

The event

The Johnson County Community Conversation for workforce development in math, engineering, technology and science (METS) took place Tuesday evening, March 10, 2009 at the KU Edwards Campus. Discussion focused on two main themes: 1) How does the Johnson County Education and Research Triangle (Triangle) benefit Johnson County workforce development? 2) Will our kids be ready for 21st century careers?

Supported by the Kaufmann Foundation and Public Agenda for the Kansas City metropolitan area, the event was organized by collaborators from KU Edwards Campus, K-State Olathe, Johnson County Community College, KU Medical Center, the school districts from Blue Valley, Olathe, and Shawnee Mission, Johnson County Library, KU Edwards Workforce Development Advisory Board, National Institute for Construction Excellence, and YouthFriends.

David Pendergrass, director, Molecular Biosciences at KU Edwards, welcomed more than 200 participants representing parents, educators, employers, community members, and students from middle school through graduate school from Johnson County and beyond (see Figures 1 and 2). Guest speakers included Triangle leaders who described their vision and involvement in supporting 21st century careers in METS education: Bob Clark, vice chancellor, KU Edwards Campus; Lisa Freeman, vice president for innovation, K-State Olathe Campus; Terry Calaway, president, Johnson County Community College; and Giulia Bonamino, associate dean, Medical Education, KU Medical Center. Poignant and humorous remarks were added by Denise Kodell, freelance writer, who wistfully contrasted the enthusiasm around sports events and METS events for young people.

During a breakout session, from left, parent Jean Mullin, Shawnee, Mary Brock of Science Pioneers, Overland Park, and Margy Ronning, Prairie Village, discuss strategies to improve student achievement in math, engineering, technology and science.

Ben McCall/Johnson County Sun Photo



Participants then dispersed into 16 small discussion groups, and spent more than 90 minutes discussing the main themes, identifying issues and solutions. Conversations were passionate, personal, humorous and respectful. Each group was led by a trained team of a facilitator and a record-keeper to keep the discussions focused and solution-oriented. Reconvening in the auditorium, each group reported the priorities they identified from their discussions, and these results are reported in the following pages.

Donations to support the event were received from the following companies: Labconco, HyVee, Dr. D. MCAT Prep Inc., and Regional METS Leadership Coalition.

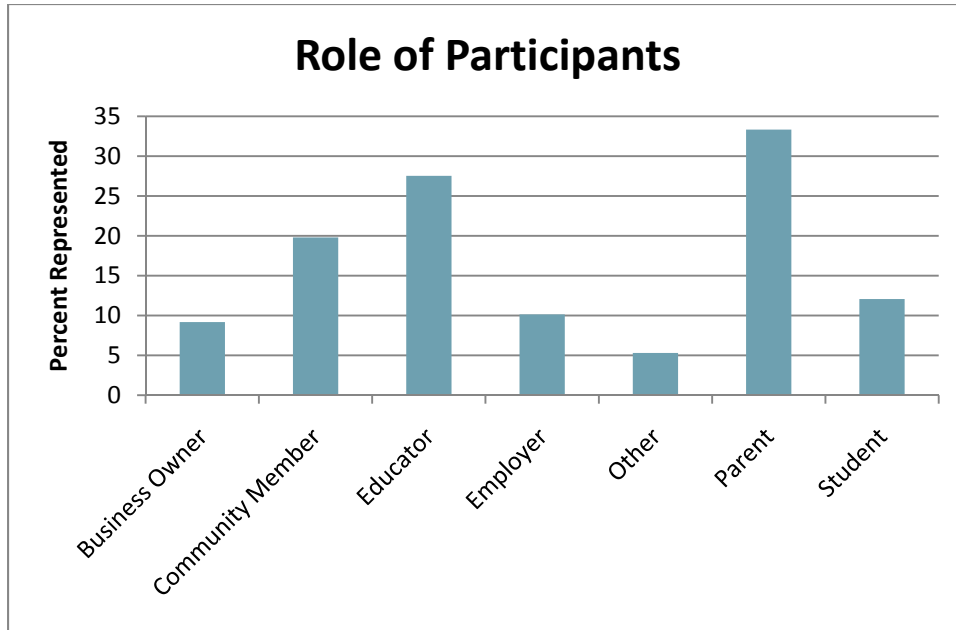


Figure 1 Self-identified roles of participants regarding their interests in METS. This includes both primary and secondary roles, therefore some participants are represented in two categories.

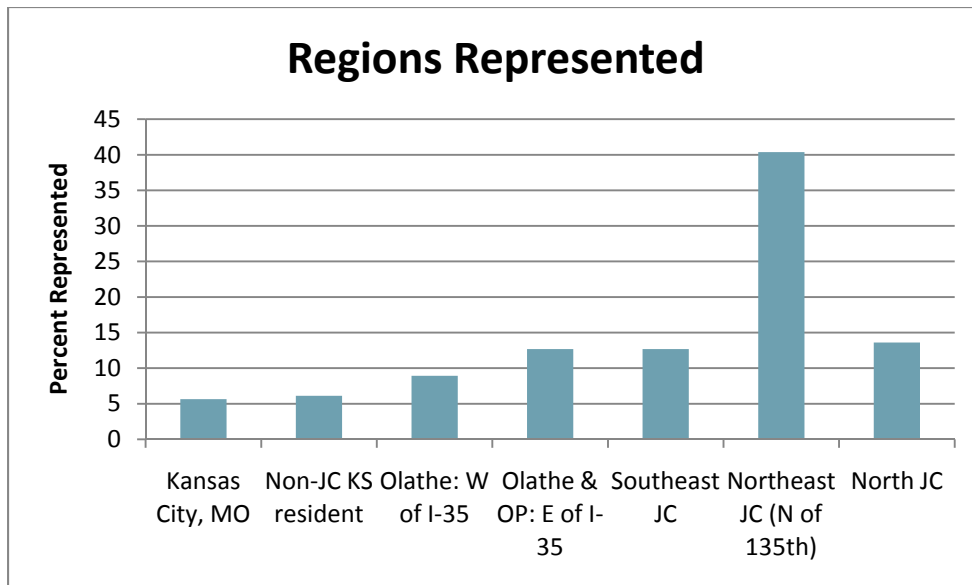
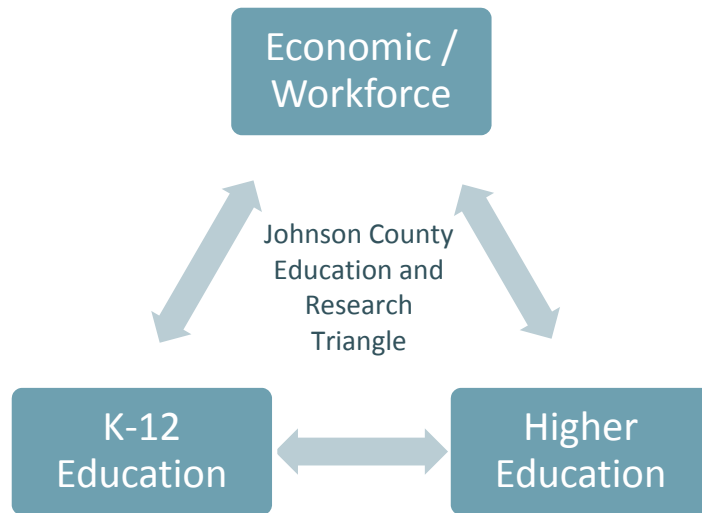


Figure 2 Regions of Johnson County (JC) and beyond represented by participants according to their zip codes.

What did you say?

While each group discussion was unique, they all addressed the interrelationships between workforce, higher education, and K-12 sectors. The Johnson County Education and Research Triangle was seen as helping integrate the sectors (see Figure 3).

Figure 3 Interrelationships addressed in responses. Groups emphasized the important relationships and interactions between the three sectors, and expressed hope that the Triangle group will help integrate them.



Aggregating the priorities addressed in each group (see Figure 4), the top three were K-12 curriculum (23.5 percent of responses), professionals interfacing with schools (21.6 percent), and the Research Triangle (19.6 percent). Additional prioritized topics included teachers (11.8 percent), economic development (5.9 percent), and accountability (5.9 percent).

Many issues were addressed regarding K-12 curriculum, emphasizing a relevant, hands-on, rigorous approach. Respondents reported METS subjects should capture students' interest in the early grades. Inquiry and project-based learning were valued, while the No Child Left Behind testing was seen to warrant reform ("redefine what is valued instead of just covering what is tested"). Support was voiced for competitive high-profile academic teams as well as requiring four years of high school math and science. The idea that the K-12 curriculum be made relevant by interfacing with local METS professionals was strongly supported.

This leads us to the second major theme of professionals interfacing with schools to help create a pipeline from the K-12 schools to college to the workforce. Specifically, discussion groups strongly supported career exploration opportunities such as shadowing, internships, mentoring, and guest speakers in the classroom. Other priorities included creating a Web site for teachers to reach business volunteers for classroom enrichment, creating a business advisory group, and having students formulate a marketing plan to link schools, businesses and volunteers.

Similar ideas resounded in the recommendations for the Research Triangle, specifically to interface with K-12 schools, two and four year colleges, and professionals to create a seamless pipeline with training relevant to jobs. A need was seen for the Triangle group to talk with school administrators and parent communities regarding school needs, as well as to share what’s happening in the Triangle. Coming into classrooms with future employers and educators was stressed, as were creating internships and affordable summer and enrichment programs at Triangle campuses. The Research Triangle was urged to look at the North Carolina Research Triangle as a possible successful model. Finally, groups voiced a request to know the plan of how the Triangle tax funds will be spent.

In addition to the three major themes, the topic of K-12 teachers was also addressed, with pay being the major concept addressed. “Teachers are underpaid collectively as a profession,” was how one group put it, while others stressed “incentivized” pay. Another group stated, “Effective teachers have enormous influence on students.” Extra training for teachers through summer externships in their field of expertise was seen as valuable, as well as enticing professionals in other fields to enter the teaching profession.

A minor theme voiced by the groups was economic development. Suggestions included “economic incentives,” “innovation and incubations,” and “attracting technology companies through public relations efforts.” Accountability was also a minor theme, emphasizing the need to hold parents, students and teachers all accountable. It was suggested communities recognize excellence in METS by increasing the rewards.

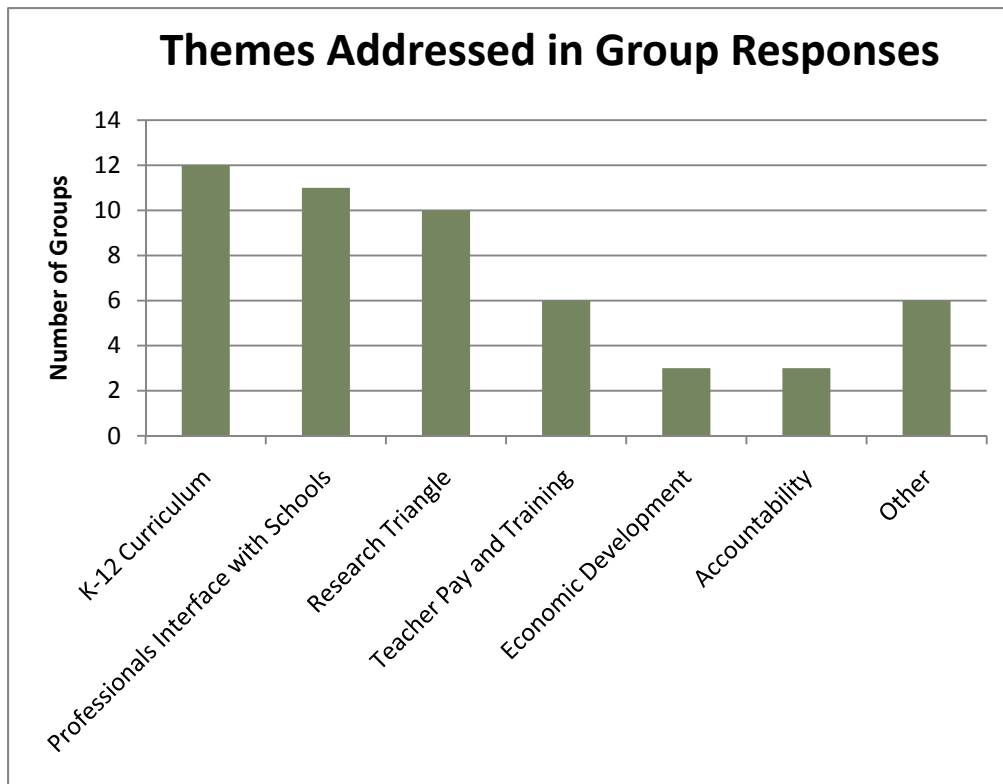


Figure 4 Priorities identified by the break-out discussion groups, aggregated into common categories (see report text for further description of the themes). Bars represent the number of groups that identified each priority.

Other suggestions included surveying graduates from Johnson County to learn what skills they did not get from our schools, as well as getting school districts to work together. Identifying a holistic vision of what we are trying to solve was important, as was creating a sense of urgency in the community, developing alternative entry paths for professionals in METS at the state level. One group suggested it was important to retain programs that effectively support METS initiatives.

Each discussion group then also identified the most important next steps. The majority (76.9 percent) of responses fell along a continuum from basic communication to the community, to engaging the community in dialogue and action. Samples of the responses in the *Inform / Communicate* category (see Figure 3) include, “Summary report annually,” to “Create excitement in community using all media to convey these conversations about the Research Triangle, METS, and how it will affect education,” to “Report back and hold a subsequent Community Conversation II.” Samples of responses in the *Involve Community* category include “Create focus group(s) from this Community Conversation on specific ideas and ways to address them involving parents, teachers, students and employers,” to “Create an ongoing discussion via blog or task force that sets bench marks / strategic plan to keep all local schools up to date on the ideas.” *Other* priorities include creating a METS charter high school spanning all area school districts to increase METS education, having teachers go to area employers to see first-hand what jobs are available and getting new funding and leveraging existing resources.

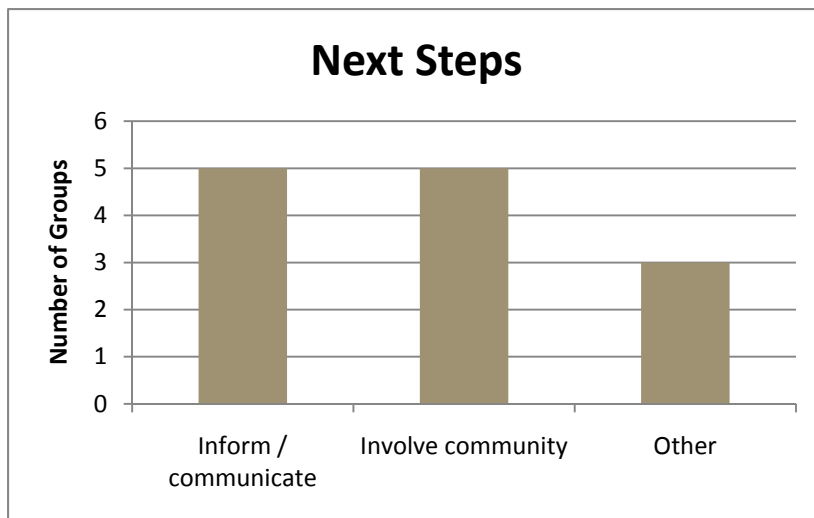


Figure 5 The most important next steps identified by groups. Bars represent the number of groups identifying each step.

The responses from the Johnson County Community Conversation underscored programs and projects already underway in K-12 schools, higher education institutions, non-profit organizations, industry leaders and the Research Triangle. In the next section we highlight these existing initiatives. The responses also suggested new ideas, and so we identify our plans in the final section.

What's already happening?

Johnson County residents can be proud that so many programs and projects already exist that focus on METS education and work force development. They are presented below in clusters of the general themes identified by participants at the Community Conversation (see Figure 4).

K-12 Curriculum

- Along with the recognized high quality of teachers in Johnson County school districts, special programs exist and continue to develop that address rigorous METS education. They include *Project Lead the Way* in several districts, the *Center for Advanced Professional Studies (CAPS)* program in Blue Valley, the *Signature High School Programs* and *Broadmoor Technical Center* in Shawnee Mission, and the *21st Century High School Programs* in Olathe.
- Advising for individual academic and career planning during enrollment help students beginning in 8th grade to identify goals and coursework.
- Higher education institutions, including Kansas State University (K-State), University of Kansas (KU), and Johnson County Community College (JCCC) are involved in curriculum development from middle school to high school. Additionally, all high schools have articulation agreements with these higher education institutions.
- Curricula of high schools, JCCC, and universities are aligned in degree completion programs for effective transfer of credits.
- Teachers participate in professional development and training / certification opportunities in the METS fields offered by KU, K-State and JCCC, including direct experiences in research labs and industry environments.
- Students in middle school and high school participate in METS research and career projects, workshops, seminars and pre-college courses provided by K-State, KU and JCCC.

Professionals Interface with Schools

- Each school district has a coordinator or director of career and technology education who interfaces with community professionals, and facilitates such activities as career fairs, shadowing and internship opportunities, and mentor involvement in classrooms.
- All career and technology education programs have advisory boards comprised of community professionals and industry leaders in the relevant fields (as also required by the Kansas Board of Regents).
- The specialized METS programs directly engage outside professionals in their classroom work and in competitions and fairs.

- Agencies such as YouthFriends / Uplink, and the National Institute of Construction Excellence (NICE), facilitate programs that connect professionals with schools and teachers.

Johnson County Education Research Triangle (Triangle)

- This initiative partners Kansas State University Olathe campus with the University of Kansas' Edwards Campus in Overland Park and its Cancer Center program in Fairway. The "Triangle" concept is built on collaboration between the public and private sectors.
- The Kansas Board of Regents in November 2008 announced the members of the Johnson County Education Research Triangle Authority. The Authority oversees the estimated \$15 million annual revenue raised by a one-eighth-cent sales tax that Johnson County approved November 4, 2008. Proceeds of the tax will be divided equally among the KU Edwards Campus in Overland Park, the K-State Olathe campus in Olathe, and the KU Medical Center's Johnson County locations. See the next section, *Moving Forward*, for a summary of upcoming plans and events.

Teacher Pay and Training

- The higher education institutions in Johnson County, including JCCC, KU, and K-State, offer professional development, training and certification opportunities for teachers specifically in the METS fields.
- Professionals from other fields can enter the teaching profession through an agreement with the Kansas Board of Regents, the universities offering certification programs, and the school districts. Restricted licenses and restricted location certificates allow a professional from another field to teach while completing his or her certification in three years.

Economic Development

- The Triangle initiative is projected to have a significant economic impact within the next five to 10 years from dollars invested, jobs created, and commercialized bioscience technologies.

Accountability

- Professional advisory boards for the specialized education programs outlined above offer feedback and accountability for students and educators.
- Programs specifically targeted to educate parents about METS education and professional fields, such as those offered at JCCC and the Johnson County Libraries, help them stay abreast of changing fields and career choices their children will face.

Moving forward

The sense of collaboration in Johnson County is palpable between industry and research institutions, between educators and workforce professionals, between educators in K-12 and higher education institutions, and between agencies and foundations that foster such collaboration.

Two Web sites highlight such collaboration:

- The Web site where school districts and JCCC post information: <http://www.jocoeducation.org>
- The Kansas City Area STEM Initiative: <http://kcengage.ning.com/events>

Johnson County residents should also know their support for the Triangle group is leading directly to:

- Construction of a National Institute for Animal Health and Food Safety on the **K-State Olathe** campus, with groundbreaking on November 12, 2009.
- Construction of the Business, Engineering, Science and Technology (BEST) building to begin in late spring 2010, and the addition of 10 new degree programs in the BEST area on the **KU Edwards Campus** over the next five years.
- Construction and operation of a clinical and translational research center for the **University of Kansas Cancer Center**, which will bring a wide range of treatments and cures to those diagnosed with cancer and to provide those treatments and cures closer to home. The Triangle will also help KU achieve National Cancer Institute (NCI) designation as a Comprehensive Cancer Center for this region.

The member institutions of the Triangle group are now discussing a joint community event for spring or summer 2010. Details will be announced soon.

In summary, the Johnson County METS Community Conversation helped bring together many sectors and stakeholders in METS education and workforce development. We encourage you to get involved in school advisory boards, to offer your time as a mentor to students, to learn about the changing METS fields your children may be interested in, and to join the online communities mentioned above.

Johnson County is already a leader in many aspects of METS education and workforce development, and that is in no small measure because of all you do already!

This report prepared by members of the Planning Committee for the Johnson County METS Community Conversation, September 2009. For additional information, contact David Pendergrass, dpenderg@ku.edu, (913) 897-8586 or (913) 558-1079.