduct independent research in areas of interest to them, including math, science, the humanities, and world languages.

Our faculty, about half have their PhD, are specialists in their content areas. Our courses are college level and we are able to pair students with industry leaders like Fermi Lab, Argonne Laboratories, and Rush Medical Center for research and mentorship. IMSA is always exploring new ways to help solve global challenges as part of our mission of "igniting and nurturing creative, ethical, scientific minds that advance the human condition."

Q: What are some of IMSA's proudest accomplishments?

A: Our proudest accomplishments are our alumni. Thousands of IMSA graduates are making significant contributions in a variety of fields in Illinois and around the world. Steve Chen '96, co-founder of YouTube and one of the first employees of PayPal, recently donated \$1,000,000 in support of the development of a new 6,400 square feet innovation center at IMSA, IN2: The Steve and Jamie Chen Center for Innovation and Inquiry. We broke ground in February 2016.

Other notable alumni include Andrew Baptist '94, Greg Dhuse '99, Ethan Wozniak '99, and Dusty Hendrickson '01, senior leadership at Cleversafe—a leading developer and manufacturer of data systems and cloud storage that was recently acquired by IBM. Sam Yagan'95, Vice Chairman of the Match Group, has cofounded several companies, including SparkNotes, eDonkey, OkCupid, Techstars Chicago, Firestarter Fund, and Corazon Capital. Sabrina Gonzalez Pasterski '10 is a rising star who studied physics at MIT and is currently a graduate student at Harvard. She was named to *Forbes' 2015 30 under 30* and spoke at the Harvard Faculty Conference on black holes and detecting gravitational waves. Our graduates are very talented, high potential young people and we look forward to their future contributions.

Q: In addition to being a school, how does IMSA serve the broader community?

A: Each year IMSA reaches over 10,000 student participants and 2,000 educator participants throughout the state through our Professional Field Services Division. We offer hands-on math and science programs for students, including Summer @IMSA which serves more than 1300 students in 6 locations across the state. Most recently we launched BioSlueths and Germbusters, summer day programs to encourage inquiry and exploration in biology and the natural world. We also have TALENT, focusing on entrepreneurship and leadership; PROMISE, aimed at extending opportunities to underrepresented students; and Allies, a youth development service-learning program involving current IMSA students.

We also partner with Illinois educators through professional development opportunities. Training is made available to pre-service teachers through the Golden Apple Partnership Program. IMSA Fusion offers curriculum, materials, and tools to support in-service educators, equipping them to better engage students in STEM in more than 120 classrooms across the state.

Q: In your experience, what are some of the biggest gaps in STEM education?

A: Teacher development and deepening knowledge of content and pedagogy are the cornerstones of expanding STEM education. Science was not emphasized under No Child Left Behind, leaving many educators underprepared for delivering education in STEM-related areas. Some students may not have as much access to experiential learning in their home environments. Hands-on opportunities are great ways to build curiosity and develop a problem-based approach to learning.

Q: According to an IERC report (2014-1), only 56% of students who leave Illinois for college and major in STEM return to Illinois for employment (as compared to 71% for business fields, for example). In your opinion, what can be done to counter this problem and continue to build a strong workforce prepared for the 21st century?

A: Last year, 86 of IMSA's 206 graduating seniors chose to stay in-state with 51 attending the University of Illinois at Urbana-Champaign which has top-rated programs in engineering. Though some students choose to pursue higher education in other states, many have benefitted from internships, research partnerships, and mentorships with industry leaders such as Abbott, Boeing, and Fermi Lab strengthening their ties with Illinois-based employers. Internships and research collaboration are great opportunities for students to receive mentorship from industry leaders and for Illinois businesses to build relationships with the next

generation of scientists, engineers, doctors, and tech innovators. Chicago is a growing hotbed for tech incubators and entrepreneurship which is attractive to innovators and collaborators from Illinois and beyond.

Q: Traditionally, the STEM workforce has lacked in many forms of diversity. How can we better engage underrepresented students to ensure that all students are able to access STEM opportunities?

A: By middle school, students have an idea of what careers they are interested in and where they see themselves. Mentors and role models as well as opportunities throughout their academic career to explore math and science including research collaborations, student inquiry, and internships expand students' interests and expose them to a broader cross-section of possibilities.

Q: Can you share a fun fact about yourself?

A: I have officiated 2 weddings! I was an Associate Pastor many years ago and had the opportunity to marry 2 couples.

This interview was conducted by Amber Kirchhoff, IMSA Alumnus—Class of 2004.

Guest Post

Co-Requisite Remediation Programs in Illinois Address the Remedial "Bridge to Nowhere"

Special guest contributor Dr. Greg Budzban, SIUE Dean of College of Arts and Sciences at Southern Illinois University Edwardsville

Remedial education at the university level is undergoing critical analysis across the country. Complete College America has called remediation higher education's "bridge to nowhere". Data collected nationally indicates the extent of the problem. Over 40% of all students enter college needing some type of remediation. Unfortunately, many students never succeed at or even reach the college-level courses, for which they are remediating, getting stuck on the "bridge."

The State of Illinois understands the problem and is reacting proactively. The Illinois General Assembly recently passed House Resolution 477 that focuses on five areas of reform in education, one of which involves the development and implementation of co-requisite remedial models across the state's higher education system. These co-requisite models will implement "just in time" remediation within college-level credit bearing courses, so that Illinois community college students do not lose time to graduation, or take on unnecessary student debt. The institutions involved are committed to maintain the same rigorous standards for students enrolled in the co-requisite programs, integrating the needed support and remediation into the courses themselves.

The Edwardsville (SIUE) and Carbondale (SIUC) campuses of Southern Illinois University along with the University of Illinois Urbana-Champaign and the University of Illinois-Chicago are the 4-year universities in the state implementing co-requisite models of instruction in gateway mathematics. Both SIUE and SIUC will have multiple sections of College Algebra running under a co-requisite remediation structure in fall 2016 and spring 2017.

At SIUC, a new "College Algebra Enhanced" co-requisite course was created, meeting twice a week in lecture and three times a week in computer labs. The co-requisite labs were designed so that real-time student learning data can be utilized to maximize the focus of the exercises a given student will be assigned. A similar model will be in place at SIUE, with lecture occurring three days a week for the first 20 minutes of class, followed by immediate support and reinforcement on the concepts and material presented.

On both the SIUC and SIUE campuses, scaling this model across campus will require additional computer lab space and additional technical assistance support. While finding such resources will be a challenge in the current funding environment, the critical need to do everything we can to ensure student success makes it imperative that we meet the funding challenge.

Dean Budzban co-authored Illinois' Complete College America co-requisite math model proposal and has played an instrumental role in helping to see it through. Prior to joining the College of Arts and Sciences, Dean Budzban as served as Chair of the Department of Mathematics and Acting Director of the STEM Education Research Center at SIUC.

Upcoming

Upcoming Publications & Presentations

- Summer 2016. IERC Policy Brief on Principal Preparation in Illinois.
- <u>July 21</u>. College Changes Everything, IERC co-presents with the Illinois Board
 of Higher Education on leveraging credentials as a pathway to degrees for the
 early childhood workforce.
- Fall 2016.
 - » IERC report on Innovations in Early Childhood Preparation in Illinois and accompanying policy brief.
 - » IERC reports on FAFSA Filing Patterns and Institutional Context and College Success from the longitudinal analyses of the Illinois 2009 cohort of high school graduates.

Upcoming Events

- September 12, P-20 Council meeting, location TBA. Time: 12:00 4:00 PM.
- <u>September 29 30</u>, IERC's 14th annual *Focus on Illinois Education Research Symposium*, Bloomington, IL featuring keynote speakers *Juan Salgado*,
 President of Instituto del Progreso Latino and 2015 MacArthur Genius Fellow and *Dr. Susan Dynarski*, Professor of Public Policy, Education, and Economics at the University of Michigan and New York Times education contributor.
 Registration opens in August.

Had a chance to visit our website?

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Have a suggestion for an issue feature, interview, or upcoming event? Share it with us at *ierc@siue.edu*.







