

College of Education, Urbana Champaign

Education & Workforce Development Task Force

Living Document Inventory

Please consult BER [Group Writing](#) instructions for contributing to posted documents.

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1. Task Force

1.1 Formation and Leadership

The College of Education Task Force was commissioned in August 2018 by Dean James Anderson. In October 2018, the System Office invited College Chair Jessica Li to serve as Chair of the System level DPI Workforce Development Working Group, which she accepted. The College therefore is playing a lead role in organizing these efforts for both internal purposes and at the system level.

1.2 College of Education, Urbana-Champaign Task Force Members

Jessica Li, EPOL, Chair
Elizabeth Biggs, SPED
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Gabrielle Allen, C&I
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2. Introduction

Through the framework of the Illinois Innovation Network and the Chicago Discovery Partners Institute we have the opportunity to align our broad expertise, research projects and service activities towards state-focused education and training initiatives that will improve the qualifications, size and diversity of the Illinois workforce. In discussing opportunities and strategies, the task force agreed on key points:

1. There are many large scale, complex, problems to address in this space, and there are many existing programs seeking to contribute across non-profits, companies, government, schools and higher education. We need to target our contribution to where our role as an education college at a large public land grant research university can make a difference while simultaneously improving and supporting our own research and academic programs.

2. A comprehensive interdisciplinary and holistic approach is needed to analyze and understand needs, existing programs and resources, and then design and execute workable and sustainable solutions. Within the College we already have broad expertise across human resource development, policy, leadership, curriculum and instruction, special education, educational psychology, etc, but additional partners will be important from our colleagues at the university in sociology, social work, employment and labor relations, law, business, Extension, etc.

Coordination and collaboration between entities in the state will be important, and will require strategic involvement with the state government, and alliances with our partner universities UIC and IUS and other universities in the state such as ISU, NW, UC, SIU, NEIU.

3. Urbana-Champaign College of Education Inventory

3.1 UIUC College Level Projects

- The [Center for Culturally Responsive Evaluation and Assessment](#) (CREA), originally established in 2000, is currently engaged in two major evaluation research projects. One of these is of particular relevance to workforce development. It comprises evaluation research for a large scale (10-year) NSF-funded engineering research center on healthcare technologies (consortium is based at Texas A&M and includes several Minority-Serving Institutions). This includes two important workforce themes: (1) Influence, recruit & educate the next generation of diverse innovation leaders who are ready to impact the future in developing transformative technologies to significantly improve health in underserved communities, including students, faculty, research experiences for teachers, research experiences for undergraduates and other training activities, and a joint degree program that combines engineering with an MPH degree; (2) Create a workforce development pillar, including Pre-K education and Pre-K-12 teachers, to create a pipeline, via STEM degrees, acknowledging both rural and urban communities.
 - Relationships to DPI Workforce Development Theme: CREA brings important questions to DPI education and workforce development theme: Where is the evaluation? This question applies to both training and research activities.
 - For DPI training activities, where is the evaluation? It is important to increase the diversity of those who do evaluation and assessment of such activities.

- For DPI research: what is the instrumentation that will be necessary to contribute and answering the questions around workforce development – is it working, or not...?
- The [Center for Education in Small Urban Communities](#) (CESUC) works collaboratively with local education agencies to create sustainable improvement in education. The Center's core focus is to collaboratively plan and sustain long-term, job-embedded professional learning experiences for teachers. It partners with local schools to conduct research on these collaborative efforts in order to further understanding of what works and to explore ways to grow such efforts. The Center's recent work in partnership with local K-12 schools, to develop teacher professional development, aims to improve teachers' competencies to deal with learners from wider array of backgrounds, improving outcomes for kids, using a collaborative, continuous improvement model to build school-wide support systems. CESUC has collected preliminary data from this work.
 - Relevance to DPI Workforce Development Theme: Though not yet published, results from CESUC's teacher professional development initiative might frame collaborative opportunities with the University of Chicago's Urban Education Institute and Urban Preparation Program, pursuing an already open line of communication. CESUC identifies as the Institute as employing a similar approach with a small number of Chicago schools, including charter schools. Another focal opportunity for CESUC, discussed but not yet acted on, could be to engage its professional development model to develop a focus on teachers in rural schools. CESUC projects require significant personal resources, which suggests that a commitment to pursue either Chicago or rural initiatives would entail a careful reevaluation of CESUC staffing.
- The [Forum on the Future of Public Education](#), with support from the College's O'Leary Endowment funds, is organized to investigate law and policy as it relates to constituencies in public and private education. Last year it held a conference on the volatility of state support for higher education, and also participated in a higher education working group on matters of importance to the State of Illinois, including restructuring of State of Illinois [Monetary Award Program \(MAP\)](#) grants to ensure 4- year guarantees, articulation of community college work in four-year settings, and other policy directions for the state. The Forum provided fellowships for students involved in its work, a reduction in available endowment funds, has reduced the size of Forum operations. While Forum Director Jennifer Delaney is currently its sole staff member, the College has many faculty with policy interests.

- Relevance to DPI Workforce Development Theme: It is possible that the Forum can be used as one conduit to increase visibility of researchers and projects with policy interests, promoting the critical mass of expertise that this College can bring to bear on DPI-relevant ideas and projects.
- [The Office of Community College Research and Leadership](#) (OCCRL) uses research and evaluation methods to improve policies, programs, and practices to enhance community college education and transition to college for diverse learners at the state, national, and international levels. OCCRL researchers study policies, programs, and practices designed to enhance outcomes for diverse youth and adults who seek to transition to and through college to employment. OCCRL's research spans the P-20 education continuum, with an intense focus on how community colleges impact education and employment outcomes for diverse learners. Current projects include:
 - The [Equity Conscious Community College Pathways](#) (EC3P) is a comprehensive national project focused on building student and practitioner pipelines through advancing guided pathways that support mobility for first-generation, underserved, and minoritized youth, as well as promoting career pathways and equity-centered training for community college educators.
 - [Career and Technical Apprenticeships](#) (CTE) is conducting an environmental scan designed to describe the utilization of CTE apprenticeships in Illinois, the CTE programs these apprenticeships are embedded in, and the student populations engaged in these apprenticeships.
- The [Office of Mathematics, Science, and Technology Education](#) (MSTE) division of the College of Education has an overarching mission to enhance K-12 student achievement and teaching performance, intersecting workforce development issues in a variety of ways, including developing innovative uses of information technologies to support research as well as educational practice, and engaging, and promoting the training of future educational professionals, engaging University students as self-selected participants in the various functions of the MSTE program; encouraging continued membership upon their subsequent appointments as educators; developing special instructional modules responsive to challenges encountered by students and teachers, and to societal issues generated in a rapidly changing world, and expand opportunities and available resources for historically underrepresented groups.

- Relationships to DPI Workforce Development Theme: MSTE submitted a proposal for the December 2018 DPI Seed Funding competition. See Section 6.6.6, below.
- The [Technology Innovation in Research Design Initiative](#) (TIER-ED) is a recently-created, high-energy community of interdisciplinary researchers and designers developing cutting-edge applications of new technologies to critical issues in education and learning across the lifespan. Based in the College of Education but drawing on Campus-wide expertise, it is invested in addressing persistent and longstanding challenges in education by designing, developing, and assessing new technologies that promote access and engagement of all types of learners, offer optimal ways to motivate students and create new identities in critical areas, while supporting pedagogical practices that are adaptive and culturally sensitive.

TIER-ED is building an interdisciplinary network of researchers all over campus interested in the use of technology for education purposes. They aim to establish network of support to go after external funding opportunities, more impact on community, do big things nationwide. Given its areas of interest and collective expertise, TIER-ED is also well-positioned to stimulate interest among prospective industry collaborators, which relationships would address the DPI's charge to support alliances that will advance the state's economic needs.

- Relationships to DPI Workforce Development Theme: TIER-ED is interested in helping the DPI to: (1) create new opportunities to develop skills to pursue careers, and to pursue educational problems with a focus on design, use technology to address them; and (2) develop tools and technologies that would allow the DPI to function.

3.2 Department Level Research Projects

C&I

- [The University of Illinois Writing Project](#) (UIWP): Since 2007, the University of Illinois has been a site for the National Writing Project, working in collaboration with Champaign Unit 4, Urbana School District 116, [ROESchoolWorks](#) (a teacher professional development resource sponsored by the Champaign-Ford and Vermillion County Regional Offices of Education), and with the National Council of Teachers of English (NCTE). The aim of the UIWP is to help teachers across grade levels and disciplines to do the following: (a) see themselves as writers for life, students of writing, and leaders in the teaching of writing; (b) become more confident, proficient, and thoughtful teachers of writing; (c) become a part of a diverse professional network devoted to the continuous improvement and support of the practices of writing, teaching, and professional inquiry and growth; and (d)

improve the teaching of writing in their own classrooms, schools, and the larger profession. The UIWP sponsors a number of programs in connection with these goals. The Summer Institute offers professional development opportunities for teachers from PreK to college. It includes three weeks of professional reading, individual writing, and demonstrations of strategies for teaching writing, as well as opportunities to learn about and practice multimedia composition. The UIWP sponsors a fall and spring conference to extend the work of the Summer Institute. The fall conference brings local teachers together to engage with teacher-writers and share their own writing, while the spring conference features a nationally-recognized scholar of writing and break-out sessions led by teachers to engage the audience in best practices. Youth writing camps for elementary through high school students take place each summer.

EPOL

- [The Education Justice Project](#) (EJP), directed by Dr. Rebecca Ginsberg, is a comprehensive prison education program that offers men incarcerated at a local state prison, Danville Correctional Center, the opportunity to earn college credit and participate in activities that build leadership and prepare them for reentry. It also produces a statewide reentry guide, offers scholarships to family members of incarcerated loved ones, and hosts programs to raise critical awareness of topics related to incarceration and criminal justice. The mission of the Education Justice Project is to build a model college-in-prison program that demonstrates the positive impacts of higher education upon incarcerated people, their families, the communities from which they come, the host institution, and society as a whole. EJP is celebrating its 10th anniversary in 2018-19.

SPED

- The [Early Childhood Collective](#) (ECC) is a collective of early childhood projects including: Early Intervention Clearinghouse, Early Intervention Training Project, the Illinois Families and School Success project, the Illinois Early Learning Project, the Military Families Learning Network Family Development Early Intervention project, and the Illinois Early Childhood Asset Map. The focus of these projects are on supporting young children with and without disabilities, their families and early childhood professionals throughout the state of Illinois.

3.3 Department Academic Programs

C&I

- The [Digital Environments for Learning, Teaching and Agency](#) (DELTA) program focuses on the creation and research of digital environments for learning and teaching. This includes technology-enhanced classrooms, mobile devices, and immersive simulations across a range of disciplines, including science, engineering,

math, and history. This program is ideal for students who wish to learn more about the potential of technology in learning environments in formal (e.g., schools) and informal (e.g., museums and after school clubs) settings. The program also provides opportunities to explore out-of-school learning opportunities, such as educational applications, games, and toys.

- The [Illinois Secondary Teacher Education and Computer Science](#) (I-STECS) initiative, a five-year initiative (one year each for feasibility and curriculum development, three years for implementation) will begin to produce the certified and endorsed teachers that the state needs to educate high school students in computer science. And those students can eventually help revive the state's flagging economy.

EPSY

- See proposed course and curriculum development in Section 6.4.3, below.

EPOL

- Online learning programs
 - [Human Resource Development](#): Study knowledge and the applied processes used to improve workplace performance and individual learning in organizations.
 - [Diversity and Equity in Education](#): Develop transformative approaches to issues related to diversity and equity in P-16 learning environments and in the workplace. This interdisciplinary program covers the intersections of disability, race, gender, sexual orientation, social class, and poverty.
 - [Educational Administration and Leadership](#): Prepare for leadership, administrative and supervisory positions in elementary and secondary education. Careers include: teacher leaders, division and content area chairs, deans, principals, central office administrators, superintendents, and educational policy makers.
 - [Global Studies in Education](#): Study global change and education from social justice and critical democracy perspectives. Develop an understanding of the globalization of policy and pedagogy in different contexts including online environments and children and youth studies.
- The [Instructional Design Master Track Certificate program](#) (ID-MTC): Non-degree certificate program partnering with Coursera. Offers two HRD courses (HRD 411 and HRD 472) three times per year. Students who successfully complete the program can transfer their credits if they get an official admission of a graduate program at EPOL.
- [Learning and Education Studies \(LES\) Workforce Training & Development](#) Undergraduate Program (WTD): Provides international and domestic students with the broad sets of knowledge and skills necessary to develop, deliver, and evaluate

training and development programs across workplace settings, such as businesses and industries, two-year post-secondary schools, or community and government agencies. In addition, it will serve a growing demand for graduates who have an interest in helping adults learn about and seek to improve organizational performance.

SPED

- [Special Education Project ACCESS, LBS II](#): Provides opportunity for current special education teachers in CPS to complete an off-campus M.Ed. and advanced teaching license in Multiple Disabilities. Courses are offered through a combination of face-to-face instruction in Chicago and online.
- [Leadership and Education in Neurodevelopmental Disabilities \(LEND\)](#): This project is a collaboration with Southern Illinois University and the University of Illinois at Chicago (UIC). Notably, UIC is the PI of this grant which is funded by the Maternal and Child Health Bureau. This is a five-year, interdisciplinary training project to educate graduate students, individuals with disabilities, and family members of individuals with disabilities to become leaders in the disability field. The LEND training occurs over nine months with weekly didactic sessions and biweekly clinical sessions at each site.

3.4 UIUC College of Education Researchers

[College of Education researchers](#) with relevant research and scholarship interests include:

- **Jessica Li** (EPOL, Committee Chair): Unleash human potentials within their work, community, and societal context. Impact of and strategies for globalization, technology advancement, economic development, and shift in workforce demographics. Strategies for how the Internet and mobile technology can change people's learning and communication behaviors in teams, virtual teams, community of practices, and virtual community of practices. Examining corporate learning practices, such as the use of corporate university or talent development and management as an overarching strategy to develop systematic processes that include mentoring and coaching, career development, learning and development, and work redesign to enhance employee development, retain talent, and improve organization performance.
- **Adeoye Adeyemo** (EPOL): Social scientist with a research focus that centers on understanding the experiences and identities of Black males, who play sports. Deeply connected to Chicago.
- **Elizabeth Biggs** (SPED): Learning, participation, and valued membership of children and youth with intellectual and developmental disabilities (e.g., intellectual disability, autism, multiple disabilities) in inclusive school and community settings.

- **Meghan Burke** (SPED): Parent advocacy, families (i.e., parents and siblings) of individuals with significant disabilities, service delivery systems for individuals with disabilities across the lifespan, and disability policy.
- **Bill Cope** (EPOL): The pedagogical affordances of technology mediated learning environments
- **Liv Davila** (EPOL): Intersection of language learning and identity among immigrant and refugee students. Specific areas of interest include: the school experiences of adolescent multilingual learners, new/additional language and literacy development, teacher education and classroom pedagogies that support access and equity, and global perspectives on immigration and language education.
- **Jennifer Delaney** (EPOL): Higher education policy with an emphasis on finance
- **James Gallaher** (EPOL): Global organizational capability, training and professional development, organizational development, human resource management and labor relations.
- **Rebecca Ginsburg** (EPOL): Director of the Education Justice Project, a comprehensive college-in-prison program that provides academic programs to incarcerated individuals and outreach services to the families of incarcerated people and returning citizens. EJP programs operate in Danville, Champaign, and Chicago.
- **Don Hackmann** (EPOL): Educational leadership preparation programming, including characteristics of tenure-line and clinical educational leadership faculty, program quality, and faculty/student mentoring. As well as the principalship, effective leadership behaviors and strategies at the middle and high school levels that promote equity and access, including effective supervisory approaches, school improvement, distributed leadership, and promoting college and career readiness.
- **Linda Herrera** (EPOL): Education and critical democracy, the sociology of generations, international development policy and youth, global youth movements, and pathways to citizenship and livelihoods in an age of social media, precarity and mass migrations.
- **Mary Herrman** (EPOL): Leadership development and organizational learning and improvement, and is particularly focused on the social, psychological and ethical dimensions of leadership in clinical work with aspiring principals and superintendents.
- **Rebecca Hinze-Pifer** (EPOL): Institutional structures and social forces impacting adolescent socioemotional development, with particular interest in the role of socioemotional learning in the reproduction of inequality
- **Denice Hood** (EPOL): Teaching & learning in digital environments, specifically exploring individual differences in epistemological beliefs, learning styles, metacognition, self-regulated learning and presence (cognitive, social & teaching) as they relate to academic outcomes in higher education; Program evaluation,

particularly culturally responsive program evaluation practices applied to post-secondary education programs.

- **Stafford Hood (C&I):** Evaluation researcher whose work shapes evaluation in education by extending the logic of cultural responsiveness from pedagogy and educational assessment to evaluation, framing the importance of culture/cultural context in program evaluation, educational assessment, and computer-based instruction and assessment..
- **Rodney Hopson (EPSY):** Social politics and policies, foundations of education, sociolinguistics, ethnography, and evaluation. Differential impact of education and schooling on marginalized and underrepresented groups in diverse global nation states. Seeking solutions to social and educational conditions in the form of alternative paradigms, epistemologies, and methods for the way the oppressed and marginalized succeed and thrive despite circumstances and opportunities that suggest otherwise.
- **Wenhao David Huang (EPOL):** Design, implement and evaluate of formal and informal learning and learning engagement interventions for improving the outcomes of career decision-making process effectiveness. Design, develop, and evaluate online learning systems and online certificate and degree programs. Design and evaluate game-based learning environments through the applications of digital learning applications. Explore technological affordance and technology acceptance/adoption that support learning in personalized learning environments, higher education and workplaces.
- **Barbara Hug (C&I):** Develop and use curriculum materials that support inquiry learning in science. Address the need for curriculum materials that engage in the teaching and learning of science as described in the national reform documents by allowing students to engage in extended inquiry investigations. Understand the inquiry practices of the students as they engage in extended investigations and what learning occurs, and examine the supports needed by both the teachers and students as they engage in inquiry practices. All investigations are done in a collaborative manner with teachers, scientists, and graduate students and includes examining both professional development and classroom environments.
- **Natasha Jankowski (NILOA):** Undergraduate learning experiences, through the lens of assessment and evaluation, organizational evidence use, and evidence-based storytelling. Advancements in the field of assessment, including new areas of study such as digital narratives, philosophies of assessment, and equity and assessment.
- **K. Peter Kuchinke (EPOL):** The role of work in overall life design, self-directed career behaviors, and cross-cultural differences in career preparation and development. The education and training of educators working in human resource development settings in for-profit and not-for-profit organizations around the world

as these professionals lead learning initiatives to foster organizational and individual growth and development. The changing meaning of working as technological, economic, political, and social forces bring unprecedented rates of change to individuals, families, organizations, and countries.

- **H. Chad Lane** (EPSY): The application of AI and entertainment technologies to improve learning experiences with technology, primarily involves informal learning and investigation of the relationship between cognitive, affective, and motivational variables relevant to learning. The design, use, and impacts of intelligent technologies for learning and behavior change involves blending techniques from the entertainment industry (that foster engagement) with those from AI and intelligent tutoring systems (that promote learning), along with studies to better understand whether and how the resulting learning experiences impact learners.
- **Robb Lindgren** (C&I): Work with schools and museums to co-design and iterate on new technology platforms for learning (e.g., simulations, virtual environments, mobile devices, video games, augmented and mixed reality, etc.), to understand how digital technologies can be used to construct new identities and generate new perspectives that lead to stronger comprehension of complex ideas, particularly in STEM content areas. This includes physical, body-based interactions with learning content to facilitate new understandings, games and simulations effectively designed to take these types of interactions as input Also, how digital technologies can provide new approaches to assessing learning, such as examining where learners focus their attention, what choices they make, and how well they adapt to new situations.
- **Emma Mercier** (C&I): The relationship between social interaction and learning, with a particular focus on collaboration and computer-supported collaborative learning in classrooms, examining how collaborative technologies influences group interactions and learning, the between group and whole class interactions, and the device ecologies, teacher tools and classroom contexts that influence the learning opportunities available when using these tools.
- **Christopher Napolitano** (EPSY): The development of self-regulatory actions across the life span, how people create their futures. His current work is now particularly focused on two concepts: (1) learners' backup plans; and (2) serendipitous actions that influence and schooling and career trajectories. He is interested in the DPI.
- **Idalia Nunez Cortez** (C&I): Spanish-English translanguaging, bilingualism, and biliteracy; linguistic equity in educational settings; and bilingual/ESL pre- and in-service teacher education, identity, and agency. Her research focuses on recognizing the everyday cultural and linguistic resources of students of color, specifically from Latinx communities, acknowledging the cultural contributions and

knowledge that students, families, and communities of color bring into schools that can be used to leverage academic learning.

- **Eunjung Grace Oh** (EPOL): Design, develop, implement and evaluate interventions in online, blended and technology-enhanced learning environments to support various learning processes as well as learning and career outcomes; Understand the characteristics and needs of different groups of the workforce (e.g., Millennials, older workers) and their use and perspective on technology; Explore the value of Design-based Research (DBR) as a methodological genre.
- **Luc Paquette** (C&I): Teaching Computer Science and connecting with Chicago Public Schools and the State of Illinois.
- **George Reese** (MSTE): Improve K-12 STEM teaching and learning through the use of new digital technologies and university-community collaborations.
- **Rachel Roegman** (SPED): Principals and schools, interested in Chicago. The interconnections of equity, contexts, and leadership, and the development and support of equity-focused leaders, those who are committed to making schools better places for youth who have been historically and systematically denied K-12 educational experiences. Consideration of access and opportunity, policy and practice, and academic outcomes, and focuses specifically on African American and Latinx youth, youth receiving special education services, youth living in poverty, and students who are learning English.
- **James Rounds** (EPSY): The structure of vocational interests and how they change over the life course, how that structure develops and changes, and the reciprocal influences among personality traits, interests, and abilities with a focus on constructing models. This also incorporates career development in adulthood, assessment of personality traits and work values, and health psychology.
- **Jana Sebestik** (MSTE): Education and outreach for an NSF-funded GIC Hazard Prediction project and a DOE/DHS-funded cyber energy delivery consortium. Help engineers and research scientists connect their work to educators, consumers, and students.
- **James Shriner** (SPED): The effects of federal and state education policies and priorities on students with disabilities' educational services. His efforts encompass policy analysis and professional development questions. He investigate topics related to testing, learning standards, and legal / policy requirements such as Individualized Education Programs (IEPs) for students served under the Individuals with Disabilities Education Act.
- **Mike Tissenbaum** (C&I and EPSY): Design transformational learning environments that combine interactive physical spaces, digital information, and collaboration between learners to envision the future of learning both in and out of schools. This includes focusing on collaborative learning and knowledge communities, aims to

understand how children develop STEM and computational literacies when engaged with technology-enhanced learning.

- **William (Bill) Trent** (EPOL): Educational Inequality; school desegregation effects (K-12, post-secondary), benefits and consequences; social organization of schools, status attainment research, co-and extracurricular activities, comparative education; Race and Ethnicity: social stratification and mobility, equality of opportunity.
- **Allison Witt** (International Programs and EPOL): Draw on international connections with universities and other entities to build culturally-aware confidence and framing of workforce opportunities to immigrant children in Chicago neighborhoods
- **Eboni Zamani-Gallaher** (EPOL): Access, broadening participation, and equitable postsecondary educational trajectories for diverse collegians in two- and four-year institutions. Zamani-Gallaher's scholarship specifically concerns how underrepresented and underserved students navigate open systems of admissions to further education and/or gainful employment.

4. Campus and System Synergies

4.1 Campus Network at Urbana-Champaign

- The [Illinois Leadership Center](#) (ILC), a partnership between Academic Affairs and Student Affairs is proposing Leadership Education in support of the DPI. Begun in 2002, the ILC provides provide a comprehensive leadership education program for students, enabling the University to be an internationally acclaimed provider of leadership education, research, and experiential opportunities for students. It defines leadership as working with others to create positive change, based in a fundamentally service-focused and ethical foundation of values, and in the practice of global citizenship, and seeks to teach all students, while also supporting faculty and staff who are pursuing leadership-related teaching, research, and student engagement activities. The ILC leadership training model has already produced a full curriculum, ready for DPI use with minimal adaptation. Director Gayle Spencer is proposing a set of activities provided by the Center, include workshops, retreats, and other forms of instruction focused on a range of dimensions of leadership. Target audiences are high school seniors, community college students, and university undergraduates in the Chicago area. While ILC activities will be conducted entirely under the auspices of the Center, they link up well with initiatives in EPOL, and the broader focus on workforce education.
- School of Labor Relations

- The [Labor Education Program](#) is the only statewide provider of professional training and development for union leaders and workers in Illinois.
- The [Project for Middle Class Renewal](#) investigates the working conditions of workers in today's economy and elevates public discourse on issues affecting workers with research, analysis and education in order to develop and propose public policies that will reduce poverty, provide forms of representation to all workers, prevent gender, race, and LGBT discrimination, create more stable forms of employment, and promote middle-class paying jobs. Each year the Project conducts a number of critical research studies and education forums on contemporary public policies and practices impacting labor and workplace issues, and welcomes partners in these studies.
- Internship placement program for current students
- Center for Human Resource Management (UIS+UIC+UIUC) discontinued since 2008.
- Works with the Military (ASFAB and Army).
- Produces and uses interest inventories.
- A related tool is Roadtrip Nation: <https://www.roadtripnation.com>
- Gies College of Business
 - The [Executive Education Online](#) is a pilot program organized to bring Executive Education to professionals. The first collection of courses launched by Executive Education via the online option is called Business Essentials: Claiming, Creating, Managing, and Measuring Value. Business Essentials is a collection of four high-level online non-credit business courses addressing topics relevant to rising leaders, managers, and directors with an array of backgrounds. targeted to provide directors, managers, and rising leaders with foundational business essentials to advance their growth and impact within their organization.
 - Note: An idea for College collaboration with Gies, to form a Campus Career Services Group, is noted in Section 6.3.2, below.
- Illinois Extension
 - [University of Illinois Extension](#) is the flagship outreach effort of the University of Illinois at Urbana-Champaign, offering educational programs to residents of all of Illinois' 102 counties in community and economic development, consumer education, youth education via 4-H. Extension works with schools and with community organizations, and has a significant urban presence. Curriculum for youth and K-12 schools addresses leadership skills, STEM education, and social and emotional learning, character development, ..

- School of Social Work
 - Engagement and Workforce Development Programs
 - Community Learning Lab community partnerships
- iSchool
 - The iSchool conducts an array of relevant research initiatives related to education and workforce development. Examples of these include:
 - [Librarians Serving Community-based Higher Education: Preparing the Next Generation of Community College Librarians](#) led by Linda Smith, with Postdoc Cheryl Thompson
 - Enhancing the Cyber Security Workforce, led by Masooda Bashir
- [Disability Resources and Educational Services](#) (DRES) has a history of working closely with students and prospective employers, with target areas that include [Graduation & Beyond](#), [Transitioning from College](#), and [Applying for Jobs & Internships](#). It also maintains an active network with its program alumni. One staff member has special responsibilities for working with students who have “invisible” disabilities, which pose special challenges for students seeking to enter the workforce.

4.2 Other System and DPI Institutions

- University of Chicago
 - [Chapin Hall at the University of Chicago](#) focuses on meeting the needs of decision makers like caseworkers, community leaders, agency directors and legislators who want to know what works. Chapin Hall combines rigorous research methods to generate evidence, while providing implementation support to apply that evidence in the field.
 - [Urban Education Institute](#) (UEI). The mission of the Urban Education Institute is to produce knowledge to create reliably excellent urban schooling. Across four units, UEI conducts rigorous applied research, trains teachers and school leaders, operates a preK-12 public school, and provides research-based tools and resources to schools in 62 major cities across 34 states. Together, UEI's units produce research- and practice-based knowledge on what matters most for school improvement and student success.
 - [Chicago Consortium on School Research](#) (CCSR) is a unit of the University of Chicago Urban Education Institution. Since 1992, it has been supported by an array of private foundations and corporate funders. CCSR works primarily with Chicago Public Schools.
- Northwestern University

- [Office of Community Education Partnerships \(OCEP\)](#). Lines of communication have recently been opened between the Bureau of Educational Research and OCEP, and could be used to organize meetings and discussions on directed DPI topics, with Chicago-area schools, especially those involving computer science and science.
 - [Rapid Impact Grants Program](#), administered by OCEP, aims to increase collaboration between university researchers and CPS and provide results on a faster timeline, to emphasize research that focuses on questions CPS really wants to answer. Exemplars of questions posed include include “how well the school system’s planning for schooling beyond graduation is going.”
- UIS
 - [DPI System Working Group Chair Jessica Li to add here]
- UIC
 - Office of Community Based Projects
 - UIC College of Education
 - [Institute on Disability and Human Development \(UCEDD\)](#)
 - [Center for Urban Economic Development](#)
- Illinois State University (ISU)
 - Chicago Teacher Education Pipeline - [National Center for Urban Education](#)
 - Computer Science Education
- Northern Illinois University
 - Literacy, Leadership, and Development Department

5 Contacts and Relationships with External Organizations in the State of Illinois

5.1 Relevant State and Regional Committees

State leadership for education research is in a period of redevelopment, particularly with the new Illinois governor. 2019 will be an important time for the College (and the System) to watch for leadership opportunities and take action. The following State organizations should be watched closely:

- The [Illinois P-20 Council](#), begun in 2009, was established to deliberate and make recommendations to the Governor, Illinois General Assembly, and state agencies for developing a seamless and sustainable statewide system of quality education and support, from birth through adulthood, to maximize students’ educational

attainment, opportunities for success in the workforce, and contributions to their local communities.

- History: Emeritus Illinois President and College Regent Professor Stanley O. Ikenberry was greatly involved in the legislation that originally established the Council; former EPSY faculty member Lizanne DeStefano served as the Council's Coordinator 2009 - 2015.
- Membership is defined by legislation, and includes representatives from the Governor's office and the General Assembly, designees from elementary, secondary and higher education, and business, union and community leaders, and limited roles for higher education institutions.
- The Council's role under the administration of incoming Governor Pritzker merits close tracking, for any possible new opportunities for the University of Illinois to participate in ways relevant to workforce development.
- New State-Level Research Organization. From 2000-2018, the [Illinois Education Research Council](#) (IERC), was commissioned to provide Illinois with education research to support P-20 education policy making and program development, independent research and policy analysis, produced publications, presentations, participated on committees and offered an annual research symposium. It held one of the legislated seats on the Illinois P-20 Council.
 - There may be an opportunity to establish a new statewide research collective. A substantive role in such an effort could benefit the College, and could conceivably benefit workforce development themes.
- The [Illinois State Board of Education](#) (ISBE). Changes to IBSE priorities, funding and leadership are possible under Governor Pritzker, and merit close watching.

5.2 City of Chicago

- Chicago Public Schools:
 - [Office of College and Career Success \(OCCS\)](#)
 - Lucia Dettori, [Executive Director of Computer Science & IT Education](#)
 - Miguel A. Saucedo, Director of Strategic Partnerships and Special Populations, Office of School Counselling & Postsecondary Advising.
- [Blue1647](#): This is a network of education and technology innovation platforms that foster economic development in technology and 21st Century skills through people development, workforce development and Business Acceleration. Blue1647, which originates out of Chicago, operates a suite of programs in Chicago and 54 other cities across the US.

5.3 Research and Evaluation Firms

- These organizations have professional relationships with CREA, and are contracted periodically to provide evaluation to funded projects that College of education

faculty lead and those led by other institutions, in which College faculty are participants.

- [Education Development Center](#) (EDC)
- [American Institutes for Research](#) (AIR), nationwide and Chicago location

5.4 Professional and Governmental Organizations

- [Illinois Manufacturing Excellence Center](#)
- The [O-NET Resource Center](#), from the US Department of Labor, sponsors events, and provides detailed training materials. All materials so far are public domain. O-NET lets other orgs download, package and sell these materials, there is a battle over public vs. private provision and access.

5.5 Foundations and Nonprofits

- [Chicago Community Trust](#), has a stated priority on advancing economic equity. It has been a past longtime collaborator with College of Education evaluation faculty in projects focused on implementation of equitable [standards](#) initiatives in Chicago-area schools.
- [Chicagoland Learning Leaders](#). See Section 6.1.2 below.
- [Corporation for A Skilled Workforce](#) is a national nonprofit that partners with government, business, and community leaders to support the creation of good jobs and the highly skilled workers to fill them. It helps communities with innovation, businesses with talent cultivation, and individuals with locating good jobs.
- The [Joyce Foundation](#) is a Chicago-based nonpartisan private foundation that invests in public policies and strategies to advance racial equity and economic mobility for the next generation in the Great Lakes region. One of its five areas for policy research, development, and advocacy is [Education & Economic Mobility](#). Joyce focuses its grant making in Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, and partners with funders to explore promising policy solutions in other states or at the federal level.
- The [Spencer Foundation](#) is a nationally-focused nonprofit foundation based in Chicago. The Foundation is committed to supporting high-quality investigation of education through its research programs and to strengthening and renewing the educational research community through its fellowship and training programs and related activities. Spencer's [Civics Engagement Area](#) supports research that asks critical questions about how education can more effectively contribute to the civic development of young people, from all walks of life, to develop the habits, skills, understandings, and dispositions that encourage informed participation in civic affairs. Their aim is to contribute to educational improvement by supporting high-quality

research studies that can lead to better-designed, more effective programs, policies, practices, and settings that prepare young people to act and to do so in informed and reasoned ways.

5.6 International

- **Collaboration with Tel Aviv University, Israel.** The DPI has signed an agreement with Tel Aviv University, under the leadership of VPR Ed Seidel. We will seek opportunities to work with other DPI international partners, with whom the DPI is working to establish official collaborative agreements, including University College London (UCL).

5.7 Other Potential Partners, TBD.

6. Action Plan

6.1 Working with the System WG: Preliminary Surveys of Industry and Student Needs

6.1.1 Survey Target: EDD/EDM online students, EPOL Facebook (current students and alumni)

DPI - Education & Workforce Development

Topic: Preliminary Needs Assessment Questions

Purpose: Conduct a preliminary survey with population of online students who are currently in the workforce, as well as EPOL alumni on our Facebook network who are also currently in the workforce.

Survey Introduction:

The College of Education Task Force on Education and Workforce has been charged by Dean Anderson to review a new system-wide initiative (Discovery Partners Institute) and to develop a set of College strategies that will place the College of Education as an essential unit to this initiative by servicing the education and training needs of the DPI initiative.

The purpose of this needs assessment is to ascertain how our current EDD/EDM online students consider the key issues and challenges faced in the state of Illinois.

Identifiers to Include

- Year Graduated
- Program
- Race/Gender
- Current Employment
- Other Demographic Details:
 - Current Location
 - Household Size and Number of Dependents

Potential Questions:

- As someone who is a participant of the current workforce, what do you see as the important issues or challenges that businesses and organizations are facing today?
- What are the core areas of skill shortage you see in today's workforce? Please list them.
- If you can do anything you want with your own development in professional settings, what would you do? Please list them.
- If you can do anything you want with your employees' development in professional settings, what would you do? Please list them
- Please recommend agencies (philanthropic, governmental, business/corporate, university) that we can leverage as part of this effort.

6.1.2 Survey Target: Industry

DPI - Education & Workforce Development

Topic: Preliminary Needs Assessment Questionnaire

Purpose: Reach out to industries to assess the workforce needs in the Chicago area

Identifiers To Include:

- Number of workers

Potential Questions:

- Skills needed
- Time frame
- Any current available resources
- What are the future needs of workforce development

Who are the stakeholders?

- [Illinois Business Roundtable](#)
- [Illinois P-20 Council](#)

Means to Access Industry Respondents:

- **Chicagoland Learning Leaders** is a professional association of training directors, and talent management, with an explicit focus on talent development at various levels. This forum would be a lot of the key people together. It is expensive to get in, but would reach 50-60 corporations, the people responsible for learning within these companies. A member of the Committee who knows a member of this association has been commissioned to make further inquiries.
- **Research Park.** Companies with Illinois Research Park presence are very good targets for connection. Work through Director Laura Frerichs to initiate and pursue these contacts.

6.1.3 Surveys Targeting CPS

- Chicago Public Schools has difficult and protective administrative screening (CPS Research Review Board) that generally does not allow surveys, making it difficult for researchers to access.
- Survey research possibilities with CPS will require careful investigation.

Resources Needed To Conduct Needs 6.1.1 and 6.1.2 Assessment Activities:

- Post-doc, RAs?

6.2 Workshops

- **Workshop 1: Stage an “Idea Conference”**
 - College of Education, with invited participants from campus partners and UIC, UIS --- potentially held at DPI and/or Chicago.
 - Use this workshop to develop a small set of potential project plans that can then be seeds of future workshop.
- **Workshop 2: Build on ideas from Workshop 1**
 - Broad participation from community partners
 - Provide a venue to retarget/vet, etc., by community, but also provide a mechanism for new ideas to be suggested.
 - Ideally, a small amount of funds will be available for projects coming out of this workshop to be further conceptualized.

6.3 Capacity Building

- **Work with Urbana-Champaign undergraduates:**
 - Use undergraduate projects with James Scholar students.
 - Use Capstone Experience courses.
- **Form Campus Career Services Group.** Corporate Relations in the College of Business, is developing their own DPI efforts. In preliminary discussion between Committee member Jim Rounds and this office, a campus career services group was proposed. The campus group could create a network map, hooking in DPI Lead Bill Sanders, and forming an CEO Advisory Group, calling on President Killeen to gain access to prospective members.
- **Conduct Network Analysis of College Contacts and Relationships.** Faculty in this college have a rich, but not always visible, wealth of relationships and connections with colleagues in DPI workforce development-relevant organizations across the board. Collect, analyze and document these important relationships and connections.
- **Establish Standing College Review or Steering Committee.** Suggest that the College develop a standing review or steering committee, some way to support College researchers who want to engage DPI workforce development activities as the DPI continues to grow. This standing body would be useful to faculty who want to develop proposals, including brainstorming ideas, and

recommending who you could talk to, particularly people at higher levels. This body should be constituted of people who have an idea of what needs are, and an idea of what sorts of projects have a higher possibility of being funded.

6.4 Talent Development Pipelines

- **High School to Work (CPS)**
 - Apprenticeship programs
 - Computer Science classes and training for high school students
 - I-STECS: The [Illinois Secondary Teacher Education and Computer Science](#).
 - Note: Related proposals were submitted to the DPI seed funding competition, December 2018. See Sections 6.6.1, 6.6.7, and 6.6.8, below.
- **Community College to Work**
 - The [Office of Community College Research and Leadership](#) (OCCRL) is discussing the possibility of establishing a P-20 Educational Leadership Development Network, that brings together CPS, UIC and possibly Gies College of Business, and would include face-to-face and online programs. The idea was briefly outlined in response to the December 2018 announcement of the DPI seed grant call for proposals. Due to the short response time for the seed time competition, no proposal has yet been produced, but is being held as a possibility for future development.
- **University to Work**
 - Workforce Entry Skills
 - Several relevant DPI seed proposals were submitted December 2018. See 6.6.2 and 6.6.4, below.
 - WTD LES students - developing an organized and systematic internship program to facilitate career competencies and career identity building
 - EPSY proposes to create a curriculum to develop workforce skills among undergraduate students. It would be run out of EPSY 220, enrolling students from throughout the university as a GenED course. It would cover how to make career-type decisions, and could draw on governmental resources like
- **Employee Retraining, Upskilling, Developing Leaders to lead Innovation**
 - Industry and business consortia.
 - Online classes via Coursera@Illinois platform.
- **Virtual and Augmented Reality Employee Development Center**

- Aim this center to serve Small and Medium (Less Resourced) Local Businesses.
 - Focus on Workplace Empathy and Emotional Intelligence
 - Recognize and engage Emerging Sharing Economies
 - *Note:* A relevant DPI seed proposal has been developed for submission. See 6.7.2 below.
- **Youth with Disabilities**
 - *Note:* A proposal extending the project described below was proposed to the DPI Seed Funding Competition, December 2018 (see Section 6.6.1, below).

Illinois is an [Employment First State](#), which means the policy of the state is that competitive, integrated employment is the first option for individuals with disabilities. However, individuals with (versus without) disabilities continue to be more likely to be unemployed and underemployed. Specifically, in Illinois, [only 20.8% of individuals with disabilities are employed](#).

Dr. Megan Burke (Special Education) is Co-Investigator for a National Institute of Mental Health R01 research project grant (December 2019 start) to improve outcomes, including employment, for youth with autism spectrum disorder. Specifically, Dr. Burke (along with Dr. Taylor (PI, Vanderbilt) and Dr. Smith (Co-I, UW-Madison) will test the effect of a parent advocacy intervention to improve knowledge, empowerment and capacity for parents to access services for their offspring which, subsequently, should lead to improved outcomes for individuals with ASD. This is a five-year project with a multi-site Randomized Control Trial (RCT). Dr. Burke will coordinate the RCT in Chicago with 60 parents of youth with Autism Spectrum Disorder (ASD).

The project will develop a collaboration to improve employment outcomes for individuals with disabilities in Chicago and across the state of Illinois. Improving employment outcomes for individuals with disabilities will provide significant benefits to the economy, workplaces, the community, and individuals themselves. When individuals with disabilities are employed, they are less likely to rely on financial, medical, and disability benefits and more likely to become economically self-sufficient (Employer Assistance and Resource Network Report, 2013). Thus, closing the gap between employment rates of people with and without disabilities—even by a fraction—would directly result in substantial economic gains. Individuals with disabilities also have valuable and unique contributions to productivity and innovation across diverse workplaces and industries in the State. Furthermore,

increased income from employment can provide individuals with disabilities with higher living standards and enhanced quality of life.

This project is intended to establish a collaborative team with members from UIUC, UIC, CPS, and the Chicago community, to improve employment outcomes for individuals with disabilities. This may be similar to the capacity building efforts of [TennesseeWorks](http://www.tennesseeworks.org/) (<http://www.tennesseeworks.org/>).

Collaborators include:

- Dr. Meghan Burke (UIUC)
- Dr. Elizabeth Biggs (UIUC)
- Dr. Sarah Parker-Harris (UIC)
- Office of Diverse Learner Supports and Services, CPS
- Family Resource Center on Disabilities (FRCD, a federally-funded Parent Training and Information Center)
- Chicago [Mayor's Office for People with Disabilities](#)
- Industries with a reputation and interest in hiring individuals with disabilities (e.g., Walgreens, Banana Republic, Pepsi, Lockheed Martin, Microsoft, American Airlines, Best Buy, IBM, AT&T, Loews)
- **Resource Center for Training and Learning modules**
 - The Committee proposes to establish a Resource Center
 - Core programs would be established for selected students/teachers/managers, to go through Masters' Degree in digital learning. Training areas could include data science, AI, and related new skills.
 - Note: a related proposal was submitted to the DPI seed funding competition, December 2018. See Section 6.6.3, below.
- **Networks for People to Get Together**
 - **State-Focused Data Research Institute.** In Fall 2018, a not-for-profit institute with people from foundations and education institutions, including those from Chicago and beyond, contacted Jessica Li with a proposal for the development of a State-focused data research institute. Some private funds (\$200-300K) have already been raised, with commitments for \$2-3 million. The contacting group, which has Eboni Zamani-Gallaher as an advisory board member, is currently "looking for a home." Jessica notes that this group is lacking industry connection. If development proceeds, it could rise to the level of Grand idea, focusing on how to mine education data, and how to produce and process this for decision-makers. The DPI might see this network as a "quick win."
 - Networks are important, to engage and involve teachers, managers, students. This idea needs further development.

6.6 Projects Proposed for DPI Seed Funding, Dec 2018 Competition

- 6.6.1 Illinois Employment Collaborative**, Meghan Burke & Elizabeth Biggs (SPED). The purpose of this project is to develop the Illinois Employment Collaborative—a collective of industry, governmental and non-governmental agencies, community agencies, and academia to increase employment among individuals with disabilities in Illinois. Three goals will drive this work: (a) establishing a vibrant collaborative to strengthen the capacity and commitment of key stakeholder groups to work together to improve employment outcomes for individuals with disabilities; (b) using a data-driven approach, including in initial steps of identifying barriers and assessing promising solutions; and (c) making key information and resources accessible through effective dissemination. From this work, there will be peer-reviewed publications and conference presentations, an established partnership, a website with resources and information, and springboard for future external funding opportunities.
- 6.6.2 Artificial Intelligence (AI) for Learning**, Bill Cope (C&I) & Mary Kalantzis (EPOL). It is anticipated that artificial intelligence (AI) will have an enormous impact on education in the imminent future. AI has the potential to create the most significant change in pedagogical relationships since the invention in early modern times of classrooms, textbooks, and assessments. This project has three components: (1) to develop a white paper scoping the potential for artificial education in learning broadly conceived—in sites ranging from schools, colleges and universities, workplace learning, and informal personal and community learning; (2) to engage a group of stakeholders and experts in industry and education in a one day workshop in order to explore opportunities for research and development; (3) to implement an outreach campaign with a view to establishing cross-sectoral research and development partnerships with the framework of DPI.
- 6.6.3 Education Justice Project: Expanded Chicago presence with EJP alumni and other formerly incarcerated people**, Rebecca Ginsberg (EPOL). Proposal on behalf of the Education Justice Project, to support ongoing engagement with EJP alumni and other formerly incarcerated people in Chicago. This engagement currently takes the form of meetings and workshops in various venues around the city. Having dedicated space would allow EJP to expand its presence in Chicago and enhance programming; activities such as guest lectures, film screenings, and fundraising events are imagined. This cuts across “Education and Workforce Development” and “Culture and Society.”

- 6.6.4 Economic Development and Equity in Professional Development in Illinois: Empowering small and medium enterprises with a MOOCs-based instructional design certificate program**, Grace Oh & David Huang (EPOL). This project will upskill the current Learning & Development workforce in Illinois’s small and medium enterprises (SMEs), using the Instructional Design MasterTrack Certificate (ID MTC) program with Coursera offered by the College of Education at the University of Illinois at Urbana-Champaign. The ID MTC, the first university-based MOOC-based professional certificate program, comprises two graduate-level courses—HRD 411 Instructional and Training Systems Design, and HRD 472 Learning Technologies—from the Human Resource Development (HRD) program. Instructional design is an important expertise in HRD, employed to design and develop training programs that fulfill the changing learning and development (L&D) needs of organizations, to improve and optimize employee performance. Organization size and type have impact on the L&D opportunities from which their employees can benefit. In addition, despite the consistently increasing market and organizational needs in instructional design, professional development opportunities for HRD professionals are lacking. The HRD program in the department of Education Policy, Organization and Leadership (EPOL) at UIUC has more than two decades of history, offering master’s and doctoral degrees, and has garnered multiple national recognitions for its online graduate program. Recently, partnering with Coursera, we have launched this certificate program. As lead faculty, we are confident that, with seed funding support from Discovery Partners Institute (DPI), this program can become an important pathway to serve the current HRD workforce in the state of Illinois, with a highly-skilled instructional team, specialized course content, and interactive engaging course activities conducive to an increased effective Learning & Development effort among Illinois organizations.
- 6.6.5 Pathways for K-12 Computer Science Education in Illinois**, Luc Paquette (C&I), Craig Zilles (CS), & Raya Hegeman-Davis (Bureau). Computer science drives innovation and job growth, both nationally and globally, and is among the most in-demand college degrees. Computing is used in virtually every field, making it foundational knowledge all students need. Despite a growing push for increased CS knowledge in all K-12 grades, *there are currently no pre-service, undergraduate programs offering an initial teaching license in CS education in the State of Illinois.* This puts Illinois students, particularly those in districts struggling to close the achievement gap, at risk of not being competitive for admission to computer science related programs, and being unprepared to succeed and earn degrees, compared to peers from other states and nations. Resolving this situation is a complex and multi-faceted “Grand Challenge” for Illinois, requiring a long term, comprehensive,

statewide strategy that needs to start now! At UIUC a new partnership (I-STECS) between the College of Education and Department of Computer Science was inaugurated in Spring 2018 towards expanding the number of well-prepared high school CS teachers, creating a new undergraduate program in CS education leading to licensure and a pathway to endorsement in CS for current (in-service) teachers. The project proposed for DPI support would build on and expand this initiative and contribute to the DPI mission by: (a) building statewide collaborative partnerships around computer science education, including corporations, community colleges, foundations, non-profits, and Chicago Public Schools; (b) facilitating implementation of I-STECS in Chicago; and (c) building an on-ramp for existing Chicago teachers through an introductory CS course for in-service teachers at DPI.

6.6.6 Pilot Project for a Scalable Curriculum in Computational Thinking and Algebra, Jana Sebestik, George Reese (MSTE), Leonard Pitt (CS), Luke Paquette, Andreas Klöckner (CS).

Elementary algebra courses continue to be a struggle for many freshman high school students. They are ripe for reinvigorating with a focus on data, story-telling, and using computational tools to automate repetitive tasks and create models and simulations as a way to learn algebraic concepts. Mathematics and Computer Science are separate disciplines and current efforts strive to add computer science and programming to school curricular offerings. We propose curriculum that re-imagines traditional first year algebra to include the power of computer science and computer engineering to make learning meaningful and engaging. We will conduct a planning project to develop a curricular module, Experiencing Algebra through Data, Simulation, and Computing Tools. The activities in the module will empower students to engage in algebraic modeling of real-world phenomena using computing tools. Students will collect data, observe patterns, and use data analysis tools to describe their observations. They will create algebraic models to make predictions based on data, and use the power of computers to make their models faster and more accurate. The students will remix provided simulations following the use-modify-create strategy (Lee, I. et al., 2011). Our team of Illinois high school mathematics teachers and University of Illinois faculty and staff will extend existing partnerships with Chicago Public School teachers, Champaign School District, and Rantoul Township High School to leverage previous MSTE curriculum work with the Chicago Pre-College Science and Engineering Program (ChiS&E), the broader impacts initiative associated with the NSF CAREER: Integral equation methods for computer simulation: algorithms, approximation, applicability project, and Cyber Resilient Energy Delivery Systems Education.

6.7 Proposals in Preparation to DPI as of 2 Jan 2019

- 6.7.1. Expanding STEM Career and Occupational Opportunities for Black Male Students Who Play Sports**, Adeoye Adeyemo (EPOL) & Gabriel Burks (Bioengineering). This proposal utilizes an interactive program to engage and expose black male athletes to programs and alternative career opportunities in STEM. To maintain Science, Technology, Engineering, and Mathematics (STEM) global competitiveness, a strong economy, and social vitality, in the United States, movement towards the eradication of education, social, and economic inequality is imperative. Historical neglect with regards to the social and academic experiences of black males in STEM education have given rise to opportunities to develop new and engaging programming for this underserved demographic. Furthermore, discussions concerned with the socioeconomic prosperity of forgone black athletes are far more lacking and unfortunately cost the US billions in potential workforce capital each year. This proposal presents an 18-week community-based STEM program, conducted in two 9-week phases with four Chicago-based high schools, that will provide black student athletes the opportunity to experience STEM and alternative occupational opportunities through: (1) Discussions in identity formation and perceptions of alternative opportunities; (2) Participation in student-centered STEM workshops; and (3) Full immersion into integrated STEM practice via 3-week micro-internships with established makerspace and research community partners. Elements of Critical Race Theory, Mediation Model of Research Experiences, and the NSF Research Experiences for Undergraduates model are combined to develop a hybrid programming that fundamentally addresses the needs of students who have underdeveloped STEM identities. This hybrid model places community empowerment and sustainability at the forefront of actionable change.
- 6.7.2 Developing a new measure of socio-emotional skills with Chicago-based employers** - Chris Napolitano (EPSY) and Brent Roberts (SBSRI and Psychology) Establish a presence in the DPI in Chicago to develop collaborations with Chicago-based colleagues, universities, companies, and governmental organizations around use of a newly-developed measure of socio-emotional skills.

6.8 Letters of Interest to System DPI Office

Submitted 20-Dec-2018:

6.8.1 Meghan Burke (SPED):Letter recommending that matters of disability be carefully considered in the development of DPI activities. Ensure that the work of the DPI

considers employment within the disability field. Ideas are two-fold. First, the DPI should consider the need for individuals to work in the disability field. Second, the DPI should address the unemployment and underemployment of individuals with disabilities.

To-Be-Submitted, as of 31-Dec-2018

6.8.2 Rodney Hopson (EPSY): Letter re DPI evaluation needs: Critical importance for planning evaluation needs at DPI early stages, to assess and document whether education and workforce development activities will have the intended successful impacts on targeted education institutions and industry, and on student populations, including underserved populations.

6.8.3 Allison Witt (International Programs): Letter re international network support for workforce development: Opportunities to collaborate with Latin American university partners to build cultural identity pipeline/presence to support education and workforce pipeline opportunities for K-12 Latina/o students in Chicago Public Schools.

7. Links

7.1 [Illinois Innovation Network](#) has a set of resources for K-12 education and workforce development. This organization is separate from the System IIN, is run by someone who is working in a consultancy arrangement with DPI.

[add additional links here]