


**LOUISVILLE**

**BOLD**

**TALENT**

# OUR TALENT STRATEGY



How will you be able to guarantee access to the best range of talent for Amazon to fulfill growth needs?

*In response to RFP questions 5 and 6*



Louisville is a highly accessible, regional talent magnet. Our strength lies in our central location, and the attractiveness of our quality and cost of living.

Within a 200-mile radius, Louisville has access to more than 400,000 graduating students. Data indicates that 75% of professionals who relocate to Louisville move from within a 500-mile radius. As such, Amazon will have a wide catchment pool for talent, plus the capability to offer strong compensation to cost of living packages.

Progressive local and regional business partnerships are increasing the pool of software engineering talent to complement the breadth and depth of established higher education graduates.

## **Talent Section Contents:**

- Labor pool and talent profile
- Talent attraction and retention
- Software engineers and talent innovative initiatives
- Civic Initiatives for Innovation

# LABOR POOL AND TALENT PROFILE

Louisville's high-quality workforce and low cost of doing business create a competitive advantage for companies operating in our region. The business services sector is the economic engine of Louisville, comprising more than 25 percent of our jobs. Combining our strong and quickly growing tech sector with legal, education and engineering occupations accounts for 265,000 jobs – over one-third of our labor market.

## Louisville Metropolitan Statistical Area (MSA) – Specified Major Occupation Groups

Occupation Group	2017 Jobs	Louisville Median Wage	Seattle Median Wage	Natl. Avg. Median Wage	Age 25-34 % of Occ.	Age 35-44 % of Occ.	Age 45-54 % of Occ.
Management Occupations	51,731	\$54,486	\$84,544	\$56,047	14%	23%	28%
Business and Financial Operations Occupations	39,341	\$56,493	\$70,839	\$65,242	20%	23%	24%
Computer and Mathematical Occupations	15,919	\$66,303	\$104,557	\$77,006	28%	30%	23%
Architecture and Engineering Occupations	8,644	\$66,551	\$89,231	\$73,950	20%	22%	26%
Legal Occupations	5,600	\$70,551	\$78,398	\$76,071	19%	24%	23%
Education, Training, and Library Occupations	33,180	\$47,901	\$50,667	\$45,315	19%	25%	20%
Office and Administrative Support Occupations	111,461	\$33,630	\$40,504	\$34,570	20%	20%	23%
TOTAL	265,877				19%	22%	24%

Louisville is a regional magnet for talent with more than 815,000 jobs and a labor force of approximately 670,000 in the MSA. **Amazon HQ2 will accelerate our bold goal to double our existing labor force to 1.3 million workers by 2040.**

In addition to a strong and stable local workforce, the broader Louisville region (i.e., a 200-mile radius around Louisville) provides a potential pool of 4.2 million in the specified occupation groups and a total labor market of 12.4 million. These are workers who could potentially relocate with relative ease. **Many already do; the Louisville labor force has increased about 11% in the last 15 years.**

## Louisville 200-Mile Radius – Specified Major Occupation Groups

Occupation Group	2017 Jobs	Louisville Median Wage	Seattle Median Wage	Natl. Avg. Median Wage	Age 25-34 % of Occ.	Age 35-44 % of Occ.	Age 45-54 % of Occ.
Management Occupations	936,175	\$47,944	\$84,544	\$56,047	13%	21%	27%
Business and Financial Operations Occupations	599,317	\$57,865	\$70,839	\$65,242	19%	22%	25%
Computer and Mathematical Occupations	241,501	\$68,203	\$104,557	\$77,006	26%	29%	24%
Architecture and Engineering Occupations	168,510	\$68,702	\$89,231	\$73,950	20%	22%	26%
Legal Occupations	74,541	\$68,681	\$78,398	\$76,071	18%	22%	24%
Education, Training, and Library Occupations	608,279	\$43,888	\$50,667	\$45,315	19%	23%	22%
Office and Administrative Support Occupations	1,609,127	\$32,385	\$40,504	\$34,570	19%	20%	23%
TOTAL	4,237,450				18%	21%	24%

You can quickly look up any occupation in the Louisville region and get the latest Bureau of Labor Statistics data on our award-winning Career Calculator web app ([www.careercalculator.org](http://www.careercalculator.org)).

www.careercalculator.org/#/

**CAREER CALCULATOR**  
By KENTUCKIANAWORKS

Saved Searches (0)

Local jobs and education data for the Louisville region—don't wonder, look it up!

**Search by Occupation**

Browse

Find a career that interests you and view the details to learn more about what to expect when working in that industry.

**Search by Major**

Browse

Research a major and see what people have ended up doing and earning in the Louisville area.

**Search by Income**

Browse

Pick a desired salary and see the top 10 occupations and majors that can lead to that level of income.

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Sources: Bureau of Labor Statistics Occupational Employment Statistics; Burning Glass online job postings; EMSI Analyst; Kentucky Center for Education and Workforce Statistics; O\*NET Online; US Census Bureau PUMS data

This information is based on the best data available from the sources listed above. The information provided does not guarantee wages, employment, or job availability.

Questions? Please email [lrnl@kentuckianaworks.org](mailto:lrnl@kentuckianaworks.org).  
Interested in learning more about local credentials? Click [here](#)

## MSA Workforce Educational Attainment

Louisville has experienced dramatic gains in educational attainment in recent years and now **surpasses the national average for residents with a bachelor's or associate's degree**. Overall, the MSA's workforce is split roughly into thirds – 34% with a bachelor's degree or higher, 34% with some college (a category that can include certificates and other credentials), and 32% with a high school education or less.

The area's college-attainment numbers have been steadily improving, thanks in part to consistent in-migration of talent. Over the last six years, Louisville has attracted 42,000 college-educated people from states other than Kentucky, including 18,000 with a graduate degree or higher. Approximately 12,000 of these people had an individual income of \$75,000 or above, putting them in the top 30% of Louisville earners.

### Global Talent

Foreign-born students and workers represent a growing source of talent for local businesses. Louisville's share of foreign-born labor force is higher than the U.S. as a whole and is higher than our closest peer cities.

A high percentage of foreign-born residents fall into the optimal working age range (25-44). In the critical innovation and technology field, 7.5% of all STEM workers are foreign-born, a significantly higher rate than their overall representation as 5.9% of the employed workforce.

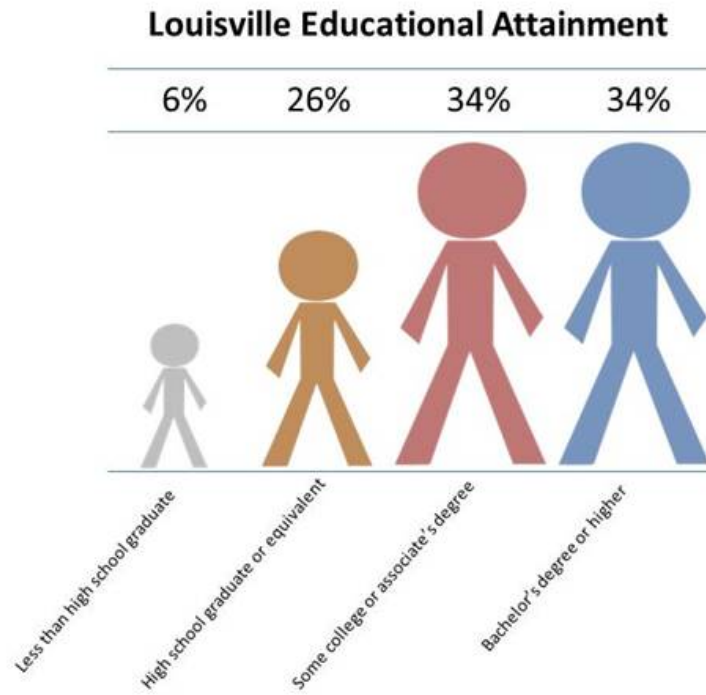
According to USCIS data, the number of local applications for Green Cards has risen by 400% and H1B visas by 500% in the last five years. Demographic data analysis shows that India is the second largest skilled talent pool for professionals relocating to the city.

### Lumina Foundation

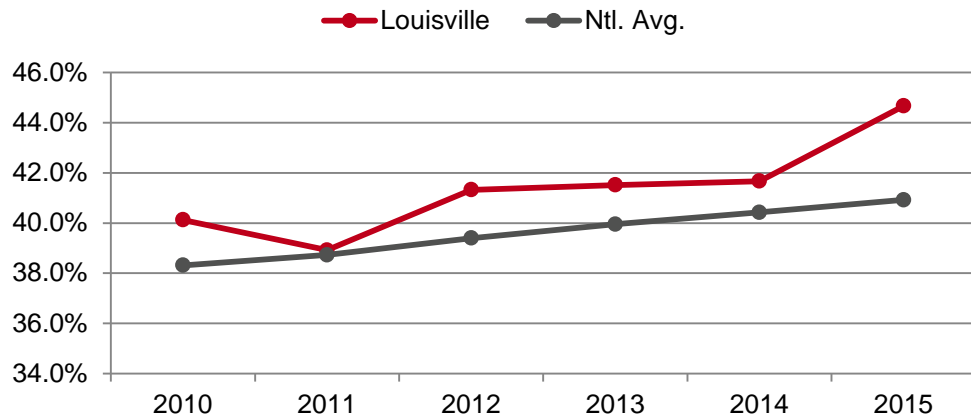
Louisville's leadership in growing a highly skilled workforce for today's economy recently garnered attention from the Lumina Foundation, which named Louisville one of its 17 National Talent Hubs.



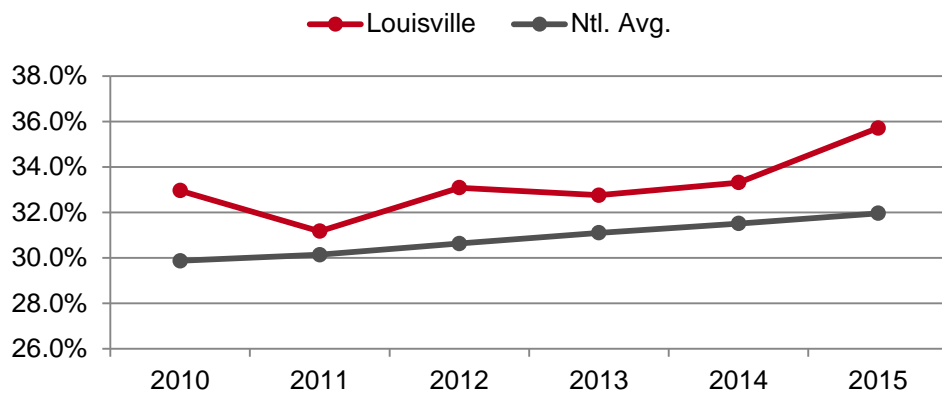
Louisville MSA Workforce by Educational Attainment 2016 American Community Survey



### Associate's Degree & Higher



### Bachelor's Degree & Higher



# TALENT ATTRACTION AND RETENTION STRATEGY

## Louisville Talent Initiative

Louisville is putting \$5 million behind a focused, research-based talent attraction initiative – LiveInLou – to help support our growing workforce demands. As we tackle this national challenge, our efforts are focused on a strategic goal to increase Louisville’s regional population growth rate and add at least 34,000 working age adults to our region by 2020. **Amazon’s HQ2 location can only accelerate our momentum!**



Our extensive research has narrowed our talent attraction efforts and allowed us to microtarget specific professionals. We know that the people who are most likely to move include:

- Couples (married or unmarried) with no children,
- Ages 26-37, with
- Average household annual income of \$75,000 - \$100,000, who
- Hold a bachelor’s degree or higher, who likely
- Live within a 500-mile radius of Louisville.

The research also revealed that city movers are looking for what Louisville offers:

- Good jobs and business opportunities,
- A welcoming city that wants to engage them, and
- An ability to make a difference in their community.


The LiveInLou campaign provides corporate talent recruiters – **like those at Amazon** – a robust plug-and-play Talent Toolkit and a data-driven, multi-pronged marketing campaign designed to encourage skilled individuals to “move to Louisville.”

And trend data shows Louisville’s Brain Gain:

## Executive Recruitment Trend

Education Level	Total since 2010 from different state	2014 from different state	2015 from different state	2016 from different state
Bachelor's degree	10,447	3,778	3,505	3,163
Graduate or professional degree	8,889	3,336	2,487	3,067
Individual Income In The Past 12 Months (In 2016 Inflation-Adjusted Dollars)				
\$75,000 or more	5,461	2,006	1,400	2,055





## Relocation and Support Services

The Louisville community and your local and state economic development partners are pleased to offer relocation and support services for new Amazonians. We love Louisville, and we are eager to show your new Louisville team how to make our city your home.

Our Louisville team can customize services, including:

- Hosting a welcome event including elected officials, peers from related industries, community leaders/executives, and others who have previously relocated to Louisville;
- Building itineraries for familiarization tours and introductions to Louisville life;
- Coordinating services from realtors/housing experts, schools (public, parochial, and private), and workforce professionals who can support trailing spouses and other family members; and
- Introducing you to leadership organizations, non-profit/philanthropic leaders, sports/clubs/cultural engagement/public arts, and all that Louisville has to offer!

# SOFTWARE ENGINEERS & TALENT INNOVATION INITIATIVES

## Tech Pipeline for Software Development Engineers

Within a 200-mile radius of Louisville, universities are graduating about 4,600 bachelor's and master's degrees in Information Technology every year and nearly 8,500 Computer Science degrees.

- Louisville-area app developers earn \$97,700 at the 75th percentile, compared to \$155,400 in Seattle.
- On the business side, Management Analysts (often Project Management Professionals, Six Sigma, Lean Certified, etc.) earn \$79,200 in Louisville compared to \$111,300 in Seattle, providing a **30-40% cost savings in personnel**.

Louisville has built a **unique and cutting-edge tech pipeline** for software coders and development engineers via a public/private/employer bi-state partnership called **Code Louisville** and attracted a top-flight coding boot camp program, **The Software Guild**.

## Code Louisville

Code Louisville offers software development skill training at no cost to the participant. The program focuses in web development with courses in many languages, including:



Python	C#/.Net	Node.js	Front End development (HTML, CSS, and JavaScript + JavaScript frameworks)
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The training program is packed into a 12-week session for front-end development and an additional 12-week session for back-end development. The combined sessions graduate about 350 coders per year. To date, more than 600 individuals have completed the training program, and Code Louisville can scale up our cohort sizes as needed to meet local demand. As many as 450 participants per cohort could be supported with the current community of volunteers.

Code Louisville is built on a blended, flipped-classroom **experiential learning** model that can rapidly scale. Code Louisville adapts its program to **meet local employers' workforce needs** and is positioned to expand the program as needed. **Code Louisville will work with Amazon to grow the tech ecosystem further and include training and workforce support** in the form of:

- AWS and cloud infrastructure training,
- Experiential learning/apprenticeship programs with employers, and
- Additional programming languages and development platforms as needed.

Over the course of the program, participants complete a designated curriculum of training, work with volunteer mentors who are experienced developers from the community, finish a capstone project, and are required to attend community tech events and get involved with the tech ecosystem. **Code Louisville graduates are job-ready** thanks to the employer-centric training platform.

## The Software Guild

In addition to Code Louisville, the Software Guild was launched in 2015 as a high-level boot camp/apprenticeship code development program. Two course paths exist: 12-week coding course or a part-time 10-14 month course, which aims to provide its students the skill set needed to become entry level software developers. Students learn how to code utilizing .NET/C# or Java programming. The course is administered via face-to-face lectures, hands-on experience and labs to enable apprentices the skills to build a strong portfolio to aid in their job search.



*The Software Guild was ranked #1 Best Coding Bootcamp in 2017 by HackerRank.*

# CIVIC INITIATIVES FOR INNOVATION

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## Metropolitan College



Metropolitan College

***Metropolitan College recognized by University Business Magazine  
as one of their 2017 Models of Excellence***

In 1998, Metropolitan College was established as a unique partnership to meet the workforce needs of UPS. Students work at UPS and receive 100% financial assistance for classes, books, and other educational expenses. Classes are scheduled to support these students. The city, state and local universities combined efforts to create this still thriving joint education-workforce initiative.

- Since inception, more than 4,900 students have earned one or more credentials
- More than 8,000 credentials have been earned as of spring 2017
- More than one-third of the Metro College students major in business, accounting and computer information systems
- Workplace retention of Metropolitan College participants is more than double that of non-Metropolitan College participants working at night

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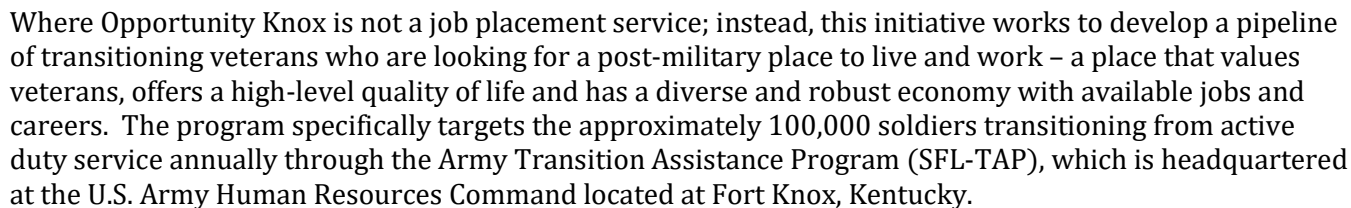
## Tuition Reciprocity

We also embrace bi-state collaboration within our higher education system. Indiana and Kentucky have signed a SARA (State Authorization Reciprocity Agreement) agreement, which standardizes interstate offerings of postsecondary distance education courses and programs.

Additionally, our adjoining border counties have agreed to extend tuition reciprocity for the largest public universities on both sides of the river. Kentucky residents living in Bullitt, Jefferson, Meade, Oldham, Shelby, Spencer, or Trimble counties are eligible for in-state tuition at Indiana University Southeast or Purdue Polytechnic. Likewise, Indiana residents from Clark, Crawford, Floyd, Harrison, Perry, Scott, and Washington counties are eligible for in-state tuition at University of Louisville.

This agreement was renewed for another five years this spring by both state governments.

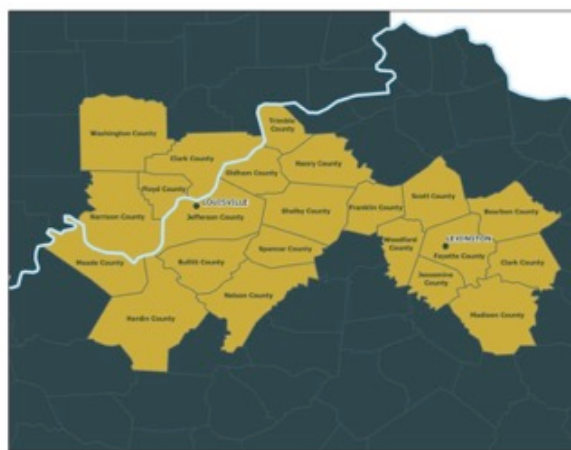
The Kentucky Indiana Exchange (KIX), a regional leadership coalition led by stakeholders from across the 26-county bi-state region of Southern Indiana and North Central Kentucky, launched Where Opportunity Knox in 2012. It serves as a regional initiative connecting 10,000 transitioning veterans and military spouses to jobs in the Greater Louisville region, with more than 5,300 veterans hired to date.



GE Appliance's FirstBuild is a global co-creation community that harnesses the brainpower of the maker movement to change the way major home appliances are conceived, designed and manufactured. A physical state-of-the-art microfactory on **University of Louisville** campus and an online forum, FirstBuild speeds products from to market and enables customization through small batch production, without the costs and risks of traditional mass manufacturing. Open to students and non-students alike, the FirstBuild Microfactory is divided into four sections: an interactive space for brainstorming and product demonstration, a lab for prototyping, a shop to fabricate components, and a build floor where products are assembled. More than 15 new products have successfully been launched for purchase with hundreds of concepts in the works.



Mayors Greg Fischer of Louisville and Jim Gray of Lexington launched the Bluegrass Economic Advancement Movement (BEAM) in 2011 to maximize the region's economic potential with a cooperative platform and global perspective. The bi-state region consists of 18 Kentucky counties and 4 Indiana counties, with Louisville Forward and Commerce Lexington, Lexington's area chamber of commerce, leading the work. Partners include the U.S. Commercial Service, World Trade Center Kentucky, and Kentucky Cabinet for Economic Development (KCED).



**LOUISVILLE BOLD** TALENT

## Smart City

No other city is as hyper focused on how the Smart Home (available for purchase through Amazon.com) will intersect and interact with the Smart City than Louisville.

- Through our partnerships with the CNET Smart Home and Smart Apartment, along with FirstBuild (Louisville's one-of-a-kind micro-factory innovation space), we have living laboratories to explore the possibilities.
- We already have identified the power of voice assistants to connect to residents, and since October 2016 we have developed more than 20 Amazon Alexa skills that allow Smart Home/Apartment residents to get personalized, point-of-need information such as news briefings, crime reports, and city services.
- The IFTTT Smart Louisville partnership has allowed us to create applets that can change a Philips Hue bulb to match the Air Quality Index color scale so that at a glance, residents can make better health decisions on their outdoor exposure.
- We have partnered with the American Printing House for the Blind to deploy Bluetooth beacons for indoor navigation; beacon technology can be readily extended to join the digital to the physical space for wayfinding and public engagement.
- The Air Louisville project revealed the impact of air quality issues generated from vehicle congestion after providing GPS-enabled inhalers to 'citizen scientists' (a.k.a. Louisville residents!).
- We won Amazon's City on a Cloud "Dream Big" award for a local enterprise data warehouse platform that analyzes traffic data and patterns to help reduce commute times and support healthier air.

While other cities are focused on deploying sensors or smart corridors, Louisville is BOLD because of our novel approach focusing on connected home technologies and leveraging them for public good.

# HIGHER EDUCATION

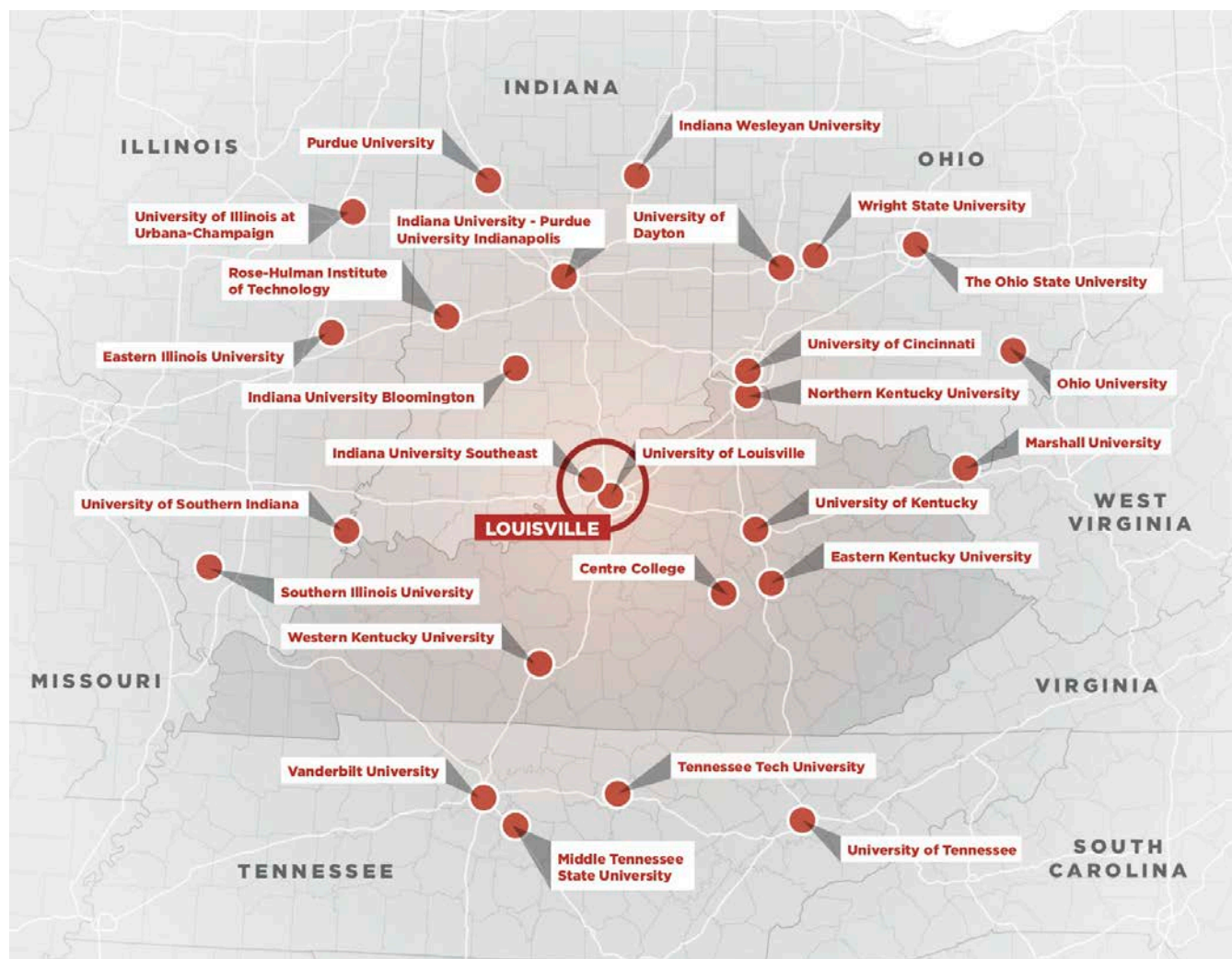


## **Higher Education Partnerships Flourish**

Postsecondary institutions not only are pumping more than 160,000 degree completions into the larger region each year, they also are providing customizable and flexible training solutions every day to area employers. Louisville's two- and four-year colleges and universities are ready to create and replicate market-driven, solutions-based partnerships to meet Amazon's talent needs.



## Higher Education Institutions within 200 miles



Programs of Note in 200 mile radius:

- University of Louisville (Speed School of Engineering, MS-Business Analytics)
- Bellarmine University (MS-Data Analytics)
- University of Kentucky (College of Business and College of Engineering)
- Indiana University Southeast (School of Business)
- Indiana University – Bloomington (School of Informatics, Computing, & Engineering, Kelley School of Business)
- Purdue University (College of Science)
- Rose-Hulman Institute of Technology (College of Computer Science & Software Engineering)
- Xavier University (BS - Computer Science and Information Technology)
- Miami University (OH) (Department of Computer Science & Software Engineering)
- University of Cincinnati (Department of Electrical Engineering & Computer Science)
- Ohio State University (Department of Computer Science & Engineering)
- Vanderbilt University (School of Engineering)
- Northern Kentucky University (College of Informatics)
- Western Kentucky University (College of Science & Engineering)



## Regional Degree Attainment and Workforce Opportunity

### Louisville MSA Degree Completions

Field of Study	Completions 2014	Completions 2015	Completions 2016	Grand Total
Computer Science	256	294	323	873
Software Development/Programming	68	43	35	146
IT	411	438	482	1,331
Accounting, Finance and Related Services	431	383	350	1,164
Business	2,331	2,446	2,263	7,040
Education	876	762	752	2,390
Engineering	537	594	739	1,870
HR Management and Services	103	83	74	260
Law and Legal Services	759	690	575	2,024
<b>Grand Total</b>	<b>5,772</b>	<b>5,733</b>	<b>5,593</b>	<b>17,098</b>

### Degree Completions within a 200-Mile Radius of Louisville

Field of Study	Completions 2014	Completions 2015	Completions 2016	Grand Total
Computer Science	7,043	7,716	8,488	23,247
Software Development/Programming	423	383	493	1,299
IT	5,314	5,149	4,653	15,116
Accounting, Finance and Related Services	11,852	11,905	11,946	35,703
Business	54,834	56,664	57,365	168,863
Education	23,571	21,115	20,568	65,254
Engineering	17,129	17,703	18,807	53,639
HR Management and Services	964	1,056	1,128	3,148
Law and Legal Services	12,723	11,725	11,831	36,279
<b>Grand Total</b>	<b>133,853</b>	<b>133,416</b>	<b>135,279</b>	<b>402,548</b>

# HIGHER EDUCATION PROGRAMS



University of Louisville (UofL)	<ul style="list-style-type: none"><li>• Speed School of Engineering</li><li>• College of Business</li></ul>
Bellarmino University	<ul style="list-style-type: none"><li>• School of Business</li></ul>
University of Kentucky (UK)	<ul style="list-style-type: none"><li>• College of Engineering</li><li>• Gatton College of Business and Economics</li></ul>
Indiana University Southeast (IUS)	<ul style="list-style-type: none"><li>• School of Business</li></ul>
Purdue University	<ul style="list-style-type: none"><li>• Purdue Polytechnic Institute (Computer and Information Technology Program)</li></ul>
Ivy Tech Community College of Indiana	<ul style="list-style-type: none"><li>• School of Information Technology</li></ul>
Jefferson Community Technical College (JCTC)	<ul style="list-style-type: none"><li>• Advanced Manufacturing and Information Technology (AMIT) Center</li></ul>
Northern Kentucky University (NKU)	<ul style="list-style-type: none"><li>• College of Informatics</li></ul>

# UNIVERSITY OF LOUISVILLE



## Speed School of Engineering

- Fall 2017 Enrollment – 3,041
- Graduation for undergraduate/graduate – 630
- *Computer Science Master's Degree ranked 4<sup>th</sup> by Computer Science Online*
- Founded in 1925, the Speed School is the oldest engineering school in the state of Kentucky, which offers bachelors, masters and doctoral degrees to more than 3,000 students in the disciplines of computer engineering and computer science, chemical engineering, civil and environmental engineering, bio-engineering, electrical engineering, industrial engineering, and mechanical engineering.
- Unique curriculum requirements include a mandatory 3-semester co-op program for B.S. programs in which students work in industrial settings to gain valuable real-world engineering experiences.
- Alignment in strategic research interests including: cyber-security, advanced robotics, human-machine interfaces, smart manufacturing, wireless sensing, transportation logistics, wearables, drone technologies, and new types of 3D printing

# UNIVERSITY OF LOUISVILLE

## College of Business



- Fall 2017 Enrollment – 2,255
- Graduation for undergraduate/graduate – 631
- *9<sup>th</sup> Best Administered Business School, by Princeton Review*
- Founded in 1952, the College of Business at the University of Louisville is one of the oldest business schools in the state of Kentucky. It offers bachelors and master's degrees as well as an entrepreneurship doctoral degree in the disciplines of Accountancy, Computer Information Systems (CIS), Economics, Equine Business, Entrepreneurship, Finance, Management, and Marketing.
- Recently added character-based leadership, data literacy, and other data-centric curricula to all programs.
- Additional certificate and degree programs also have been added, including a Master of Science in Business Analytics (M.S.-BA) Curriculum and coursework are designed to build advanced data analytic skills to be used in extracting managerial and strategic insights from “big data” and then synthesizing into actionable analysis.
- Hybrid online Business Analytics program launching in 2018 (mostly online) with tailored industry and employer-specific content
- Focused content may include, for example, marketing analytics, operations and quality (Six Sigma and Lean), and logistics.

# BELLARMINE UNIVERSITY



## School of Business

- Fall 2017 Enrollment – 659
- Graduation for undergraduate/graduate – 131
- Rubel School of Business Masters in Taxation ranked #5 in Value Colleges' Top 50 Best Value Masters in Taxation degrees.
- Bellarmine University consistently ranks among the nation's best colleges and universities.
- Bellarmine offers our business students a unique educational experience: a broad-based liberal arts education supplemented by top-notch business preparation.
- B.S. and M.B.A. programs focus on innovation and real-world adaptability of concepts taught by faculty with both professional and academic experiences.
- **Masters of Science in Data Analytics** offers a 15-month professional master degree program designed to appeal to working professionals seeking to learn the tools, techniques, analytical thinking skills, and other proficiencies required to become highly skilled, sought-after, and productive analytics practitioners.
- A specialized Masters of Science in Taxation requires 30 hours of highly focused and practice-oriented exclusively to the study of tax, based in both theoretical background and technical expertise.

# UNIVERSITY OF KENTUCKY



## **College of Engineering**

- Fall 2017 Enrollment – 3,900
- Graduation for undergraduate/graduate – 735
- Increase of 44% of degrees granted in STEM + H over the past six years
- Target enrollment of 6,000 by 2025
- College of Engineering certificates are offered in supply chain engineering, automation, cybersecurity, informatics, production engineering, aerospace engineering, environmental engineering, power engineering, intelligent transportation systems and biopharmaceutical engineering.

## **Gatton College of Business and Economics**

- Fall 2017 Enrollment – 3,532
- Graduation for undergraduate/graduate – 946
- UK College of Business & Economics ranked 86 for Best Graduate Schools by U.S. News & World Report
- Longstanding industry-specific partnerships continue to deliver ready workforce for diverse companies such as Alltech and General Electric and quickly translate research and discovery into usable industry innovations.
- Business curriculum opportunities include joint Executive M.B.A. program with UoL; M.S. in Finance and Supply Chain (collaboration effort between Business and Engineering); undergraduate business courses; and, Social Enterprise Scholars undergraduate honors program designed to provide business and leadership skills to social enterprise organizations.

# INDIANA UNIVERSITY SOUTHEAST



INDIANA UNIVERSITY  
SOUTHEAST

## School of Business

- Fall 2017 Enrollment – 1,166
  - Graduation for undergraduate/graduate – 227
  - M.B.A. program ranked 18th in the nation by Business Week, and 3rd by Princeton Review
  - Regional campus of Indiana University, offering a four-year, public, comprehensive university offering business related programs in Business Economics and Public Policy, International Business, core business disciplines, as well as a Masters in Science in Strategic Finance (M.S.S.F.)
  - Recent curriculum expanded to include high demand acumen in supply chain and information management
  - M.B.A. program designed for working professionals with flexible scheduling, formats, and two convenient Indiana locations
  - Dual master option allows M.B.A students to obtain the Master of Science in Strategic Finance (M.S.S.F.) with six additional classes
- 

# PURDUE UNIVERSITY

Purdue Polytechnic Institute (Computer and Information Technology Program)



- Fall 2017 Enrollment – 589
  - Graduation for undergraduate/graduate – 86
  - *CIT program ranked #4 best Bachelor of Science in IT program in nation*
  - State-of-the-art facility offering majors focused on multiple engineering and leadership fields, supply chain management technology and mechatronics engineering technology
-

# IVY TECH COMMUNITY COLLEGE OF INDIANA



Ivy Tech Community College is Indiana's largest public postsecondary institution and the nation's largest singly accredited statewide community college system serving nearly 170,000 students annually. Ivy Tech campuses are located throughout the state, offering a variety of career pathways in programs designed to meet employer demand and short-term certificates that are industry focused and designed for workforce preparation.

## School of Information Technology

Faculty provide high-level academic and professional instruction in programs ranging from software development to network/systems/server administration to cyber-security to front line IT customer support. Stackable credentials offer traditional Associate of Applied Science (AAS) and Associate of Science (AS) degrees linked to Technical Certificates that stack into each AAS. There is an emphasis on gaining third party certifications as well as academic credentials. Each AAS program consists of students working to achieve at least three third party certifications from recognized industry leaders such as Oracle, Microsoft, Cisco, and CompTIA. Ivy Tech now utilizes Amazon Web Services as the backbone for institutional data, and is in talks with Amazon about more directly tying AWS into various curricula statewide.

## Ivy Tech's Successful Partnership with Amazon

The Ivy Tech Sellersburg campus is located 9 miles from the River Ridge Commerce Center and Amazon Fulfillment Center SDF8. Ivy Tech Workforce Alignment Consultants work in partnership with Amazon leadership to develop and offer diverse training programs made available to Amazon associates on site. Student cohorts have trained in short-term certification programs spanning Pharmacy Tech, MSSC Certified Production Technician, Phlebotomy, Medical Billing and Coding, Medical Assisting, and CDL. These collaborative efforts allow associates to learn new skills and earn certifications that match employer needs.



# JEFFERSON COMMUNITY TECHNICAL COLLEGE



## Advanced Manufacturing and Information Technology (AMIT) Center

- Fall 2017 Total JCTC Enrollment – 12,200
- Graduation Totals (all JCTC programs) – 1,960 credentials, 1,200 associate degrees.
- Local two-year degree and certificate program institution with well-established corporate partnerships to develop and expand market-based curriculum tailored to meet specific employer needs
- Workforce Solutions team serves all industries, offering needs assessment, job analysis and profiling and project management/coordination
- Publicly-funded, \$24 million, 50,000 sq. ft. AMIT Center is currently under development to develop and support a growing highly-trained tech workforce
  - The Center will house multiple flexible labs, classrooms and support areas to train over 3,000 students and adult learners.

# NORTHERN KENTUCKY UNIVERSITY



## College of Informatics

- Fall 2017 Enrollment – 2,191
- Graduation for undergraduate/graduate – 460
- One of the early responders to the critical need for talent around big data, NKU's College of Informatics offers a 21<sup>st</sup> century perspective on the disciplines that have information at their core. The College of Informatics is home to the departments of Communication, Computer Science, and Business Informatics.
- The Department of Computer Science is home to three bachelor's degrees, two master's degrees and nine certificates and minors. Areas of emphasis include computer information technology, computer science, data science, cybersecurity, geographic information systems, and software development.
- For Computer Science students, real world engagement is found through the Center for Applied Informatics (CAI). CAI features a unique high-impact virtual co-op program, engaging students in projects such as designing websites, creating mobile apps, performing data analytics and many other informatics based initiatives, for organizations around the world. Employers collaborate with CAI to engage in talent development and the regional development work we do through sponsorships. These sponsorships engage students and employers with creative projects such as mobile development, web development, database applications, data analytics, digital design, video production, and R&D.
- The school of Informatics has also seen rapid growth increasing its enrollment from 1,143 to nearly 2,200 in the last ten years. This growth has coincided with a focus on quality. The College has earned a variety of awards and is a National Security Agency/Department of Homeland Security Center of Academic Excellence in Cyber Defense Education. The Center for Applied Informatics won the Excellence and Innovation in Regional and Economic Development Award from the American Association of State Colleges and Universities (AASCU) for its innovative "virtual co-op" program, in which students do software development work on campus for external clients.

# LOCAL AND REGIONAL K-12 CAREER-READY EDUCATION PROGRAMS



The 15-county, bi-state Greater Louisville region is made up of 19 public school districts that include 201 elementary schools, 89 middle schools, and 80 high schools with almost 200,000 students in our regional K-12 public systems. This year, 17 schools were recognized as part of the National Blue Ribbon Standard Schools Program. Each year area public high schools graduate more than 13,000 seniors at a rate of 86.9% with nearly 40% graduating with advanced placement credits. The Jefferson County Public School (JCPS) system is the largest in Kentucky and the region with just more than 100,000 students.

Greater Louisville also boasts more than 70 private schools comprised of more than 50 elementary and middle schools and 17 high schools with a collective enrollment of more than 23,100 students. The Archdiocese of Louisville is the largest private school provider with 40 elementary/middle schools and 13 high schools throughout the region.

All of the school systems offer specialized programs for **career pathways in technology**, health, business, advanced manufacturing and a number of other experiences.

# JEFFERSON COUNTY PUBLIC SCHOOLS (JCPS)

## The Academies of Louisville

JCPS has 21 regular high schools, including 5 magnet schools and 16 comprehensive high schools. For the 2017-18 school year, 11 high schools have begun implementing the Academy model. Academies are small learning communities within JCPS high schools that allow all students to connect what they're learning in the classroom to the real world through career pathways. Academies offer project-based learning, internships, and require private sector partnerships and engagement. Career pathways include a sequence of academic and career technical courses that students take to earn a credential or certification, including IT.



JCPS DISTRICT WIDE	# Schools w/ Pathways in Industry	# Pathways offered	Approx. # Students	Approx. # Pathway Graduates per year
Business & Financial Services	15	27	2700	900
Engineering & IT	13	27	2700	900

JCPS currently prepares students in the software and business services fields, with more than 3,000 high school seniors graduating with skills in Management & Entrepreneurship, Financial Services/Accounting, Marketing, Administrative Support, and Legal Services, E-Commerce, Cyber Security, Computer Science, Information Support Services, Computer Programming, Web Development, and Civil/Mechanical Engineering.

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#### Clark County, IN: Academies of Greater Clark County

Renaissance Academy of Clarksville (Indiana) is a new type of high school where students lead their own learning using team projects and technology... just like the modern workplace. Renaissance Academy is part of the New Technology Network and uses a project-based learning approach that engages students with dynamic, challenging curriculum. Students collaborate on meaningful projects that require critical thinking, creativity, and communication in order for them to answer challenging questions or solve complex problems.



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#### Oldham County, KY: Engineering Academy – Project Lead the Way

In August 2014, Oldham County Schools began implementing the nationally-recognized Project Lead The Way curriculum. PLTW is the country's leading provider of rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) education curricular programs used in elementary, middle, and high schools. In the first year, the district plans to offer PLTW engineering classes to about 75 ninth and tenth grade students as part of a half-day engineering academy.



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#### Shelby County, KY: Big Picture Learning Academy

Students learn real-world skills from professionals in high-demand career fields, providing students an opportunity to learn from true experts outside of the classroom. Ninety-five percent of Big Picture Learning Academy students completed a minimum of one internship during the 2016/2017 school year.



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#### Bullitt County, KY: Riverview Opportunity Center

Bullitt Academy of Math and Science (BAMS) is a program for students who are interested in math or science related college careers. Approximately twenty-five 8th graders are invited to be a part of the program as the incoming freshmen cohort. First, students earn most of their high school credits within the first two years of the program at BAMS. For their junior and senior years, the students move off campus and attend JCTC classes. As a result, students can graduate with both a high school diploma and an associate's degree.

# INNOVATIVE TRAINING PARTNERSHIPS

## Ford Next Generation Learning (NGL)

Louisville regional civic, business and community leaders and JCPS and Greater Clark County, IN school representatives worked with the staff from the Ford Fund to shape and develop the Next Generation Learning program, to increase the number of students who graduate college and career-ready. In partnership with local and regional businesses, JCPS developed classes to make learning relevant by tying them to the more than 100 Career and Technical Education Programs offered in the high schools. Students participating in these programs have an opportunity to personalize a pathway toward a credentialed program or a career that is aligned with the workforce needs in our region. Ultimately, this will ensure that students have the opportunity to pursue their passion and that our community has the highly-skilled workforce needed to remain competitive.



## Kentucky Cloud Career Pathways

In July 2017, the Commonwealth of Kentucky announced a partnership with AWS and Project Lead the Way to develop Kentucky Cloud Career Pathways. The project is aimed at preparing students with the skills needed to address the massive growth and job opportunities in cloud, cyber security, and computer science.



The goals of Kentucky Cloud Career Pathways include:

- Developing Cloud Career Pathways for Kentucky's K-12 students, college-bound students, and adult learners
- Expanding cloud, cyber security, and computer science curriculum across Kentucky's K-12 schools and Kentucky Community and Technical College System (KCTCS)
- Marketing awareness of cloud careers and associated industry certifications
- Creating dual credit opportunities for Cloud Career Pathway participants
- Partnering with private sector employers to promote apprenticeships, internships, and jobs
- Providing professional development for K-12 and KCTCS teachers and instructors

As part of the program, AWS Educate will steer Kentucky students to private sector employers through the AWS Educate Job Board, which includes computer science jobs and internships from top technology companies.

## Governor's Work Ethic Certification

Greater Clark County schools launched the P.R.I.D.E. work ethic certification in 2013. The P.R.I.D.E. program was developed to provide a pipeline of skilled high school graduates into today's workforce. In the spring of 2017 Governor Holcomb adopted the program and declared it the Governor's Work Ethic Certification. The employability skills recognized in the Governor's Work Ethic Certification have been vetted by Hoosier employers, community based organizations and post-secondary education institutions and are designed to encourage students to meet the benchmarks that will assist them in their college or career goals.





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Kentucky Department of Education's Career and Technical Education

**Kentucky Tech** – 53 KY Tech Area Technology Centers throughout the state, including in Bullitt and Shelby Counties. Centers engage students in mastery of academic and technical skills needed for college and career

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Kentucky FAME (Federation for Advanced Manufacturing Education)

This partnership of regional manufacturers works to implement dual-track, apprenticeship-style training that will create a pipeline of highly skilled workers. The primary method to achieve this goal is through partnerships with local educational institutions to offer the Advanced Manufacturing Technician Program (AMT). KY FAME works closely with educational institutions to establish and endorse programs and curricula that develop the necessary skill-sets for students to be prepared in Kentucky's manufacturing job market.



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SummerWorks Program

Each year, the SummerWorks program engages with dozens of Louisville-based businesses, nonprofits, government agencies, and local community organizations to connect young job seekers between the age of 16 and 21 with summer employment opportunities, creating a pipeline of future talent. Since its launch in 2011, the SummerWorks program has placed nearly 17,000 local youth in quality job experiences.



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Japan Center at Indiana University Southeast

In the interest of promoting cooperation and understanding, the Japan Center hopes to be a bridge between the people of two distinct cultures. It offers an ever-increasing variety of services to guests, members of the community, Japanese families, students on campus, and local businesses. Some of these services include maintaining a list of translators and interpreters who can meet business demands, sponsoring cultural events, sponsoring cultural and language classes, providing counseling and orientation services, providing a host family program for Japanese students, and providing area corporations with information about Japanese businesses. This program is administered by the Division of Continuing Studies at Indiana University Southeast.

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Louisville Promise

To address student barriers to success in education, work and life, Louisville signed onto a partnership with Say Yes to Education, an organization that works with communities to develop strong wrap-around supports for students and a hope-giving college promise scholarship. Louisville is one of the first communities to join Say Yes to Education through their newly formed Weiss Institute. Called the Louisville Promise, this partnership will help us develop a promise scholarship fund so that every JCPS graduate can afford at least two years of college or additional training. This work also will help us strengthen the wrap around supports provided to youth and families across the city.

