Topics Featured in this Issue:

Bridging Hands-On Technical and Online Education 2
Educational Needs of Former Foster Youth 10
Texas Minority Serving Community Colleges 18
Chicago Landscape of Career and Technical Education 20
The Office of Community College Research and Leadership (OCCRL) was established in 1989 at the University of Illinois at Urbana–Champaign. OCCRL is affiliated with the Department of Educational Policy, Organization, and Leadership in the College of Education. Projects of this office are supported by the Illinois Community College Board (ICCB) and the Illinois State Board of Education (ISBE), along with other state, federal, private and not-for-profit organizations. The contents of publications do not necessarily represent the positions or policies of our sponsors or the University of Illinois. Comments or inquiries about our publications are welcome and should be directed to occrl@illinois.edu. The UPDATE is prepared pursuant to a grant from the Illinois Community College Board (Federal Award Identification Number is: V048A150013). ©2016 Board of Trustees, University of Illinois

Director’s Note

For well over two decades, OCCRL has been committed to understanding and advancing the education of diverse learners and promoting successful transitions in and through community colleges to the workplace or further education. Although research on the community college sector is the centerpiece of our aims, our work spans the P–20 education pipeline. In fostering equitable access and outcomes across educational tiers, the focus of this issue of Update on Research and Leadership is on equity for underserved students.

At OCCRL, we have begun the fall term welcoming great additions to our team with new research assistants Chaddrick Gallaway and Devean R. Owens. I am also pleased to share that we have two new assistant directors. Dr. Heather L. Fox, a former OCCRL Project Coordinator is the Assistant Director of Operations, Communications, and Research. Dr. Anjalé D. Welton, an Associate Professor in Education Policy, Organization and Leadership who has been a faculty affiliate of OCCRL over the years, is now serving as the Assistant Director of Strategic Initiatives and Research Partnerships. The new staff and those with expanded roles alongside the talented group continuing with us are excited to delve into the work ahead.

This issue of Update is chock full of great articles and food for thought. Be sure to pass along our flip page e-reading PDF with colleagues and don’t forget to connect with us on Facebook, LinkedIn and Twitter. The opening feature entitled, “Bridging Hands–On Technical and Online Education” by Dr. Regina Garza Mitchell at Western Michigan University shares early findings from her study of an incipient dimension of Career Technical Education, namely, CTE online. Garza Mitchell notes that the applied, hands-on nature of CTE in concert with online instruction on the surface may be considered pedagogically disconnected. Her study funded by the NSF, examines notable best practices nationwide in cybersecurity, machining, renewable energy, and viniculture among others.

In keeping with online education, OCCRL research assistant John Lang contributed the article, “Examining the Intersection of Online Dual Credit and College Readiness.” Lang builds on recent OCCRL studies of dual credit programs in Illinois. Similar to Garza Mitchell’s work, Lang highlights the unique online environment for high school students in concurrent enrollment programs. Lang identifies some promising models around the country, which appear to suggest that “complex knowledge” and “deep learning” are possible through online dual credit.

In “Reality and Resiliency: The Educational Needs and Strengths of Former Foster Youth,” Assistant Director Heather L. Fox introduces the question of equity and student success for an underserved and often overlooked student population. Dr. Fox begins by painting the challenges and difficult reality of foster care as well as the affect it has on the educational trajectories of youth and young adults. Fox offers ways K–12 and higher education institutions can nurture the buoyancy of former foster students through ethos of care and structuring intentional systems of support.

Randi Congleton, research assistant at OCCRL in an interview with Dr. Jennifer Baggett and Dr. LaQueta Wright of Richland College just outside of Dallas discuss the first annual convening of minority serving two–year institutions conference hosted by Richland. Her feature, “Texas Minority Serving Community College Supports Success and Equitable Outcomes through Resource Sharing” will gather researchers and practitioners from around the country to share best practices and evaluation methods on MSI programs and pathways for minority students.

Assistant Director Dr. Anjalé D. Welton and research assistant Devean R. Owens, writing entitled, “The Chicago Landscape of Career and Technical Education,” sets the stage for new line of inquiry we’re pursuing at OCCRL. Through support from ICCB, our team will be examining CTE Pre–Apprenticeship opportunities for underserved students in Chicago. In particular, the article provides an environmental scan of CTE educational and career programs with a chief concern regarding access and equity (or lack thereof); and how CTE programs can aid students in overcoming persistent inequity that translates into high youth unemployment among students of color in Chicago.

Our issue closes with an essay by Dr. Clifford P. Harbour from the University of Wyoming named “A New Institutional Perspective on Democratic Engagement.” Harbour, a past president of the Council for the Study of Community Colleges (CSCC), draws together the two vital subjects of democracy and education. His essay concludes with a look toward the future arguing that “social innovation strategies to connect community colleges more closely to the communities” are necessary.

Eboni M. Zamani-Gallaher
Table of Contents

02  Bridging Hands-On Technical and Online Education

06  Examining the Intersection of Online Dual Credit and College Readiness

10  Reality and Resiliency: The Educational Needs and Strengths of Former Foster Youth

18  Texas Minority Serving Community Colleges Support Success and Equitable Outcomes through Resource Sharing

20  The Chicago Landscape of Career and Technical Education

24  Community Colleges and Democracy as Problem Solving

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Our mission is to use 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.

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UPDATE Fall 2016
Community colleges are the foremost providers of both career and technical education (CTE) and online education. There is a gap in knowledge, however, about how the technical side of CTE is offered in an online environment. To help close this gap, researchers from Western Michigan University’s Center for Research on Instructional Change in Postsecondary Education, Santa Fe College, and Santa Fe Community College received a grant from the National Science Foundation Advanced Technology Education (NSF-ATE) program to study how community colleges are implementing online technical education.

Background

In the current era of completion and economic return, CTE has shifted to the forefront of American education. CTE is viewed as a mechanism for increasing college completion (The White House, 2009) and for boosting the economy (D’Amico, Morgan, Katsinas, & Friedel, 2015; U.S. Department of Education, 2012). On the credit-bearing side, CTE credentials may be earned through certificate or associate’s degree programs. The national interest in CTE is reflected in the phenomenal increase in certificates earned. Between 2000 and 2014 the number of certificates earned at community colleges increased by 236%, with certificates comprising 39% of all credentials earned at these colleges (Phillipe & Tekle, 2016).

Community colleges were the earliest adopters of online education, becoming and remaining its foremost provider (Parsad & Lewis, 2008; Radford, 2011). As early as 2004 a small number of colleges offered online courses in technical areas such as livestock production and digital circuits (Johnson, et al., 2004). However, the majority of online enrollment remains in career areas, such as business or computer science, and general education (Radford, 2011), as opposed to technical areas (Githens, Sauer, Crawford, & Wilson, 2012). This is not surprising given the hands-on nature of technical education, and the need for specialized tools or laboratories that must be accessed at or through a college (Horvitz & Zinser, 2011). Given advances in technology and the push for college completion, our study is focused on the closing divide as community colleges offer more technical courses with online options.

“Online Technical Education in ATE-Funded Programs”

The NSF-ATE program focuses on improving “the education of technicians for the high-technology fields that drive our nation’s economy” (National Science Foundation, n.d.). Over the past six years, ATE has funded at least 30 projects involving significant online educational elements at the community college level. In fall 2015, our research team began a two-year study, titled above, of ATE-funded projects to learn how technical education is being delivered in online formats in these projects. The team chose to focus on ATE projects for several reasons. First, the projects are housed in colleges across the country, which provides a national perspective. Second, the projects vary according to need and ability. For instance, a project may involve developing a fully online course or program, creation of an online simulation that is used for either online or face-to-face technical courses, or the online component may be a small part of a larger project related to enhancing
technical education. Third, since the projects are grant-funded, we knew there would be project personnel and documentation to help us understand the development and results of the courses and programs created. The main goal is to investigate how technical education is being offered online and to develop resources that highlight models and best practices for development.

**Project Design**

The qualitative design of our study centers on mini-case studies to investigate the projects and the contexts in which they developed. Each mini-case study consists of interviews, document review, and document analysis. Interviews are conducted with a Principal Investigator or Co-Principal Investigator from each project and at least one faculty member involved with developing and/or teaching the online material. Documents collected include course descriptions and syllabi, course and program enrollment information, demographics, yearly reports, and information available from public websites.

**Descriptive Findings**

To date, data have been collected for twelve mini-case studies. While analysis is ongoing, my intent is to share some initial findings of our study. The projects range in scope and intent, but all have developed online courses or course elements in an effort to increase student learning and provide learning opportunities for those who are not able to make it to campus due to work or other obligations. Although some programs are considered fully online, they all require lab and/or internship time in which students gain hands-on experience under the guidance of faculty or industry personnel. The following are two examples of these projects.

The Viticulture Enology Science and Technology Alliance (VESTA) is a partnership between the Missouri State University system — including two state universities — and 13 community colleges and universities, as well as vineyards and wineries, across the country. In all, VESTA partner institutions are located in Arkansas, Arizona, California, Kansas, Michigan, Minnesota, New York, Ohio, Oklahoma, Washington, and Wisconsin, but their students are located around the world. The partners work together to develop and deliver online courses. VESTA acts as a consortium in that students wishing to earn an associate’s degree or certificate declare one of the alliance institutions as their home institution, and online credits received from any member institution are accepted as though they were taken at the home institution. The online courses do require some synchronous components in which students meet virtually as a class one or two times per week. Students are also required to find an industry partner for the hands-on or laboratory components of the class. VESTA currently has 15 state partners. Students can work with state coordinators within partner states to find a vineyard or winery to work with, they can check the list on the VESTA website, or the student may recommend a vineyard or winery that is not yet on the list. VESTA has existed for 13 years and is currently expanding its scope to include business and entrepreneurial skills.

Central Maine Community College (CMCC) created the Regional Advanced Machining Partnership, which offers a certificate in advanced machining to meet the demand from regional companies. The certificate is available to students who have completed an associate’s degree in machining or an equivalent and is offered primarily online. The curriculum is competency-based and modular, so students move forward at their own pace after attaining the necessary skills. After meeting a particular level of competency, the students contact the faculty and reserve the equipment they need to work on assigned projects. Students demonstrate competency through their work on the equipment and the projects. The rationale for putting the curriculum online was two-fold: to meet the needs of employed students who could not make traditional class times and to allow enrollment to grow despite limited lab space. The college reported that several local companies have assisted employees in enrolling in the program, even providing time and transportation for them to do their hands-on work at the college. CMCC has also partnered with a local university so students who complete the advanced certificate can go on to complete a bachelor’s degree with only one additional year of coursework. The college has also provided workshops to train faculty and industry professionals on the curriculum and has made the material available for other colleges to adapt.
## The 12 ACT Projects or Centers Included to Date in the Online Technical Education in ATE-Funded Programs Study

<table>
<thead>
<tr>
<th>ATE Projects or Centers</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Sim-building: Teaching Building Science with Simulation Games</strong></td>
<td>The Concord Consortium and Santa Fe Community College are developing innovative simulation games for teaching building science, integrating them into existing courses and evaluating their educational effectiveness.</td>
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<tr>
<td><strong>Articulated Technological Education Pathways (ATEP)</strong></td>
<td>The ATEP project developed three semester-long courses for high school students that provide a bridge from high school technical programs to community college programs in technician education using primarily digital materials.</td>
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<td><strong>Regional Advanced Machining Partnership (RAMP)</strong></td>
<td>RAMP developed a certificate in advanced machining designed for graduates of two-year machining programs and machinists with CNC experience wishing to upgrade their skill sets. Courses are competency based and offer modularized, transportable skill building.</td>
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<td><strong>Preparing a 21st-Century Workforce for the Water Industry</strong></td>
<td>Red Rocks Community College, with the Colorado Department of Public Health and Environment, Regis University, Western State College, and the Colorado State University–Global Campus, is producing a statewide training network that expands access to workforce preparation for water quality management technicians that includes developing and adapting curricula for online delivery supported by a mobile hands-on learning lab.</td>
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<tr>
<td><strong>Revising Vacuum Technology, an Advanced Manufacturing Program (ReVAMP)</strong></td>
<td>The ReVAMP project aims to develop a cost-effective vacuum technology program, including a pilot distance education model that combines high-definition telesession technology with hands-on instruction using a mobile, fully-functional vacuum trainer system.</td>
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<tr>
<td><strong>Technological Education for the Rural Community (TERC)</strong></td>
<td>TERC utilizes portable, personalized instructional methods to address identified barriers, including inflexible work schedules, extended time between high school and college, and poor academic preparation. In particular, access issues and low mathematics comprehension are being addressed by utilizing hybrid delivery systems and contextualized mathematics and engineering coursework.</td>
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<tr>
<td><strong>Cybersecurity Program Development (CPD)</strong></td>
<td>CPD integrates introductory cyber awareness and cyber safety modules into a large number of information technology classes, secondary schools, and online classes to the general public, employers, and other organizations.</td>
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<td><strong>CREATE: Renewable Energy Regional Center</strong></td>
<td>CREATE is a multi-county consortium serving several objectives, including the development and refinement of modular in-class, on-line, and hybrid renewable energy curricula integrated into degree pathways.</td>
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<td><strong>Expanding Career and Educational Learning in Information Technology (EXCEL-IT)</strong></td>
<td>EXCEL-IT involves dual-enrollment IT courses taught in high schools by trained, certified, and well-supported instructors using a hybrid online/classroom structure. Students will be able to earn both high school and college credit, and take free certification exams for industry-recognized credentials.</td>
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<tr>
<td><strong>Viticulture and Enology Science and Technology Alliance (VESTA)</strong></td>
<td>VESTA is a national grape and wine education program that combines online instruction, instructor-guided education from industry professionals, and crucial hands on experience under the guidance of an experienced mentor at a vineyard or winery close to where you live.</td>
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<tr>
<td><strong>SECURE-IT: Cybersecurity Project</strong></td>
<td>SECURE-IT involves reviewing and modifying curricula to include active learning strategies, such as the “flipped” classroom, online courses, and hybrid courses, as a means to engage students, heighten learning, and improve retention.</td>
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<tr>
<td><strong>A Regional Photonics Initiative (RPI)</strong></td>
<td>RPI offers innovative instruction, delivery, and scheduling, relying on a modular curriculum delivered through a hybrid, early entry/early exit system to reduce the time a student needs to complete a degree.</td>
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Future Directions

These two projects exemplify how colleges are using technology to deliver quality programs and still provide the hands-on training necessary to develop skilled technicians. As noted earlier, analysis is still ongoing with this project, which is set for completion in summer 2017. Further findings, including models for online course delivery and best practices, will be shared in future publications. Anyone interested in learning more about these and similar projects may be interested in the High Impact Technology Exchange Conference, where many of these and similar programs are showcased.

Acknowledgment

This material is based upon work supported by the National Science Foundation under Grant No. 1501794.

References


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Examining the Intersection of Online Dual Credit and College Readiness

by John Lang, OCCRL Research Assistant

In December 2015, OCCRL published a report on dual credit policy and practice in Illinois, focusing on access and opportunity for underserved students (Zamani-Gallaher, North, & Lang, 2015). Based on interviews with 26 of 48 colleges throughout the state, we reported on a physical shift in dual credit course offerings from the community college campus to the high school campus. While courses taught on a college campus might offer high school students a fuller “college experience,” the model often translates into a financial challenge for students, especially those from underserved populations. Of the 26 colleges, 13 offered dual credit courses on the college campus, and the vast majority charged full tuition. Since high school students are not eligible for financial aid—excepting the recent pilot program by the U.S. Department of Education—the burden of tuition, fees, and materials, as well as transportation, often means barriers rather than gateways to college readiness.

Alongside and often instead of college campus offerings, we found that 24 of the colleges offered dual credit courses by way of high school instructors and classrooms. In addition to greater physical access—since students were already there—the shift to the high school campus translated into greater financial access. Twenty-one programs offered courses at no charge, and two offered reduced rates. Only one charged full tuition. To the question of access and opportunity, especially for underserved students, high school–based dual credit seems to be the answer.

Nationally and internationally, online courses are increasingly viewed as the new mode of education and as solutions to problems of access for the underserved and marginalized. In 2013, a New York Times op–ed proclaimed, “there is one big thing happening that leaves me incredibly hopeful about the future, and that is the budding revolution in global online higher education. Nothing has more potential to lift more people out of poverty—by providing them an affordable education to get a job or improve in the job they have. Nothing has more potential to unlock a billion more brains to solve the world’s biggest problems.” The editorial concluded, “I can see a day soon where you’ll create your own college degree by taking the best online courses from the best professors from around the world... paying only the nominal fee for the certificates of completion. It will change teaching, learning, and the pathway to employment” (Friedman, 2013).

In this brief article, we will not consider online dual credit in light of the revolution that seems to be at hand. Instead, we will consider online dual credit in relation to college readiness. While the literature on online education is vast, studies that take up online dual credit are rare and only offer a partial picture of the model. Alongside the college and high school campus models, we found eight of 26 colleges offered online dual credit in some form. In most cases, a college instructor taught these courses. For Southeastern Illinois College, a rural district, the bulk of dual credit courses were delivered online. Moreover, given limited Internet access in many areas, Southeastern used high school computer labs to deliver online classes.

Rend Lake College, another rural district, described a hybrid of “distance learning” that combined three modes of course instruction. Students from multiple school districts gathered at their respective high schools for an online course. The course instructor, a college faculty member, traveled a circuit from one high school to the next to deliver the course in person to at least one school per session. Each class session was simultaneously broadcast to the other high schools. Thus, the course combined the resources and logistics of an online and in–class course, and high school and community college.

While online dual credit courses may increase accessibility in terms of distance or convenience, we found that financial accessibility is mixed.
In recent years, the National Center for Education Evaluation and Regional Assistance conducted several studies of online education in public high schools. In a study of Iowa, 56% of participating high schools reported the use of online dual credit courses in 2012–2013 (Clements, Stafford, Pazzaglia, & Jacobs, 2015). In Wisconsin, 10% of high schools used online courses to address dual credit academic objectives (ibid.). In a study of New York high schools, 71% of Capital Area School Development Association high schools desired to increase their use of online dual credit courses (Clements, Zweig, & Pazzaglia, 2015). Alongside these reports, which offer a state-level picture of online dual credit, two recent studies offer an on-the-ground look at design and delivery.

In 2008, Stephen F. Austin State University (SFASU)—located not in Austin, Texas, but amid three National Forests about halfway between Dallas and Houston—launched an online dual credit program serving five 1A school districts, which was later expanded to 2A and 3A districts. The initial focus was college algebra, though trigonometry and statistics were added after the pilot year (Harris & Stovall, 2013). The need for an online dual credit solution came from all sides. At a state level, Texas introduced the requirement that all high schools offer upper-level courses in four foundational areas, including mathematics. For smaller districts, this requirement presented a problem since qualified teachers were in short supply. While SFASU had the teaching capacity, distance, travel time, and transportation costs made a centralized college campus model impracticable. Given limited Internet access in rural areas, most often dial-up, online delivery to a student’s home was also an obstacle. The solution resembled the model at Southeastern Illinois College in that SFASU began delivering online dual credit taught by a college instructor and beamed directly to high school classrooms.

The program combined the flexibility and accessibility of localized delivery with a consistent structure built in to the program by SFASU. Students at each high school took dual credit courses as a class and as a part of their set schedules. This way, the courses could be delivered to all students at the same time via the Blackboard platform, and often with a high school teacher overseeing the students’ work. The courses were divided into weekly modules consisting of .pdf lectures, homework, and quizzes. Exams were proctored on campus and graded by the university.

Harris and Stovall, who designed the program and co–authored the 2013 article, “Online Dual Credit Mathematics for Rural Schools,” reported on a successful three years, from the pilot in 2008 to fall 2010. While the authors defined “success” as a C-grade or better, which may or may not be the best measure, of 119 students all but two were successful. Unfortunately, the authors did not provide a breakdown of student success by grade, from A to C. Harris and Stovall also pointed to financial accessibility as a measure of success. Instead of charging the normal $750 for a 3-credit class, the online course charged $150, which was covered by the school district. A student can only be successful if she or he has access, and the tuition structure helped to overcome this basic obstacle.

Not surprisingly, building a dynamic and easy–to–use online teaching environment was the biggest challenge, from platform problems to bandwidth limits to firewalls that interpreted online education as forbidden material. Perhaps more surprising, or perhaps not, were limitations of the human kind—something technology is supposed to overcome. Harris and Stovall described online courses as a “sheltered environment” that prepares students for the college experience by disembodying the educational experience. Another challenge was on the administrative side. Online dual credit is possible only through a strong partnership between the university and local high schools. The partnerships proved less durable, however, as the authors reported significant turnover in school administrators and teachers, which translated into a “break in continuity of the program from year to year.” Of course, all educational endeavors experience challenges, and online dual credit is no different. What is important here is the practical experimentation with online dual credit that seems to have tackled a range of issues, including statewide requirements, limited resources at a local level, and the educational needs of students preparing for college, while also contributing to our understanding of design and delivery by flagging challenges.

From Texas we turn to Stark County, Ohio, and a recent study by the Stark Education Partnership (SEP) that asked the question that often comes to mind about online education in general: What kind of learning does it truly foster? In the SEP report, “Do Facilitated Online Dual Credit Courses Result in Deep Learning?” (2015), the question became two-fold. Does online education foster deep learning? Does facilitated teaching—combining a disembodied college
instructor with an onsite “facilitating teacher”—help students achieve that aim? The report then added a crucial ingredient to the mix. SEP described the geographic area of its study as small and rural with high rates of poverty. In many cases, the students were first-generation, lacking the cultural and familial momentum that could carry them to college. Accordingly, the concern was one of linkages: facilitated online courses to foster deep learning for underserved students as a pathway to college.

What is deep learning? For SEP, deep learning means “utilizing communication and problem-solving skills, incorporating meaningful projects, and encouraging collaboration.” To assess the results of this model, SEP surveyed 209 students, as well as instructors and facilitating teachers, in 16 school districts. The results seem promising if not resounding. Just over half of instructors and facilitating teachers reported that students were engaged in deep learning such as problem solving, collaboration, and self-directed learning. One notable exception is that 95% believed students had gained “complex knowledge” in the subject area. Student responses seem to mirror the teaching side. Fifty-six percent reported deep learning by way of collaborative essays, journaling, and research papers, among other activities, and most students appreciated the focused and intensive course of study that cut down on busy work and wasted time. Course grades seem to support a level of success, with 39% of students receiving an A and 32% receiving a B. On the other side, 11% received a D or below.

Interestingly, SEP asked a key research question: “What aspects of the online dual credit course support deep learning?” None of the survey participants seem to have identified “facilitating teaching” as a factor. Nonetheless, the details of the survey suggest that the facilitating teacher is in fact the glue that holds things together. In all, facilitating teachers identified over 30 roles they played in the classroom, including help with assignments, research guidance, group facilitation, help with presentations, ongoing encouragement, coordination between students and faculty, tech troubleshooting, and monitoring progress toward accountability.

The study also highlights a limit to online dual credit, even by way of facilitated teaching, as a path to college readiness for underserved and first-generation students. One question asked in the study was, “What strengths do students have that may contribute to their success in online dual credit courses?” Based on responses by college faculty and facilitating teachers, SEP reported that “in order to engage in deep learning at the college level in online dual credit courses students need to exhibit some foundational capabilities.” These include maturity, independence, motivation, and background knowledge. In a sense, then, deep learning requires deep-learning readiness, which is its own kind of deep learning. The former helps students in college-level courses to prepare for college; the latter helps students to succeed in college-level dual credit courses.

The problem the study acknowledges is that a student’s repertoire does not always include “college knowledge” to begin with. The danger is that online dual credit courses will be both sheltering and bewildering for students who are not ready, setting them up for failure rather than success as a question of deep learning, grades, or any other measure. How, then, to prepare students for deep learning by preparing them with foundational capabilities? This question merely points to the limits of the model in question and the study of it. The facilitated teaching model is not designed to add those foundation capabilities if a student enters without them. In one sense, this is simply a reminder that only some students will be ready for a college-level course, no matter their circumstances. However, it also returns us to the

While “dual credit” is a comparatively stable concept, the meaning of “online” education is wildly far-reaching and constantly changing.
basic concern of the study, which is helping undeserved students to advance on to successful college careers. Here, the dual-instructor dual credit model seems to be vital but not sufficient in the face of myriad educational and other obstacles that students face.

The studies above suggest the promise of online dual credit and highlight the need for more research on design and delivery, best practices, and problems. For OCCRL, the survey points to the need for an in-depth study of online dual credit in Illinois as a way to contribute to the currently slim literature on the topic. We conclude with an obvious observation that might be helpful to make. While “dual credit” is a comparatively stable concept, the meaning of “online” education is wildly far-reaching and constantly changing. In the mid–1980s, online education was a question for library sciences. Take for example an article in Library Journal titled, “Online Bibliographic Searching: A Pilot Project” (Kachel, 1986), which included a photo of students using an Apple IIe. The moral of the story here is that once upon a time “online research” was a research question that needed to be piloted.

One of the first online programs at a high school was in travel and tourism. A 1997 article, “High Schools Go Online for Travel and Tourism Training,” reported on a “collaborative effort between Lake Worth Independent School District and American Airlines Travel Academy” that helped “students to qualify for a wide variety of jobs in travel and tourism” (Driessen, 1997). In this case, “online” meant direct access from the high school to the airline reservation system to give students hands-on experience. The article declared the program to be a “genuine breakthrough in school-to-work training... in the world's biggest and fastest–growing industry,” namely the industry of travel agents.

It seems safe to say that what we call “online” education promises to be outdated almost immediately. Someday, researchers will look back and note that students once had to plug computers into the wall, whereas now they can plug themselves into the computer. The college faculty used to instruct from the college campus. Now the instructor is artificial intelligence (AI) that lives virtually everywhere. The facilitating teacher is a facilitating robot that moves from student to student. In fact, the researchers will probably be computers too. For now, however, our concern is college and career readiness in a global economy, especially for underserved, marginalized, and first-generation students. Given a brief look at online dual credit as a solution to educational and financial access, the approach is deserving of a great deal more research and study to formulate and fine-tune its design and delivery.

References


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Reality and Resiliency: The Educational Needs and Strengths of Former Foster Youth

by Heather L. Fox, OCCRL Assistant Director of Operations, Communications, and Research

Each year an estimated, four in every hundred children in the United States are victims of child maltreatment (Sedlak et al., 2010). Annually the child welfare system cares for about 400,000 children across the United States (Child Welfare Information Gateway, 2016). The vast majority of these children endure the challenges associated with being uprooted from their homes and separated from their parents and/or guardians. In many ways the child welfare system addresses the immediate danger of abuse but often falls short in addressing the complex challenges faced by these children. Among these are the challenges of succeeding in school once they enter, and exit, foster care, and overcoming myriad educational obstacles from a place of instability and uncertainty.

This article is meant to present the realities of education, especially postsecondary education, given the challenges faced by foster youth. This article begins with an overview of the foster care system and then turns to obstacles related to accessing and completing postsecondary education faced by former foster youth (FFY). This article advocates for a strengths-based, resilience-focused approach to improving postsecondary outcomes for FFY.

Child Maltreatment in the United States

Every year millions of reports of suspected abuse and neglect of a child by a parent or guardian are made to child welfare agencies (CWA, e.g. title IV-E agencies) across the country. In fiscal year 2014, reports of child abuse and/or neglect involving 3.2 million children across the country were investigated by CWA personnel (Children’s Bureau, 2016). These investigations identified 702,000 children as victims of abuse and neglect, including 1,580 children who died as a result of abuse and neglect (Children’s Bureau, 2016).

On September 30, 2014, there were 415,129 children in the child welfare system (Child Welfare Information Gateway, 2016). While the number of children in the child welfare system in 2014 was higher than in 2013, the trend over the last decade has been a decrease in the number of child maltreatment cases and an increase in response rate of CWA (Child Welfare Information Gateway, 2016; Sickmund & Puzzanchera, 2014). However, it is important to note that researchers have found that due to underreporting and inconsistent screening of child abuse and neglect reports, only 32% of cases where child victims are harmed and 43% of cases where children are endangered by one or more caregivers had been investigated by CWA (Sedlak et al., 2010).

CWA are responsible for the care and placement of children who are wards of the state. The vast majority of children who are wards of the state because of maltreatment (e.g., child abuse or neglect) are placed in substitute care, separate from their parents or other legal guardians, as a means of providing the child a safe living environment. This is commonly referred to as foster care. In order for a child to be placed in foster care for more than a temporary placement, the court must have just cause to believe that remaining in the home poses a risk of maltreatment to the child (45 CFR Ch. XIII § 1355.20, 2012). The majority of the children in the child welfare system are placed with nonrelatives (46%), relatives (29%), or in institutions or group homes (14%, Child Welfare Information Gateway, 2016). The remaining 11% are on trial home visits, are in pre-adoptive homes, are living in supervised independent living, or have run away (Child Welfare Information Gateway, 2016).

Child abuse and neglect is defined in Child Abuse Prevention and Treatment Act (CAPTA, 42 U.S.C. § 5101 P.L. 111-320, 2010) as follows:

Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm.

Each state is required to legislatively define what types and level of risk constitutes child abuse and neglect (45 CFR Ch. XIII § 1355.20, 2012). Typically neglect includes acts of blatant disregard for the health and safety of a child, including such things as failing to provide appropriate supervision, food, housing, education, or medical treatment. Neglect can include exposing children to dangerous environments, including sexual perpetrators, illegal substances, or where there is negligent discharge of firearms or other weapons. Typically, the inability to provide for a child due to financial restraints is not considered neglect unless a parent refuses to utilize supports and service necessary to provide for the basic needs of their child or children. However, only 12 states and the District of Columbia specifically include an exception for cases of poverty in their definition of neglect (Child Welfare Information Gateway, 2014). Abuse includes physical and sexual assault on children by a parent or guardian. Physical abuse includes any physical act that caused or could cause physical injury or death by other than accidental means.
UPDATE Fall 2016

Sexual abuse of a child involves any form of sexual acts or exploitative acts that are for the sexual gratification or financial benefit of the perpetrator (Children's Bureau, 2016). Most child abuse and neglect cases (85.8%) are indicated on a single type of maltreatment (Children's Bureau, 2016). Neglect was the predominant form of maltreatment, affecting 75.0% of child victims, with physical and sexual abuse impacting 17.0% and 8.3% respectively (Children's Bureau, 2016). The final category of maltreatment affected 6.8% of child victims is aggregated into the category other, and includes children who have been emotionally abused, who are at risk due to parental substance abuse, and other factors that place the child at risk of maltreatment (Children's Bureau, 2016).

The Who of Child Abuse and Neglect

Child abuse occurs in every sphere of society, every geography and demographic. However, there is a persistent overrepresentation of children from culturally marginalized populations within the child welfare system. Specifically, children of color and children living in poverty are overrepresented in child maltreatment cases (National Working Group on Foster Care and Education, 2011; Sedlak et al., 2010). The highest rates of child maltreatment cases involve Black, American Indian, Alaska Native, and multi-racial children (Federal Interagency Forum on Child and Family Statistics, 2016). Among these racial groups, the overrepresentation of Black children in foster care is most notable, where approximately 14% of all children in the United States are Black and 24% of all children in foster care are Black (Child Welfare Information Gateway, 2016; Federal Interagency Forum on Child and Family Statistics, 2016). In 1978, the Indian Child Welfare Act (25 U.S.C. §§ 1901–1963, 1978) was enacted to “protect the best interest of Indian children” noting a finding that... “an alarmingly high percentage of Indian families are broken up by the removal, often unwarranted, of their children from them by nontribal public and private agencies and that an alarmingly high percentage of such children are placed in non-Indian foster and adoptive homes and institutions.”

Native American populations continue to be overrepresented in the child welfare system, with 1.6% of all Native American children in care, a rate that is 1.6 times the expected level (Austin, 2009). However, the disparity by socioeconomic class is the most notable, with the rate of child maltreatment for children living in low-socioeconomic households five times that of other children (Sedlak et al., 2014). The overrepresentation of children of color within the foster system reflects in part the higher rates of poverty that impact populations of color, the criminalization of both men and women of color, and racialized stereotypes of parental unfitness (Cooper, 2013; Roberts, 2012; Smiley & Fakunle, 2016).

**Former Foster Youth (FFY)**

Examinations of the outcomes of former foster youth in secondary education primarily focus on two subgroups of adults who were formally in the child welfare system. The first subgroup consists of adults who aged out of the foster care system. The majority of foster youth who age out of the system do so upon turning 18 years of age; however, a growing number of states have extended foster services for some youth in care up to the age of 21 (Curry & Abrams, 2015; McCoy-Roth, DeVoorrth, & Fletcher, 2011). Of the foster youth who exit the child welfare system annually, approximately 9% age out (Child Welfare Information Gateway, 2016). In 2014, of the 238,230 children who exited the foster care system, 22,392 were youth who had aged out or had otherwise been emancipated by the courts (Child Welfare Information Gateway, 2016). The second subgroup sometimes referenced as FFY expands beyond those youth who aged out of the system. The specific criteria for this subgroup varies across research studies but typically involves being in the foster care system for one or more years after a specific age.

FFY are not a homogenous group of young adults. Instead, FFY diverge significantly in their experiences, circumstances, and future prospects. Keller, Cusick, and Courtney (2007) found that among foster youth on the verge of aging out of the child welfare system there were four distinct subgroups based on employment, grade retention, parenthood, problem behaviors, placement type, placement stability, and runaway history. Each of these subgroups has differing challenges, resources, and needs (Keller et al., 2007). The existing research provides important information about the transition into adulthood and outcomes for young adults who were in the child welfare system during their adolescence. However, the findings in these studies and reflected in this article are unlikely to reflect the broader population of adults who were under the care of the child welfare system at some point in their childhood.
Educational Barriers for FFY

A small fraction of FFY access postsecondary education and complete their studies. In 2003, there were 300,000 FFY in America between the ages of 18 and 25 (Wolanin, 2005). Roughly half of these FFY had graduated from high school (Wolanin, 2005). Based on national averages for high school completion and postsecondary enrollment, we can estimate out of 300,000 students 126,000 or 42% would enroll in postsecondary education (Wolanin, 2005). Of the FFY who graduated from high school, about 20% enrolled in postsecondary studies (Wolanin, 2005). The difference between this and what would be anticipated based on national average for high school completion and postsecondary enrollment is staggering. Basically, among this group of FFY there were 96,000 less FFY who enrolled in postsecondary education than what would be anticipated based on national averages. Further compounding this disparity, FFY who attend college are less than half as likely as their peers to complete their higher education programs (Davis, 2006).

Scholars have identified a litany of barriers faced by FFY that interfere with their ability to access and complete postsecondary study. First, to qualify for postsecondary study, FFY have to complete their primary and secondary studies. FFY commonly experience disruptions in their primary and secondary educational experiences. This includes changes in schools, delays in enrollment, inconsistent attendance and increased truancy, high rates of disciplinary infractions, and a higher likelihood of dropping out (National Working Group on Foster Care and Education, 2011). The impact of these disruptions is especially pronounced for the 65% of children in child welfare who have multiple placements while in care and for children with special education needs (National Working Group on Foster Care and Education, 2011). These disruptions in primary and secondary education contribute to later graduations, higher dropout rates, and lower standardized test scores for foster youth (National Working Group on Foster Care and Education, 2011).

In accessing postsecondary studies, FFY are faced with more barriers. These include a lack of knowledge on how to navigate postsecondary processes, poorly timed and insufficient financial aid, and support staff who lacked the training and resources necessary to effectively support FFY (Cooper, Mery, & Rassen, 2008; Hernandez & Naccarato, 2010). While many of the postsecondary educational barriers faced by FFY are reflective in part of those experienced by low-income first-generation college students, the extent to which these barriers impact FFY is far greater. In fact, almost twice as many FFY drop out of their studies without a degree as compared with low-income first-generation college students with no history with the child welfare system (Day, Dworsky, Fogarty, & Damashek, 2011). Compounding these challenges is the fact that FFY often face these barriers without a sufficient social support network and while experiencing intense pressure to be independent (Curry & Abrams, 2015).

FFY face substantial barriers to postsecondary success outside of the educational setting. Some of the most notable barriers are related to financial hardships, dangerous environments, and mental issues. Financial barriers contribute to high rates of homelessness, food insecurity, lower income rates, and joblessness (Courtney, Dworsky, Brown, Cary, Love, & Vorhies, 2011; Curry & Abrams, 2015). Despite these financial barriers, FFY often are burdened with more substantial familial responsibilities than their peers, such as providing care and financial supports for their parents, siblings, and their own children (Courtney, et al., 2011; Curry & Abrams, 2015; Hernandez & Naccarto, 2010). Additionally, youth who are homeless and jobless have higher rates of exposure to violence, drugs, and other dangerous environments (Curry & Abrams, 2015). This corresponds to the high level of involvement with the criminal justice system observed among FFY. FFY are more likely to be arrested, convicted, and incarcerated as young adults than are other young adults (Courtney et al., 2011). The rates at which these young adults are arrested are alarmingly high. Courtney et al. found that 41.6% of female FFY and 68.2% of male FFY in their study reported they had been arrested at least once between the ages of 18 and 26 (Courtney et al. 2011). Further, FFY experience high rates of exposure to and victimization to violent criminal acts. This is especially true for young male FFY. Almost a quarter of the 590 young male FFY included in Courtney et al.’s study reported having experienced at least one of the following events in the last year: something violent (e.g., being mugged, robbed, or assaulted), a serious assault, a sexual assault, or involvement with the criminal justice system. Among female FFY, 24% reported having been sexually assaulted, and 17% reported having been involved with the criminal justice system.

Former foster youth who attend college are less than half as likely as their peers to complete their higher education programs (Davis, 2006).
12 months: a) saw someone being shot or stabbed, b) someone pulled a knife or gun on you, c) shot or stabbed by someone, or d) beaten up. Further, 5.9% of female FFY and 5.5% of male FFY reported being victims of sexual violence during the same period (Courtney et al., 2011).

Mental health issues create substantial barriers for FFY. Most children involved in the child welfare system experience a series of traumas that affect their mental health (Kerker & Dore, 2006). The abuse and neglect experienced prior to engagement with the system for most children in the system is a series of traumatic events often over a period of months or years. Likewise, most children in the system are removed from their homes and separated from their parents. This separation frequently extends beyond the home and parents, including separation from siblings, extended family, pets, friends, neighbors, teachers, etc. Sixty-five percent of children in the child welfare system experience multiple placements, during which the children repeated suffers from both the separation and a loss in security (National Working Group on Foster Care and Education, 2011). Sixteen percent of children experience six or more placements while in care (National Working Group on Foster Care and Education, 2011). Further, the child welfare system is woefully under-resourced and under-staffed, resulting in unmet needs and additional trauma for children. Finally, the termination of parents’ rights and failed permanency both constitute traumatic events for the children who experience them.

There is a high prevalence of the need for mental health treatment among children and adolescents in the child welfare system. It is estimated that as high as 80% of children in the child welfare system have mental health problems (Kerker & Dore, 2006), and 26% percent of children in the child welfare system have high levels of emotional and behavioral issues (Kortenkamp & Ehrle, 2002). These rates are significantly higher than those experienced by children outside of the child welfare system, even when controlling for socioeconomic status and family structure (Kerker & Dore, 2006; Kortenkamp & Ehrle, 2002). The child welfare system is under resourced to meet the substantial mental health treatment needs of these children. As a result, children with mental health treatment needs are frequently not provided treatment or are provided inadequate treatment for their level of need (Brenner, Southerland, Burns, Wagner, & Farmer, 2014; Kerker & Dore, 2006; Raghaven & McMillen, 2008). Further, researchers have highlighted the overuse of psychotropic medications to manage the emotional and behavioral issues exhibited by children in the child welfare system (Raghaven & McMillen, 2008; Zito et al., 2008). Even among children in treatment foster care—an intensive treatment-focused intervention for youth with emotional, behavioral, and mental health problems—questionable polypharmacy practices and high reliance on non–psychiatrist medical doctors to prescribe and oversee mental health treatment are alarmingly common (Brenner, et al., 2014).

The transition from mental health services geared for children to those provided to adults is fraught with obstacles for FFY (Dworsky & Courney, 2009; Jones, 2014; McMillen & Raghavan, 2009). Approximately 30% of FFY have clinical mental health problems six months post having aged out of the child welfare system (Jones, 2014). As high as 50% of these FFY could benefit from mental health or substance abuse treatment (Jones, 2014). However, as youth age out of the child welfare system, there is a drop in mental health service utilization of about 60%, with between 9% and 11% of FFY receiving mental health services within the first year of aging out of the system (Jones, 2014; McMillen & Raghavan, 2009). This is in part because nearly half of FFY do not have health insurance, not all insurance plans include mental health services, and the out-of-pocket costs of mental health services are often cost prohibitive (Courtney et al., 2011; Dworsky & Courtney, 2009; McMillen & Raghavan, 2009). The transition to adult mental health services is often the first point where FFY have autonomous power to make decisions about their care. The sharp decrease in utilization of mental health services reflects for many FFY a dissatisfaction with the treatment and its outcomes (McMillen & Raghavan, 2009). Similarly, a lack of health insurance, cost of care, limited knowledge about the health care system, and a lack of transportation all contribute to FFY not seeking or receiving necessary medical care (Courtney et al., 2011).

**Focusing on Resilience to Improve FFY Postsecondary Outcomes**

Building awareness around the barriers and outcomes for FFY is a critical step in narrowing achievement gaps and attainment disparities for FFY. However, deficit–focused inquiry presents limited opportunity to identify actionable practices educational institutions can take to steward FFY achievement on their campus. Likewise, a focus on deficits can serve to amplify negative stereotypes that have lasting negative impacts on FFY. In contrast, research that recognizes resilience and other strengths demonstrated by foster youth and FFY can be used to engineer changes necessary to steward FFY into and through postsecondary education.

Research that focuses on resilience can identify means to improve the postsecondary outcomes of FFY. Resilience is not a fixed personal attribute held by some and not others (Ecclestone & Lewis, 2014). Instead, resilience is a process both temporally and contextually bound wherein the individual adapts to adversity with a successful outcome (Garmezy & Masten, 1991; Greene, Galambos, & Lee, 2003). Resilience in any given instance is the result of a complex interplay...
Resilience can be supported through development of protective factors by either by changing the support structures and associated resources available to FFY or by building the personal strengths of FFY (Benard, 1993; Morrison & Allen, 2007; South, Jones, Creith, & Simonds, 2016). Personal strengths that correspond to resilience include a sense of autonomy, social competence, problem solving abilities, and a sense of purpose can contribute to successful navigation of adverse conditions (Benard, 1993). FFY who are strong in these areas of personal strengths, may both influence the resources available to them, and be better positioned to effectively utilize these resources (Hines, Merdinger, & Wyatt, 2005). Support structures consist of a network of people and resources that help FFY to prepare academically, secure stable housing, address emergency needs, face personal challenges, secure financial resources and assistance, and advocate for themselves effectively (Hernandez & Naccarato, 2010).

Interventions designed to promote resilience processes among foster youth have been shown to empower foster youth with new behavioral models and increase access to important support structures. These interventions targeted at youth in early childhood through adolescence have resulted in fewer placement disruptions, increased pro-social behaviors, increased positive affect and reduced rates of depression, reduced substance use, reduced likelihood of running away, and lower rates of teen pregnancy (Leve, et al., 2012). Similar interventions that promote the intentional development of protective factors at the family, school, and community levels have shown to lead to improved primary and secondary educational outcomes for foster youth (Morton, 2016). Additionally, practitioners have been encouraged foster youth in actions designed to build resilience by developing foster youths' personal strengths, including building their autonomy, sense of purpose, social competence, problem solving, and achievement motivation (Morrison & Allen, 2007).

Universities and community colleges across the country are developing new and expanding existing services tailored to support FFY (Fried, 2008). While these programs vary to reflect the local context, they primarily focus on foster youth outreach, housing, financial aid, and mentoring (Fried, 2008). Further, these programs typically utilize a designated coordinator, have external champions, utilize external resources (both fiscal and otherwise), and tap external expertise and guidance (Fried, 2008). Specifically, these programs provide students with academic and career advising, tutoring, mentoring, housing assistance, scholarships and tuition waivers, and referrals for mental health and other services (Hernandez & Naccarato, 2010).

Research on initiatives aimed at improving postsecondary outcomes for FFY have shown positive outcomes (Geenen, Powers, & Phillips, 2015; Hernandez & Naccarato, 2010; Kirk & Day, 2010). However, it is also clear from the existing literature these efforts reach a small fraction of FFY and there is still substantial knowledge needed to test and expand these interventions at scale (Hernandez & Naccarato, 2010; Kirk & Day, 2011). In most occasions, the efforts to serve FFY are rarely integrated with the other services offered at the institution and they rely heavily on an individual staff coordinator or a small staff (Cooper et al., 2008). These positions have a high rate of turnover and are provided limited professional development opportunities (Cooper et al., 2008). Further, these initiatives often do not have access to the level of support necessary to meet FFY needs, especially in the critical areas of financial aid and housing (Cooper et al., 2008).

Existing research on effective means of supporting FFY is limited and is primarily reflective of supports offered in university settings. While there are substantial gaps in the literature, the lack of research on serving FFY at community colleges is notable. This omission in the research is especially problematic given the role of community colleges in providing access to postsecondary education for underserved populations, including students of color and low-income students. Further, while there is substantial theoretical and growing empirical evidence supporting the development of resilience processes through targeted interventions, there is a limited knowledgebase on the implementation and scaling of these practices. Finally, research shows that practitioners’ understanding of resiliency is varied and further study is needed to develop effective professional development resources for practitioners who are designing and implementing resilience-based interventions (South et al., 2016). Overall, research and evaluation are needed to understand the most effective means of supporting FFY on community college campus. As stated in Fried (2008),

The many opportunities that community colleges offer to first-generation and underrepresented students also need to reach young adults who come through the foster care system. It might be their only—and certainly their best—chance to escape the daunting challenges that life has presented them, and to enjoy the benefits and privileges afforded by a higher education. (p. 39)
Educational Barriers and Resilency of Foster Youth in America

In 2014, the number of children who were in...

- 3.2 million Maltreatment Reports
- 702,000 Indicated Cases
- 415,129 Foster Care

Compared to a national average of 42%, only about 10% of former foster youth aged 18-25 years old enroll in postsecondary education.

Educational Barriers

Secondary
- Enrollment delays
- Changed placements and schools
- Inconsistent attendance/truancy
- Over medicated
- Untreated mental and behavioral health issues

Postsecondary
- Insufficient / late financial aid
- Low college knowledge
- Food insecurity
- Homelessness or dangerous living environments
- Involvement with criminal justice
- Untreated mental and behavioral health issues

Protective Factors That Support Educationally Resilient Foster Youth

Personal Strengths
- Sense of autonomy
- Social competence
- Problem solving abilities
- Sense of purpose
- Achievement motivation

Support Structures
- Academic support
- Assistance securing stable housing
- Assistance with food, financial, and other emergency needs
- Personal counseling and guidance

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45 CFR Ch. XIII § 1355.20, 2012


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Texas Minority Serving Community Colleges Support Success and Equitable Outcomes through Resource Sharing

by Randi Congleton, OCCRL Research Assistant

Minority Serving Institutions (MSIs) serve an important role in educating our nation’s diverse students. On October 14–15, Richland College, located in Dallas Texas, in collaboration with the Asian American Native American Pacific Islander Serving–Institution (AANAPISI) Program will host the first Minority Serving Institution (MSI) Convening of institutions, faculty, practitioners, and researchers from across the country to share resources and to develop strategies in support of MSIs.

The purpose of the MSI convening is for representatives from MSIs to come together and discuss effective research, initiatives and programs that impact the academic success of students at two-year and four-year colleges and universities. This year’s convening will focus on current research and evidence, and how moving forward institutions can identify more robust methods for determining the success of programs and initiatives at MSI’s in order to improve, obtain funding, and effect change at our institutions. The idea for the MSI Convening came about as Richland College concluded work on the college’s first AANAPISI grant. College faculty and staff wanted to determine the most effective capacity–building strategies to achieve and sustain student success for colleges that serve large percentages of minority students. To that end, Richland College proposed a national annual gathering of MSIs to share research for what works, the methodology behind successful initiatives, and how to replicate and scale good approaches. Richland College would like to create an ongoing platform that assists MSI designated colleges in these efforts. The MSI convening planning team consists of:

2016 MSI Convening – Richland College, Dallas County Community College District
- Dr. Kay Eggleston, President
- Dr. Zarina Blankenbaker – Executive Vice President/Project Director
- Dr. Jennifer Baggett – Biology Faculty, Co-Chair
- Professor Rey Flores – Criminal Justice and Government Faculty, Co-Chair
- Professor M.T. Hickman – Travel, Exposition and Meeting Management Faculty, Co-Chair
- Dr. LaQueta L. Wright – Sociology Faculty, Co-Chair

Randi Congleton, Graduate Research Assistant, interviewed the convening planning team for the Minority Serving Institution (MSI) Convening to learn more about the educational context of community colleges in Texas and the role of MSI’s in improving educational pathways.

Can you tell me about the two-year context in Texas? In particular, what are the unique features of community college education in your state?

Community colleges in Texas take students where they are in their educational journey and empower them to move to the next level. Community colleges tend to be more nurturing for students; opportunities for face-to-face faculty interaction are greater and therefore mentoring takes place more frequently than in a four-year institution, particularly at the freshman and sophomore levels. Community colleges in Texas are committed to the support and success of all students regardless of their levels of preparation. This support is manifested through mentoring and tutoring centers, a variety of schedule modalities to meet every need, student clubs and support organizations and intensive case–management for those who require it.

Texas does not have a statewide system of governance for community colleges. Each college is governed independently, with separate boards of trustees, by the county and/or city in which they reside. Community colleges are partially funded by the state through reimbursement for contact hours but increasingly, a larger portion of the funding comes from student tuition and county taxpayers. While public community colleges in Texas are not governed through a statewide system, each college reports to the Texas Coordinating Board of Higher Education and adheres to standards for course offerings. Because of this, students typically have no problem transferring between community colleges in Texas and to universities due to articulation agreements and a standard core.

What do you see as the value of MSIs to the larger goal of supporting educational pathways?
MSIs are key to increasing the number of students who successfully complete college since these colleges design targeted support mechanisms for meeting individual student needs. Many colleges with MSI grants have student navigators who guide, direct, and mentor minority students, many of whom may be low-income and/or first-generation college students creating not only equal opportunity but also equitable opportunity. Students who feel the support of their institution are more likely to complete their degree program or educational path. Minority serving institutions provide a place where students can find targeted support services and a community of students with similar experiences.

What do you see as the opportunities, challenges, and differences across MSI designations?

Opportunities are abundant to increase higher education access among historically underserved minority student populations, especially through grant funding. Doing so will (a) increase diversity in the workplace at all levels, (b) improve the standard of living for all Americans, and (c) increase American competitiveness in the global workforce. As we work together through conferences like the MSI Convening, we can come together to reduce differences and improve communication and collaboration.

The primary challenge across all MSIs is the assumption that uniformity exists within ethnic groups. Very often insufficient consideration is given to various cultural differences, especially among Hispanic and Asian students who may come from a variety of countries across the globe. The challenge is in meeting those diverse needs while not compromising rigor and while maintaining academic rigor and consistency. Another challenge are the differences across MSI designations. Differences exist between institutions and how they assess the success of programs and initiatives, which makes it difficult to compare data, replicate programs, and make significant impact across the United States.

To what extent are students cognizant of and/or intentional about enrolling in a minority serving community college as opposed to a predominately white two- or four-year institution?

Students at Richland College have told us they enroll here because they feel comfortable and accepted. It is not clear that they enroll because we are an MSI, but they definitely notice the diversity and they appreciate it. A young woman on a recent student panel remarked that she was impressed when her professor walked in the first day and the professor "looked like her."

What future research and policy initiatives do you feel are needed in advancing two-year MSIs?

Future research needs to focus on determining which student success strategies actually work and the methods to replicate and scale these initiatives. Particularly at the community college, staffing is an issue. Unlike at a four-year college or university, where quantitative research is often faculty-led and supported by graduate students and post-doctoral researchers, community colleges primarily rely on a limited number of administrators and staff who are asked to design, implement, and evaluate research on student needs, programs, and initiatives across the entire college.

There is a need to expand the research capacity of two-year institutions and communication between all institutions so each institution is not forced to reinvent the wheel. The purpose of the MSI Convening is to look at the current strategies and programs colleges are using so we can look at the data that exists now and discuss ideas to improve that data and help us reach a consensus on which practices are promising and warrant more research and implementation at other colleges, as well as what faculty and administrators can do to support these efforts. Because Richland is new to hosting the MSI Convening, and this shift in focus from programs to the data we collect about programs is also new, we do not currently have specific suggestions of strategies or policy initiatives. Instead, we hope this year’s conference will provide us with answers to those questions.

OCCRL is grateful to Dr. LaQueta Wright and Dr. Jennifer Baggett for coordinating with the team to provide the information contained in this article and for their efforts in supporting Minority Serving Community Colleges and their students.

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Funded by grant from the Asian American/Pacific Islander Serving Institution program of the U.S. Department of Education. This program is supported in part by grant number 03-lius-02 from the U.S. Department of Education, with matches by Richland College and the Illinois Community College Board. This presentation is supported in part by more than 300 grantees selected by a joint panel of reviewers from the U.S. Department of Education, with matches by Richland College and the Illinois Community College Board.

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The Chicago Landscape of Career and Technical Education

by Devean R. Owens, OCCRL Graduate Assistant
Anjalé D. Welton, Associate Professor of Education Policy, Organization and Leadership
OCCRL Assistant Director of Strategic Initiatives and Research Partnerships

In this issue of UPDATE we provide an introductory overview of career and technical education (CTE) programs in both Chicago Public Schools (CPS) and the City Colleges of Chicago (CCC). In future issues, we will highlight specific CTE programs and initiatives in the Chicago area and the innovative partnerships between high schools, community colleges, and industry that make them possible.

The State of Illinois, and the City of Chicago in particular, have some of the highest unemployment rates in the country for youth ages 16 to 19 years old and 20 to 24 years old, and both lead the nation in Black youth unemployment (Cordova, Wilson, & Morsey, 2016; Ross & Svajlenka, 2016). Based on 2014 data, in Chicago 16% of 16– to 19-year-olds are employed, which is significantly lower than the national average of 29% (Cordova et al., 2016). Conversely, employment rates for 20– to 24-year-old Chicagoans is on par with the national average of 65% (Ross & Svajlenka, 2016). Furthermore, only 12% of Chicago Black youth ages 16 to 19 years old and 41% of youth ages 20 to 24 years old were employed (Cordova et al., 2016). Even still, nationally the Black youth employment rate is still disconcertingly low as only 21% of Black 16– to 19–year–olds (Cordova et al., 2016) and 57% of Black 20– to 24–year–olds are employed (Ross & Svajlenka, 2016).

CTE is one programmatic solution to address this equity concern by providing youth the academic and technical skills needed to become more employable. For high school youth especially, employment connected to their career goals and aspirations can offer additional learning opportunities outside of formal schooling that broaden their networks and help them develop positive relationships with adults (Ross & Svajlenka, 2016). Moreover, for many low-income, high school youth, obtaining employment is not optional; it is vital to supplementing family income and also financially planning for college (College Board, 2016). Students who participate in high–quality CTE programs graduate from high school at higher rates, are more likely to attend college, and in the long term earn higher wages than students who do not participate (ACTE, 2016). Additionally, retention and achievement within CTE programs has increased significantly, illustrating students have the commitment and dedication needed to promote a skilled workforce (Illinois Community College Board, 2014).

Students are not the only beneficiaries of CTE programs. Employers report that participating in initiatives that help youth acquire specialized skills positively impacts their companies and industries as a whole. Furthermore, participating business organizations gain a more robust talent pool, a diverse and innovative workforce, positive press and branding opportunities, as well as economic development that boosts business prospects (Cahill & Jackson, 2015).

Finally, the way in which young people navigate postsecondary education and the workforce is changing. The traditional pathway involves enrolling in some form of postsecondary education immediately after high school and subsequently entering the workforce upon receiving a degree. However, the non–traditional pathway will soon be the norm as more young people, approximately 8% of the workforce and 70 to 80% of college students, are simultaneously enrolled in some form of postsecondary education while earning a living (Carnevale, Smith, Melton, & Price, 2015). Ultimately, youth who earn a college degree are more likely to

Based on 2014 data, in Chicago 16% of 16– to 19–year–olds are employed, which is significantly lower than the national average of 29% (Cordova et al., 2016).
advantage to managerial positions with higher wages than those who immediately go into full-time work post high school (Carnevale et al., 2015). Unfortunately, low-income youth who work extensively while in school have lower rates of degree completion (Carnevale et al., 2015). Yet, perhaps paid CTE internships and apprenticeships could alleviate this inequity, as low-income students would be engaged in employment that applies to both their studies and career interests (see Carnevale et al., 2015). In the following sections we review both high school and community college CTE programs in the City of Chicago.

**Chicago Public Schools**

CPS houses 12 of the 16 nationally recognized career clusters. Career clusters are groups of occupations and industries that have in common a set of foundational knowledge and skills. Among these career clusters students can choose to specialize in one of forty different programs of study (Jankowski, Kirby, Bragg, Taylor, & Oertle, 2009). Career pathways are multi-year programs of academic and technical study that prepare high school students for a full range of postsecondary options within each of the 16 clusters. Programs of study are sequences of courses that incorporate a non-duplicative progression of secondary and postsecondary elements, which include both academic and career and technical content (Jankowski et al., 2009).

In 2010, CPS reorganized 250 non-standardized CTE programs into 80 College and Career Academies at 35 high schools. These College and Career Academies (CCA) provide approximately 20,000 students with college prep courses like math, science, and English, as well as hands-on experience in their specific industry. CCA students also have the opportunity to receive scholarships, attain industry-recognized certifications, earn college credit, participate in job shadows and internships, attend college fairs and tours, and compete in city, state, and national competitions (Chicago Public Schools, 2016a).

**Work-Based Learning Experiences.** CPS also partners with industry professionals and organizations that give students opportunities to put skills they learn in their CTE courses to practice via real-world work-based learning experiences (WBL). Some WBL opportunities are similar to an apprenticeship and include job shadows, internships, cooperative education, guest speakers, and site visits. WBL experiences typically occur during the junior and senior years of high school (Chicago Public Schools, 2016b).

Classroom guest speakers and one-day site visits are usually a student's introduction to exploring how their CTE coursework applies on the ground. During one-day job shadows students are partnered with an industry professional who serves as both teacher and mentor. Students complete their job shadow in the spring of their junior year. Internships occur the following summer, once the student has completed two years of CTE curriculum. Internships give students the opportunity to apply the academic, technical, and employability skills emphasized in the CTE courses. Internships differ from youth employment in that they are a highly structured and supervised learning environment. Finally, cooperative education, i.e. co-op or work study, is paid employment for only the strongest CTE students and provides on-the-job advanced skills training aligned with a particular CTE pathway (Chicago Public Schools, 2016b).

**Selective-Enrollment High Schools.** CPS has 11 selective enrollment high schools. These schools were originally targeted efforts to keep white families and their children in the school district, and as a result were located in gentrifying and affluent neighborhoods. Over time a significant percentage of white students have left CPS, resulting in white student enrollment of fewer than 10%.

Hancock College Prep and Jones College Prep are the only selective-enrollment high schools in CPS with CCAs that have eligibility requirements. There are also a few CCAs that are selective in enrollment, such as Health Sciences, Law and Public Safety, IT – Cisco Networking and Information Technology, Database Programming Academy, and Pre-Engineering and these are considered academically rigorous. Student acceptance into both selective-enrollment high schools and CCAs is based on middle school GPA and local and state assessment scores (Chicago Public Schools, 2016c).

**City Colleges of Chicago**

Illinois has 16 of the nationally recognized career clusters with the option of earning a basic certificate, advanced certificate, or an Associate of Applied Science degree (Illinois Community College Board, 2016). There are over 170,000 community college students enrolled in CTE programs in the state of Illinois (Association for Career & Technical Education, 2016). During 2013–14, the majority of students were enrolled in the Health Science concentration. There were also 8,432 more male than female students enrolled in the CTE program (Perkins Collaborative Resource Network, 2014). However, in 2015 female student enrollment increased to 54%, outnumbering male students (Illinois Community College Board, 2016). In addition to general education standards there are also program-specific standards for postsecondary CTE programs, and CTE program length varies from one semester to two years (Illinois Community College Board, 2016).
The City Colleges of Chicago (CCC), specifically, offer CTE programs at each campus in the following areas: business; information technology; education and training; human services; manufacturing; transportation, distribution and logistics; and health sciences. CCC currently serve over 100,000 students (City Colleges of Chicago, 2016a). As of 2014 students of color make up 81% of the enrollment at the CCC, granting them the Minority-Serving Institution (MSI) designation (City Colleges of Chicago, 2016b).

In 2011, Chicago Mayor Rahm Emanuel, in partnership with CCC, launched College to Careers (C2C), which is a program aimed to promote partnerships between the CCC and industry leaders (City Colleges of Chicago, 2016c; City of Chicago, 2014). The expectation is that through these industry partnerships the CCC can align their curricula to better meet the ever-changing demands of certain growing fields (City of Chicago, 2014). At its inception C2C targeted healthcare and transportation and logistics as these were considered two growth industries. It is anticipated that by 2020 Chicago will need 75,000 more healthcare practitioners and 4,000 new truck drivers to fill potential job openings (City of Chicago, 2014). CCC and corporations collaborate around three specific purposes: 1) curriculum design and creation of certificate programs, 2) curriculum delivery, and 3) access to internships, interviews, and facilities (City of Chicago, 2014). Currently, via the C2C initiative the CCC partners with over 50 corporations (City Colleges of Chicago, 2016b). In 2015, nearly 57,000 students were enrolled in C2C programs, representing over half of the CCC’s total enrollment (City Colleges of Chicago, 2016a).

Future Research

The CTE programs in Chicago have a strong foundation to continue to be appealing and viable options for students. Still, additional research is needed to understand how CTE programs in Chicago can help overcome a persistent inequity—that a significant percentage of Chicagoans are not participating in and/or are left out of the workforce. Regrettably, Chicago is mired in ongoing discrimination in housing and school reform policies that presently have made the city one of the most racially segregated in the nation (see Lipman, 2011). These discriminatory policies and practices deplete low-income communities and communities of color of vital resources needed to not only gain access to employment but also gain the education and training necessary to become employable. More research is necessary to understand how high schools, community colleges, and industry leaders are working in concert to use CTE programming as one possible solution to addressing inequities for many Chicagoans navigating the workforce. Thus, within the sociopolitical landscape of Chicago we need more data that tracks how both high school and community college CTE programs link young people to employers and employment opportunities.
References


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Community Colleges and Democracy as Problem Solving

by Clifford P. Harbour, Professor, University of Wyoming

Public community college systems were the creation of state legislation. The colleges grew in number, especially during the 1960s and 1970s, because state and federal governments appropriated funds for campus construction and student financial aid. Community colleges provided educational opportunities to any adult deemed capable of college work, without regard to the student’s race, ethnicity, gender, national origin, or income. In this respect, the community college was the institutional down payment on a promise to expand democracy beyond the political realm through education. Over the next 50 years, the enrollment of millions of new students represented an important step toward realizing a fuller democracy.

However, this investment has not kept pace with growing enrollment. A May 2016 report from the Center on Budget and Policy Priorities confirmed what many community college leaders have known for years: state support for public higher education has not kept pace with enrollment growth since the Great Recession of 2007–2009 (Mitchell, Leachman, & Masterson, 2016). More specifically, these researchers found that, “Forty-five states ... are spending less per student in the 2015–16 school year than they did before the recession...” (p. 2). This faltering commitment to public higher education is occurring at a time when the need for a more effective system of state colleges and universities is greater than ever.

The Private Good and Public Good Rationales

When appropriations are being negotiated by state legislators and policymakers, considerations of both “private good” and “public good” play a large role in determining who should bear the cost of a higher education. Historian David Labaree (2016) recently published a piece on the topic titled “Learning to Love the Bomb: The Cold War Brings the Best of Times to Higher Education,” which I highly recommend to readers.

The private good rationale maintains that the benefits accruing from postsecondary public education flow primarily to those directly involved in the enterprise: the students. Therefore, state legislators adhering to the private good rationale believe students should bear most of the costs associated with acquiring their education. Perhaps the best evidence to justify this rationale is the data affirming the positive individual economic consequences of attaining a college degree (e.g., Baum, Ma, & Payea, 2013). Compared to students who do not complete their degree program, students who obtain an associate’s degree or bachelor’s degree enjoy higher incomes over a lifetime.

The public good rationale maintains that the primary beneficiary of public postsecondary education is society at large. Americans accepted the private good rationale. From colonial times right up through the middle of the 20th century, parents sent their children to small private colleges and, later, larger state universities, so they could enter a profession or secure a future in the middle class. The public good rationale maintains that the primary beneficiary of public postsecondary education is society at large. This view was endorsed by the public during and following World War II. It’s important to remember that with the onset of World War II, the federal government’s role in higher education expanded quickly. Military leaders turned to research universities to develop new armaments, and these institutions became “the central site for military research and development” (Labaree, 2016, p. 108). After World War II, federal funding was extended to other national priorities such as scientific research in agriculture and medicine. The federal government’s support of higher education expanded again with the enactment of the Servicemen’s Readjustment Act of 1944 (the GI Bill of Rights, or GI Bill), which supported veterans as they transitioned back to civilian life. After World War II, millions of veterans used the GI Bill to pay for college. Strong federal support for research and student financial aid continued for approximately 30 years (from the 1940s to the 1970s).

There is a tendency to see the private good rationale as a perspective that has taken hold only recently. This leads some of us in the academy to pine for “a return to the good old days” (Labaree, 2016, p. 114) when the public good rationale was widely accepted by Americans. However, as Labaree explains, until World War II, most
As envisioned by the Truman Commission, the community college became an essential institution in the American higher education hierarchy. Its mission was to provide adults with access to a comprehensive two-year curriculum, including terminal vocational programs, transfer programs, and adult education programs.

This high level of federal support for postsecondary education is what Labaree (2016) referred to as the “golden age” of American higher education. During this “golden age” postsecondary institutions benefited from high levels of federal investment in part grounded in a prevalent ideology of the time that only America’s research universities and colleges could produce the technology and workforce needed to counter the threat of Communism. The advantages of the “golden age” flowed to institutions throughout American higher education. The first years of the “golden age” were also energized, again ideologically, by the work of President Harry Truman’s Commission on Higher Education (the Truman Commission) and its multi-volume report, setting a course for American higher education for the next 60 years (President’s Commission on Higher Education, 1947).

Consequently, the authors of the Truman Commission’s Report stated, “democracy is much more than a set of political processes” (p. 11). Moreover, they continued, “when the democratic spirit is deep and strong in a society, its expression is not limited to the sphere of government; it animates every phase of living: economic and social and personal as well as political” (p. 14). Colleges and universities were charged, therefore, with helping students develop their, “… self-discipline and self-reliance... ethical principles as a guide for conduct... sensitivity to injustice and inequality... [and] the spirit of democratic compromise and cooperation” (p. 10).

The Community College of the Future

Labaree observed that with the end of the Cold War, the potential for individual and private gain has again become the dominant rationale for pursuing a college education. Today, colleges and universities market their programs based on the anticipated return on investment. Students and legislatures also assess programs using this criterion. Not surprisingly, the declining interest in the public good as an end of higher education is matched by a declining confidence in public institutions (The National Task Force on Civic Learning and Democratic Engagement, 2012). Employment has become precarious, income inequality is increasing, and state and federal governments appear unable to arrest these developments. Government just does not work for many Americans. Although the nation came together after 9/11, that feeling of shared public purpose is now lost. As Daniel Rodgers (2011) wrote, we live in an age of fracture.

In this environment, community colleges have come under pressure to become more effective in educating and credentialing adult learners. Leading researchers have called upon community colleges to adopt guided pathways models that...
would streamline students’ progress and thus improve notoriously low graduation rates (e.g., Bailey, Jaggars, & Jenkins, 2015). At the same time, others argue that community colleges must promote educational equity and become more effective in serving students from all communities (e.g., Bensimon & Malcolm, 2012; Bragg & Durham, 2012; Grubb & Lazerson, 2004; Zamani-Gallaher & Choudhuri, 2016). Both objectives are critically important, yet, we seem to lack the shared sense of purpose that might lead to solutions accommodating both objectives.

Xavier de Souza Briggs, a sociologist at the Massachusetts Institute of Technology (now working for the Ford Foundation), conducted research that revealed how communities can successfully address large, complex social problems with innovations that go outside traditional cultures, organizations, and government regulations. This approach, described by Briggs (2008), is well worth considering as a possible model to tackle major problems that are usually assigned to specific institutions but in fact are rooted in the social and economic history of the community (e.g., low completion rates and inequities in education).

Briggs (2008) found that when community leaders in large cities tackled complex social problems they did much more than utilize existing institutions and political processes. Leaders came together to form new “stable coalitions” and then carried out the coalition’s objectives through “implementation-focused alliances” (p. 12). These coalitions and alliances moved forward because of their ability to collaborate and forge new compromises. In the process, they created a new collective “civil capacity” that helped to secure the solutions developed (p. 13). This work did not follow traditional public policy or private–sector methods yet led to unique hybrid coalitions, alliances, methods, and solutions. In this way, communities made significant progress in managing urban growth (in Salt Lake City) and restructuring key aspects of the economy (in Pittsburgh). Briggs identified this approach as “democracy as problem solving” (p. 8). This term captured the sense of participants that their work was not strictly political, economic, or social. It transcended these disciplinary boundaries and was the work of a healthy democratic community.

To be sure, state and federal governments will continue to shape the future of community college education. Policymakers will continue to make decisions regarding the subsidization and regulation of community colleges based, at least in part, on the competing values reflected in the public good and private good rationales. The role of the state in public higher education will always be debated. The significance of Briggs’ findings, however, is that this work invites us to step forward into a new era, one not constrained by the binary thinking of the public and private benefits of higher education. This approach, if implemented by visionary community college leaders, could offer new innovative strategies to solve complex social problems reflected on campus in the form of low completion rates and educational inequities. Perhaps more importantly, however, when the Truman’s Commission’s Report is brought into conversation with Briggs’ (2008) Democracy as Problem Solving, we have the beginnings of a new justification to help strengthen a community’s civil capacity. Democracy as problem solving can do more than help secure solutions to problems ignored by the private good rationale. It carries the potential for helping faculty, staff, students and community members develop a new democratic spirit, a spirit that if nurtured and supported could lead to a fuller realization of democracy for all.

References


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