MISSOURI STATE BOARD OF EDUCATION AGENDA ITEM: JANUARY 2015

REPORT ON INITIATIVES CONNECTING HIGH SCHOOL STUDENTS TO CAREER-ORIENTED EXPERIENCES: PATHWAYS TO PROSPERITY AND CENTER FOR ADVANCED PROFESSIONAL STUDIES (CAPS)

STATUTORY AUTHORITY:

161.092, RSMo

☐ Consent Item ☐ Action Item ☒ Report Item

DEPARTMENT GOAL NO. 1:

All Missouri students will graduate college and career ready.

SUMMARY:

The presentation will include an update on the Department Pathways to Prosperity initiative as it has expanded across the state. This will include an example of a specific pairing of a school district and local business partner. Board members will also be introduced to the Northland CAPS (Center for Advanced Professional Studies) project, which provides high school students in the Northland a professional, innovative, and entrepreneurial education through career-oriented experiences that represent high demand/high skill job opportunities.

PRESENTERS:

Sharon Helwig, Assistant Commissioner, Office of College and Career Readiness, Kristie Davis, Director, Pathways to Prosperity, Donna Deeds, Northland CAPS Regional Executive Director, and district superintendents with respective business partners participating in each program will assist with the presentation and discussion of this agenda item.
Presentation Brief: Northland CAPS
January 12, 2015

EXECUTIVE SUMMARY

Northland Center for Advanced Professional Studies (Northland CAPS) provides high school students in the Northland a professional, innovative and entrepreneurial education through career-oriented experiences that represent high demand/high skill job opportunities. Students learn from global and local leaders, such as Ford Motor Company, Holland 1916, Cerner, North Kansas City Hospital, Liberty Hospital, BankLiberty to name a few who have chosen to partner with Northland CAPS. Students are able to gain experience working with real businesses and learning through meaningful projects. In addition to being a part of a real business, students are paired with mentors who are working in these professions.

Learning at Northland CAPS is real-time, real world and hands-on, propelling students into high demand/high skill workforce areas like Engineering, Advanced Manufacturing, Medicine & Healthcare, Global Business, Technology, and Entrepreneurship. The program is grounded in profession-based learning relying heavily on strong partnerships with business, industry and post-secondary institutions. Emphasis is placed on developing professional skills which employers deem highly important to career success, such as project management, business ethics, time management, teamwork, creativity.

Northland CAPS serves students from the school districts of Kearney, Liberty, North Kansas City, Park Hill, Platte County and Smithville. Northland CAPS is an example of how business, community and public education can partner to produce personalized learning experiences that educate the needed workforce of tomorrow, especially in high skill, high demand jobs.

Program Offerings

Northland CAPS is driven by the changing workforce needs of industry, therefore instructors and business partners co-author all coursework. Curriculum is dynamic, constantly evolving to follow industry trends and market changes using a copyrighted rapid prototyping curriculum development process. Courses are offered on a semester basis, 2.5 hours, morning and afternoon sessions resulting in high school and college credit. Students and instructors are co-located in training and/or conference rooms provided by Northland CAPS business partners.

- **Engineering and Advanced Manufacturing**
  Students are immersed with engineers and manufacturers using state-of-the art tools and software to create and test 3D prototypes of new designs. Solving complex problems, designing lean manufacturing processes and programming robots are the future of engineering and advanced manufacturing. Students explore the automation of engineering and manufacturing processes in several software languages and how to design efficient “handshaking” operations between robots and machinery.

1/8/15
• **Global Business and Entrepreneurship**
  Students will be exposed to the ever-changing world, which drives business and marketing decisions to adapt to the global economy, many times driving businesses to expand globally. Students will partner with local, regional, national and international businesses to produce real deliverables to include: marketing plans, promotional plans, customer research, social media plans, event management and strategic plans. Students will develop a domestic business plan with the intention to take it global.

• **Medicine and Healthcare**
  Students are embedded in the hospital setting experiencing the dynamic field of medicine and healthcare through hands-on opportunities. Alongside some of the region’s most experienced medical professionals, students advance their understanding of human physiology, disease process, medical terminology, patient care, professionalism, ethics, and finally, provide an exploration of many career opportunities in healthcare.

• **Technology Solutions**
  Students discover a vast array of specialty areas available in technology careers where professionals utilize technology to solve business problems and design products. Students are immersed in a professional environment tackling and solving real world problems while exploring the following areas: software engineering, web development, operating systems, hardware technologies, network design/technologies, management information systems and emerging technologies.

**Northland CAPS SUCCESS METRICS:**

**Student Targets**
- Northland CAPS Professional Skills
- Attendance
- Client Project Feedback
- Internship Numbers
- Internship Sponsor Feedback
- Grade Point Change
- Alumni Feedback

**Operational Targets**
- Enrollment
- Mentors and business partners
- Curriculum quality
- Budget

**Customer Satisfaction Targets**
- Stakeholder Groups
  - Students
  - Parents

1/8/15
o HS Administrators and Counselors
o Business Partners and Mentors
o College and University Partners
o Alumni

School System Impact Targets
- Instructional Changes
- Class Loads
- Schedules
- Curriculum Writing
- Assessments
- Attendance

1/8/15
What is CAPS?

In 2009, Blue Valley School District launched the first Center for Advanced Professional Studies (CAPS). CAPS is a nationally recognized, innovative high school program created in partnership with seventy-four domestic and international business partners, hundreds of business mentors, six leading universities and education experts. Students fast forward into their future as if they already have a college degree and are fully immersed in a professional culture, solving real world problems, using industry standard tools and are mentored by real employers, all while receiving high school and college credit. Students learn from global and local leaders, such as IBM, Black & Veatch, Cerner, Burns and McDonnell, Cisco, Sprint, Bayer and Garmin to name a few who have chosen to partner with CAPS. CAPS is an example of how business, community and public education can partner to produce personalized learning experiences that educate the needed workforce of tomorrow, especially in high skill, high demand jobs.

In 2013, Northland CAPS launched as a joint operation between the Smithville, Kearney, Liberty, North Kansas City, Park Hill and Platte County school districts, providing high school students in the Northland with a professional, innovative and entrepreneurial education through career oriented experiences that are real time, hands-on and real-world. The program was created in partnership with Cerner, Holland 1916, Ford Motor Company and North Kansas City Hospital.

Northland CAPS students are immersed in professional environments engaging in curriculum driven by industry professionals, delivered by certified instructors. Learning is driven by project work directly from industry partners who engage to mentor students and ensure timely, accurate and real project results. Emphasis is placed on developing professional skills, such as project management, collaboration and business ethics, which employers deem highly important to early career success.

Northland CAPS is driven by the changing workforce needs of industry and jobs-based economic development, therefore instructors and CAPS Business Partners co-author all coursework. CAPS curriculum is dynamic, constantly evolving to follow industry trends and market changes using a copyrighted rapid prototyping curriculum development process.

- Medicine & Healthcare - Hosted by North Kansas City Hospital
- Medicine & Healthcare - Hosted by Liberty Hospital
- Global Business & Entrepreneurship - Hosted by BankLiberty
- Engineering & Advanced Manufacturing - Hosted by Holland 1916 and Ford Motor Company
- Technology Solutions - Hosted by Cerner

All CAPS courses receive high school and college credit. JCCC is the college credit partner of Blue Valley CAPS. MCC is the college credit partner of Northland CAPS. In support of high demand, high skill jobs in the region, seamless pipelines from Northland CAPS to MCC to Northwest Missouri State University are in development.
CAPS By The Numbers

<table>
<thead>
<tr>
<th>ENROLLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Served 2009-2014</td>
</tr>
<tr>
<td>Northland CAPS 2014-15</td>
</tr>
<tr>
<td>Northland CAPS 2015-16</td>
</tr>
<tr>
<td>Northland CAPS 2016-17</td>
</tr>
<tr>
<td>Northland CAPS 2017-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLLEGE ENDORSEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Valley and Northland CAPS have received numerous college endorsements from Provosts, Chancellors and selective Deans. The following link provides the letters of endorsement from the university partners.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUSINESS PARTNERS &amp; MENTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2014</td>
</tr>
<tr>
<td>2009-2014</td>
</tr>
</tbody>
</table>

Examples of Strategic Business Partners: Bayer, Cerner, Cisco, Black & Veatch, Burns and McDonnell, DuPont, St. Luke’s North and South, KU Medical Center, Stowers Institute, Sprint, Garmin, Ford Motor Company, Holland 1916, North Kansas City Hospital, MRI Global, Freedom Bank, DLR Group, Kauffman Foundation

<table>
<thead>
<tr>
<th>INTERNSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2014</td>
</tr>
<tr>
<td>2014-15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPS REPLICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 School Districts in Five States; Iowa, Minnesota, Utah, Missouri, Kansas</td>
</tr>
</tbody>
</table>
Pathways to Prosperity

Pathways for Teachers

- 117 administrators, counselors, core teachers, and CTE teachers in 9 school districts participating
  - Affton, Ferguson-Florissant, Hazelwood, Normandy School Collaborative, Camdenton, Centralia, Blue Springs South, Ruskin, and Platte County
  - Information Technology
  - Hospitality and Tourism
  - Health Science
  - Advanced Manufacturing
  - Bioscience/Biotechnology
Pathways to Prosperity

- Mid-Missouri and Kansas City Asset Mapping

- Key Points:
  - Rural communities concerned with students leaving due to lack of local economic opportunity awareness
  - Employers see many students lacking the soft skills that are essential in the workplace
  - IT programming and networking are in high demand across all industry sectors
  - Many educational programs/initiatives but in many cases lack of coordination among comparable programs
Pathways to Prosperity

- Pathways/Building Bridges Statewide Conference
  - March 2-3 Tan-Tar-A
  - Highlighting a variety of programs and resources across the state
    - Pathway districts, Innovation Campus, Northland CAPS, OTC Middle College, MERIC data, Educator Evaluation Tool, Project Based Learning, etc.
Pathways to Prosperity

- Summer Jobs League
  - Announced by the Governor
  - 2,000 summer jobs in St. Louis
  - 1,500 summer jobs in Kansas City
    - Approximately 400 jobs designated for Pathway districts
    - Pathways collaborating with local Workforce Investment Boards and Summer Jobs League Committee
PATHWAYS TO PROSPERITY
MISSOURI

Kristie Davis-State Director
Gail Stewart-St. Louis Regional Director
Bragg Stanley-Mid-Missouri Regional Director
Ann Starlin-Horner-Kansas City Regional Director
IBM – Pathways to Prosperity

Pathways to Prosperity Network
AN INITIATIVE OF JOBS FOR THE FUTURE AND THE HARVARD GRADUATE SCHOOL OF EDUCATION
What are Our Purpose, Values and Practices?

Purpose, Values and Practices define what is unique and enduring about a great enterprise – and what makes its people both an inspiration and a force to reckon with, creating a sustainable competitive advantage.

1. Be essential.

2. Dedication to every client’s success.

3. Innovation that matters—for our company and for the world.

4. Trust and personal responsibility in all relationships.

9. “Put the client first.”
   “Listen for need, envision the future.”
   “Share expertise.”

   “Restlessly reinvent—our company and ourselves.”
   “Dare to create original ideas.”
   “Treasure wild ducks.”

   “Think. Prepare. Rehearse.”
   “Unite to get it done now.”
   “Show personal interest.”
IBM Columbia Delivery Center / Pathways to Prosperity
High School Intern Experience

2014 IBM Internship Program

• Pilot program to bring in 2 High School interns for summer of 2014
• Prepare students for college AND a career – Jobs for the future
• Interview & selection / Training / Real client work
• Networking / Collaboration / Career planning / Corporate Character Workshop
• Converted both interns to Supplemental employees at the end of the internship program
• Looking to expand the program for 2015
IBM Columbia Delivery Center / Pathways to Prosperity
High School Intern Experience

Benefits

• Exciting opportunity to supplement our workforce with young, motivated talent, fresh ideas
• Feeder for future employees possessing the skills & experience we need
• Low cost / High Return
• IBM’s commitment to diversity and the communities where we have a presence

Challenges / Barriers

• Internal IBM budget approvals
• IBM investment (time & talent) to provide initial training, mentoring & oversight
• Closing gaps to prepare students to function successfully in the workplace
• Closing gaps in academic curricula and business realities / needs
• Changing paradigm to move educators to new model – “preparing for college and preparing for a career should not be mutually exclusive options”
Transforming the way we assess future IBMers

Interview the IBM Way is an experience that provides IBMers with the resources and support to transform the way we interview. These three criteria allow IBM to discern which candidates possess the qualities of the quintessential IBMer.

1. Technical/Functional Expertise & Professional Experience
   - IBMers are experts. We look for candidates at the forefront of their field, profession or discipline by evaluating them for job specific skills, industry knowledge and necessary language proficiency. We also seek people who take joy in continually learning and sharing expertise to help others build their knowledge.

2. Purpose, Values & Practices
   - The primary way IBM is experienced is through IBMers. This is why we seek out professionals who embody our Values and have the greatest capacity to live our Practices—to be essential to our clients and the world.

3. Expectation Setting
   - Conveying a clear vision of the role to the candidate is critical when looking to find the best job match. An important part of your role as interviewer is to communicate information about the job, and about IBM, to the candidate. By offering a realistic job preview, you increase the likelihood of hiring candidates who will be satisfied and engaged, and therefore the best fit for IBM.

The Outcome

Conducting an interview is about more than trying to fill an open job requirement. As you meet with a candidate, just as when you meet with a client, you’re creating an experience for them. Likewise, they are creating an experience for you. Create a comfortable environment to allow the candidate to be at their best while you represent IBMers at our best.
Interview guide

Practice definition

Behavioral Questions

Situational Questions

Rating scale for evaluation

"Put the client first."
We care for the client's business as if it were our own. We put their interests before ours, and we never let our structure or processes get in the way of a seamless client experience.

<table>
<thead>
<tr>
<th>Behavioral Questions (choose one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships involve giving and receiving. Tell me about a time you collaborated with a customer to determine a path to achieve mutual goals. Describe how you have used measurement or feedback systems to track how well you are serving your client. What feedback did you receive? And what actions did you take after?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Situational Questions (choose one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your client recently shared with your manager that they feel you are providing them services based on your own personal goals. How do you handle this situation? You have been given a client account from another team member. Upon reviewing the transitioned client, you find out that the main contract has not been partnering with those in your organization and you are the third project lead. How do you approach this relationship?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use rating scale below to rate Behavioral Patterns:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unsatisfactory</td>
</tr>
<tr>
<td>Frequency: 1unsatisfactory</td>
</tr>
<tr>
<td>2 Marginal</td>
</tr>
<tr>
<td>Frequency: marginal</td>
</tr>
<tr>
<td>3 Acceptable</td>
</tr>
<tr>
<td>Frequency: acceptable</td>
</tr>
<tr>
<td>4 Above Average</td>
</tr>
<tr>
<td>Frequency: above average</td>
</tr>
<tr>
<td>5 Outstanding</td>
</tr>
<tr>
<td>Frequency: outstanding</td>
</tr>
</tbody>
</table>

Notes:
Evaluating the candidate

1: Unacceptable
2: Marginal
3: Acceptable
4: Above Average
5: Outstanding

For an offer to be extended, an interview evaluation form must be completed.
Interview evaluation form

This evaluation form is completed during or immediately after the interview.

Note: Every employee in IBM is expected to abide by IBM policy and all applicable laws on this subject, and to uphold IBM's commitment to workforce diversity.
Thank you
Gracias
спасибо
谢谢
Obrigado
děkuji
dank u
dziękuję
شكرا
감사합니다
grazie
Thank you
Gracias
спасибо
谢谢
Obrigado
děkuji
dank u
dziękuję
شكرا
감사합니다
Agenda

Northland CAPS Program

Business Partnerships

Success Metrics + Funding Model
What is Northland CAPS?
Focus on economic development
CAS ADVANTAGE

• Start your professional career in high school
• Be ahead of your college peers

Engineering + Advanced Manufacturing
Global Business + Entrepreneurship
Medicine + Healthcare
Technology Solutions
Liberate curriculum
Business partners drive curriculum.
High school and college credit
2.5 hours every day
Northland CAPS Internship Process

1. Professional Skills Training
2. Resume and Mock Interview Training
3. Business Partner Interview
4. Internship Placement
5. Internship Monitoring

Professional Skills Training
Business Partner Interview
Internship Placement

Northwest Missouri State University
Free instructors
Diverse staff

Cadre of Doctors & Nurses
Retired corporate executive
Sport medicine professional
Mechanical engineer
Technologist
Full immersion
Northland CAPS – Satellite Locations

A – Medicine/Healthcare
NKC Hospital

B – Technology Solutions
Cerner

C – Global Business
BankLiberty

D – Medicine/Healthcare
Liberty Hospital

E – Engineering/Adv Manufacturing
Holland 1916

F – Administrative Office
BankLiberty
...you might wonder:

How does Northland CAPS make this happen?
200+ Business Partners

<table>
<thead>
<tr>
<th>ENGINEERING</th>
<th>TECHNOLOGY</th>
<th>MEDICAL</th>
<th>BUSINESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ford</td>
<td>Cerner</td>
<td>North Kansas City Hospital</td>
<td>BANKLIBERTY</td>
</tr>
<tr>
<td>Holland 1916, Inc.</td>
<td>Lumen</td>
<td>Liberty Hospital</td>
<td>Harvest Productions</td>
</tr>
<tr>
<td>OLOsson Associates</td>
<td>LIGHTEDGE</td>
<td></td>
<td>Gary Crossley Ford</td>
</tr>
</tbody>
</table>
CASE STUDIES

- Speakers & Instruction
- Facilities/Hosting
- Equipment/Supplies
- Monetary Investment
- Mentoring/Internships
- Influencing Curriculum
- Client Projects
- Professional Development
Speakers & Instruction
Mentoring/Internships
Influencing Curriculum
Facilities/Hosting
Client Projects
Equipment/Supplies
Professional Development
Monetary Investment

CASE STUDIES

North Kansas City Hospital

50
CAPS Replicators

5 States

350+ Nationwide Business Partners

11

Blue Valley School District
Overland Park, KS

Kearney School District
Liberty School District
North Kansas City School District
Park Hill School District
Platte County School District
Smithville School District
Northland, MO

Minnetonka, MN
Topeka, KS
Park City, UT
Waukee, IA