



# The newsletter of the National Career Pathways Network Connections

Vol. 26, No. 3: *Revving Up for the 2016 Conference in Indy!*

## From the Director . . .

Debbie Mills, Director, NCPN ([dmills@cord.org](mailto:dmills@cord.org))



The annual conference of the National Career Pathways Network at the JW Marriott Indy is just around the corner (Oct 5–7). The conference’s 1200+ attendees will consist of a broad cross-section of stakeholders comprising secondary and postsecondary educators, workforce development professionals, and employers. The conference will offer 130+ breakout sessions; outstanding keynote speakers; and a special session on Perkins, adult education, and WIOA. The conference strands will follow the OCTAE Ten-

Component Framework and DOL Six Key Elements. We will also have preconference workshops (see article below) and a mini-strand on the National Science Foundation’s Advanced Technological Education program (to be featured in a forthcoming issue of this newsletter).

In this issue of *Connections*, we provide articles on our two keynote speakers—*both truly inspiring people!* **Barrington Irving** overcame the challenges of growing up in inner-city Miami to become the youngest person and only African American to fly solo around the world. **Consuelo Castillo Kickbusch** entered military service after graduating from college and rose to become the highest-ranking Hispanic woman in the Combat Support Field of the U.S. Army. Both have founded educational organizations dedicated to empowering young people across the country to pursue their dreams. Don’t miss their exciting stories.

The 2016 conference is shaping up to be one of our best ever. *Join us in Indy!*

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**National Career Pathways Network  
Conference** Oct 5-7 • JW Marriott Indianapolis

Register online at [www.ncpn.info](http://www.ncpn.info).

## ***Barrington Irving's Inspiring Personal Triumph***

They said he couldn't do it. But they were wrong.



The keynote at this year's opening general session (Thursday, Oct 6, 9:30–10:45) will be pilot, educator, and entrepreneur Barrington Irving. Barrington is an inspiring example of talent and determination rising above circumstances. He grew up in a troubled neighborhood in Miami's inner city but went on in 2007 to become the youngest person, and the only African American, to fly solo around the world. While still in his twenties, he built his own plane, flew around the world, graduated with honors from an aeronautical science program at Florida Memorial University, and founded an educational nonprofit organization.

"The only thing that separates you from CEOs in corner offices or scientists in labs is determination, hard work, and a passion for what you want to achieve," Barrington tells kids. "The only person who can stop you from doing something great is you." The key to success, he says, is following a dream, and dreams are born through inspirational experiences that can lead to careers—especially in STEM subjects.

Barrington's life-changing inspiration came when he visited the cockpit of a commercial plane at age 15. From that moment he knew he was destined to be a pilot. He could have played football at the University of Florida on a full football scholarship but opted to wash airplanes to save money for flight school. Determined to fly around the world, he had to overcome many rejections for sponsorship before being given the aircraft components he needed to build his own plane. "Everyone told me what I couldn't do," he said. "They said I was too young, that I didn't have enough money, experience, strength, or knowledge. They told me it would take forever and I'd never come home."

But Barrington proved them wrong. His historic three-month-long flight encompassed 150 hours of flight time and 26,800 miles with stops in Canada, the Azores, Spain, Italy, Greece, Egypt, Dubai, Thailand, Hong Kong, and Japan—with no radar or de-icing equipment. When he touched down at Miami's Opa-Locka Executive Airport on June 27, 2007, the thing that most impressed him was the interest and excitement of the young people who greeted him. "It's humbling, especially in this day and age, when a lot of young black men are getting caught up in the wrong things," said Barrington. "I feel blessed that I had a chance to maybe inspire kids out there, black or white, to become pilots or engineers or air traffic controllers, or to make a positive impact in any other area of life."



Since completing his historic flight, Barrington has dedicated himself to “giving back” with his time and expertise. To accomplish that goal he founded Experience Aviation, an educational nonprofit organization dedicated to encouraging young people to pursue careers in STEM fields.

For more on Barrington Irving and his educational projects, visit Experience Aviation at <http://www.experienceaviation.org/>.

## ***Celebrated Veteran Consuelo Castillo Kickbusch Inspires All***

*Through hard work and determination, she beat the odds.*



The keynote at this year’s closing general session (Friday, Oct 7, 2:45–3:45) will be Consuelo Castillo Kickbusch, a passionate and charismatic speaker who knows first-hand what it takes to overcome the challenges of poverty, illiteracy, and discrimination. Born and raised in a small barrio in Laredo, Texas, Consuelo went on to become the highest-ranking Hispanic woman in the Combat Support Field of the U.S. Army.

From her immigrant parents, Consuelo learned about tradition, culture, and faith—values that served her well during her years of military service. After graduating from Hardin Simmons University, she entered the U.S. Army, serving as an officer for two decades. Given the opportunity to serve in a command post, Consuelo declined, opting to honor her mother’s wish that she become a community leader. She retired from the military in 1996 and has since dedicated her time to leading Educational Achievement Services, Inc.

(<http://www.easleadership.com/>), the organization she founded in 1994.

Consuelo has worked with over a million children in some of the nation’s most troubled neighborhoods. She strives to instill in young people of all backgrounds the confidence that their dreams can come true and that, through discipline and hard work, they can take make a difference in their families and communities. In 1998, she founded the Family Leadership Institute (FLI), an educational program designed to help first- and second-generation children of immigrant and migrant Hispanic families succeed in school and in life. Her book, titled *Journey to the Future: A Roadmap for Success for Youth*, shows young people how to develop self-esteem, achieve goals, and become leaders in their schools and communities.

Among Consuelo’s many awards and citations are the Legion of Merit, the National Defense Service Medal, the Meritorious Service Medal (four times), the Toastmaster’s Leadership Award, and the National Mujer Award (bestowed by the National Hispana Leadership Institute). She has been featured by National Public Radio, *O Magazine*, and the television program *Hispanics Today*, and was one of *Hispanic Business* magazine’s “100 Most Influential Hispanics in America.”

For more information on the NCPN conference, visit [www.ncpn.info](http://www.ncpn.info).

## 2016 NCPN Preconference Workshops

The 2016 conference will offer a full slate of preconference workshops on October 5.



This year's NCPN conference on October 5–7 will be held at the beautiful JW Marriott Indy in downtown Indianapolis. Among the event's offerings will be 130+ breakout sessions, keynote general sessions, a member luncheon, an exhibit hall, and a day of full- and half-day preconference workshops on October 5. Following are brief descriptions of the workshops. For more complete information, visit [www.ncpn.info](http://www.ncpn.info). For a conference brochure in PDF, go here ([http://www.cordonline.net/connections/26\\_3/ncpn\\_2016\\_brochure\\_web.pdf](http://www.cordonline.net/connections/26_3/ncpn_2016_brochure_web.pdf)). To register for the event, go here (<http://www.ncpn.info/registration.php>).

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### MORNING (9:00 A.M.–Noon)

**Employer-Education Partnerships:** This workshop will explore the elements required to build a local strategy toward prosperity for both businesses and students. For employers, community college administrators, workforce development personnel, and CTE directors. **Mark Turner**, The Boeing Company, Seattle, WA; **Richard Hinckley**, CORD, Waco, TX

**Are You Certified? Industry Certifications and Credentialing:** Gain a renewed sense of where and how industry credentialing fits into your educational institution's plans. **Jeraline M. Marsh**, School District of Palm Beach County, FL; **John Foster**, NOCTI, Big Rapids, MI; **Marilyn Barger**, Florida Advanced Technological Education Center for Excellence, Tampa, FL

**How Do Perkins and Adult Education Fit Into the WIOA Puzzle?** This session will cover the promulgation of 2016 regulations by the U.S. Dept of Ed and U.S. Dept of Labor governing programs under the WIOA. Perkins and the Adult Education and Family Literacy Act are integral parts of the WIOA roll-out. Learn how these pieces fit together. **Michael Brustein**, Brustein & Manasevit, Washington, DC

**Blended Learning: Building Technology-Infused Lessons:** Blended learning, a hybridization of online and face-to-face, has recently become popular. In this workshop, we will use technology to help instructors increase interaction in their classrooms. **Jeannie Justice**, Morehead State University, Morehead, KY

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### AFTERNOON (1:30–4:30 P.M.)

**Advancing Career Pathways for Adults:** Learn how leaders from three states are engaging employers and community partners to build Career Pathways systems and industry-responsive programs. **Marilyn Pitzulo**, **Marie Mackintosh**, IN Dept of Workforce Development, Indianapolis, IN; **Jamil Steele**, IL Community College Board, Springfield, IL; **Jennifer Jirous-Rapp**, CO Dept of Ed, Denver, CO; **Hope Cotner**, CORD, Waco, TX

### **NCPN Leadership Development: Learning Today to LEAD Tomorrow**

This session will focus on innovative strategies for building personal and professional leadership among Career Pathways leaders. *Topics:* Accountability, change, coaching, conflict resolution, organizational culture, professionalism, strategic planning, and teamwork. **Jeraline Johnson**, School District of Palm Beach County, FL

**Entrepreneurship:** Entrepreneurship education is gaining ground. Learn what it means and how you can implement a program. **Kelly Favory**, Ball State Indianapolis Center, Indianapolis, IN; **Sara Gutting**, Adult Ed Consultant, Indianapolis, IN; **Jacob Schpok**, Lt. Governor's Office of Small Business and Entrepreneurship, Indianapolis, IN

**Flipped Instruction: A Guide to Create, Collaborate, and Engage:** This hands-on presentation will discuss practical uses for technology to help educators encourage student creativity and engagement in learning. **Jeannie Justice**, Morehead State University, Morehead, KY

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### **FULL-DAY (9:30 A.M.—4:30 P.M.)**

**\*Career Pathways Leadership Certification:** This workshop empowers local and state personnel to implement Career Pathways and provide strategies, tools, and resources. *Topics:* Need for Career Pathways, employer engagement, program design and delivery, funding, academic achievement, data and evaluation, career planning, and professional development. **Ann Westrich**, WI Technical College System Office, Madison, WI

**\*Indiana-Focused Career Pathways Leadership Certification:** As above but with special emphasis on Indiana policies. **Claudia Maness**, CORD, Waco, TX

**\*Ohio-Focused Career Pathways Leadership Certification:** As above but with special emphasis on Ohio's career advising policy and student success plans. **Sandra Harwell**, CORD, Waco, TX

*\*Requirements for Career Pathways leadership certification (CPLC) include attending one CPLC workshop and at least seven sessions from the main conference program on Thursday and Friday.*

**Counseling in a Career Pathways System:** What do secondary, postsecondary, adult education, workforce development, and economic development have in common? They are all partners in preparing students and adults for sustainable careers through Career Pathways. Come learn how to involve these partners in enhancing your career counseling. **Felicia Gray-Watson**, NC Dept of Public Instruction, Raleigh, NC

**Supply Chain Management and Logistics:** Supply chain management and logistics is an important career field in the U.S. and around the world. Attend this workshop to learn how schools and other organizations have established successful programs. Participate in an industry tour of a leading national distribution company. **Fran Bauman**, Transportation Careers, Springfield, IL

## ***Flipped Student Services: Restructuring How We Support Today's Students***

*Tammi McKinnon, Career Pathways Initiative, South Arkansas Community College*



Faced with diminishing resources, educational institutions are finding it increasingly difficult to provide the services students need. South Arkansas Community College in El Dorado is solving that problem with StudentLingo (<https://www.studentlingo.com/>), a provider of online, interactive on-demand workshops, action plans, and resources focused on helping students achieve their academic, personal, and career goals.

More and more students today are taking classes online, and even students in more traditional face-to-face settings expect access to supporting information 24/7. StudentLingo meets that expectation with workshops covering areas such as academic and career exploration, reading and writing strategies, learning to learn, personal management, and online learning. (For a complete list of workshop titles, visit <http://www.innovativeeducators.org/studentlingo-s/77.htm>.) The StudentLingo website tracks student achievement and reports to the client institution. Some workshops are available in Spanish. All are ADA compliant.

StudentLingo has been available to South Arkansas Community College teachers, staff, and students since January of 2012. SouthArk's Career Pathways Initiative (CPI) is designed to help parents acquire employability skills. Workshops such as "Writing Effective Resumes and Cover Letters," "Mastering the Job Interview," and "Exploring Careers and Choosing a Major" support the career facet of CPI. Others such as "Financial Literacy," "Overcoming Procrastination," and "Setting and Accomplishing Realistic Goals" help students develop personal skills. The topics discussed in the workshops have proven valuable to students. To receive financial benefits (e.g., assistance with child care, gas vouchers, books, tuition and fees, and laptops with Internet access), CPI students are required to view one workshop a month from a list chosen by a counselor. In the past, when conventional workshops were used, no matter how many sessions were provided, some CPI students were unable to attend because of class, work, or family demands. With StudentLingo, that problem no longer exists.

Many of the CPI students are first-time, first-generation college students. For those students, the workshops on stress management, time management, study tips, and test anxiety have been especially useful. The general information in "What It Takes to Be a Successful College Student" and "Maximizing Your College Experience" has proven beneficial to students just beginning college.

Our SouthArk Success classes (freshman orientation) also use the StudentLingo workshops to help students become acclimated to college life. Because they are online, the workshops and action plans can be assigned as homework.

Last year StudentLingo workshops were used for remediation in SouthArk's Early Alert program. Early Alert is designed to identify at-risk students at the *beginning* of the struggle so that they can remain in and pass their classes. Workshops such as "Learning Strategies Every Student

Should Know,” “Discover Your Learning Style,” and “Improving Student-Faculty Relationships” provide helpful information to students in this situation.

For more information, contact the author at [TMckinnon@southark.edu](mailto:TMckinnon@southark.edu).

## Update on a Career Pathways Project in Brazil

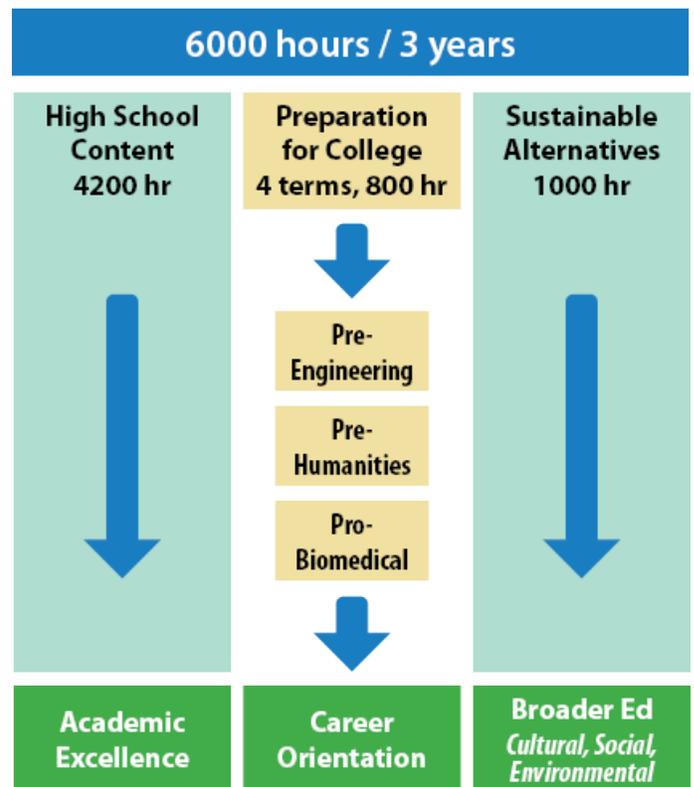
Agustin Navarra, Vice President for International Projects, CORD



In 2005 Brazilian aircraft manufacturer Embraer, through its Embraer Education and Research Institute (Portuguese: IEEP), launched an ambitious plan designed to build and maintain a high school, the Colégio Eng° Juarez Wanderley (CEJW) (<http://www.institutoembraer.com.br/pt-br/colgioembraer/paginas/colgiojuarezwanderley.aspx>), in which “poor students have the opportunity to see their dreams take flight” (Geri Smith, “Embraer Helps to Educate Brazil,” *Business Week*, July 31, 2006).

IEEP wanted to design a really innovative high school that could leave a legacy. The school was envisioned as consisting of three pathways: pre-engineering, pre-humanities, and pro-biomedical (as shown in the image, adapted from “Embraer High School: Engineering in the Preparation for College Program” by Paulo Lourencao, Agustin Navarra, Mirian Branco, Natasha Puntschart, and Priscila Soares; paper presented at the 10th International CDIO Conference, Universitat Politècnica de Catalunya, Barcelona, Spain, June 16–19, 2014; ([http://www.cordonline.net/connections/26\\_3/embraer\\_high\\_school\\_20\\_04\\_14.pdf](http://www.cordonline.net/connections/26_3/embraer_high_school_20_04_14.pdf)).

With the help of CORD (Center for Occupational Research and Development; <http://www.cord.org/>), the parent organization of the National Career Pathways Network), a career pathway project in pre-engineering was planned and implemented beginning in 2006. The first cohort of students graduated in 2008. To attend the school, students had to have attended public schools during the previous four years of their education. CORD proposed a comprehensive pre-engineering program based on an innovative approach to curriculum and teaching.



A challenging “preparation for college” strand of 800 hours (four semesters) was established on top of the regular high school timetable. This enrichment strand, which was **integrated with regular school subjects**, included courses with titles such as *Personal Development for Career Success*, *Principles of Technology*, and *The Nature of Things*. Students were tasked with applying the scientific method in business- and industry-oriented projects. The following image shows the course organization of the pre-engineering program.

This new type of enriched and context-adapted curriculum (college-prep plus work-readiness skills and attitudes) requires that teachers be adequately trained in “contextual teaching and learning” (CTL). CTL theory recognizes that learning occurs only when students process new information or knowledge in such a way that it makes sense to them in their own frames of reference. CTL theory encourages five essential student engagement strategies—relating, experiencing, applying, cooperating, and transferring—which CORD refers to collectively as the REACT methodology. (For more on CTL, go here: <http://www.cord.org/contextual-teaching-and-learning/>.) For the IEEP project, CORD conducted a three-year REACT-based teacher professional development process to get teachers ready to teach and coach following this new context-oriented instructional methodology.

Career Readiness	Semester 1	Personal Devel Career Success (40 hr)
		Comp/Internet for Engineers (40 hr)
The World of Engineering	Semester 2	Principles of Technology I (80 hr)
		Principles of Technology II (80 hr)
		Electricity CC/CA (40 hr)
	Semester 3	Nature of Things I (40 hr)
		Principles of Technology III (60 hr)
		Basic Electronics (40 hr)
Skills for Lifelong Learning	Semester 4	Nature of Things II (40 hr)
		Capstone Project (120 hr)
		Digital Electronics (40 hr)
		Capstone Project (120 hr)

The enriched curriculum and excellent team of contextual teachers were key components of the project, but two conditions were also required: *strong leadership* at the school level and *strong, long-term business-industry support*. Support from the Embraer Institute provided curriculum input, laboratory supplies, and assistance in annual career fairs. These fairs were led by teachers but were organized and coordinated by senior students (grade twelve).

The program has produced excellent outcomes. According to a news release from Embraer (<http://www.embraer.com/en-US/ImprensaEventos/Press-releases/noticias/Pages/ALUNOS-DO-COLEGIO-ENG-JUAREZ-WANDERLEY-OBTEM-100-DE-APROVACAO-NO-VESTIBULAR.aspx>), all of the December 2008 graduates, including the CORD pre-engineering students, were admitted to at least one undergraduate institution. This is no small accomplishment, given the rigor of the university system in Brazil.

Although these students had to stay in school two additional hours per day for four semesters, without receiving a grade, they were grateful for the opportunity to enrich their abilities with knowledge, skills, and attitudes that are valued in the workplace.

The first cohort of students who graduated from the PE program left CEJW in 2008. Since then, a longitudinal evaluation process has been applied to determine the impact of the program on former JWEHS students through their academic (university) and professional lives.

During the years 2009 to 2012, IEEP and CORD organized meetings with CEJW teachers and students, CEJW graduates at universities, and university professors. Surveys were conducted to get first-hand information on the performance of current CEJW students of CEJW graduates' college work. Starting in 2013, those meeting have included employers of CEJW graduates. Results have been exceptionally encouraging.

The IEEP pre-engineering process has brought to light the following points, among others:

1. Follow-up and monitoring generate a very important **two-way feedback process** between the curriculum and pedagogical practice in place and the results produced. Lessons learned from the results generated several modifications to the original plans.
2. The relatively large scope of the project (design, implementation, and assessment) allowed for an expanded concept of the “context” in which learning takes place—going beyond the circumstances of students during their typical learning years to encompass their subsequent experiences in the workplace. The assessment component of the project enabled graduates of the program to provide information that ultimately helped to improve the experiences and outcomes of current CEJW students.
3. This project also intersected with the CDIO initiative (<http://www.cdio.org/>). (CDIO derives its name from its emphasis on engineering fundamentals set in the context of conceiving, designing, implementing, and operating.) CDIO normally works in higher education, but the CEJW project presented a CDIO application at the high school level.

As a direct consequence of the positive results from CEJW, in 2012 IEEP decided to build a second school—CECMF—in the city of Botucatu (State of São Paulo, Brazil). This new school applied the same philosophy with a pre-engineering strand, as proposed by CORD. The first cohort graduated at the end of 2015. Starting in 2016, the follow-up longitudinal assessment process will be carried out.

Results will be presented in a future article.

For more information, contact the author at [anavarra@cord.org](mailto:anavarra@cord.org).

## Bits 'n' Pieces

Items of interest to our members and affiliates ...



**Career Pathways: Catalog of Toolkits:** An online directory of free resources available for planning Career Pathways initiatives (<https://cptoolkitcatalog.peerta.acf.hhs.gov/>)

**WorkforceGPS:** Sponsored by the U.S. Department of Labor's Employment and Training Administration (ETA), WorkforceGPS is an interactive online communication and learning technical assistance (TA) platform that was designed to communicate with, and build the capacity of, the public workforce investment system to develop and implement innovative approaches to workforce and economic development in the 21st-century economy. This website, which offers resources and peer-to-peer connection, supplements other TA provided by ETA's national and regional staff to help the public workforce system, education professionals, and business. (<https://www.workforcegps.org/>)

**Bloom's Taxonomy of Learning:** *Bloom's Taxonomy* was created in 1956 under the leadership of Benjamin Bloom to promote higher forms of thinking in learning and education. It was revised in 2000. There are six levels:

1. **Remembering:** Can the student recall or remember the information?
2. **Understanding:** Can the student explain ideas or concepts?
3. **Applying:** Can the student use the information in a new way?
4. **Analyzing:** Can the student distinguish between the different parts?
5. **Evaluating:** Can the student justify a stand or decision?
6. **Creating:** Can the student create a new product or point of view?

Resources on Bloom's Taxonomy:

- University of North Carolina Charlotte Center for Teaching and Learning (<http://teaching.uncc.edu/learning-resources/articles-books/best-practice/goals-objectives/writing-objectives>)
- Vanderbilt University Center for Teaching (<https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>)

**Project-Based Learning:** Project-based learning (PBL) provides opportunities for students to explore real-world problems and challenges and acquire deeper knowledge by carrying out hands-on projects. There is usually a tangible product at the end of each project.

Resources on PBL:

- High Tech High Projects (<http://www.hightechhigh.org/projects/>)
- NASA Project-Based Learning Modules (<http://www.nasa.gov/centers/ames/education/teachers/index.html>)

- Project-Based Learning Toolkit (<http://www.educatorstoolkit.com/pbl-toolkit.html>)
- The Educator’s Personal Learning Network (<http://edupln.com/video/project-based-learning>)
- The PBL Super Highway: Over 45 Links to Great Project-Based Learning (<https://21centuryedtech.wordpress.com/2013/09/15/the-pbl-super-highway-over-45-links-to-great-project-based-learning/>)
- Tools for Project-Based Learning (<http://www.teachthought.com/learning/project-based-learning/11-tools-for-better-project-based-learning/>)
- Top Ten Assessments for Evaluating Project-Based Learning Projects (<http://www.edutopia.org/10-tips-assessment-project-based-learning-resource-guide>)
- West Virginia Project-Based Learning Projects (<http://wvde.state.wv.us/teach21/pbl.html>)

**NCPN Members**—Don’t forget all the free resources available to NCPN members at [www.ncpn.info](http://www.ncpn.info).

© 2016 *Connections* is published by the National Career Pathways Network, an organization of educators and employers dedicated to the advancement of Career Pathways, and other CTE initiatives. Founded by CORD, NCPN assists its members in planning, implementing, evaluating, and improving workforce education programs.

**Questions about *Connections*?** Contact: Mark Whitney, NCPN, P.O. Box 21689, Waco, TX 76702-1689; 254-741-8315; or [mwhitney@cord.org](mailto:mwhitney@cord.org). Visit NCPN on the web at [www.ncpn.info](http://www.ncpn.info).

**NCPN** **Indy 2016!** *Building Your Career Pathways SYSTEM*

**National Career Pathways Network Conference** Oct 5-7 • JW Marriott Indianapolis

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- Exhibits of the latest products and services in career and technical education

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