



Preparing Missourians to Succeed

A Blueprint for Higher Education

Public Hearing #7 – Kansas City (DRAFT)

Focus: Information Technology and Transportation/logistics. Also: Education Challenges in the Urban Setting, Proprietary Institutions, Health Professions, and STEM.

April 10, 2015

Metropolitan Community College

BACKGROUND

Higher education is quickly evolving in Missouri as the state's colleges and universities prepare students for the future. By 2018, an estimated 60 percent of all jobs in the state will require some form of postsecondary education.

Missouri has set a goal to increase the percentage of working age adults with a two- or four-year degree or professional certificate to 60 percent by the year 2025. Currently, about 49 percent of Missourians have a college degree or certificate.

Knowledgeable and skilled citizens are key to a strong economy, but the benefits of higher education extend far beyond meeting the state's workforce needs. Individuals who earn a postsecondary degree enjoy higher incomes and lower unemployment rates. They make healthier lifestyle choices and live longer lives. They are more likely to vote and volunteer in their communities.

The Missouri Coordinating Board for Higher Education is responsible for designing a coordinated plan to address the state's higher education needs. The last plan was adopted in 2008.

To keep pace with the state's higher education needs, the Missouri Department of Higher Education will spend the next year developing a new coordinated plan: *Preparing Missourians to Succeed: A Blueprint for Higher Education*. The final plan will be presented to the coordinating board for approval in December 2015.

The *Blueprint for Higher Education* will focus on four main areas:

- **Accessibility:** Improve college readiness and make higher education opportunities available to all students across the state.
- **Affordability:** Keep the cost of higher education within reach for Missouri families.
- **Quality:** Ensure students acquire the knowledge and skills they need for a rapidly changing world and workplace and support the need for resources to provide quality educational opportunities.
- **Completion:** Help students stay the course to finish a certificate or degree program.

AGENDA

Convene – Steering Committee Co-Chairs *Deb Hollingsworth and Jim Anderson*

Welcome – *Mark James*, Chancellor, Metropolitan Community College

Kristi Smith Wyatt, Senior Vice President, Greater Kansas City Chamber of Commerce

Presentation: Setting the Stage – *Dr. David Russell*, Commissioner, Missouri Department of Higher Education

Panel: Challenges Facing the Health Care Sector: Education and the Health Professions – Facilitated by Assistant Commissioner for Academic Affairs with Missouri Department of Higher Education *Rusty Monhollon*

Dr. Sue Dean-Barr – Dean of Nursing, University of Missouri St. Louis

Dr. Cheryl Carpenter-Davis – Dean of Instruction, MCC-Penn Valley-Metropolitan
Community College

Dr. Karen Cox– Chief Operating Officer, Children’s Mercy Hospital, Kansas City

Dr. Kristopher Hagglund – Dean of the School of Health Professions, University of Missouri Columbia

Dr. Steven Kanter – Dean of the Medical School, University of Missouri Kansas City

Discussion with Challenges Facing the Health Care Sector Panel

Tour: Virtual Hospital Center: Facilitated by Simulation Specialist *Melissa Trybom, R.N.*

Panel: Why is there a Shortage of Graduates in the Pipeline Trained in Science, Technology, Engineering and Mathematics and What Can Be Done About It? – Facilitated by Assistant Commissioner for Academic Affairs with Missouri Department of Higher Education *Rusty Monhollon*

Laura Loyacono – Executive Director, Kansas City STEM Alliance

Jim Hogan – Director of Engineering and Technology, Department of Elementary and Secondary
Education

Ben Yates – Project Lead the Way, Missouri University of Science and Technology

Discussion with Why is there a Shortage of Graduates Panel

Panel: Proprietary Education – Another Option for Postsecondary Education and Training – Facilitated by Deputy Commissioner for Higher Education and Proprietary Institutions with Missouri Department of Higher Education *Leroy Wade*

Lute Atieh – Chief Operating Officer, American Business and Technology University

Suzanne Marshall-Caby– Campus Dean, DeVry University-St. Louis

Lisa Olmedo – Education Marketing Manager, Gragg Advertising

Jim Thompson – Vice President of Compliance, Concorde Career College

Discussion with Proprietary Education Panel

Public Comment

Adjourn

STEERING COMMITTEE ATTENDANCE

Dr. Don Claycomb, President, State Technical College of Missouri, Linn

Mike Thomson, State Representative and Teacher (retired), Maryville

Dr. Charles Gooden, Dean of Student Affairs, Harris-Stowe State University (retired), St. Louis

Deb Hollingsworth, Vice President of External Affairs, AT&T (retired), St. Louis

Dalton Wright, Chair, Missouri Coordinating Board for Higher Education, Lebanon (*Ex-officio member*)

Dr. David Russell, Commissioner, Missouri Department of Higher Education, Jefferson City (*Ex-officio member*)

Dr. Rusty Monhollon, Assistant Commissioner of Academic Affairs, Missouri Department of Higher Education, Jefferson City (*Ex-officio member*)

Tom Richmond, Manager of Parts Distribution, Altec Industries, St. Joseph

Dr. John Jasinski, Chair, Council on Public Higher Education, and President, Northwest Missouri State University, Maryville

Betty Sims, Chair, Missouri Coordinating Board for Higher Education, St. Louis (*Ex-officio member*)

Mike Franks, Chief Executive Officer, Neosho Area Business & Industrial Foundation, Inc., Neosho

Jim Anderson, Vice President of Marketing and Public Affairs, CoxHealth, Springfield

Pat Dillon, Community Liaison, Mosaic Life Care, St. Joseph

Robin Coffman, Chief of Staff, Missouri Department of Elementary and Secondary Education, Jefferson City

Dr. Michael Bleich, Missouri Nurses Association, and President and Maxine Clark and Bob Fox Dean and Professor, Goldfarb School of Nursing at Barnes Jewish College, St. Louis

Jean-Paul Chaurand, Chief Operating Officer, Guadalupe Centers, Inc., Kansas City

Mike Downing, Director, Missouri Department of Economic Development, Jefferson City

Angela Bennett, Regional Director, U.S. Department of Education Office of Civil Rights (retired), and Curator Emerita, University of Missouri Board of Curators, Kansas City

Michael Schwend, President, Preferred Family Healthcare, Kirksville

Clif Smart, Vice Chair, Council on Public Higher Education, and President, Missouri State University, Springfield

Dr. Johndavid Kerr, President, Missouri Association of Faculty Senates, and Professor, Harris-Stowe State University, St. Louis

Berla Bieller, Retired Teacher, Guidance Counselor, Broseley

Dr. Ron Slepitz, President, Avila University, Kansas City, and Immediate Past Chair, Independent Colleges and Universities of Missouri

Dr. Russell Hoffman, Executive Director, BJC Learning and Organizational Effectiveness, St. Louis

PUBLIC ATTENDANCE

There were 32 members of the public in attendance.

MEETING SUMMARY

Jim Anderson, Vice President of Marketing and Public Affairs, CoxHealth, co-chaired the Steering Committee and gave an overview of the agenda and how the hearing would proceed.

WELCOME

Mark James, Chancellor, Metropolitan Community College, welcomed the Steering Committee, staff and guests to Metropolitan Community College

- MCC is comprised of five campuses: Penn Valley, Longview, Blue River, Maplewoods, and Business Technology Campus
- Penn Valley Health and Science Institute consists of a virtual hospital with nearly 20 different health related programs.
- The virtual hospital utilizes human simulators that can replicate any type of medical emergency.
- These programs are very expensive. The birthing human simulator is a \$300,000 sophisticated piece of equipment.
- Many of these programs run at a deficit.

Kristi Smith Wyatt, Senior Vice President, Greater Kansas City Chamber of Commerce

- Jim Heeter is retiring as President and CEO of Greater Kansas City Chamber on December 31, 2015.
- 2,200 members made up of businesses, educational organizations and not-for-profit in both Missouri and Kansas
- 60 percent of Greater KC Chamber members are in Missouri
- 80 percent of membership is small businesses
- Working on making Kansas City the most entrepreneurial city in Missouri.
- Involved in the revitalization of Kansas City's urban core called the Urban Neighborhood Initiative
- The best thing higher education and businesses can do is communicate.

- The Chamber holds the Superintendents Forum that brings superintendents from the KC area Kansas side and Missouri side together with a focused agenda to discuss issues that are important to them.
- Businesses need engineers and welders.

Presentation: Moving Forward in the Coordinated Plan Process by Commissioner David Russell

- Missouri Department of Higher Education will hold the last two hearings in June:
 - June 3 – Springfield, *How to fund higher education*
 - We have an essential need to build public support.
 - Public institutions cannot spend tax payer dollars on advertising.
 - We may need to have an independent foundation.
 - June 4 – Cape Girardeau, *Educating the next generation of teachers*
- The Coordinating Board for Higher Education and MDHE are now having joint meetings with the State Board of Education and the Department of Elementary and Secondary Education. The next joint meeting is scheduled for July 28 in Columbia.
- On July 29-30 – steering committee workgroups:
 - Workgroups to meet independently of each other
 - Bring workgroups together for briefing of conclusions and roadmaps to go forward
 - CBHE members will work with committee members in the workgroups.
- On September 2 – steering committee meets in Jefferson City to shape the blueprint draft.
- On September 3 – steering committee will attend the CBHE public meeting and report to the board.
- MDHE will send the summer/fall schedule to committee members for feedback. Jefferson City’s central location is ideal for the workgroups.
- Would like no more than three workgroups, but this is challenging:
 - Student financial aid is in trouble and we need to spend some time on it. We could possibly bring in some outside expertise and involve the legislature in the discussion.
 - Alternative models for funding higher education.
 - Student centered agenda. Completion agenda.
 - Advocacy.
 - Required by statute, MDHE will review institutional missions and look at the selectivity criteria. A system that differentiates enrollment policies of our different institutions. (From open enrollment to highly selective) This will eventually be included in the final blueprint although the steering committee will not be conducting the review.
- Workgroups could be formed to answer questions:
 - Are we preparing students to enter and succeed in college? Etc...
 - David Russell will send the list of questions to steering committee members. Steering committee members should then identify what is not here. What is not being addressed? If you feel it is not significant enough to be included, we need to know this too.

- We want to address the issues we stated at the onset of this process:
 - Accessibility
 - Affordability
 - Quality
 - Completion
- MDHE can take the different issues and place them under each of the categories so steering committee members could see how they might all relate.
- We need to remember that we are not just talking about traditional students from high school to college. We want to include those re-entering the system.
- We need to include programs. We need to plug in the substance of what people are studying and learning, and are they doing the right thing.
- We want to emphasize the workforce connections. That may be where we put the liberal arts education and its applicability to the workforce.
- Could MDHE staff create a chart for committee members that includes the financial aid programs we have?
- MDHE will send committee members a detailed calendar with locations for the remaining of this process for your feedback.
- The communication issue needs to be added. Possibly a communication center set up under the department of higher education.
- The steering committee members need to challenge themselves to make sure the common denominators we are hearing and the emerging themes are covered in all these buckets.
- MDHE staff will scrub the minutes of these hearings and fill-in any gaps to try and highlight the themes and link the topics.
- The question approach is favorable to committee members.
- Could we include the numbers of where we were 10 years ago, where we are now and where we think we may be?
- We need to have K-12 and early childhood around the table to get the complete picture.
- The data piece will take a little longer to get to committee members than some of the things that are being requested.
- Some things are cross-cutting and may need to be looked out regardless of what the workgroups are. Such as affordability. Each of the workgroups should look at affordability in order to inform us of the richness of the perspective. Student preparation may be another one.

- Rather than starting with the workgroups in July, maybe the committee should all come together and have a conversation about the major themes to build consensus and then break people out into workgroups.

Challenges Facing the Health Care Sector: Education and the Health Professions Panel Facilitated by Professor and Dean of the Goldfarb School of Nursing; and President, Barnes Jewish College Dr. Michael Bleich

- Health care is a service to support economic development.
- It is hard to recruit new businesses to any state without the benefit of excellent educational systems and outstanding healthcare.

Dr. Cheryl Carpenter-Davis, Dean of Instruction for MCC-Penn Valley Health and Science Institute-Metropolitan Community College:

- Challenges for health profession institutions:
 - Student challenges:
 - Students come from industry, students that are currently in university taking community college classes, students that went to a four-year university but came back after one year.
 - We also have a lot of first generation students that lack confidence and resiliency; and street smart students who think they do not need to be here.
 - Students know how to do algebraic equations but do not know how it applies to the workforce.
 - Healthcare is causing us all to have advanced degrees and this increases cost.
 - Workforce needs challenges:
 - A lot of people in healthcare professions will be leaving the workforce and we do not know that universities can handle this.
 - Workforce changes so rapidly; and we have to try and keep up.
 - Rise in cost and duplication of programs:
 - There is a high cost for accreditation.
 - We have program costs that are not covered by financial aid.
 - Compliance with criminal background checks, HIPPA and immunizations requires a compliance officer at more cost.
 - We have a lot of duplication of programs.
 - Johnson County Kansas Community College has a respiratory care program, we send our students there. They send their physical therapy students to us.
 - We have simulation agreements were Kansas University and University of Missouri Kansas City access our simulation programs.
 - We need to think differently in terms of education. These programs are full during the day, but are empty after 3:00 p.m.
 - We need transfer articulation with universities and colleges.

Dr. Sue Dean-Barr, Dean of Nursing, University of Missouri St. Louis:

- Missouri ranks 44th with regards to persons living in medically underserved areas. Missouri ranks 36th in America's health ranking.
- For nursing, the workforce supply and demand implications for higher education are at the entry level and graduate level of nursing.
- The current supply pipeline to all levels of nursing will not fit the demand for nursing.
- Four recommendations for nursing education:
 - Remove scope of practice to allow advanced nurses to practice to the full extent of training.
 - Increase the proportion of nurses with baccalaureate degrees by 2020.
 - Double the number of nurses with doctoral degrees by 2020.
 - Ensure nursing education is a lifelong learner.
- The quality of nursing education is a critical concern. Expectations far exceed requirements.
- One way to reduce the burden on nursing programs is for the Missouri State Board of Nursing to use professional accreditation as a tool for continuing approval.
- Another state model is that internal campus program reviews use the professional accreditation report as a main report and only require programs to address any areas that are not included in evaluating in that professional accreditation.
- We need to evaluate newer models of developing partnerships to create higher education healthcare organizations.

Dr. Karen Cox, Chief Operating Officer, Children's Mercy Hospital:

- Key competencies all health professionals need:
 - A broader perspective of health – access to food, education, employment, where they live, etc.
 - Social entrepreneurship
 - Change management and process improvement
 - Working in teams – being an effective leader as well as an effective follower
- Health profession students need extended clinical time.
- Specific professions needed:
 - Biomedical Engineers
 - Genetic Counselors
 - Radiology Technologists
 - People trained in mental health and behavioral health specialties
 - Health Information Technologists
- There is a need to better promote these health professions.
- Advanced Practice Nurses needed in rural communities.

Dr. Steven Kanter, Dean of the Medical School, University of Missouri Kansas City:

- University of Missouri System has two medical schools:
 - University of Missouri Columbia has a four-year medical school that accepts students after four years of college.
 - University of Missouri Kansas City has a six-year medical program at their medical school that accepts students out of high school
- Medical schools are part of their parent universities. They partner and collaborate with other programs, such as nursing, dentistry, etc.
- Medical education has been focused on and is very good at diagnosis and treatment. We are developing the tools to become very good at predicting disease and preventing disease. We need to shift the emphasis to prediction and prevention.
- Healthcare workers that will be important as we move forward and will be the healthcare profession innovators:
 - Individuals who are educated to work at the intersection of health care, health outcomes, operational research and data
 - Individuals who are equipped to work at the intersection of patient safety, simulation and education

Dr. Kristopher Hagglund, Dean of the School of Health Professions, University of Missouri Columbia:

- The future of healthcare delivery will be focused on improving and maintaining health.
- Colleges, universities and policy makers need to substantially improve workforce data.
- There has been a shortage in all disciplines of healthcare.
- It is critical for the Coordinating Board of Higher Education to monitor and guide development of new degree programs in healthcare.
- We need to allow providers to practice at their highest level of competency. The primary care physician shortage could be largely solved by expanding the scopes of practice of nurses and physician assistants.
- We need to support the implementation of interdisciplinary education and professional team training.
- The Coordinating Board should do what it can to support and facilitate health education programs that encourage, promote and retain students from underrepresented backgrounds. Our healthcare workforce desperately needs to reflect the population in this country.
- We need to find a way to expand Medicaid.
- We need to remove scope of practice limitations.
- We need to end duplicate regulatory practices.

Steering Committee discussion with panel members

- ❖ Do you have any recommendations regarding talent distribution and retaining talent in Missouri?
 - Statutory language in Missouri states that advanced practice nurses basically function as physician assistants. They do not have autonomy yet nurses are trained to treat the individual, families and communities.

- We plead the Missouri Nurses Association and the Missouri Medical Association find some compromise for solutions in the advance practices and scopes of service.
- ❖ Healthcare has regulatory compliance and accreditation compliance. Professional accreditation groups are more attuned to what is happening and what we are preparing for in the future. Regulatory rules seem to be rules for basic safety. It would be better to allow the professional accreditation to be the hallmark and build off that.
- ❖ Missouri Western State University is starting a Population Health program.
- ❖ Missouri Department of Higher Education is tasked with the review and approval of academic programs. How can we cut back on the duplication of programs?
 - Proprietary schools, community colleges and universities are trying to do the same things, some times in the same communities.
 - We could use distance education to cut back duplication
- ❖ We need workforce supply and demand data because we plan for so far ahead.
- ❖ Staging of the workforce is important. We need to make sure programs are in areas of the right competencies.
- ❖ What types of curriculums need to be developed to create these interdisciplinary teams?
 - At MCC Penn Valley Health and Science Institute we combine all discipline students in classes. All disciplines have the same biology class; they go to simulations together and work in labs together.
- ❖ We need teamwork, communication, focus on quality and safety.
- ❖ Every hospital in St. Louis and the state were holding their breath to see what would happen with Medicare expansion. Social issues affect the healthcare profession.

Why is there a Shortage of Graduates in the Pipeline Trained in Science, Technology, Engineering and Mathematics and What Can Be Done About It? Panel Facilitated by Assistant Commissioner of Academic Affairs Dr. Rusty Monhollon

Jim Hogan, Director of Engineering and Technology, Missouri Department of Elementary and Secondary Education

- We need to be supportive of students pursuing two-year and four-year STEM degrees.
- Students need to be engaging in STEM in school at the earliest possible age. Project Lead the Way in elementary schools will engage more girls and minority students.
- Being members of a career and technical organization gives students soft skills needed to land a job after graduation.
- There is going to be a large need for Engineering Technologists and IT personnel.
- Both two-year and four-year programs have to update equipment and instruction to include modern CNC production equipment, robotics and automation instruction, computer programming and maintenance skills needed now and in the future.
- Technical writing skills and the inclusion of the fine arts are important.
- We are in need of Engineers; Engineering, Science, and Math teachers; and other professions. We need researchers and technicians to fill positions that do not require a four-year degree.

- Points for higher education to consider:
 - We need more elementary teachers with Math and Science backgrounds.
 - We need English and Language Arts teachers that can teach technical writing.
 - We need art teachers that focus on sketching and drawing.
 - We need more students earning technology education and engineering education degrees.
- I have put together a state STEM committee that has begun the creation of a comprehensive model of STEM integration in Missouri. It will not be a set curriculum, but rather a guide for schools and communities to allow students to see as many possibilities for STEM occupations.

Ben Yates, Project Lead the Way, Missouri University of Science and Technology

- PLW is a K-12 program; yet we are extending it to the workforce.
- PLW has implemented the four legs of STEM (Science, Technology, Engineering and Mathematics) into one.
- Soft skills should be the new hard skills. After students complete the program, they have great teamwork, problem-solving skills, critical thinking, time management, and data management.
- 38 percent of Missouri S&T's incoming freshman has had at least one PLW class.

Laura Loyacono, Executive Director, Kansas City STEM Alliance

- We provide STEM career experiences for students.
- We provide teacher and counselor STEM workshops.
- We increase awareness for growth in STEM.
- KC STEM Alliance priorities:
 - Closing the gap for underserved populations
 - Putting a greater focus on computer and technology science
 - Building partnerships with employers and increasing field experiences

Steering Committee discussion with panel members

- ❖ Why is there a shortage in STEM graduates and why is this an important issue:
 - It is difficult to attract people with the skills to leave larger cities and come to the Midwest.
 - Every engineer graduate Missouri S&T has, there are four to five jobs wanting them.
 - STEM is a continuing education job and skill set.
 - IT positions cannot all be filled as companies expand and continue to grow their internet and other services.
- ❖ We know by second and third grade girls are deciding if they are good or bad at math and science; and if they like or dislike math and science.
- ❖ Math, Biology, Chemistry, and Technology teachers are needed:
 - We need to find ways to entice students into these jobs.
 - Missouri S&T has started a new STEM Educator program. The students major in the STEM program and minor in teacher education. It would be wonderful if we could forgive their debt when they do this.

- The state of Kansas has recertification for professionals in their fields that are motivated to teach. These professionals do not want to go back to college for that teaching degree.
- ❖ Demographics are changing:
 - We are not preparing enough females for STEM.
 - One strategy to improve this is by using current engineers to mentor girls and students of color at the high school level.
- ❖ Project Lead the Way does not replace any field; it enhances courses.
- ❖ We need to convince students they can do math well.
- ❖ High schools are looking at the PLW program now. PLW has 33 elementary schools now. We expect to double that next year.
- ❖ PLW requires interviewing parents to see if students have support.
- ❖ Elementary teachers do not have extensive math and science backgrounds. They do not have that in-depth subject area specific knowledge.
- ❖ We need more applied education/internships.
- ❖ PLW get boys connected with postsecondary education early.
- ❖ We need to build a learning eco-system – this starts at pre-K. We have to follow it all the way up.
- ❖ The demands on education are going to continue to go up. There are no jobs for unqualified people.
- ❖ Successful women in STEM say another person in STEM inspired them. Men say inspiration came from something mechanical.

Proprietary Education – Another Option for Postsecondary Education and Training Panel Facilitated by Deputy Commissioner for Missouri Department of Higher Education Leroy Wade

- MDHE is the primary agency that licenses these institutions to operate in the state.
- No state aid goes to proprietary schools.

Jim Thompson, Vice President of Compliance, Concorde Career College

- Concorde is a group of 16 postsecondary institutions operating in eight different states.
- We are solely healthcare related in our training. Primarily at the diploma, certificate and associate degree level.
- We are very employer driven. All our programs have advisory committees made up of employers that review our programs and curriculum.

Suzanne Marshall-Caby, Campus Dean, DeVry University – St. Louis

- DeVry has three campuses in Missouri.
- Proprietary school is not the best option for all students.

Lute Atieh, Chief Operating Officer, American Business and Technology University

- We have one campus in St. Joseph.
- We are an online proprietary school.

Steering Committee discussion with panel members

- ❖ The cost of a proprietary education can be far more than a higher degree program.
- ❖ Some proprietary credits do not transfer to other programs. General Education courses transfer more easily. Most associate degreed students can transfer into bachelor degree programs.
- ❖ Most proprietary institutions that receive federal funds are required to offer career services.
- ❖ Our certifications are industry driven. We strongly urge students to take outside certifications (even national certifications) in specific applications and applied skills.
- ❖ We track our students' success after graduation. We contact the students and employers to inquire if they have received what was needed to be successful in their industry.
- ❖ We want to increase understand between proprietary, community college and university. This is essential for the success of our students.
- ❖ Missouri is a SARA state.

PUBLIC COMMENT

There were no public comments.

ADJOURN

Note: The comments provided in this document do not represent a verbatim transcription of the comments received verbally and may incorporate some close paraphrasing by the record-keeper.