

Jeremiah W. (Jay) Nixon
Governor

Mike Downing, CECD
Acting Director



Amy Sublett, Acting Director
Division of Workforce Development

Maida Coleman, Exec. Director
Missouri Workforce Investment Board

Keith Gary, PhD
MoWIB Board Chair

Full Board Meeting
September 5, 2013
8:00 a.m.

Westin Hotel at Crown Center
Kansas City, Missouri

Members Present: Keith Gary (Chairman), Garland Barton, Martha Ellen Black, Cara Canon, Don Cook Sr., David Cramp, Herb Dankert, Mike Downing, Rep. Lyndall Fraker, John Gaal, Julie Gibson, Ellie Glenn (DHSS), Rick Gronniger, Reggie Hoskins, Sen. Will Kraus, Ron Lankford, Neil Nuttall, Mike Pantleo, Jeanette Prenger, Bill Skains, LeRoy Stromberg, Josh Tennison, Cheryl Thruston, Len Toenjes, Ray Tubaugh, and Anthony Wilson

Members or Representatives Absent: Neal Boyd, Fred Bronstein, Alyson Campbell (DSS), Eva Danner-Horton, Mike Deggendorf, Sen. Tom Dempsey, Wayne Feuerborn, Rep. Michele Kratky, Birdie LeGrand, Bill Thornton (DHE), and Kelly Walters,

MoWIB Staff: Maida Coleman and Glenda Terrill

Other Attendees: Amy Sublett (DWD Acting Director), Tracey Brown (DWD Fiscal Manager), Dawn Busick (OTC), Steve Coffman (DESE), Sharon Jobe (E. Jackson WIB), Jasen Jones (SW WIB Director), Tamara Marshall (VR), Greg Martinet (Clay County EDA), Rob O'Brian (SW WIB), Ryana Parks-Shaw (E. Jackson WIB), Melissa Palleman (CCED-WIB), Shawn Pingleton (Empire District Electric), John Rhodes (Jefferson/Franklin WIB), Melissa Robbins (S. Central WIB Director), Mary Ann Rojas (Ozark WIB Director), Molly Tallarico (DWD), Diane Wett (WIB) and Yvonne Wright (DESE-VR).

A. Call to Order, Welcome and Introductions:

Chairman Keith Gary called the meeting to order at 8:00a.m. Dr. Gary called for introductions from Board members and guests.

B. Approval of Board Meeting Minutes

Dr. Gary called for revisions and/or comments to the July 12, 2013 meeting minutes. With no changes voiced, a motion was made by Mike Downing to approve the meeting minutes, seconded by Jeanette Prenger. Motion was approved.

C. Trade Adjustment Assistance Community College and Career Training Grant (TAACCCT)-MoHealthWINS & MoManufacturing WINS—Dawn Busick, Project Director

Ms. Dawn Busick (dawn.busick@mccatoday.org), Project Director of the Trade Adjustment Assistance Community College and Career Training Grant provided a presentation on the grants, as required to fulfill DOL reporting requirements. The two grants, totaling \$35 M, were awarded to the MO Community College Association by the USDOL

TAACCCT's primary goal is "To ensure that our nation's institutions of higher education are able to help the targeted population [Trade Act Assistance-impacted workers and *other low-skill populations*] succeed in acquiring the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers." Grants propose serving 6,000+ adult students engaged in programs of study in information technology, nursing, environmental services/HVAC, industrial technology, manufacturing and welding. The project will use a variety of tactics to address project goals:

- Accelerate progress for Low-Skilled and Other Workers
 - Imbed career and academic skills in technical context
 - Improve retention and achievement rates
 - Intrusive Student Support Services
 - Reduce time to completion
 - Award credit for prior learning
 - Structure stackable credential frameworks that align/link non-credit and credit courses
 - Build Programs that meet industry needs
 - Work closely with industry and Workforce Sector Partners to develop/restructure curriculum
 - Strengthen on-line and technology-enabled learning
- MoHealthWINS: \$20 million, 14 Local Workforce Regions and 13 college consortium, Fiscal Agent Ozarks Technical College with Administrative Coordination with the Missouri Community College Association (MCCA).
 - Current MoHealthWINS Outcomes:
 - Current enrollment - 1,217, college estimated enrollment as of Sept. 30 2013 – 2,114; 80% female, average age 36 (see PowerPoint attached for additional info); 34% referred from the MO Career Centers.
 - Update: 283 completers, 690 people have achieved at least one industry credential (see PowerPoint for additional information)
 - MoManufacturingWINS: \$15 million, 9 college consortium, Fiscal Agent St. Louis Community College with Administrative Coordination with the Missouri Community College Association (MCCA).

- Current MoManWINs Outcomes:
 - 3 colleges started 4 programs in Spring 2013 & all colleges are planning to start programs by fall 2013 anticipate 300 participants; 97% male, average age 35 (see PowerPoint for additional info).

Dr. Gary asked about long-term program sustainability. Ms. Busick replied that a sustainability plan is required for every college. Additionally, the technical assistance provider and external evaluator recommend specific innovations worthy of long term funding.

Mr. Reggie Hoskins inquired as to how many of the schools are incorporating the NCRC in these programs. Ms. Busick replied that the NCRC was required for Round 1 proposals. The additional requirement for the “Talent” assessment was added in Round 2. Many colleges participating in Round 2 added ACT profilers to their projects.

Dr. Gary asked about the breakdown of those receiving NCRCs. Ms. Busick said she did not have that information today but would by the time she presents again to the Board. Dr. Gary asked how participants’ prior experience would be assessed for credit. Ms. Busick responded that the project has a performance measure of at least 279 in Round 1. DOL mandated credit for prior learning policies in funded projects for Rounds 2-4. About 68 participants have been awarded credit for prior learning (academic or work experience). As MO did not have a statewide policy, the first year of the project focused on working with partners to develop a state-wide policy. We want to take that to the next step and create a statewide matrix to evaluate every curriculum, every class, and how that translates to experiential learning.

Ms. Julie Gibson stated that a primary goal of the project was to embed many of the changes in approach into the community colleges. How do you feel like that is going?

Ms. Busick stated she has observed changes in practice within community colleges during her site visits and received feedback from instructors to that effect. The grant dollars have allowed community colleges to be far more flexible in delivering on-demand courses rather than strictly semester-based.

Ms. Gibson asked whether schools will see the value of these programmatic changes and adopt it going forward.

Dr. Neil Nuttall shared that North Central Community College has condensed their farm tech curriculum into an 18 week program that runs continuously to eliminate waiting for a program to be offered in another semester and then we do the next cycle, so you’re not waiting a year to get into that program. Also, we needed an online tutorial program to support online learners. This grant enabled us to accomplish that program as we were developing an online RN program. The online RN program benefits as do our other programs for our online learners. We have reduced the ratio of our online courses to around 1 to 18, rather than 1 to 50 or 1 to 60, and have significantly impacted the numbers of students completing online courses. Another key success factor is stackable credentials. Every one of these programs has an industry recognized certificate that is directly stackable to an associate’s degree. They’re able to go onto a bachelor’s level program if

that's their pathway. While most students will go right into the workplace, a smaller percentage will go on for their bachelors' degree. This won't change when this grant ends.

Ms. Busick noted that another sustainability component will be that these programs are free to this target population. Once the grants end, the colleges will charge tuition, so the tuition will sustain the programs, the instructors, the equipment, etc. That will be a challenge for many community colleges and USDOL will need to work on identifying potential solutions. The financial barriers and what we are doing to address them are in my core reports. We're invited to participate in discussions in Washington D.C. in October to talk about financial aid.

Mr. Hoskins asked about possible strategies to interest industry partners in credential like NIMSS. I know we at OTC, and many other community colleges, are trying to educate manufacturers about various credentials. Is there more we could be doing?

Ms. Busick responded that efforts are underway through the two MO manufacturing associations. Fortunately for this particular grant program, participating employers have made a commitment to interview every one of these students.

Dr. Gary inquired as to how closely community colleges and other higher education institutions are paying attention to the outcomes demonstrated by the program? Employers have been asking for non-semester based programming for many years, yet most schools have only done this with noncredit courses. These projects are having success with changing delivery for credit courses. It just seems that if we're not careful, these innovations won't be recognized and incorporated as broadly as they should be.

Ms. Busick responded that the MO Coordinating Board of Higher Ed is very interested in this credit model. The MO Board of Nursing has also reached out to us. It's a natural path to start out as a certified nurse assistant before going on to a formalized two year degree, and then possibly a four year bachelor's degree in nursing. So they're very interested in this credit required learning and want to partner. We've had lots of discussions with the University of MO, and heard from several professors wanting to start working on competency-based asset mapping. So those conversations are just happening this year. It's really exciting to see what's happening just in our own state with this initiative.

Dr. Nuttall added that part of the problem is at the national level with the Higher Learning Commission, which provides accreditation to higher education institutions. They have been slow to adapt to these changing models, but I think they're coming around. They no longer provide 10-year accreditations, but rather make it an on-going process. That should lend itself better to the changes that are happening more rapidly. Dawn has done a wonderful job increasing awareness of this competency-based model at the national level. The Gates Foundation certainly embraces this model and their national presence should be helpful. It's lagging behind, but I think it's coming.

Dr. Gary asked whether there are other exemplar states. It sounds like your team is doing well and being recognized for your success.

Ms. Busick: Colorado has done some important work. We invited them to join our convention next month in St. Louis. CO has created online simulations in lieu of student labs and will demonstrate that for us. The state of Washington has done some good work in aeronautics. Their grant has a different focus, however, as they chose not to serve Trade Act Assistance and low-skilled participants. They require all general education courses to be completed before acceptance into their TAACCCT grant aeronautic programs. All programs are listed on the USDOL website where you can see how all states are doing.

Dr. Gary commended Ms. Busick on her great work and asked if there was anything MoWIB could do to be of assistance?

Ms. Busick responded by asking for MOWIB's continued support and asking the LWIBs to continue providing referrals. These are free job training programs that we would love to have your clients enrolled.

Dr. Gary expressed his appreciation for the presentation and noted that it's very important that MOWIB be aware of these ongoing programs. He encouraged members to communicate to our various constituencies that these important programs are available.

D. Staff Reminders—Maida Coleman

Ms. Coleman informed the group that the tentative dates of next year's meetings are listed in the booklet and will occur quarterly in January, April, July, and again in September during the Governor's Conference. Ms. Coleman reminded members of the expense reimbursement process and timeline. She indicated that MOWIB has two reserved tables at the conference luncheon that begins at noon. Conference registration will be in the Sheraton lobby and you are welcome to register before going to lunch. Conference information is under tab 2 of the booklet. Ms. Coleman will email today's presentations to all MOWIB members. Ms. Coleman indicated that she and Glenda are available during the conference through tomorrow, so if any board members require assistance or have questions, please feel free to call, or look her up.

E. MoWIB Alignment—Keith Gary

Dr. Gary brought forward a couple of Alignment issues for the Board to consider. He currently serves on another statewide committee called the MO EPSCoR Statewide Committee. EPSCoR is the Experimental Program to Stimulate Competitive Research and is a program of the National Science Foundation (NSF). It's available to states that fall below a certain level of NSF funding. NSF is responsible for funding nonmedical basic research, while the National Institutes of Health funds all the biomedical research in the US. I distributed to you the Workforce Development (WD) plan section of a recently submitted EPSCoR grant which covers three primary areas: Undergraduate and graduate student training, Bioinformatics training and Job creation. There are numerous multi-million dollar NSF grants submitted from the State of MO each year that are required to have a workforce development component and a STEM education component. Yet, MOWIB (nor any other single entity in MO), does not see the contents of these proposals. I

contend that to better understand workforce development and STEM education activities across MO, we need to consider establishing a mechanism to capture this information from outgoing NSF grant applications. Importantly, many of these projects are probably very innovative, Workforce Development and STEM education oriented projects. MOWIB needs to be aware of these projects and tracking them. Actively tracking projects gives us the opportunities to use the Board's knowledge of assets in our regions that could be leveraged for these funding opportunities. What typically happens are these grants go in, are reviewed over a 6 month timeframe, and are awarded. So if we're getting this information, having some level of analysis to understand what it is they're proposing to do, what the type of projects are, there is a window of opportunity there for us to connect individuals/programs to other parts of the state who may be doing similar innovative things. The thing that really jumped to my mind was the section on folks that are physically disabled; if I'm not mistaken does not DOL have a disability program?

Ms. Gibson: There are some tools. The primarily tool would be through Vocational Rehabilitation. Yvonne Wright would know more. Voc Rehab ought to be the connection to that locally within the state of MO. And there are funds available.

Dr. Gary noted the quality of the proposal would have been strengthened by including the State program/resource. I am asking members to discuss this issue and more importantly, to consider how we might set up a mechanism. While I would be in favor of approving the workforce development and STEM education sections of each grant before they were submitted, it would be a heavy-handed, overly intrusive step to add for grant submission. Yet, there must be a way to collect these documents, evaluate them, and provide some feedback/coordination. As MOWIB considers what it should be doing, this is an activity directly related to our mission that no other agency in the State is doing. Any comments?

Question: Where do the grants start? Who employs the individuals?

Dr. Gary responded that four year institutions are the primary grant submitters, although there are some programs that are available to K-12 through NSF. Certainly two-year colleges, but mainly it is the research universities. The logical point of contact to obtain this information would be the grants officers at each one of the four year research universities. It should be reasonable to request the workforce development and STEM education sections of any NSF application being submitted. Depending on the individual investigators would not be a viable plan.

Mr. Len Toenjes stated there are federal funds available for research and the colleges are applying for these funds via grants. Do we want to know if the grant is funded to tap into those funds? And we want to know if they get the grants so we can tap into those funds? What I'm hearing is we want offer to strengthen their initial implication by taking advantage of assets that already exist.

Dr. Gary said that strengthening outgoing NSF applications would certainly be a value-added function; however, it is also about MOWIB gathering intelligence on what is happening in the state with regards to workforce development and STEM education. Perhaps a letter sent to each grants officer at four year research universities signed by me and the Commissioner of Higher Education's signature might be sufficient. Certainly presenting a solid rationale as to why this action is needed would be important.

Member: Keith, maybe we should review past history and look at some case studies with DOL, as they have a great deal of experience with grant making. For example, the High Job Training Initiative was launched back in 2004 and had few partnership requirements. The program changed significantly in 2008 with the addition of more required partners (community colleges, LWIBs, etc). What were the drivers behind those changes? Are there policy groups like the National Governors' Association (NGA) that might be enlisted? Could we approach the NGA to apply pressure on the points where there are going to be changes made in the actual application process, such as applicant universities and research institutions be required to have X, Y, and Z partners as part of project?

Dr. Gary agreed that those were good ideas and worth some consideration. The major focus of the proposal is the scientific project, with the STEM education and workforce development components far down on the priority list. In many cases, researchers are scrambling to find partners for these project components. Imagine, however, if a group (MOWIB) was tracking submitted applications and cataloging STEM education and workforce development projects – that would be a huge resource.

Mrs. Cara Canon agreed that establishing a value proposition will be crucial. The key to accomplishing any collaborative goals is defining how it benefits all parties. If MOWIB provide real assistance and support the institutions, make the case and make them wonder why they would not partner. Keep the justification simple and direct, rather than complicated. Clearly identify what MOWIB can do for them and how they can help us be better informed. I would also suggest starting at the top and working down as needed.

Ms. Amy Sublett suggested looking at a 2 or 3 other states and their boards to determine how they may have approached a similar problem. The Texas state workforce board is intricately involved in many grants, although they may not be NSF grants. The actual state board is heavily involved in the discussion and approval of grants. It definitely varies from state to state as to how they are structured and work within the parameters set forth by USDOL.

Dr. Gary shared that he did reach out to several state board chairs identified through the NGA. While all have a great deal of experience with DOL grants, NSF grant experience is much more rare. I will certainly vet this topic further later in the month when the NGA Association of State Workforce Investment Board Chairs convenes in Denver. My sense is, however, that this particular issue is not on their radar screen.

Mr. Toenjes asked if there was a possibility of convening a small group of grants officers who are significant players and determine their level of interest? What could we offer them? And what could we offer them to help make the process easier?

Mrs. Canon: And do we know what that is now? Do you have a basic idea? What would we do as a board to support them? And what benefit do we have? Do we just want the knowledge?

Dr. Gary reiterated that due to their considerable lower priority, the STEM education and workforce development components of the grant are sometimes the most difficult. If investigators

were able to tap a resource that provided potential projects and collaborators in their part of the state – that would indeed be valuable. Having included the MO disability agency in the state’s application would have significantly strengthened the proposal.

Ms. Yvonne Wright/Vocational Rehabilitation (VR) introduced herself as working for the Division of Vocational Rehabilitation and being the liaison between VR and Workforce Development. Ms. Wright said that some of you know the platform for NGA this past year has been on employing people with disabilities. She had the opportunity to go to one of the institutes in Seattle and brought this information back to MO. The Division of Mental Health and VR have been asked to put together a group of individuals to serve on a Governor’s task force. MOWIB asked to be involved on the task force.

Dr. Gary shared that the *Life Sciences Institute* convenes the grants officers from their 10 stakeholder institutions at least twice a year to talk about various issues. He agreed to discuss this idea with the group. The other potential opportunity is that I am the chair of the statewide MO EPSCOR committee. It has two important subcommittees - 1) the academic committee, which is the heads of research of all of the research intensive institutions in the state, and 2) the cyber infrastructure subcommittee. There is an opportunity to solicit feedback on this idea from the academic subcommittee. While committee members are more focused on research operations, they are keenly aware of their grants officers’ pain points. Dr. Gary firmly agrees with Ms. Canon’s point about demonstrating a value proposition to get people to do things. In this case, however, we are not asking much from them. They have to make a number of copies to send each grant - sending one additional copy to MOWIB should not be difficult.

This idea will require certain commitments from MOWIB. We will need to form a subcommittee responsible for reviewing received documents and providing a summary of partners and project components. This will allow us to establish a database of on-going NSF projects. I’m hearing a little bit of “is it worth the effort”? Can we return enough value? Give me a sense of how people are viewing that.

Mr. Toenjes asked whether the ultimate goal is to connect this to the local WIBs through MoWIB?

Dr. Gary responded that would make sense if it were a DOL application. I think there are opportunities to do the same with NSF. Academicians are not predisposed to consider working with LWIBs and we would need to educate them.

Ms. Gibson: In the proposal, Aim 3: Job Creation - perhaps the NSF needs to hear, as part of their grant requirement, the importance of a workforce component. Maybe the real goal is to go to NSF as the funder and ask why they are not putting a connection in their requirements with economic development. I’m wondering if the real issue is having a conversation with NSF to educate them about available programs developed through DOL. Many states are talking about STEM for job creation. The challenge is matching worker talent with STEM careers and maybe the disconnect is with the NSF. If they want to drive those partnerships, that’s where it needs to start. NSF needs to understand that there is this whole infrastructure available and other funding can be leveraged. NSF probably does not know that there is a multi-million dollar MO HealthWins grant available for states to focus on STEM.

Dr. Nuttall stated: One of the things asked was will this be institutionalized? Will these best practices be institutionalized or will it be when the grant's done these go away? What were the accomplishments of the money you received? Whether it was best practices, increased jobs, or whatever techniques. The information is not shared with the whole state. We all could benefit from what they have learned. By being involved in that chain of events, we could then ensure that information is shared. What I like so much about the MO Health and MO Manufacture is I am learning from what is going on in St. Louis, Kansas City, and Cape Girardeau. I may not have the lab tech program Moberly has, but I'm learning from them on the application of that because we're all in one consortium. We have those reporting requirements. That is essentially what you are asking us to do for all grants coming through, whether NSF or other grants. I think it would be worthy for us to get in that chain of events so that we can report out and we can learn from it.

Keith indicated that a primary goal for such an effort is better understanding what is going on in the state using an existing mechanism. Again, it will require MOWIB to put forward some energy in actively tracking information we receive, digest that information, and figure out how best to utilize it - whether it is reporting outcomes or establishing linkages with other programs in the state. I perceive a real value proposition to the effort. So what I am asking is 1) does the logic made sense to folks around the table? 2) If so, how do we figure out the mechanism to make it happen? I am convinced this connection with the grants officers of the research intensive institutions represents an established pathway to leverage. It would be nice to have the Dept of Higher Ed and DESE see some value in this and be willing to at least cosign a letter to lend the weight of the State to the effort. I think this issue is worth exploring.

Mr. Skains: I don't know if we have that relationship with Governor Nixon to this board but a discussion with him or his staff would be helpful and fit into building that relationship

Dr. Gary agreed and said he continue to explore the options. He will conduct additional due diligence with some of the other states and state board chairs to confirm some of the initial discussions on this topic. He will also do some exploration with some of the grants officers that KCALSI convenes on a regular basis. He will report back at the next meeting for additional board discussion to determine if we should move forward. I certainly appreciate your focused discussion and I will report back to you what I'm able to find out. Let's take a 15 minute break.

F. Old Business/Questions/Comments

Dr. Gary restored the meeting to order and introduced Mike Downing, who provided MOWIB with an update at the last meeting regarding STEM activities going on through DED. Those initiatives have continued to progress and an update would be helpful.

Mr. Mike Downing thanked members for serving on the board, expressing his appreciation for the cooperation and partnership. He mentioned the upcoming Governor's conference and its agenda. Mr. Downing has been reviewing issues related to STEM and would appreciate MOWIB's feedback on them. The completed DED strategic plan came to the conclusion that the availability

and quality of STEM talent is a key economic driver. That is the defining factor of growing an economy. Evidence collected in the last ten years indicates that metro regions that have significant STEM talent are the ones that are growing both in numbers and the quality of the jobs. And that seems to be the magic bullet - if there is one - in determining the future of the economy. If we want to achieve a growing economy we need to figure out how to get more 3rd graders interested in math and science. There is a great inadequacy of kids going into math and science in grade school and high school. And that leads to too few MO college graduates in STEM. There are multiple issues to address. Driving more 3rd graders into STEM is one issue. There is also evidence indicating many STEM programs are at capacity, especially in IT, engineering, and similar fields. Part of the reason for this situation is universities make more money on out-of-state and international students. International students, however, have difficulties getting visas to stay in MO, and most STEM graduates do not stay in the state. So that appears to be another contributing cause. This problem has multiple issues and considerations and no easy answers and it's going to cost a lot of money to resolve. This is the direction DED is moving and we would appreciate your feedback. I am not sure at what sort of major initiative we will arrive, as our research is not yet complete. But four different independent reports all seem to point in that direction. So let me ask for your comments.

Mr. Bill Skains: I'm not saying it shocked me, but it did. You know the people are filling up the institutions and then they leave. What's the solution on that for emigrating more of our local people from MO into those particular types of programs? They go to other states and do that and then come home?

Dr. Ron Lankford interjected a critical point. If you examine universities in this state or other states in the nation, the number of applicants from the United States for STEM type programs is far less than for other fields. Universities reach their targeted enrollments with international students. Much of the immigration discussion that was going on a year ago in Congress was driven by the fact that they needed to keep 50,000 students a year that they were graduating, who were going back home because they could not stay. If there's a gap of 50,000 students a year needed, are we saying we don't have students in the United States that are smart enough to do that? Mr. Downing is talking about driving the interest in the STEM programs at a much earlier age as a critical step. I have 37 years of experience in education. I was a high school principal for 8 years and spent 33 years in the same district as an assistant superintendent and superintendent. I have consistently observed a lack of emphasis on STEM programs as compared to athletics by schools and parents. Until we can change that mindset such that we recognize students for their efforts in STEM, it is unlikely that we will impact total student numbers engaged in STEM fields. We do not have communities or parents who value STEM experiences for their kids, nearly as much as they do baseball camps, basketball camps, cheerleading camps, and band camps. Any efforts in this area will need to include K12 school districts, higher education, businesses, and community.

Ms. Gibson provided another example. Her 8 year old nephew in Alabama is really into science. This summer he went to a science camp. In Mobile, the Jesuit College there had a baseball camp, the University of South Alabama had a basketball, baseball, and football camp, and then the science center in Mobile had a science camp. He went to the science camp, and it was really fantastic with all different kinds of activities. Her 5 year old niece also attended. Why does MO not have more of these types of camps? I know there's a group called SCOPE in MO and their

mission is to get kids interested in STEM, but they are a small organization. She believes it is important to figure out how we fund/support that sort of initiative. She agreed that we need to get kids interested at a much younger age.

Mr. Downing responded that the fastest growing companies are STEM related. In the last two weeks, he visited with companies who have brought up their own issue of needing more STEM talent, either through community colleges or four year institutions. Leggett and Platte, Boeing, Monsanto, CERNER, Boating and Aluminum. Almost 95% of the time his team meets with the companies, the first thing they say is their biggest problem is not being able to find the talent level needed. If we really want to invest for the future, we have got to concentrate on STEM areas because this is where the return on investment is going to exponentially grow the economy. And we've got to do this in a coordinated way and a big way, and it's going to cost a boatload of money.

Dr. Nuttall shared an example from his area. The P20 council in Northwest MO has grown into what we call an e² - "education emPowers". It is hosted by the Heartland Foundation; a non-educational entity. As a component to the e² process, there are subcommittees focused on early childhood, higher education and workforce. All of those entities have an associated dashboard to measure progress. As a part of the K12 initiative, we know how many students are completing four years in math and science while they're in high school. We track how many of them are transitioning to higher education institutions and continuing with math and science. Next, we track how many of them are transitioning them into those industries. We're in our third year of the project and we find that what gets measured gets improved. We're initiating a campaign now trying to raise \$8 million. We begin talking to students when they get into high school and they're going to get scholarships at our institutions to help bring them along into those fields we have designated.

Ms. Gibson stated that she thinks both approaches are necessary. We need to get companies engaged in both ways. It is really about school to work in a lot of ways. And some of these initiatives that were around, where we talked about school to work and trying to get kids focused in certain areas, but again it just did not go.

Mr. Downing provided another example of the demand in STEM fields. Approximately 98% of MO University Science and Technology graduates either have jobs or job offers at graduation. MU's law school is about 32%.

Dr. Lankford stated that school to work was very common a few years ago, the phrases come and go. Last year there was a pilot project in the St. Louis area, and this year it's being expanded to KC and Northern and Central MO. DESE will have three individuals who are working in those areas with the idea of connecting education to the learning piece. There was a lot of excitement in March at the Dome in St. Louis when a robotics competition event was held. The enthusiasm and interest for those types of programs exists.

Dr. Gary shared that robotics in general is an extremely expensive activity. Yet using relatively inexpensive materials and packaging them into science kits, NSF has demonstrated they are effective in teaching science to students kindergarten to 5th grade. These inquiry-based projects

get kids excited about science. As students move up to middle school, it becomes project based learning and you keep them engaged in science. Adapting high school curriculum to problem based learning allows a viable pipeline of students engaged in science. There's actually a statewide plan developed to implement inquiry-based kits into various school districts. Any similar approach, however, will carry a hefty price tag.

A guest provided another example. She has two grandchildren in Philadelphia graduating from high school this year. One of them is interested in attending the University of the Sciences, which is a private college there. Despite a keen interest in science and knowing their career path, it will cost \$50,000 to attend. That is a frightening total cost for her education. So getting kids excited about STEM must be combined with helping to pay for that Education. Getting businesses to help support these kids would be great.

Mr. Downing was curious about how that would actually work. Are STEM students treated differently than students in other disciplines? Are they charged differently than other students? Are they given a discount on STEM programs? That is very controversial and outside of most universities comfort zone.

Mr. Clyde McQueen introduced himself to the group. In 2000 during the transition between the Clinton and Bush administrations, the Office of Management and Budget issued a Request for Proposals called the "Roaring Achievement" that included internships for high performing young people - particularly in STEM fields. For \$900,000 we combined an internship for young people with robotics. Many young people were motivated by the internship that was tied to good grades and conduct. At Metropolitan Community College, 14 and 15 year old students were also participating in our WIA (Workforce Investment Act) programs in robotics. Their level of interest was amazing. We did the same thing this year with the University of Central MO with the digital class this year. Getting young people to work with us is not a problem. Getting young people to start focusing on post secondary curriculum by the 8th grade, allowing them to take courses at community colleges, combined with mentoring programs with employers, would elevate their interests. When the International Brotherhood of Electrical Workers needed to fill 75 electrician jobs making \$100,000 a year, the big challenge was finding kids with the needed coursework, such as college Algebra. College algebra is not a requirement in every school. This is where parent education about STEM careers is critical. Many parents are purely GPA oriented. More employers in classrooms are also needed to let students know what coursework is needed for specific jobs.

Mr. Mike Pantleo shared the success of *Project Lead the Way*. This national program starts with pre-engineering courses and later moves into core engineering subjects. They've moved to the middle school level and are now starting an elementary program. They're piloting it here in KC and throughout the nation, but it will have an elementary component in KC. Lee Summit School District has been mentioned today and they have had tremendous success using Project Lead the Way. Yes, it's got a component that needs to have more workforce investment involved. You can find additional information on the Department of Education's website

Dr. Nuttall added that another important component is how students are assessed. High stake accountability systems currently in the K-12 system are now migrating into higher education.

There is nothing wrong with accountability. While all are familiar with the ACT and its intent to evaluate college readiness, WorkKeys is less widely known. WorkKeys is intended to measure a student's future success in a job. As an educational institution, it is more important for us to know how to help a person be successful when they get out into the world of work, not that they are going to successfully complete a course in college. That is a conversation to have regarding assessment.

Mr. Downing asked the group a question. Does the group agree with the preliminary conclusion presented? Specifically stated, STEM talent is the factor that will exponentially grow the economy. That is the magic bullet. There are really good local programs, but that information is not distributed statewide to where people know best practices. There are also some initiatives that have been very successful; but they are not on a large enough scale to be scaled-up to larger populations of students.

Mr. Downing requested the group's assistance in identifying best practices, either local or national to Judy McQuitty (Judy.McQuitty@ded.mo.gov). DED will combine them and Mr. Downing will report back at the next quarterly meeting. He will share best practices, local initiatives that have worked, and successful programs from around the country. He will draft a comprehensive report with research from the Univ. of MO, ACT, DOL, and other reports on this subject. Mr. Downing firmly believes STEM education is necessary to fundamentally affect the economy.

Dr. Gary thanked Mr. Downing for his presentation.

Mr. Bill Skains shared that he was previously charged by another Governor to do some assessments in reading and math. They learned that students were reading and computing at below grade level, but they were paying \$40,000 a year to incarcerate individuals. There is a direct relationship in the ability to read and write and the number of people in correctional institutions. Society would benefit if such individuals were trained with viable job skills to return to work.

Dr. Gary asked to return attention to the topic of alignment and potential roles for MOWIB. After conversations with other state board chairs, a small group meeting in St. Louis, and current directions DOL is pushing state boards, he noticed many state boards have taken on a convening role. In some cases, the board serving to convene on a particular topic, and in other cases, convening particular groups. Does it make sense for MOWIB to consider such a convening function? Such an approach will cause logistical challenges, especially budgetary. Is there enough value in taking on this function?

Mr. Toenjes noted that current members have different opinions about what MOWIB does and why they choose to serve. As a board, we do not have a common purpose or goal that we all understand and support. If this convening activity would provide such a focus, it would be worthwhile. There is a tremendous amount of talent around the table and I would certainly want to get engaged in something along those lines. Whether it is collecting information and issuing a report to the governor, MO citizens, or the local WIBs, so long as at the end of the year there was a product produced. That way the board would have something to show for our discussions.

Dr. Gary suggested that such an activity could be built into quarterly meetings. It would be necessary to conduct some regular business; the whole meeting could not be consumed by a convening activity. Another approach to consider would be traveling to other parts of the state to convene groups to get a better sense of statewide workforce activities. Convenings would need to be well-planned and presenters arranged for specific subject areas. The information presented and collected through these convenings will build a catalog of workforce development and STEM education information that does not currently exist and could be disseminated to various constituencies. The Governor would certainly be one to which we would provide the information. Canvassing the state through these convenings will allow MOWIB to identify duplicative efforts, synergistic projects, and serve as a connector between potential collaborative organizations. This should bolster MOWIB's perceived value and represents an important service to the state.

Dr. Martha Ellen Black stated that the effort would be beneficial and could see the vision, but where is step one?

Dr. Gary replied that step one would be the local WIBs. MOWIB formally invites them to the next meeting to inform the board about their existing partnerships.

Dr. Black asked whether a standard format should be developed and public schools within those workforce development regions involved?

Dr. Gary responded that participation of school districts would likely be included in descriptions of existing partnerships.

Mr. Toenjes commented that every local WIB would be glad to promote their programs and successes.

Dr. Gary asked the LWIB representatives attending the meeting for comments on this issue.

Mr. Rick Gronniger noted that local WIBs already meet regularly to share information regarding programs and training. At one time MOWIB considered having each LWIB director come to this session and explain their activities, although that has not happened.

Dr. Black insisted that specific format was needed.

Ms. Gibson advised having a specific focus for inquiries to the LWIBs. Each local board has many programs, activities, and partners. She suggested that Judy McQuitty might be a resource for this project, especially if the emphasis is on STEM education. Ms. Gibson agrees that there should be a standard format for everyone to use. She suggested that LWIBs be tasked with seeking out information in their own regions. For example, what are the different funding opportunities and grants that are underway? If not the WIBs, then perhaps individual board members should be tasked with collecting information from their locale. The board probably lacks a good knowledge base of existing programs in the state. Ms. Gibson asked Dr. Gary what happened to the education consortia he was involved in for several years.

Dr. Gary responded that one organization spun out as a separate business. One is still doing similar work, and one ran out of grant funding and no longer exists.

Jasen Jones was of the opinion that what was being asked of LWIBs represented basic assets that would not be complicated or duplicative to collect. He agreed that Ms. McQuitty would be a good resource.

Dr. Gary added that a potential structure for collecting information should be in the context of the economic development strategic plan. STEM is embedded in that plan and it is consistent with the department's priority.

Dr. Lankford stated the value of the MERIC programs was mentioned earlier and the wealth of information they provide. If the discussion is about economic development and workforce investment, it is important utilize the data indicating what are the hottest jobs and in what fields they are located. That discussion leads us quickly to the need for enhanced STEM education.

Mr. Gordon Ipson/NE WIB Chair agreed that this would be a very valuable activity, but he cautioned putting too much additional work load on the WIBs. The budget cuts have significant reduced staff and increased workloads on remaining staff. Just as an example, Northeast three years ago had seven fulltime staff at the WIB office. Today, there are two and a half FTEs. The board should not do what government so often does which is putting out unfunded mandates.

Dr. Gary agreed and clarified that the data of most interest from the LWIBs is that related to existing partnerships and programs. While it was suggested that LWIBs actively seek out some of these other partners, there are other avenues to accomplish data collection without leaning on the LWIBs

Mr. Toenjjes: I would wonder whether it needs to be the WIB staff, or whether it could be the WIB appointees.

Woman stated that she is new to the public workforce system. She currently is an economic developer for Cass County, MO, and serves on the WIB board. She thinks utilizing the WIBs for data collection is a good idea. She worked with the Metropolitan Community College process of bringing workforce development programs into Cass County and saw how employers reacted and learned about their training needs. So if asked as a WIB board member to reach out for such information, she could probably help without overtaxing the staff.

Mr. McQueen said that he would use a database system for collecting information. He also added that a focus on STEM is very worthy, yet he notes that STEM education is much broader than scientific or medical professions – it extends across every occupation. Carpenters need to be proficient in math. People in logistics need computing skills. Heightened awareness of this fact is needed. There also needs to be a focus on communications, language, and teamwork. Every employer survey that we conduct indicates the need for the ability of people to work as a team. There is a big issue of working more efficiently and effectively with a downsized workforce as a team that is dependent on communication skills and problem solving ability. In our experience with staffing technology based companies, those employers will select people who are not only

technically competent, but also have effective communications skills. Employers seek people who can work effectively as a team, communicate, and read and understand a technical manual. All the dots must be connected.

Dr. Gary commented that problem-based learning is a solution that does connect those dots. Team interaction and collaboration is essential for those projects to be completed. Employers on the receiving end of programs that have used problem-based learning will tell you they are satisfied with those employees.

Mr. Downing shared that a manufacturer recently said if a company is not in advanced manufacturing, they will not be staying in the US. The company will either go out of business or end up in Mexico. I have seen it firsthand. I grew up on a cotton farm in southeast MO. My grandfather used to hire four or five hundred hand pickers to harvest cotton and take the trailer to the gin. Now, an 8-row cotton picker with a cab that looks like a NASA space center not only picks the seeds out, but also bales the cotton. The owner indicated the machine cost \$700,000. It requires a person with an engineering degree to run it and it takes the place of about 7 other people. That's called technology.

Mr. Skains observed that when running school-to-work transition programs and dropout prevention recovery programs several years ago, the average age of individual returning to our system were 25, 26, and 27 year old males. Many had been subjected to the criminal or the juvenile justice system. Is that the same profile people see today? His point being, there was no continuity between the time they graduated until they engaged in continuing education. They took a break away from it and came back again at 26, 27, and 28, to receive those services. These people were not in the system for education, working menial jobs. They were subject to the criminal or juvenile justice system. Mr. Skains asked Mr. McQueen if that is what he observes.

Mr. McQueen responded that it probably varied depending on individual program design. His organization runs both adult and youth programs for those exposed to the criminal justice system. Employers still want employees with basic skills, and STEM skills are now considered basic skills. Second, transportation to and from a job is also an issue. Third, can candidates learn by reading technical manuals and other types of instruction? A person with a criminal record can have all of those skills, but it is unlikely they will get a job. Hopefully our programs are motivating young people to pursue an advanced curriculum. Most employers do not have time to wait years or two semesters. They need employees right now and they will go elsewhere to get them. Metropolitan Community College has Just In Time (JIT) training programs called IWI and Workforce Central. These institutions were innovative in developing this curriculum to meet the needs of employers.

Dr. Gary noted that there is interest in asserting a convening role for MOWIB. The activity may help define and clarify the identity of MOWIB. It sounds like starting with the WIBs is a viable path for that first pass of information. It provides some additional time to define this process.

Mr. Toenjes requested that the names of LWIB board members for each region be distributed. He would like to, as a MOWIB member, to communicate this initiative to individual LWIB board members.

Ms. Coleman cautioned that the WIB directors are the best link to their board members and she encouraged that course of action. Should MOWIB contact LWIB board members, they are likely to immediately contact their LWIB director.

Ms. Marianne Rojas/Director Ozark LWIB shared that she is relatively new and came to Missouri from Texas. She suggested developing a consistent set of questions. Perhaps a smaller group could get together and develop survey questions.

Dr. Black: This board has to decide what information is needed and present a format that is easily understood to facilitate and every WIB area to provide their information. A disorganized approach will likely end up being an exercise in futility.

Dr. Gary indicated he would draft some candidate questions and send them to the board for review and comment. That will be the first step toward developing a standard set of questions. Does that sound like a reasonable approach?

Dr. Black commented that a fairly simple chart could be used and each WIB fills in the box. Fewer questions would be better. You know, it doesn't need to be a lot of questions. Just, we have four programs we know about. We can even survey from our areas.

G. Closing Remarks

Dr. Gary stated he would compile the types of potential information to collect from LWIBs and send it out to the full board for review and comment. He thanked the group for a rich discussion. He committed to reporting on the upcoming meeting in Denver and specifically look for best practices that other states are using. Dr. Gary asked local WIB directors for a brief update.

Mr. Jasen Jones/Southwest WIB spoke positively about MOWIBs work related to the CWRC initiative. The effort has raised the board's visibility among local economic developers. Utilizing the board as the certifying entity for CWRCs contributes to an identity for MoWIB. He also noted the comments made earlier by Mr. McQueen regarding the importance of cognitive skills for making progress in STEM education.

Mr. Jones shared that although the budget cuts have been difficult, they have reengineered their programming and workflow. Changes in the one-stop system related to the 4 week reporting will certainly contribute to that reengineering. On a positive note, our partnership with the Innovate Educate Foundation funded by the WK Kellogg Foundation through our partners in New Mexico has attracted some attention. As a result of that linkage, the White House has actually contracted the research of Innovate Educate back with our WIB to look at the workforce performance matrix along levels of the NCRC and levels of educational attainment. Thus some of the research to be completed in the southwest region could be reflected into an emerging issue at the White House - so we are pretty excited about that development.

Ms. Melissa Robbins/South Central LWIB mentioned two main focus areas currently. One area is the increased use of access points to provide customer services. They may also be used in

conjunction with chamber meetings to strengthen the partnership between chambers, economic development, workforce development, and the job seeker. The other area is related to youth services and our attempt to petition DESE to recognize the NCRC as part of MO School Improvement Plan. Schools in our area see the NCRC as a tool to recognize those students that are going into the workforce and for improving their districts

Ms. Brandi Glover/Northeast LWIB shared that previously mentioned budget cuts are resulting in measures to reduce costs internally, and trying to get more money out to the participants. It has required creativity to allow us to continue serving participants. Funding has been identified for the majority of our second year participants for first semester and we are looking at ways to fund new customers coming through our career centers. Efforts are also moving ahead with our access points for the region. Additionally, three new counties in our region are moving forward with their CWRC (Certified Workforce Ready Community). Notably, the career centers are increasing number of hires, reflecting improvement among local employers. Recent job fairs have also been increasingly successful.

Ms. Marianne Rojas/Ozark LWIB indicated that the last few months were quite busy. Unfortunately, some of that activity was related to plant closures and layoffs. We are considering ways to create the pipeline of ready workers and the programming necessary to increase numbers of youth entering the workforce. Older workers also have been at considerable risk due to plant closures. For example, a couple of plant closures affected almost 500 people and over 60% were 50 or over. Many of these older individuals have many desirable qualities sought by employers - strong work ethic, experience, some kind of knowledge base - many do not have the job seeking skills to compete in the job market. Two more counties were certified for CWRC. Partnership opportunities with our chamber are available as E-companies are increasingly moving in to the region. In particular, we are looking to integrate our training programs into new hires associated with an E business coming into Springfield. Many exciting things are happening in the Ozark region and Ms. Rojas expressed her appreciation for Mr. Skains' service on the state board.

Dr. Gary thanked the LWIB directors and staff for attending and sharing updates. Dr. Gary asked Ms. Gibson for updates.

Ms. Gibson shared some successes through her tour at DOLIR as the acting director and working with DWD. The passage of HB 196 regarding 4-week reporting will have significant impact. UI recipients visiting the career center virtually will automatically transfer to jobs.mo.gov to engage them in job searches. Additionally, we are acquiring and developing a mobile application that can be utilized on a smart phone for people to file their initial UI claim and their weekly claim, and we're going to embed in that a mobile application for jobs.mo.gov. There is also a pre UI modernization \$35 million project underway. Ms. Gibson said she plans to return to DWD after completing service at DOLIR.

Dr. Gary asked Ms. Sublett for any comment.

Ms. Sublet indicated DWD is working with DOLIR for implementation of HB 196. She is monitoring feedback from the local regions regarding career center traffic. It is not known whether traffic will change and by how much. Some LWIB directors have been challenged with reducing

staffing while maintaining capacity to serve the public. Yet there is still pressure to meet federal performance measures. Implementing HB 196 simultaneously in the face of reduced resources from the federal government and significant staff layoffs has been challenging. In fact, DWD laid off 26 staff in July from around the state. It was very impactful, particularly for those career centers already under-staffed. We have to look at creative ways of continuing to serve the customer with reduced staff, and resources. Virtual opportunities are going to be critical. DWD has to be leaner in terms of the workforce system and efforts are underway to increase virtual presence, not just building presence.

I. Chairman Final Comments

Dr. Gary asked each board member to complete the Workforce Board Member Contribution survey. This tool was provided in a DOL webinar series that allows board members an opportunity to state where your priorities lie in serving on the board. The information will be useful for me in making committee assignments and/or reaching out to members for a particular project. Thank you very much for your attendance.

H. Adjourn

Dr. Gary adjourned the meeting at 11:30a.m.

Approved:



Keith Gary, PhD
Board Chairman



Maida Coleman
Executive Director