



Professional Development Webinars for Educators  
Summer 2020



# Gigi Wolf

Gigi is a Senior Economic Education Specialist for the Federal Reserve Bank of Kansas City where she develops curriculum, facilitates professional development for educators, builds partnerships with like-minded organizations, manages content for the national Federal Reserve education website and coordinates educational programs for teachers, students and the public.



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# Opportunity to Earn Graduate Credit

Emporia State University (ESU) is offering graduate credit opportunities with relevant and engaging extended learning.

Access a schedule of events and how to participate through Google Classroom:

<https://bit.ly/37n43Pi>

For questions, contact:

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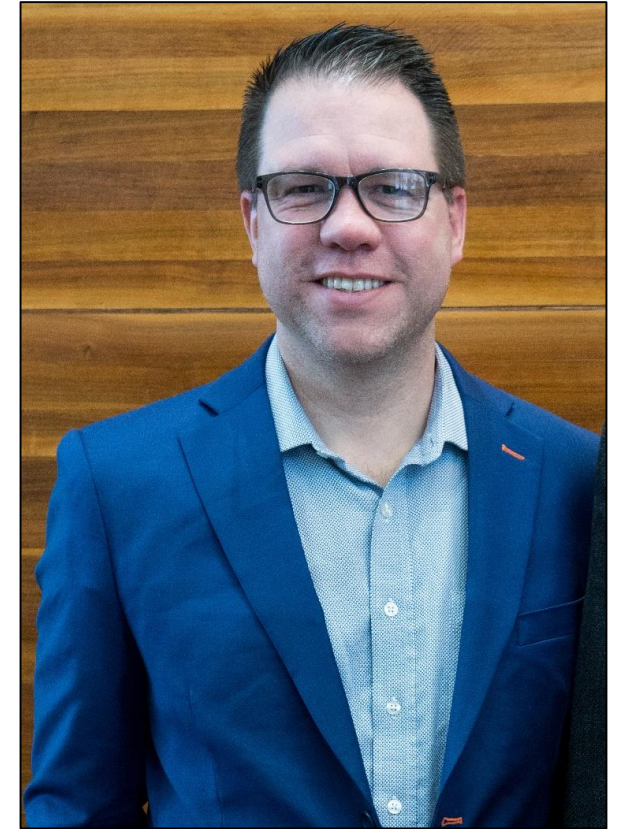
The T in STEM: Technology Jobs of the Future  
June 19



# Matt Motsick

Matt is the Co-Founder and CEO of RPA Labs, a full-service solution in robotic process automation to the logistics and supply chain industry.

At the helm of RPA Labs, Matt and his co-founder, Suraj Menon, lead a team that focuses on automating logistics interactions of Conversations, Documents, and Workflows using a combination of robotic process automation, machine learning, natural language processing, and artificial intelligence. The software bots help companies scale by eliminating manual, repetitive tasks resulting in a better experience for employees and customers.



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# Dr. Ryan Flurry

Ryan serves as the principal of career education for the Shawnee Mission School District, overseeing 16 career pathways offered at 13 sites. He previously served as a high school associate principal, overseeing curriculum, instruction, and assessment.



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# Ryan Weber

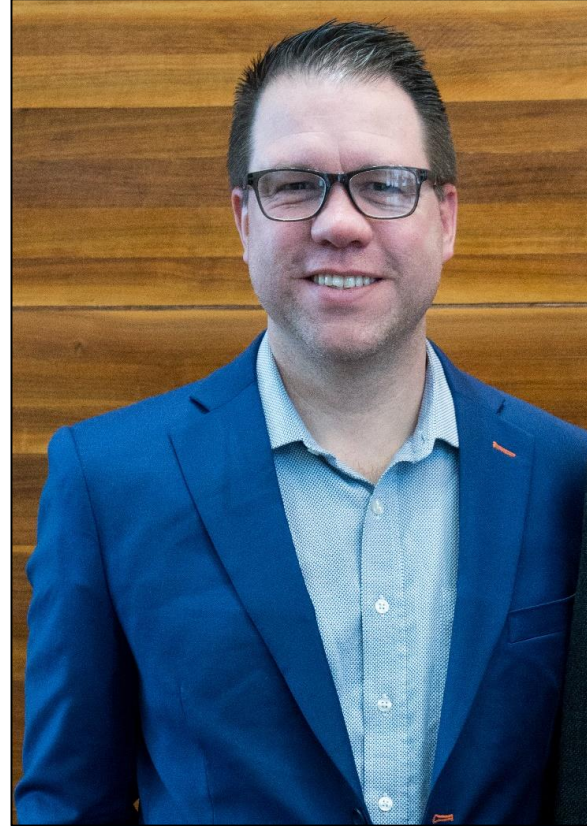
Ryan currently serves as President and CEO of the KC Tech Council, an industry association and regional advocate for Kansas City's tech industry. He represents KC's tech industry internationally as the Vice-Chair of the Board of Directors and Chair of the US Public Policy committee for the Technology Councils of North America (TECNA). At a state level, he serves as a co-founder of the Missouri Hyperloop Coalition, and locally as an advisory board member for the Blue Valley Center for Advanced Professional Studies (CAPS).



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# Matt Motsick



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# Software Bots and Automation in the Workplace: Understand the Future of Work



**RPA LABS**



# Force Of Nature



**Companies are facing increased pressure to:**

- Become digital and move faster
- Commit less mistakes
- Offer a better experience for the customer
- Grow the business with higher margins



**Customers are becoming:**

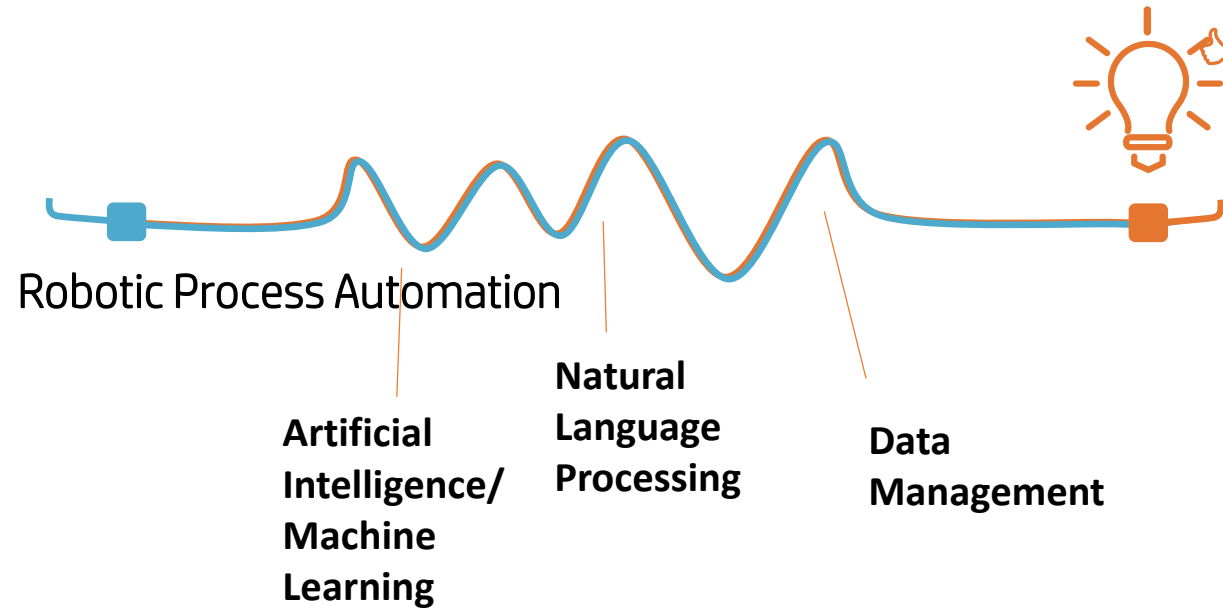
- MORE DIGITAL
- DEMANDING!



**Employees face daily tasks that are:**

- Repetitive
- Mundane
- Boring

# What is RPA?



- Combination of technologies enable software bots to read documents or language texts, perform scripts, input data into web interfaces
- Automates back office and operations daily tasks to free up people for more strategic, human interactions using Artificial Intelligence
- Brings AI to Conversation – instant customer interaction, reduces wait time

**According to a recent McKinsey Global Institute report, ~50% of current work activities are automatable by adapting current automation technologies**

# RPA: A Growing Industry

Many experts predict that Robotic Process Automation (RPA) will experience enormous growth across multiple industries in the coming years



2017



2025



RPA LABS

# Robotic Process Automation is HOT

**\$1B**

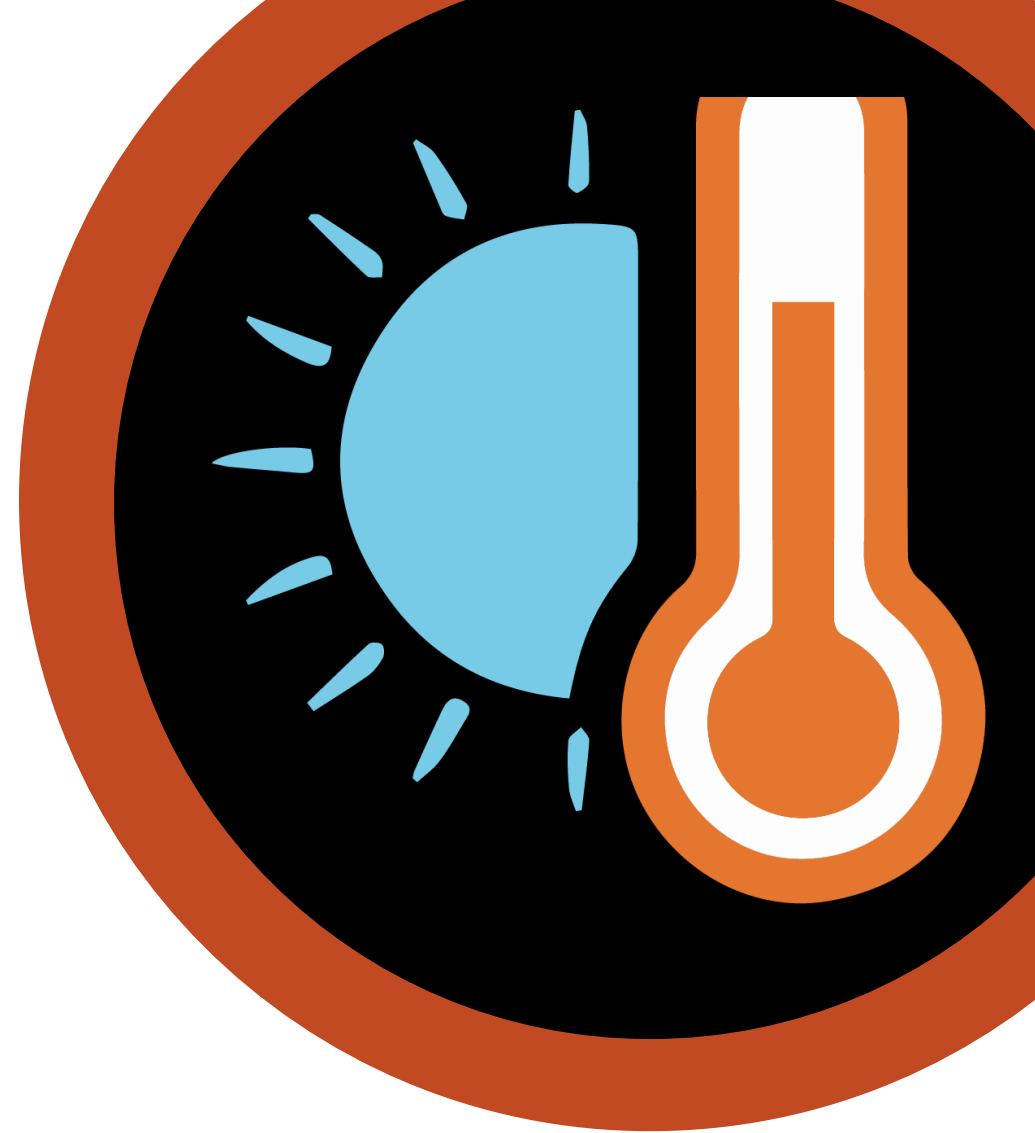
UI Path raised \$1B in funding



Blue Prism,  
Automation  
Anywhere are  
skyrocketing

**2030**

Companies have a huge ROI  
employing RPA. By 2030,  
400M to 800M jobs could  
be automated (McKinsey)



# Who Uses RPA



## Companies

- Insurance
- Bank/Finance
- E-Commerce
- Service
- Trade

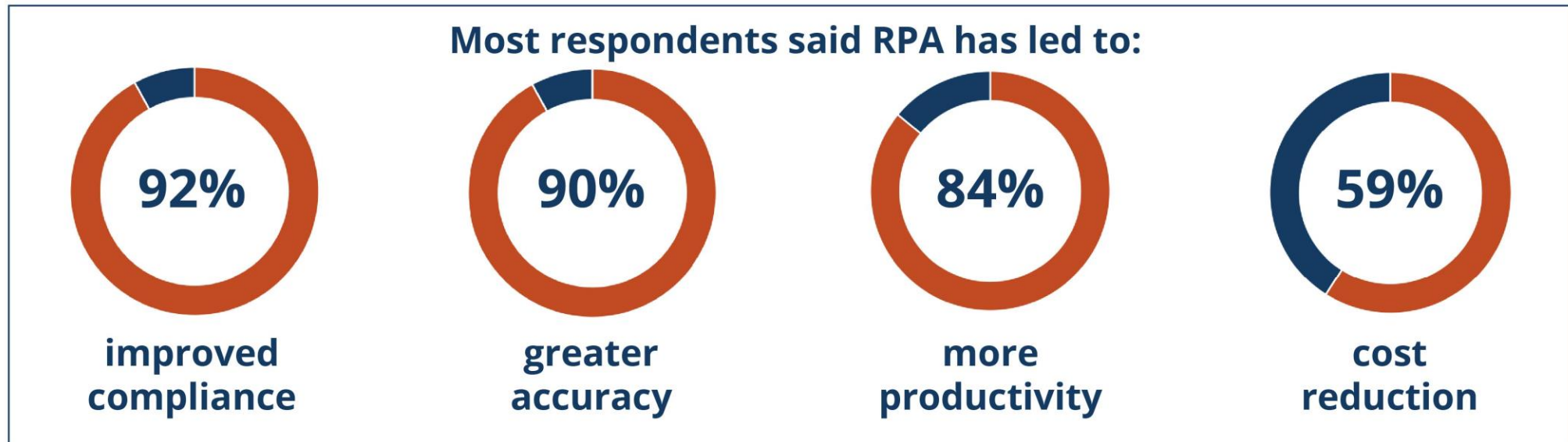
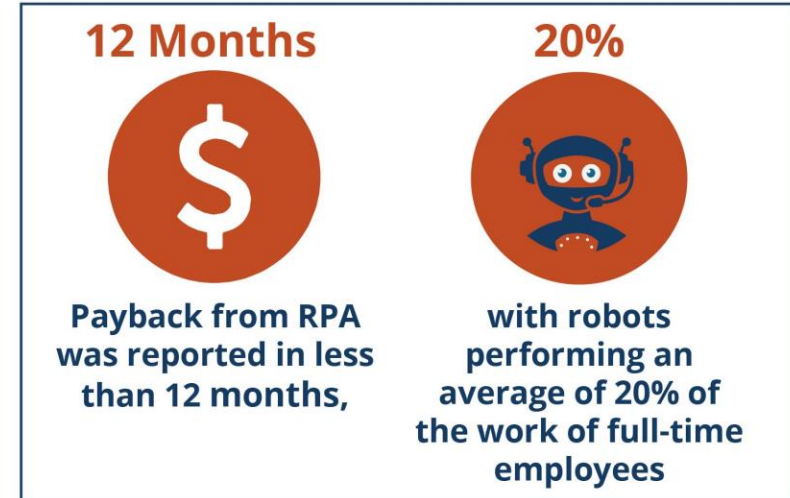
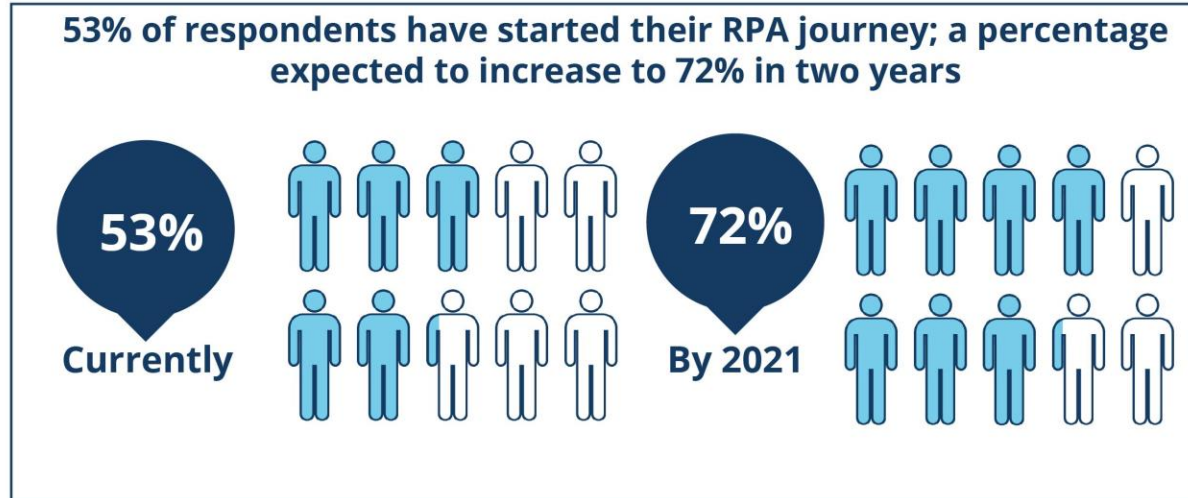


## Departments

- Customer Service
- Data Entry
- Operations
- Accounting

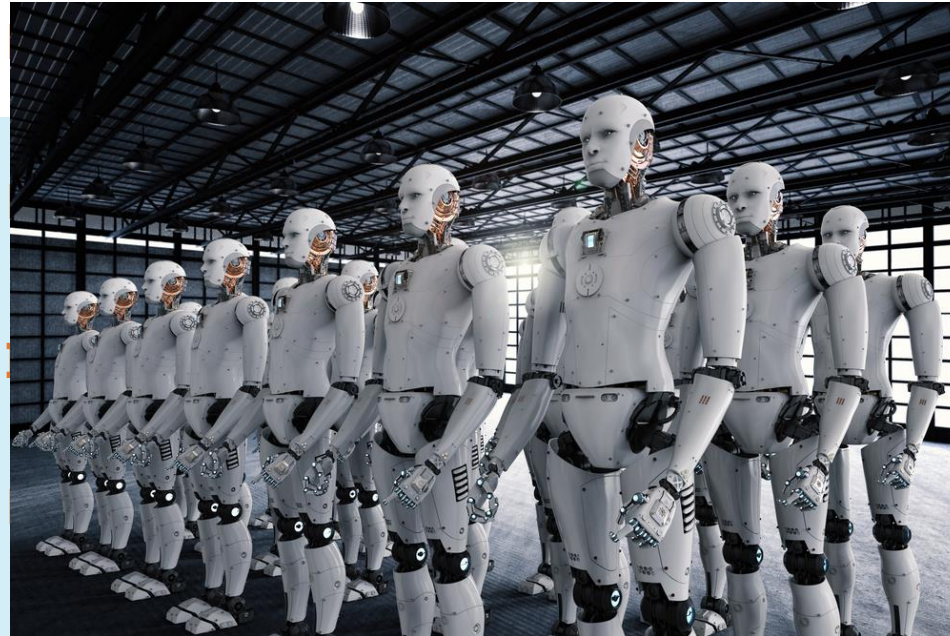
# Benefits of Robotic Process Automation (RPA)

The most recent Deloitte Global RPA survey included these key findings about how companies are adopting RPA:



# Myths about RPA

**Robotic Process Automation uses a Robot**





# Robotic Process Automation (RPA)

## DOCUMENT



## CONVERSATION



## WORKFLOW

TRACKING

CUSTOMS

PROCESS  
AUTOMATION

# RPA Common Use Cases

## Documents

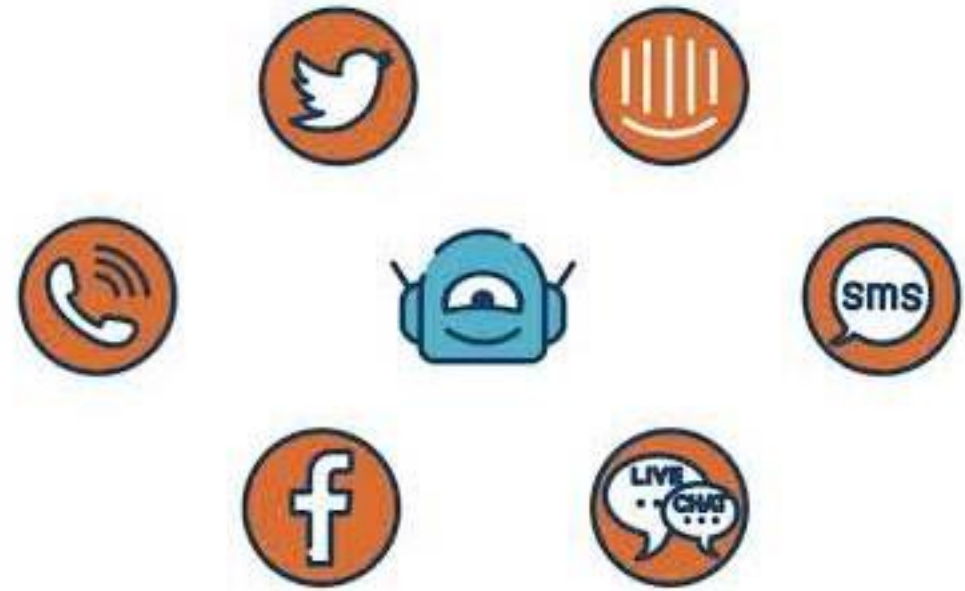
- Excel/PDF to System migration
- Capturing metadata from documents and populating into systems
- Data cleansing - Verify the master data is correct with cross reference database
- Reading emails - Categorizing documents from email attachments
- Invoice matching

## Conversation

- FB Messenger bot responder
- Live chatbot on company website – responds <10 sec
- WhatsApp bot responder
- Schedule appointments
- Provide last mile status updates – text bot to driver
- Employ logic within the bot responder

## Workflow

- Automated process to email 3 companies for price
- Remind parties to submit documents
- Escalate to Manager if time has exceeded
- Utilize predictive analytics to recommend certain products that customers may buy



# Benefits



## Customers

- Gets products faster
- More consistency
- Less errors
- Better experience
- Build loyalty



## Employees

- More valued using skills, empathy
- Make better strategic decisions
- Less repetitive functions



## Company

- More consistency
- SCALE the business
- Increase productivity
- Additional revenue because of quick response times



## **Technologies to consider teaching:**

**Python**

**TensorFlow - Machine Learning**

**Amazon Textract**

**Google Dialogue**

**Front End:**

**Angular**

**React**

# Dr. Ryan Flurry



*Federal Reserve Bank of Kansas City*





*Legacy*  
**OF EXCELLENCE**  
Challenging Today's Learners, Inspiring Tomorrow's Leaders  
SHAWNEE MISSION SCHOOL DISTRICT

# The Future of STEM Education in the KC Metro

# STEM Education - *Our Future*

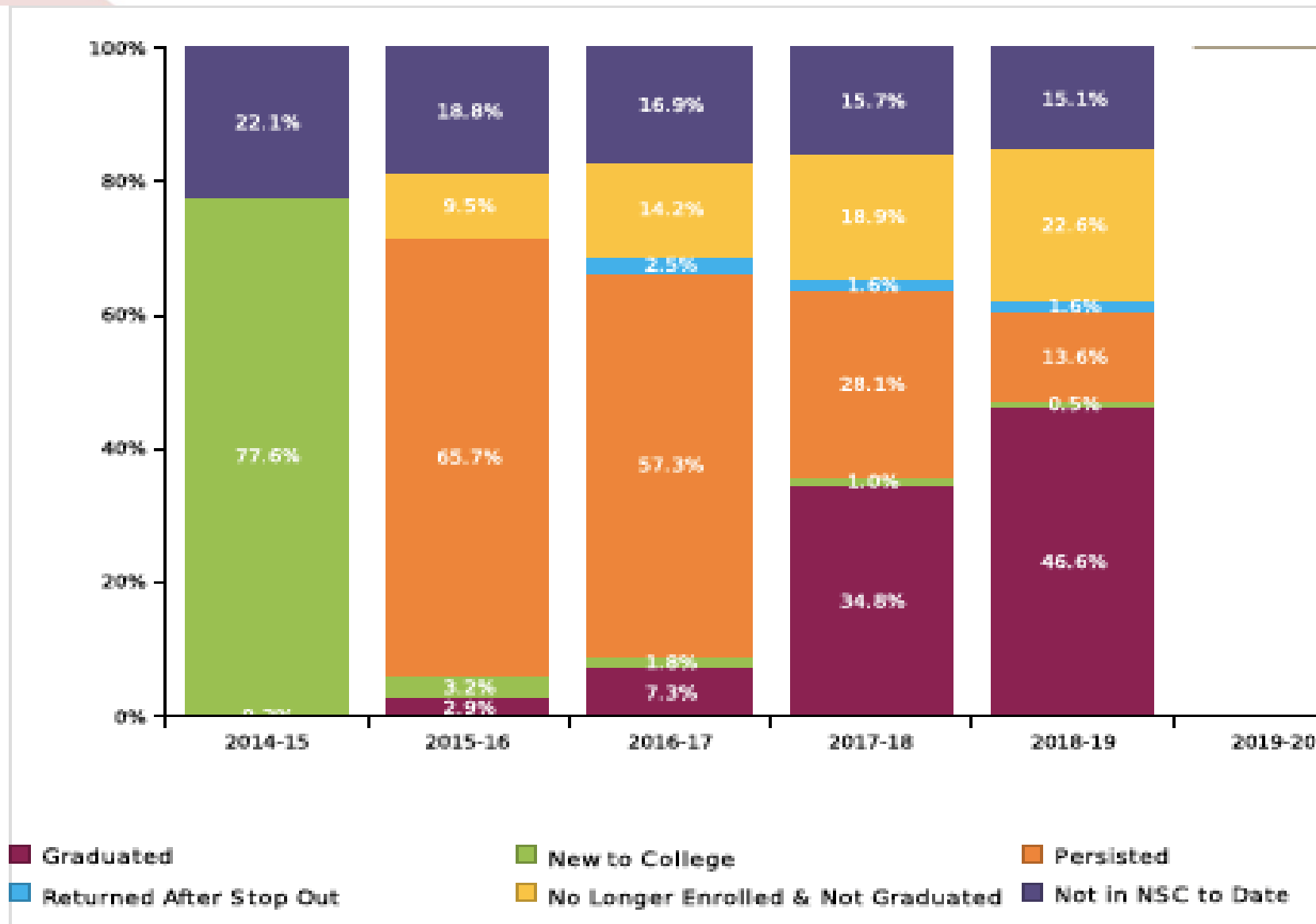
- **STEM Education Long-Term Goals**

- The “Why” Behind it All – Post-Secondary College Success
- Value-Added High School Diplomas
- Engage Families in data-driven educational and career decision-making
- Community Collaboration with K-12 partners
- Perkins V Comprehensive Local Needs Assessment
- Develop and Revise STEM/CTE Curriculum based on market trends
- Teacher Recruitment and Development





# The “Why” Behind it All – Post-Secondary College Success



# Academic Indicators of Success

Research indicates that students will be successful in college and/or the workplace if they have:

## **Must have this:**

A GPA of at least 2.8 out of 4.0

## **Plus- must have one of the following:**

Advanced Placement Exam (3+)

Advanced Placement Course (A, B or C)

Dual Credit College English and/or Math (A, B or C)

**Algebra II (A, B or C)**

International Baccalaureate Exam (4+)

# Career-Ready Indicators of Success

Students are **Career Ready** if they have identified a career interest and meet two of the behavioral and experiential benchmarks listed below.

- 90% Attendance
- 25 hours of Community Service
- Workplace Learning Experience
- Industry Credential
- Dual Credit Career Pathway Course
- Two or more organized Co-Curricular activities

# Multiple Pathways are Necessary

- Only half of all jobs requiring a postsecondary credential require a four-year degree.
- The majority of high school graduates in Kansas and Missouri do not complete at least one year of college.
- Degree options, non-degree credentials, licenses, and guidance should be available for **all students**.



# KC Regional Real-World Learning Initiatives

- Comprehensive **PreK-12 career exploration** around connected to students' interests and **aptitudes**
- Parent, student, and teacher understanding of regional workforce needs and pathways to enter those fields
- Review of graduation requirements and courses offered
- Review methods of awarding high school credit to include expansion of competency-based credit over seat time-based credit

# KC Regional Real-World Learning Initiatives

Students earning Market Value Assets along with their high school diploma:

- Expansions of **college credit opportunities**
- Expansion of **work-based learning experiences** (internships and client projects)
- Embedded **regionally-vetted industry credentials** into courses
- Creation of **entrepreneurial incubators** for students to learn best-practices around business development

# Comprehensive Local Needs Assessment

During the 2019-20 school year, regional teams from various stakeholder groups came together to review and plan around the following data:

- Local workforce needs
- Local secondary and post-secondary opportunities for students
- Career guidance & counseling
- Equity & access to secondary and post-secondary programs
- Teacher recruitment, training, & retention

# Background of Career Pathways

Kansas and Missouri, along with most states, use the national Career Pathways model to organize career and college readiness into fields, clusters, and pathways.



 Career, Standards and Assessment Services  
Kansas State Department of Education  
Landon State Office Building  
900 S.W. Jackson Street, Suite 653  
Topeka, Kansas 66612-1212  
[www.ksde.org](http://www.ksde.org)

The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 S.W. Jackson, Suite 102, Topeka, KS 66612, (785) 296-3204.

September 2018

 **Kansas CAN**  
Kansas leads the world in the success of each student.

 Learning that works for Kansas  
**CTE**



<b>Pathway Name</b>	<b>High School Pathway Size (2018 Conc Count)</b>	<b>Labor Market Demand (Annual Openings)</b>	<b>Wage (Average Entry)</b>
Marketing	429	10,776	\$20,432
Restaurant & Event Management	2798	7,328	\$17,359
Health Science	382	3,854	\$29,482
Manufacturing	121	3,565	\$28,639
Business Finance	24	3,510	\$32,515
Business Management & Entrepreneurship	44	3,334	\$46,843
Construction & Design	142	2,802	\$33,303
Teaching/Training	676	2,408	\$25,330
Family, Community & Consumer Services	101	1,645	\$21,492
Travel & Tourism	1	1,358	\$19,163
Corrections, Security, Law & Law Enforcement Services	11	1,355	\$23,401
Mobile Equipment Maintenance	478	953	\$25,612
Information Support & Services	1	929	\$24,748
Plant Systems	10	919	\$24,559

<b>Pathway Name</b>	<b>High School Pathway Size (2018 Conc Count)</b>	<b>Labor Market Demand (Annual Openings)</b>	<b>Wage (Average Entry)</b>
Programming & Software Dev	489	855	\$55,151
Early Childhood Dev & Services	25	801	\$17,428
Network Systems	1	625	\$56,282
Engineering & Applied Math	267	517	\$62,134
Animal Science	2	323	\$17,317
Digital Media	668	192	\$26,681
Fashion, Apparel, Interior Design	1	178	\$22,615
Emergency & Fire Management	14	156	\$30,577
Natural Resources & Env Services	1	142	\$41,047
Gov't & Public Administration	1	120	\$29,495
Graphic Design	1827	108	\$32,046
Web & Digital	1052	70	\$46,165

# STEM Education - *Our Future*

- **Career Pathways for expansion based on current employment needs in the Kansas City metropolitan area:**
  - Near-term over next one or two years
    - Business Finance/Insurance
    - Information Technology - Network Systems
    - Information Technology - Programming Software Development
    - Teaching/Training expansion
  - Long-term over next three to five years
    - Advanced Manufacturing



# STEM Education - *Our Future*

- **STEM Education Long-Term Goals**

- Perkins V Comprehensive Local Needs Assessment
- Value-Added High School Diplomas
- Community Collaboration with K-12 partners
- Develop and Revise STEM/CTE Curriculum based on market trends
- Engage Families in data-driven educational and career decision
- Teacher Recruitment and Development
- Ongoing Evaluation of STEM Programs to ensure we meet student needs



# QUESTIONS?

ECON ED FROM THE FED





@KansasCityFed



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