

Ohio Board of Regents Meeting Minutes
Ohio Board of Regents, Columbus, Ohio
Main Conference Room, 7th Floor
April 13, 2015

I. Welcome and Call to Order

Chair Vinod K. Gupta called the Ohio Board of Regents (BOR) Meeting to order and welcomed the Regents and staff to the April BOR meeting.

II. Roll Call

Chair Gupta asked that the roll call be read by Secretary Virginia M. Lindseth. Secretary Lindseth stated, "the record reflects that notice of this meeting was given in accordance with provisions of the Ohio Board of Regents' Ohio Administrative Code §3333-1-14, which rule itself was adopted in accordance with Section 121.22(F) of the Ohio Revised Code and of the State Administrative Procedure Act." Secretary Lindseth called the roll. Those present were:

Vinod K. Gupta
Thomas M. Humphries
Kurt A. Kaufman
Elizabeth P. Kessler
Virginia M. Lindseth

Secretary Lindseth declared there was a quorum present.

III. Approval of Minutes

Chair Gupta asked if there were any additions or corrections to the draft November 17, 2014, minutes. There being none, Regent Kessler made a motion to approve the November 17, 2014, minutes as drafted and the motion was seconded by Vice Chair Humphries. All Regents voted in favor of the motion approving the minutes as submitted from November 17, 2014.

IV. Executive Session

Vice Chair Humphries made a motion to move into an Executive Session to consider the employment of a public employee and this motion was seconded by Regent Kaufman. A roll call vote was taken and all members of the BOR voted in favor of the motion to move into an Executive Session. Chair Gupta indicated that during the Executive Session no minutes would be taken and no voting or polling other than to conclude the Executive Session would take place. The BOR went into Executive Session at 9:06 a.m. Secretary Lindseth said a voice vote was taken and all members of the BOR voted unanimously in favor of ending the Executive Session at 9:55 a.m.

V. OARnet and Ohio Supercomputer Center (OSC) Update

Pankaj Shah, Executive Director of OARnet and OSC provided an update for the board members and staff. He presented a PowerPoint presentation which can be found as Attachment #1. He began his presentation by saying that the national presence that the organization has been experiencing recently goes back to the formation of the OH-TECH Consortium (OH-TECH). He explained the history from a failed National Science Foundation bid in 1987; purchasing the first supercomputer; and then the formation of OH-TECH with The Ohio State University (OSU) as the fiscal agent.

Mr. Shah said that OH-TECH consists of the following: OSC; OARnet; OhioLINK; and eStudent Services. He said that the Research and Innovation Center is part of OH-TECH as well and they operate under the OSC. During his presentation he said he would concentrate most of his remarks on OSC and OARnet.

Mr. Shah began with the OSC updates. He said that the OSC team is a fairly new group of individuals and he said when he began managing this team he made a strategic decision to grow this team vs. bringing in a national leader. They have a succession plan he believes will be beneficial to OSC. He said that the OSC Strategy for 2015 will emphasize on Clients, Services, Partners/Collaborators and the Organization. Their priorities will include the following: HPC system procurement; Sustainability and Growth; Research; and National Partners.

Mr. Shah discussed the production capacity and client services as it related to OSC statewide impact for 2013-2014. He outlined the active projects by institution and said that OSU, the University of Cincinnati and Case Western Reserve University are research intensive universities according to Carnegie classification so they are among their top users. He also outlined the projects awarded by institution. Mr. Shaw shared a video clip of Thomas Beck, Ph.D., Chair of the Statewide Users Group, discussing the importance of OSC as it related to High Performance Computing (HPC).

Relating to the supercomputers many uses, Mr. Shah said it has industrial uses as well. He began to discuss the AweSim project and said that they received funding from the Department of Commerce. He said that AweSim is going to change the way small and medium sized companies compete, through an adoption of modeling and simulation-driven design. He gave the example of being able to accomplish a Truck Add-On simulation in 48-hours on the supercomputer that would take 128 days on a personal laptop. He said they have a great deal of industrial collaboration and they have close to 112 small and medium sized companies currently using their supercomputer services.

Secretary Lindseth asked if there were health care uses for the modeling and simulation application. Mr. Shah replied absolutely; he said that human genome work is conducted on the supercomputer.

Mr. Shah began to discuss the OSC Business Model. He said they did substantial work with their business team exploring business models around the country. Most of them are limited to either one or two universities or the industries in their surrounding areas. He said they did not see any examples of a business model as comprehensive as they have. He said that they are working on a model where: Institutions and researchers can partner with OSC (condo leasing with compute and storage, contributions for software licenses, etc.); and Industry can partner with OSC (condo ownership and/or fee for service). He said industry can also co-invest with them as well (i.e. Honda and P&G).

Mr. Shah explained the sustainability strategy based on the new cluster. He said that the new cluster was approximately 1000 nodes initially (650 nodes fully subsidized; 100 nodes director's discretion; 100 nodes economic development; and 150 nodes Condo (cost recovered) He said that there was also the possibility for condo expansion in the future as well.

Mr. Shah shared a video clip of the new supercomputer the 'Ruby Cluster' being constructed. He said the cluster was unveiled on April 9, 2015, and Ruby Dee's family authorized the use of her name for the new supercomputer. He said this cluster was a \$1.6M purchase and 1/3 of the purchase was funded by 'condo owners'. They now currently have three systems in place – Ruby, Oakley and Glenn. They are currently in the process of developing a Request for Proposal (RFP) for the fourth supercomputer procurement. He explained the Red Team review for the acquisition and said it will include many entities. He said the team will include the following: University of Minnesota Supercomputing Institute; University of Buffalo; University of Cincinnati; Clemson University; The Ohio Department of Administrative Services; Honda; Case Western Reserve University; and OSU. He said the timeline will be: RFP was issued March 30, 2015 (following the Red Team review); vendor selection in May; and delivery of the new supercomputer in late fall.

Regent Kaufman asked where the State of Ohio ranked nationally and worldwide with their supercomputer. Mr. Shah replied HPC supercomputers always want to be in the top 500 worldwide. When they make a purchase they are momentarily in the 'top 500' until another entity makes a purchase and then they drop out of the ranking. So with that in mind they tend to concentrate on being in the 'top academic centers' worldwide. He said

they are generally in the top 50. He said that has never been a problem because they upgrade themselves every few years.

Mr. Shah continued with the OARnet updates. He said that he has great team members but he has some team members that plan to retire in the near future. He indicated that he is working on succession planning for OARnet.

Mr. Shah said they have big pipes with high speed throughout the State of Ohio. He said they have the following: over 2,240 miles of 100 Gigabit per second network backbone; 13 Trillion Megabytes annual data transfers; over 600 connected public K-12 schools; 88 connected Colleges and Universities; and 314 Connected Higher Education Regional Campuses and sites. He shared this information on a map of the State of Ohio. He said there is no state in the country that has done what the State of Ohio has.

Mr. Shah said they have both regional and national connections on the OARnet 'backbone'. He said Chicago is an extremely large international point of connection. He said nationally, they have two 100 gigabit connections to the national 'backbone'. He said both he and Dr. Drake, the President of OSU are members of the Internet2 board and this helps with the State of Ohio's national presence. Along with this, they have a comprehensive connection to the Wright Patterson Air Force Base and the Defense Research and Engineering Network. They are only the second provider besides Internet2 that provide this kind of national peering. They have a similar connection with NASA; with a major connection in Chicago, Illinois. He said OARnet innovates around the world. They assisted with designing the network for Bangladesh; OSU has a major project in Sao Paulo and they have good connectivity established here; and in CERN they have data coming from here utilizing the OARnet 'backbone'.

Charles See, Assistant Deputy Chancellor, Board Relations, BOR asked about the more practical advantages that the institutions received from these connections (NASA, Internet2 etc.). Mr. Shah replied that if the 'backbone' did not exist and OSU had a project with NASA, they would need a 100 Gigabit connection and the cost would be approximately \$60K a month. The costs now are the operating costs of the 'backbone'. For researchers, if these connections did not exist there would be no way they could transfer files the size that they are transferring overnight to conduct their work.

Chair Gupta asked how this important information was being communicated to the faculty and professors of the institutions. He said they need to have a complete picture of what OARnet/OSC has to offer. Mr. Shah replied that they are beginning to have OARnet/OSC days on major university campuses as part of their outreach activities. He said the researchers did not know about OARnet/OSC and were not aware of what was available. He said he understands this is an issue and wants to create champions on campus to ensure the information is getting where it needs to.

Mr. Shah continued his remarks and discussed the OneNetwork. He said that they have signed a \$3.2M contract with the State of Ohio to bring approximately 2,300 sites onto the OARnet 'backbone' within the next 18 months. He said that this partnership will provide OARnet with additional operating funds to cover the growth allowing OARnet to expand on current services.

Relating to data centers, Mr. Shah said eight years ago they only had two data centers in Cincinnati and Columbus. They currently have twenty-one data centers – public, private, county, and city-owned. He said individuals want a disaster recover strategy.

Mr. Shah said they have done a lot of work with major contracts as it relates to shared services. VMWare has been a stellar product for them. He said the institutions have realized a total savings of \$137M with VMWare. Assistant Deputy Chancellor See added that the concept with shared services is that the institutions are able to see substantial savings because of the ability of the aggregate purchasing power of OH-TECH.

Mr. Shah finalized his remarks by saying that they have had a reduction of expenses with a 97% decrease over 12 years; and the power of aggregation has resulted in a 73-fold subscription increase over 12 years. He said there is no other state like the State of Ohio in terms of connectivity. He shared a video clip of Thomas Lange, Retired Director of Research, Development and Engineering at P&G discussing the importance of investing in the State of Ohio as it related to secure network speed and HPC.

Lauren T. McGarity, Director of Special Projects, Legal, Policy and Legislative Services, of the BOR said that they plan to connect all of this through the globalization promotions that they will be doing. This will be as an attraction to the State of Ohio and they are connecting with JobsOhio on globalization as well.

On behalf of the board members, Chair Gupta thanked Mr. Shah for his presentation. He said that they have made a great deal of progress in the last six months and told him to keep up the good work. He said they will help them in any way they can with the institutions. He said he is glad to see that the Chancellor is supporting them.

VI. Budget Update

John Carey, Chancellor, BOR began the Budget Update by saying that there will be a Globalization update at the next BOR meeting. He said some of the comments that Mr. Shah made will intersect with Assistant Deputy Chancellors See's comments on commercialization.

Chancellor Carey said that the board members at times have wondered what their impact was. He said that he believes that they are starting to see their impact with the Commercialization; Workforce; Inclusive Competitiveness; and Adult Learners. He said that all of the work that the board does through meetings and subcommittees of the board really drives their budget discussions.

Relating to the Taskforce on Affordability and Efficiency in Higher Education, Chancellor Carey said that this taskforce began with the Quality and Value Report. He said the Chairman shared details about an agreement between Northwest Community College, Terra State Community College, Owens Community College, and the University of Toledo. He said coincidentally, the University of Toledo in opening the Center for Human Trafficking and Social Justice (one of the very few in the world). He said that they will be there to support this opening. He said during their visit he hopes to highlight the collaboration between the four institutions and when he gets more details he will share that with the members.

Chancellor Carey made high level narrative comments about the following budget items: in order to be eligible for research funding universities must have a commercialization track for tenure; professional standards for guidance counselors; and funding in the budget for teacher credentialing as it relates to College Credit Plus (CCP). He said the BOR partnered with the Ohio Department of Education to travel around the State of Ohio and promoted CCP. They have seen so many great things happening and they hope to see that continue through the budget process. They think in order to be successful teachers need credentials to offer CCP in the high school classrooms.

Secretary Lindseth asked how the teacher credentialing occurred and what the nature of the credentialing was. Chancellor Carey replied that in order to be an adjunct professor a teacher has to have 18 additional hours in the content area. Stephanie Davidson, Vice Chancellor for Academic Affairs, BOR added that 18 additional cohesive hours are in graduate content in addition to a Masters Degree. They are working with campuses to develop programs that will be applicable for working teachers. Chancellor Carey said they believe that CCP will transform higher education in the State of Ohio.

Secretary Lindseth followed up with another question regarding CCP constituent correspondence that all of the Regents received and wanted to know the Chancellor's thoughts. Chancellor Carey said that they have had some 'bumps in the road'. Their challenge and mission is to serve the students. This needs to be the number one goal. He said they are never going to say they have a perfect system and they are not things they can do to improve – so they take in the comments to see if there are things they need to do differently. He said reducing

the silos in K-12 and higher education does require transition. Assistant Deputy Chancellor See said they are keeping a running list of the issues that are being raised. They will be brought before a yet to be formed CCP advisory committee to determine how these issues may have affected the program.

Regent Kaufman made comments about a constituent's concerns about the quality of the CCP course depending on where it is being offered. Vice Chancellor Davidson replied that if it is a public institution that has courses that are part of the Statewide Transfer Guarantee these courses have been matched to each other as it relates to the syllabus, rigor of the assessments, qualification of the faculty, etc. These courses will transfer throughout the State of Ohio. Assistant Deputy Chancellor See added that one of the safeguards that they have in the regulations is that an institution cannot develop a subpar course solely for CCP than what they would offer any other student.

Chancellor Carey said that the budget has amended language changing the name of the 'Ohio Board of Regents' (agency) to the 'Ohio Department of Higher Education' and his title as 'Chancellor' to 'Director'. He said the Board of Regents (advisory board) that advises the Chancellor will stay the same.

Secretary Lindseth asked about the title change. She asked why he was not going to be the Chancellor of Ohio Department of Higher Education. Chancellor Carey replied that this title remained from when the changes of who appointed the Chancellor (Governor vs. BOR) took place some time ago. He said there was a great deal of research done on this and the administration felt that Director was the best title. Vice Chancellor Davidson said in looking at the State Higher Education Executive Officers Association's agencies state officers the titles vary (President, Chancellor, Commissioner, Director, etc.). Chair Gupta said that the feedback that he has received as it relates to the title change to Director is that the title of Chancellor is deemed to have more authority. He said he does recognize the position of the administration.

Laura Padgett, Policy Director, of BOR and Eli Faes, Director, Legislative and Public Affairs Director of BOR provided the board members a legislative update. The overview document can be found as Attachment #2. Mr. Faes said that the budget bill is currently in the house and it has gone through all the subcommittee hearings.

They provided updates on the following legislation:

- **Tuition Cap and Freeze** - Caps tuition increases at 2% in fiscal year 2016 and freezes tuition in fiscal year 2017.
- **Task Force on Affordability and Efficiency in Higher Education** - Governor recently created a nine-member task force to examine affordability and efficiency in higher education. The budget requires the task force to recommend ways for Ohio's public colleges and universities to foster increased innovation to drive down costs. After the task force issues its report, each public institution's board of trustees will be required to conduct an efficiency review based on the recommendations of the task force in order to incentivize these efforts, a new \$20M innovation program will help colleges and universities implement their best reform ideas that deliver long-term, sustainable cost savings to students.
- **Competency-Based Education** - Convene its public university and college presidents to develop competency-based courses in which students earn college credit by demonstrating competencies learned. The budget provides \$4M in each year of the biennium for this initiative, of which \$250K per fiscal year will be directed toward certificate-level programs for low-income workers.
- **CCP** - Budget provides \$18.5M through the Straight A Fund - \$13.5M of this funding will be grants to fund teacher graduate-level coursework credentialing at an Ohio institution. The other \$5M will be for incentive funding for districts with outstanding successful completion rates for students participating in CCP and Advanced Placement courses.
- **Relieving College Debt** - \$30M per fiscal year to relieve student debt. They are in the process of working out the details of how this program would work. The Governor is very passionate about this issue.
- **Community Colleges Offer Bachelor's Degrees** - Allows an Ohio community colleges to offer affordable bachelor's degrees in limited instances if a university in the region is unable to offer the degree. This does require Chancellor's approval for the programs to be offered.

- **Campus Safety and Training** - Budget provides \$2M for campus safety and training, specifically for developing and implementing best practices for preventing and responding to sexual assault on our campuses. This is very important to the administration and tied to the Title 9 compliance for institutions.
- **State Share of Instruction (SSI)** - Increases (SSI receives a 2% increase per year).
- **Preparing Students for the Workforce** - Requires the public colleges and universities to develop, by the end of 2015, an implementation plan to embed work experiences (including co-ops and internships) into the curriculum of degree programs. Also, all public institutions of higher education will be required have a career counseling program in place by December 31, 2015, and have a link to OhioMeansJobs.com on their website.
- **State Grants and Scholarships** - Increasing state grants and scholarships by approximately \$4M each year; it provides an additional \$1M in Ohio College Opportunity Grant funding; proposes covering 100% of tuition and general fees at two-year and four-year public institutions for the Ohio War Orphans Scholarship; In recognition of the commitment of Ohio National Guard members the budget adds more than \$1M to this scholarship program; To bolster Ohio's economic strength in areas of science, technology, engineering, math, and medicine, the budget adds \$750K to the Choose Ohio First Program.
- **Research Collaboration to Solve Key Ohio Problems** - We receive \$8M in funding from the Ohio Third Frontier Commission for research activities. This budget earmarks a portion of this funding for collaborative research activities across both public and private universities and disciplines for prioritizing improving water quality and reducing infant mortality.
- **Federal Choice Act Compliance** - Section 7.02 of the Federal Choice Act which was passed by Congress last year, requires states to provide in-state tuition rates to individuals who live in Ohio and are receiving federal GI Bill benefits for terms beginning after July 1, 2015.

Secretary Lindseth asked who would be on the Task Force on Affordability and Efficiency in Higher Education. Mr. Faes replied that they will be governor appointments and they anticipate that they would be trustees, academia, industry, etc. There have not been any appointments yet.

Chair Gupta asked about the \$20M funding for the innovation program and wanted to know if this was new funding or transferred from another general revenue fund. Mr. Faes replied that this was new funding and was 'one time' funding.

Chair Gupta followed up with another question regarding the \$8M in funding from the Ohio Third Frontier Commission and wanted to know if this funding was exhausted from the previous appropriation. Assistant Deputy Chancellor See said portions of this funding were allocated for I-CORPS; algae bloom; and the balance of the funding was not allocated. He said this budget language will put a much more applied approach on a portion of the funding.

Secretary Lindseth said as she reviews the legislative changes they are in the business of finding ways to fundamentally change college education. She said the changes are quite energizing and scary. She said as they go through this she hopes they will think through the unintended consequences of these fundamental changes of college education. Mr. Faes said that the administration believes that higher education has been the pillar of the last few budgets and Mid-Biennium Review as well. He said the legislature has very strong ideas about higher education policy and that direction. He said he believes everyone knows what is at stake.

Assistant Deputy Chancellor See asked Mr. Faes to explain the anticipated legislative timeline. Mr. Faes said, as he stated earlier, the budget has already went through the subcommittee process in the House. It will go before the Full House Finance Committee this week and there will be a substitute bill that is introduced tomorrow. They believe that the Full House will pass this substitute bill out within the next two weeks. Then the budget will go over to the Senate to go through the same process. They do anticipate that it will be broken down into components and go through a subcommittee process in the Senate as well. The BOR portions of the budget will likely be before the Senate Finance Higher Education Subcommittee. The budget has to be passed and signed by June 30th.

Vice Chair Humphries asked if there were any provisions that they felt were at risk. Mr. Faes replied the \$120M (\$30M annually) funding that has been allocated for the Student Debt Relief Fund. He said House Bill1 that is currently in the House allocates \$100M for a similar grant program. He said he believes that are looking at ways to reconcile the Executive Budget proposal on Student Debt Relief and what they want to accomplish with House Bill1. Mr. Faes said they have also indicated that they may be more aggressive on the Tuition Cap Increase.

VII. Workforce Update

Cheryl Hay, Deputy Chancellor, Higher Education Workforce Alignment, John Magill, Assistant Deputy Chancellor, Economic Advancement, Nithya Govindasamy Interim Assistant Deputy Chancellor, Higher Education and Workforce Initiatives all of BOR provided a Workforce Update. They presented a PowerPoint presentation which can be found as Attachment #3.

Deputy Chancellor Hay began by saying that the Chancellor has asked her team to provide an update on the status on their efforts in the Workforce arena and also an update on the Condition Report Recommendations. She said the three things that they are going to provide an update on are the following: Career Services; Ohio Means Internships and Co-ops (OMIC); and Public Education Supply and In-Demand Occupations.

As it relates to the Conditions Report, Deputy Chancellor Hay explained to the board members the recommendations and the status of each as outlined in the presentation. With that, she said the following: As stated earlier the budget will require public Institutions of higher education to have a career counseling program in place by December 31, 2015; She along with other BOR staff members have been making site visits to the education institutions to understand what the career services structure looks like. They have also been conducting a staffing review; They have Career Pathway Maps for each pathway that is identified. This project is being led by the Ohio Department of Education (ODE) in cooperation with the BOR. In addition to this they are part of the 'Moving Pathway Forward' National project (one of 14 states selected for technical assistance in developing career pathway strategies); and Relative to the Wage and Reporting Data, met several times with the Ohio Department of Job and Family Services (ODJFS). A decision was made to use Ohio's University's Ohio Education Research Center as the intermediary between ODJFS and BOR for data collection and analysis Once a scope of work is defined and a Memorandum of Understanding is in place BOR will be able to report the wage and employment of all graduating students of the University System of Ohio (USO).

Deputy Chancellor Hay continued to explain the status of the Condition Report recommendations. She said the following: Relating to increasing the utilization of OhioMeansJobs, the Chancellor conducted at least two Regional meetings with post-secondary institutions to provide feedback regarding this system. ODJFS has come back with a recommendation to build a post-secondary link that would be specific to the career service office functions; They are waiting for dates from the Governor's Office of Workforce Transformation to convene an Ohio Career Conversation as the Governor may decide to attend this event in some of the regions. She along with other BOR staff members have been working with Inside Track, a group that assigns career coaches to at risk students to assist them with navigating campuses and interaction with other resources. They proposed working with Inside Track on the career selection side. This would involve coaches working with students in the 11th and 12th grade and follow this student into post-secondary to affirm their career selection. USA Funds is very interested in this concept and has asked them to edit their proposal as they may be interested in funding a pilot.

Secretary Lindseth asked about USA Funds. Vice Chancellor Davidson said that USA Funds is a private foundation with its headquarters in the State of Indiana.

Relative to the Condition Report recommendation around Strengthening PreK-12 Educators and Student Success in the Economy, Deputy Chancellor Hay said that as stated earlier there is budget language that requires standards for career counselors in the K-12 arena.

Deputy Chancellor Hay said that specific status of the Condition Report Recommendations around Internships and Co-Ops are each as outlined in the presentation; however the most important was the budget recommendation that campuses imbed experiential learning into their degree programs by the end of the year.

This is a huge move to say that Internships and Co-Ops play such a vital need in getting students ready for today's career paths. She said they have conducted regional meetings with institutions and their nonprofit partners about how to diversify student populations and expand strategies across Career Programs.

In addressing the Skills Gap, Deputy Chancellor Hay said that there are a number of strategies that they have been pursuing to help businesses see that education is doing something to ensure curriculum is aligned with the skills gaps that they are seeing from students when they enter the workforce. She said that Workforce Alliances was a partnership between the Governor's Office, BOR, and ODJFS. They received federal funding that was distributed to six regions in a pilot program. This was aimed at meeting with industry; determining the skills needs of that industry; and integrating that into the curriculum delivery.

Deputy Chancellor Hay said they worked with Honda on a curriculum strategy for this industry's skillset needs in the maintenance technician field. She said that they will offer this across six institutions in the State of Ohio. Honda felt they work that BOR did with them and the institutions was extremely useful for them. They are looking at this approach as a model that they would like to use in other states. This will place a high school graduate into a two-year community college delivered program and at the end of the program they will be hired at Honda making approximately \$50K. These students then have the option of going into a four-year engineering degree. They hope to be able to use what they have done with Honda across industries.

Regent Kaufman asked with respect to the student being employed by Honda, if it this would be direct employment by or hiring through an intermediary. Deputy Chancellor Hay replied that this would be direct employment.

As it related to Competency-Based Education, Deputy Chancellor Hay said the Insurance industry has been working with them for some time. She said that she and Vice Chancellor Davidson will be attending a three-day Competency-Based training program in Philadelphia, PA. They will be looking at schools that have already implemented these strategies. The Insurance industry has been approached by the Governor's office about being the first industry sector to look at the competency-based programs.

Assistant Deputy Chancellor Magill provided an OMIC update and an update on the regional proposals associated with the programs. He said that the Chancellor allocated \$333K to each of the six JobsOhio regions. They released a Request for Proposal (RFP) and the institutions in these regions worked together to develop joint proposals. They have received five proposals; there were some issues in the Southeast Ohio region that are being worked through with the BOR staff. The Southeast region will have a proposal and all six regions will be funded.

Assistant Deputy Chancellor Magill said they are really excited about the participation of new institutions (Eastern Gateway Community College, Baldwin Wallace University, Tolles Career and Technical Center, Tri-Rivers Career Center, etc.) that have never participated before.

Assistant Deputy Chancellor Magill explained the timeline and said all of the regional proposals will be: approved in the next three weeks; presented to the Chancellor at the beginning of May for funding recommendations; presented to the advisory committee on May 5th; and presented to the Ohio Controlling Board on June 8th for approval. He said the funding needs to be allocated to the five regions and to the institutions by the end of the fiscal year and unfortunately there is only one Controlling Board meeting in June.

Chair Gupta asked how much funding was allocated for this OMIC initiative. Assistant Deputy Chancellor Magill responded that the total amount allocated was \$2M and this was divided evenly across the six regions.

Assistant Deputy Chancellor Magill said that OMIC has funded the following activities: Ohio Means Internships and Co-ops; Scholarships; Wage support; Personnel; Faculty training; Assessment tools; and Industry data. He said they are getting some interesting work completed in Northwest Ohio regarding mapping with Industry.

Interim Assistant Deputy Chancellor Govindasamy began her remarks by discussing the Supply-Demand project the team is working on with the Governor's Office. She said that they asked the BOR to assist them with mapping education production from the public institutions against the In-Demand Jobs List (196 occupations). They are taking data from the four-year institutions, two-year institutions, and the Ohio Technical Centers (OTC) at this time. They are also focused on graduates only and they looked at graduates from the most recent year in terms of data.

Interim Assistant Deputy Chancellor Govindasamy said once this was complete they found that some areas were over-supply and some areas were under-supply. The Governor's Office wanted 'over-supply' in the areas of Engineering and Welding researched more because it did not match up anecdotally with what they believed.

Interim Assistant Deputy Chancellor Govindasamy said when the BOR re-ran the data match they did the following: Re-checked logic and mapping; Removed duplicate social security numbers; etc. She said they analyzed the following Engineering areas: Biomedical, Chemical, Civil, Electrical, Materials, and Mechanical and they were still over-supply. They then looked at the available cohort and determined that 51% of those remained in the State of Ohio for employment.

Relating to Welding, Interim Assistant Deputy Chancellor Govindasamy said the data lowered slightly when they re-reran the data. They did uncover that in the last year that they did increase in supply by over 300% at the OTCs. She said that individuals may be getting a Welding credential but may not be landing in a Welding career. They are not able to determine this information from the data. She said 73% of the Welders remain employed in the State of Ohio so they have not had an employee retention issue in this area. She said they have not determined all of their next steps but one of them is to analyze why they are having over-supply issues in certain areas.

Deputy Chancellor Hay said in the last meeting with the Governor's office they asked them how they wanted to prioritize the In-Demand Jobs List (196 occupations). With that, they begin discussions with JobsOhio. They are going to choose the occupations that have been a large part of the conversation for businesses that have come into the State of Ohio within the last eighteen months. JobsOhio is going look at the retention or expansion workforce needs data that is collected in their 'Executive Pulse' system and determine what the top occupations were for the last eighteen months. JobsOhio is going to provide this information back to the BOR and they are going to focus their work to determine what the pipeline looks like feeding those occupations to ensure that they have a workforce strategy that is in alignment with the JobsOhio strategy.

Secretary Lindseth asked about the over-supply of Welder vs. the industry's voicing its lack of welders and said this is very shocking. She asked if this data was compiled by region. Interim Assistant Deputy Chancellor Govindasamy said they did compile the data by region and they compared the demand by region as well. She said they did see production increases in Northeast Ohio and other parts of the state. Vice Chair Humphries and Regent Kaufman added other comments about why there may be an over-supply of Welders.

Chair Gupta congratulated Deputy Chancellor Hay and her team on their work. He said that the data that they have shared is very necessary and encouraging. He said this information ties right into the commercialization and it is great to see the BOR working in conjunction with the Governor's Office.

VIII. Second Executive Session

Regent Kaufman made a motion to move into an Executive Session to consider the employment of a public employee and asked that Chancellor Carey join the Executive Session. This motion was seconded by Regent Kessler. A roll call vote was taken and all members BOR voted in favor of the motion to move into an Executive Session. Chair Gupta indicated that during the Executive Session no minutes would be taken and no voting or polling other than to conclude the Executive Session would take place. The BOR went into Executive Session at 12:15 p.m. Secretary Lindseth said a voice vote was taken and all members of the BOR voted unanimously in favor of ending the Executive Session at 1:25 p.m.

IX. Condition Report Subcommittee Update and Presentation

A. Subcommittee Update

Liza Kessler, Chair, Condition Report Subcommittee provided a subcommittee update. She began by saying that the BOR wants to align with last year's Condition Report and they know that education and workforce alignment are both very important. They know they will need to vastly increase the number of Ohio citizens with post-secondary credentials to meet projected workforce needs and their pipeline of traditional students is not sufficient to meet those workforce needs.

Regent Kessler said one of the topics that have been discussed as both a full board and a subcommittee is how do you define the 'Adult Learner'. She said that this Condition Report is interesting in that the definition of the 'Adult Learner' is already one of the key issues and part of that definition is the 'non-traditional' students. The definition of a 'non-traditional' student includes an individual who has delayed entry into a post-secondary institution by at least one year following high school (other definitions of 'non-traditional' student include: single parent, have dependents, employed full-time, attending school part-time, or not obtaining a high school diploma). She said there is further correlation about a student's successful completion of a credential and the amount of delay between their high school completion and their post-secondary school entry. There is a wide variety of issues that the 'non-traditional' student will be facing in addition to the educational challenges.

Regent Kessler said that the board decided that their definition of 'Adult Learner' was going to be the age range of 18-44 who had no post-secondary credential or some post-secondary experience but no credential or degree. She said based on the testimony that the subcommittee has received to date they may want to look at this definition.

Regent Kessler continued and summarized the subcommittee's meetings that were conducted on January 29th and March 18th, 2015. She said that at these meetings they had Dennis S. Lettman, Dean, Associate Professor for the College of Adult and Lifelong Learning (CALL) from the University of Toledo (UT); Kathleen Cleary the Associate Provost of Sinclair Community College (SCC); and Carol Gittinger, Adult Workforce Development Director at Great Oaks Career Campuses (Great Oaks) which was an OTC.

Regent Kessler said that CALL at UT was very focused on the specific needs of Adult Learners Dean Lettman presented the subcommittee with substantial information on how they are attacking this issue. She said they have a number of impressive initiatives (mentoring, success coaches, etc.) in place. She said that SCC's focus is on Prior Learning Assessment (PLA); utilizing technology to serve Adult Learners; financial assistance; and providing information and connecting Adult Learners with appropriate social services. She said that Great Oaks has a very focused program and is completely geared to those with full-time employment. Great Oaks' program: is rigorous; is quick; they have a tremendous retention and graduation rate; and they have a high job placement rate. Secretary Lindseth added that UT and SCC had holistic approaches and had programs devoted to following 'Adult Learners' throughout the entire process to ensure they are successful.

Regent Kessler said they released the Condition Report survey on February 9, 2015, to all of the institutions and based on the data compiled from the results received it was clear that there is not a uniform definition of 'Adult Learners' across the State of Ohio. She said that they had good participation and the survey participants were the following: 13 (of 14) Universities; 19 (of 23) Community Colleges; and 32 (of 49) OTCs; however they received a tremendous data range of responses and they need to clarify some of it before some of it may be used in the report. She said they are going to have to come up with alternative methods to come up with a baseline for the 'Adult Learner' population because the initial survey was not successful.

Relating to getting better baseline data, Assistant Deputy Chancellor See said that they have reached out to the Ohio Education Resource Center to enlist them to help them do some data analysis and better refine the data that they now have.

B. Presentation

Regent Kessler introduced Demarée Michelau the Director of Policy Analysis, of the Western Interstate Commission for Higher Education (WICHE). She said that in this role, she co-manages WICHE's Policy Analysis and Research unit and directs externally-funded projects related to Adult Learners, articulation and transfer, and college access and success. She is the author of numerous reports and policy briefs; she also has experience in a variety of higher education policy issues, including the Common Core State Standards, accelerated learning options, college affordability, and K-16 reform. Previously, she worked for the National Conference of State Legislatures as a policy specialist. Michelau received her bachelor's degree in public law from Northern Illinois University and her master's degree and Ph.D. in political science from the University of Colorado at Boulder

Ms. Michelau presented a PowerPoint presentation which can be found as Attachment #4. She began her remarks by saying that she was excited that the BOR was discussing this topic and was even more excited to learn that the State of Ohio was doing so much in this area. She said that today her presentation will cover the following: Background; Why serve Adults; Defining Adults; General lessons about serving Adults; and Promising strategies for effectively serving Adults.

Ms. Michelau said that WICHE's mission is to promote access and excellence in higher education for all citizens of the West; except for their adult learner-related work and that is nationally focused. She said the Adult College Completion Network (ACCN) is a collaborative learning network of organizations and agencies across the country that come together to share promising practices about how to better serve adults. She said most of their focus is on the individuals who have prior college experience. They are funded by the Lumina Foundation and have been in existence for approximately four and a half years. The ACCN was derived from the Non-traditional No More initiative that began at the state level that was focused on these state and institutional policies and practices: Data; Academic Affairs; Student Services; Financing/Financial Aid; and Communications/Marketing.

Ms. Michelau said that PLA is a really good initiative and not every state is doing as much in the area of PLA as the State of Ohio is. Why Serve Adults in Ohio – she shared state and national statistics and those from the Lumina Foundation Stronger Nation Report. She said that unless adults are served they will be in trouble in the coming years. Nationally, they cannot reach the attainment goals that have been set forth if we are not paying attention to adults. What they have found is that adults can do well, particularly if they have prior college credit, if they are provided with the right supports.

Ms. Michelau spent a few minutes discussing the 'Adult Learner' definition. She said although the definition is important – it is also important not to get too caught up in the definition. She gave the following examples of 'Adult Learner' definitions: National Center for Education Statistics - Nontraditional – Most often age (especially being over the age of 24) has been the defining characteristic for this population; Lumina Foundation - Working age – 25-64 years of age; Ohio Performance-Based Funding Access Category - Adult (25 years of age or older); and Nationally it varies by State and Institution (age, college experience, familial demographics, etc.). She said that the terminology that may be seen varies as well, such as: Adult learners; Adult students; Mature learners; Non-traditional students; Post-traditional students; Some college, no degree (Near completers; Stop-outs and Come-backers (Philadelphia)).

Ms. Michelau said as the BOR is thinking about their definition for 'Adult Learner' she recommended the following for consideration: What is their goal; What do they want to accomplish; What does their data look like; and How do they balance a precise definition versus something that everyone can easily understand (everyone is interpreting it in the same fashion).

Ms. Michelau continued and said between the Non-traditional No More initiative and ACCN they have learned a great deal of information about adult students. They are often referred to as 'low-hanging fruit' and she said with the right supports they can succeed. She said Adult Learners are a diverse group with varied needs requiring different interventions and they cannot be 'painted with one big brush'. However, most adult students are generally concerned about three things and they are: Cost; Time and Return on Investment (How will this benefit

the student). They found that they not only need flexibility with the classes but also with student services, academic issues, financial issues and other supports.

Ms. Michelau said one of the reasons that the ACCN was formed was so that they could share promising practices and so that they were not all reinventing the wheel. But in some ways they are asking higher education to adjust what they have done for decades and do things a bit differently for the changing student population. She shared a simple view and a realistic view of the adult college completion steps. She said that even though it is a more complex approach a really good place to start is with the data. With the data, the following are some of the questions they want to ask: Who are these students; Why did they leave; Where are they now; What were their majors; and What prevents them from coming back.

Ms. Michelau began to share state and system data and she began with the South Dakota Board of Regents. She said that they only have four-year institutions. They wanted to determine why their students left college (which on average was 378 students per year). When looking at the data, what they found was that most of the students had an average of 124 hours; 90% were in good academic standing; and 98% had passed the Collegiate Assessment of Academic Proficiency. She said that something happened in their final term and the student just left. This really changed how South Dakota decided to serve that population. She said there could be other reasons that a student leaves so they needed to keep that in mind as well. She said that returning adults: Lack the support structure available to traditional students; May have complicated credit transfer, financial aid, and other needs; and Can be better served by a single point of contact

Ms. Michelau next discussed Ivy Tech Community College System. She said it is about 200,000 students and 32 community college campuses. She said that they developed a degree completion program that is focused on their students. Their goal is to graduate adults with Associates Degrees or to transfer them to Indiana University. They identified the following students: 45 or more total credit hours earned; 39 or more college credit hours earned; Cumulative GPA or 2.0 or higher; Not enrolled in apprenticeship; Degree-seeking; No Technical Certificates or Degrees Awarded; and the Last term of enrollment between Fall 2006 and Fall 2009. She discussed the 'Concierge Service' and said this contact served to assist student with all needs.

Regent Kessler asked if being in 'good standing' varied by institution or if there was a set GPA. Ms. Michelau replied generally it is 2.0 and it does not vary widely amongst the institutions. There is also an academic probation period.

Ms. Michelau said the ACCN is very interested in impact and when data is available such as in the case of the Terre Haute Campus they take notice. She gave the following data for Fall 2012: 1,147 students identified; 59 registered for classes (5%) of total; For Spring 2013, 41 Adult Degree Completion students registered; 30 were continuing from the fall semester; 16 of the "non-returning" from the fall were still in good standing; and 1,486 students have earned 2,006 credentials (Associates Degrees and Certificates).

Relative to lessons about adult students, Ms. Michelau said institutions need to have strategies that reduce the financial impact on them as much as possible. These strategies should encompass the following: Financial aid policy and practicing audits; Open educational resources; Debt forgiveness; Loan rehabilitation (at the federal level); Fee waivers; and Payment plans. She said that fees such as parking fines and library fees should not deter a student from seeking their degree. At the Nevada System of Higher Education, they had a policy that prohibited institutions from allowing payments plans for tuition purposes (monthly automatic debits). She said for a lot of adults doing two lump sum payments in August and in January created a complete financial barrier. After an audit, the Nevada system determined this was an antiquated policy that had unintended consequences and made a policy change that resulted in monthly, automatic tuition payment plans for several campuses.

Ms. Michelau said the Connecticut State College and Universities recently completed the 'Go Back to Get Ahead' initiative. She said that it is marketing and a financial aid program as well. The Adults students returning to state institutions with prior college credit were eligible for up to three free courses under a buy-one-get-one free arrangement (June 2014-March 2015). The project was funded at \$6M. They received nearly 9K inquires

and enrolled over 1,400 students. The expectation was that most students were going to enroll at Charter Oak State College; however 25% enrolled at Charter Oak State College and 75% enrolled at other state institutions.

Senior Vice Chancellor Cates asked what the difference was between Charter Oak State College and the community college system. Ms. Michelau replied that Charter Oak State College: is a four-year state institution; is a completion college; does not have an academic residency requirement; is focused on PLA; and is primarily online.

Ms. Michelau began to discuss strategies to reduce the time to complete a degree. She made comments about placements preparation and PLA. She said that some adults need a review but the placement exam may not be an accurate indicator of what they really need to review. As it relates to PLA, she said she believes that the advising component tends to 'get lost'. She said a few places have begun to advise 24/7 and adults tend to need 'high touch' advising. The Kentucky Community and Technical College System is an example of the 'high touch' advising' and they have over 52K students. They have a Learn on Demand program and based on a survey they found students were three times more likely to enroll in an entirely online college course than they were to attend a traditional in-person class. She highlighted the 24/7 Online Student Services Help Desk and said that they can get a great deal of information quickly.

Relating to Competency-Based Education, Ms. Michelau said the University of Wisconsin System has degree and certificates programs in this area. It is too early to tell what the impact may be but they are very hopeful. She invited the members to the WICHE website to learn more by viewing archives webinar of the overview of the model and academic development on this initiative.

Ms. Michelau continued to discuss strategies to save time and she offered the followed strategies: Re-entry classes; Academic amnesty; Adult-focused policies and practices; and Peer networks. She said that the Texas Higher Education Coordinating Board is a great example of a time saving strategy. She said the institutions worked together on the 'Grad TX' with some coordination at the system level. She said Grad TX: offers a website connecting students with universities that offer programs designed specifically for returning students; has a 'Concierge' type service; and Was initially funded by College Access Challenge Grant and is now state-funded. This four year program does not currently have any impact data and she cautioned against this.

Assistant Deputy Chancellor See asked about why there was no Grad TX impact data. Ms. Michelau replied that the impact data is not tracked by the State of Texas.

Ms. Michelau continued to discuss the State of Texas and their programs. She said that the Texas Affordable Baccalaureate Program is a competency-based degree program in organizational leadership that is offered at two public institutions in an online and hybrid format. She said what they did is use Pandora (a music streaming service) advertising to generate 16.7M impressions and 46,000 site visits. She said she has not seen this used anywhere else in the country. Relating to marketing, she said they should do market research before launching any marketing. She said the State of Texas did not do this; however she believed it ultimately worked out for them. She said a system risks losing time, money and effort if they you do not research their market before they market to their students.

Ms. Michelau next discussed the Minnesota State Colleges and Universities (MSCU) and their Graduate Minnesota marketing campaign. She said Minnesota did their research before they launched their program and measured impact. They began with a Lumina Foundation Grant and this was a marketing campaign (direct mail, centralized call center, and digital media) to increase degree completion among students who previously attended MSCU or other institutions of higher education but did not earn a degree. The impact was 11.8% of targeted former students reenrolled and 2.8% earned awards from July 2011 through August 2013.

Assistant Deputy Chancellor See asked if most of the campaign was based upon the opportunity existing for the student to come back or based on some specific incentives. Ms. Michelau replied that the campaign was based upon the opportunity existing for the student to come back and there was no financial aid associated with it. With that, she said do not promise what they cannot deliver and make sure the institutions are prepared. If they blow the opportunity the students will never return.

Regent Kessler asked if there was any information (remedial, tutoring, etc.) on getting students ready to come back to college to ensure success. Ms. Michelau replied in some places they are doing re-entry classes. She said the students could also be exposed to an advising session or a campus tour. She mentioned the 'Concierge' services here as well and said in many cases this service becomes a student's contact throughout their attendance at an institution.

Regent Kaufman asked what the approximate cost of Ivy Tech Community College's initiative and was it cost effective. Ms. Michelau replied that she is not sure of the rate for Ivy Tech Community College but she believes it was cost effective because they are continuing the program after their grant ended; however the State of Connecticut's conversation rate was \$42.16 per contact.

Brett Visger, Associate Vice Chancellor, Institutional Collaboration, asked if there have been any initiatives that have been done relative to the affective issue of the anxiety of adults returning to college. Ms. Michelau replied that in most places that is the role of the Concierge. She said that primarily the Concierge begins working with the student prior to enrollment.

Ms. Michelau continued her comments about the states and systems by providing an overview of the University System of Georgia. She said that this was another example of institutions coming together on an initiative and they created the Adult Learning Consortium. They have a like-minded policies related to PLA and an E-learning major. They were initially funded by the College Access Challenge Grant Consortium; however the Governor is now interested in serving Adult Learners and has adopted this effort. The Adult Learning Consortium institutions saw a 7.3% increase in enrollment of nontraditional learners. She said the Georgia BOR established an Academic Advisory Committee devoted to Adult Learning as well and this had not existed before. She said she believes it is really powerful when the BOR can help facilitate some of these conversations.

Ms. Michelau said they may want to consider partnerships with business and industry. She said prior to last fall, there was not a TAC Grant in the State of Ohio. Lorain County Community College and ten other institutions received a large TAC Grant. She said that employers and industry can be huge partners in this effort with adults. She said this is something that they missed with 'Non-Traditional No More'. She said that employers can offer the following to their employees: low- or no-cost benefits to entice employees to complete degrees; Flexible work hours; Class meeting space; a Mechanism for marketing degree completion programs; and ACE Credit for training programs. The employees can also offer something back to their employer. She said most of Illinois Harper College's initiatives began with a TAC Grant. She said they have an Executive Level position at the college whose sole responsibility is business and industry. This position has vision; goals and partnerships. They are focused on Advanced Manufacturing.

Ms. Michelau finished her remarks by saying with adults they have to think of new ways of doing business. She said they have had institutions serving adults well for a very long time and they could learn from them. She said they can develop new and creative ways to promote and encourage student success that does not have to cost a lot of money. They must also always remember their goal.

Chancellor Carey asked if she had much interaction with the Western Governors Association. Ms. Michelau responded that yes they do; the Western Governors Association's is very active in their network.

Regent Lindseth wanted to know if the Adult Learner knew how to deal with technology with so much emphasis being placed on online learning. Ms. Michelau responded that there is research in this area. She said that some do really well and some need a little more support. She said this mode of delivery for adults is involving rapidly.

X. Higher Education Information (HEI) System Update

Eric Laus, Consultant, HEI Project Manager and Peter McGeoch, Consultant, Special Projects, both of BOR presented an HEI System Update. They presented a PowerPoint presentation which can be found as Attachment #5. Mr. McGeoch began the presentation by saying that the HEI System is approximately fifteen years old and is long overdue for upgrades/enhancements. He said they would provide brief details about the reason for the upgrades/enhancements; where the project is headed; and the status of the project.

Mr. Laus began his comments by saying that the (HEI) System is a comprehensive relational database that includes student enrollment, course, financial aid, personnel, facilities, and finance data submitted by 37 USO institutions. These data are used for a variety of purposes that include reporting on higher education outcomes, funding formula and financial aid program support, policy analysis, and strategic planning. He said the problem with the HEI system is that it is an aged, mission critical system and they are operating on original servers from 1998.

Mr. Laus said they completed their first feasibility gap analysis in January 2014 and they followed this up with a larger analytical study. He said four Business Analysts reviewed all of the departments of the BOR (agency) to determine what issues would impact an HEI System rewrite. This review resulted in 150 findings and they are continuing to analyze and plan around that body of work.

Mr. Laus said some of the HEI System's problems are as follows: Software platform is not supported on newer servers; Disaster recovery time is measured in weeks; and the system does not comply and cannot comply with current technology operational standards around. He said they really need to do something serious to revamp this application. He said while they are asking 37 institutions to provide data today, they are going to be asking more institutions (public, K-12, military, etc.) to provide data. He said this problem is not unique to the HEI System but indicative of a 'big data' system.

Mr. Laus said the effort of arriving at the 150 findings allows them to fully document the issues. He said they have never before had all of the issues in one document that will impact a HEI System rewrite. He said 75% of large Information Technology projects fail. They fail because of poor requirements; insufficient organizational support; and limited financial and human resources. They can mitigate this by developing information so they can make better decisions. They plan to: Organize; Stabilize; Standardize; and Optimize.

Mr. Laus said they have information about the items they want to upgrade in the HEI System and they plan to use an incremental change approach. With that they have Guiding Principles about what incremental change means. He said that: Guiding Principles 1-3 relate to using the subject matter expertise at the BOR (agency) and OH-TECH; Guiding Principles 4-6 emphasizes stabilizing the environment. They have to first stabilize the environment in order to create a platform that can support optimization; and Guiding Principles 7- 9 are summarized in Guiding Principal 10 and it states 'We cannot wait for perfect information and perfect vision'. He said again, they have never had a single document that can describe the things that the HEI System needs to do. He said they have catalogued all 150 findings and mapped those out over the next year.

Vice Chair Humphries asked how they balanced the life cycle process of the HEI System rewrite vs. no vendor support. Mr. Laus replied that they have mitigated some of those conditions. But for those vendors support conditions relating to end of life servers and end of life software they have OH-TECH mobilized to the extent that they can mitigate this.

Mr. McGeoch said the takeaway from this conversation should be that the current system is an old system that has significant operational risks in the continuum and does not fully integrate to a much more modern world where they expect more than 'stove pipe' applications. He said that it is very functional and has done a great job to date. He said once they get fully mitigated, transition to a platform, and also functional software he will feel much better about how they move ahead. Mr. Laus emphasized that the danger was not the data; it was the 'front end mechanics' to get to the data that was aged.

Mr. Laus outlined the Tentative Roadmap Timeline. He said they plan on doing the following: Data Center Migration (current hardware infrastructure for the HEI System is moving from the Kinnear Data Center to the State of Ohio Computer Center (SOCC)) in May; HEI System Platform Build Out (retire some of the aged servers); Identity Management Planning and implementation (currently on a 'siloes' system and this areas needs a complete rewrite to function properly); HEI System Adhoc Reporting (this is their way to obtain the data); and the 90-day Stabilize (given resources and availability they will fit in as many of the 150 findings as they can). He said the work in July through December will be focused on a reengineering of the data model and will prepare the HEI Platform for all the new functionality that they have outlined in the 90 days. They hope to plan and test around the new data model at the beginning of 2016. .

Mr. Laus outlined the Approach Benefits; Risks/ Issues; and Next Steps. Some of those items were: Approach Benefits (Repairs and refreshes technology foundation for future application optimization; Refreshes Extract/Transform/Load platform in preparation for future application optimization; Mitigates resource constraints for OH TECH through efficient use of resources and tactical use of professional services); Risks/ Issues (Ongoing resource constraints for OH TECH Subject Matter Experts; Specific Workforce Development requirements are not clear); and Next Steps (Review/prioritize entire 90-day body of work; Actively working on Adhoc reporting tool selection; Business Analyst team will handle project tracking; Change and Issue management). He said they continue to have priority items that come up that impact their work and they continue to work through those issues.

Mr. McGeoch summarized by saying that on a daily activities view of where they are and where they want to go, between now and mid-Summer they are going to really make sure that the infrastructure is correctly moved to SOCC. He said once they are on a stable platform, for the second half of the year they are going to determine the data model. He said in early January of next year they will begin programming to these requirements and over the next 12-18 months they will be creating new programs based on the requirements that have been identified. They are protecting against the unknown doing this in a very thoughtful step-by-step process.

Vice Chair Humphries asked what they believed to be the biggest risks. Mr. McGeoch replied the biggest risks are doing nothing and mitigating the single point of failure during the move to the SOCC. He said it is very important that they have the right hardware and the right processes in place so when they transition they are confident they can bring everything back online.

Vice Chair Humphries followed up with another question and asked if there was a large concern about capacity. Mr. McGeoch that there is no a 'data choke' issue as there is a problem with the 'stove piping' and lack of integration of the data across the 'stove pipes'. Mr. Laus added that it is not a storage or capacity issue it is more an issue of lining up the features and capabilities and making that work in a coherent fashion.

XI. Commercialization Update and College Credit Plus initiative

A. I-CORPS

Assistant Deputy Chancellor See said that the Chancellor has mentioned in the past three major commercialization initiatives. He said that the commercialization theme runs through a lot of BOR strategies. He said I-CORPS and Healthcare Alliance are two of the major commercialization issues that they have worked on.

Relating to I-CORPS, Assistant Deputy Chancellor See said that they have discussed this in the past and this is an initiative to create an education institute for Ohio faculty and researchers with respect to how to move their research thinking to an entrepreneurial process. He said the I-CORPS process is fashioned after the National Science Foundation (NSF) program. When they looked at the NSF program they found that not a lot of Ohio faculty and researchers were getting into these programs. They were looking for a way to get more of the Ohio faculty and researchers exposed to this particular educational material. So a decision was made to develop an Ohio I-CORPS program. Assistant Deputy Chancellor See said that they worked with NSF to create the structure and the concept for the Ohio I-CORPS program.

Assistant Deputy Chancellor See said for the Ohio I-CORPS program they are working with six Ohio institutions to create the model and they have been in planning for approximately a year. They are at the point now where they know that their first cohort of Ohio faculty and researchers will start with twenty teams (eight in the Summer and twelve starting next Winter). They hope to train sixty teams in this first model. He explained the composition on the teams and the selection process. He said that the first cohort will be instructed by a certified NSF instructor and they will train the Ohio instructors for the following cohorts. He said that OSU is the fiscal agent and the first cohort will be there. The RFP has been released to the respective institutions to solicit the teams and they hope to begin the first cohort in July.

B. Healthcare Alliance

Assistant Deputy Chancellor See continued his update by discussing the Healthcare Alliance. He said they are working in conjunction with JobsOhio and the Cleveland Clinic Foundation with respect to this initiative. He said the Cleveland Clinic has a process whereby a team goes into education and medical institutions to evaluate their existing Intellectual Property (IP). This team focuses on Bioscience and Health-Related IP. With this evaluation, they determine preliminary value of the particular IP and if the institution has the correct infrastructures in place for moving that IP to possible commercialization.

Assistant Deputy Chancellor See said this team will also be looking to see if there are possible areas of alliance or collaboration across institutions. He said they have done this in other states with some great success. He said alliances/collaboration will be able to be formed in the State of Ohio and this is based on the institution interviews that they have conducted to date (approximately half of the institutions that they are working with).

Secretary Lindseth asked if this was an initiative of the BOR or the Cleveland Clinic. Assistant Deputy Chancellor See replied that Cleveland Clinic is the contractor; however BOR funded the evaluation and the Chancellor sits on the steering committee. The BOR will be taking the findings and possibly creating recommendations for future work. If a decision is made to create the alliances/collaboration a process for how this is done will have to be determined.

C. College Credit Plus (CCP)

Assistant Deputy Chancellor See finalized his update by providing remarks on CCP. He said everyone is excited about this initiative. The rules are finalized and they are close to the implementation process. They are working with institutions both at the K-12 and higher education level as it relates to what the rules mean. He said that there is a tremendous amount of excitement from the students and parents and they are fielding questions daily. He said there was also a great deal of interest in the CCP by middle school students. The middle school students have to go through the same admission standards as any other CCP student participating in the program.

Assistant Deputy Chancellor See said they are learning things every day from school districts and institutions participating in the program and they are very sensitive to that. They want to get CCP started without a great deal of changes and monitor it as they move forward to see what the real issues are they need to address to keep the program viable. They expect a good participation in the first round of CCP.

Regent Kaufman commented that his district had their CCP informational meeting and he thought it was ironic that he missed it because his 6th and 9th grade children did not make him aware of the meeting. Assistant Deputy Chancellor See said the informational meeting should not be used as a barrier to keep a student from participating in CCP; the intent to participate is the deadline date.

Secretary Lindseth asked if the institutions decided if they will accept the CCP credits. Vice Chancellor Davidson replied part of the CCP process is a student's admission into a college. When a student successfully completes a course they receive transcripted credit(s). If it is a course that has Statewide Transfer Guarantee from a public institution this credit(s) transfers everywhere. If it is a course taken at a private institution or it is not a course that has Statewide Transfer Guarantee then the regular evaluation would take place.

Vice Chair Humphries asked about the admission standards for middle school students and said that the process for high school students requires SAT/ACT. Assistant Deputy Chancellor See replied that in that case that would eliminate all students because SAT/ACT and a high school diploma is part of all college admission's processes; so they have created ways in which the student can be evaluated in lieu of that but on the same scale. He said higher education institutions start with their basic admissions process but in addition to that they have to also assess the student against one of four remediation free status assessments.

Regent Kaufman asked if they had an opinion on when students should take the SAT; earlier in the 9th grade or wait to take the test in the 11th grade. He said he has heard varying opinions. Assistant Deputy Chancellor See said they have a PSAT that prepares a student. But no staff present had an opinion on when students should take the SAT.

Regent Kaufman followed up with another question and asked if a student could take CCP and AP courses simultaneously. Vice Chancellor Davidson replied yes. She said that AP courses can only be offered for college credit if they are the same as the course that the college offers.

Senior Vice Chancellor Cates said that Cincinnati State Technical and Community College recently initiated a program called 'Three and a Book' a free program consisting of three credit hours and a free book for any high school student that will be held this summer. This will be a way to get them introduced to what college courses are like. He said this could lead to higher participation in CCP.

XII. Miscellaneous

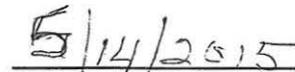
Senior Vice Chancellor Cates said that there have been a number of recent leadership changes at the USO institutions. He specifically named the following: Kent State University; University of Toledo; Shawnee State University; Edison State Community College (vacancy); Hocking College (vacancy); Marion Technical College (vacancy); Eastern Gateway Community College; Rio Grande Community College; and Zane State College.

Chancellor Carey added that Senior Vice Chancellor Cates represented the BOR on the Hocking College's new presidential search. Senior Vice Chancellor Cates made comments on the presidential search process and said the process yielded 32 applicants and they narrowed the field down to 4. He said Hocking College did an admiral job of getting stakeholder buy-in and support early. Hopefully they should have a new president soon.

XIII. Adjournment

Vice Chair Humphries asked if there were any further items to be brought before the Board. There being none, Vice Chair Humphries declared the meeting adjourned.


Ohio Board of Regents


Date



Ohio Technology Consortium
A Division of the **Ohio Board of Regents**

OSC and OARnet Updates

Ohio Board of Regents

April 13, 2015

The OH-TECH Consortium



Ohio Supercomputer Center provides high performance computing, software, storage and support services for Ohio's scientists, faculty, students, businesses and their research partners.



OARnet connects Ohio's universities, colleges, K-12, health care and state and local governments to its high-speed fiber optic network backbone. OARnet services include co-location, support desk, federated identity and virtualization.



OhioLINK serves nearly 600,000 higher education students and faculty by providing a statewide system for sharing 50 million books and library materials, while aggregating costs among its 90 member institutions.



eStudent Services provides students increased access to higher education through e-learning and technology-enhanced educational opportunities, including virtual tutoring.



Research & Innovation Center will operate, when opened, as the proving grounds for next-generation technology infrastructure innovations and a catalyst for cutting-edge research and collaboration.

Ohio Supercomputer Center Updates



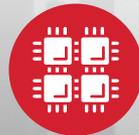
Big Iron and Massive Storage

350 Teraflops of peak computing performance

2.2 Million annual compute runs

8.5 Million annual computing hours

2+ Petaflops of centralized storage



Ohio Supercomputer Center

OSC Strategy for 2015

Emphasis on....

- Clients
- Services
- Partners / Collaborators
- Organization

OSC Priorities...

- HPC system procurement
- Sustainability and Growth
- Research
- National Partners



OSC: Statewide Impact 2013-2014

Production Capacity

- 82+ million CPU core-hours delivered
 - Over 3.3 million jobs
- 835 TB data storage space in use
- 98% uptime (target: 96% cumulative uptime)

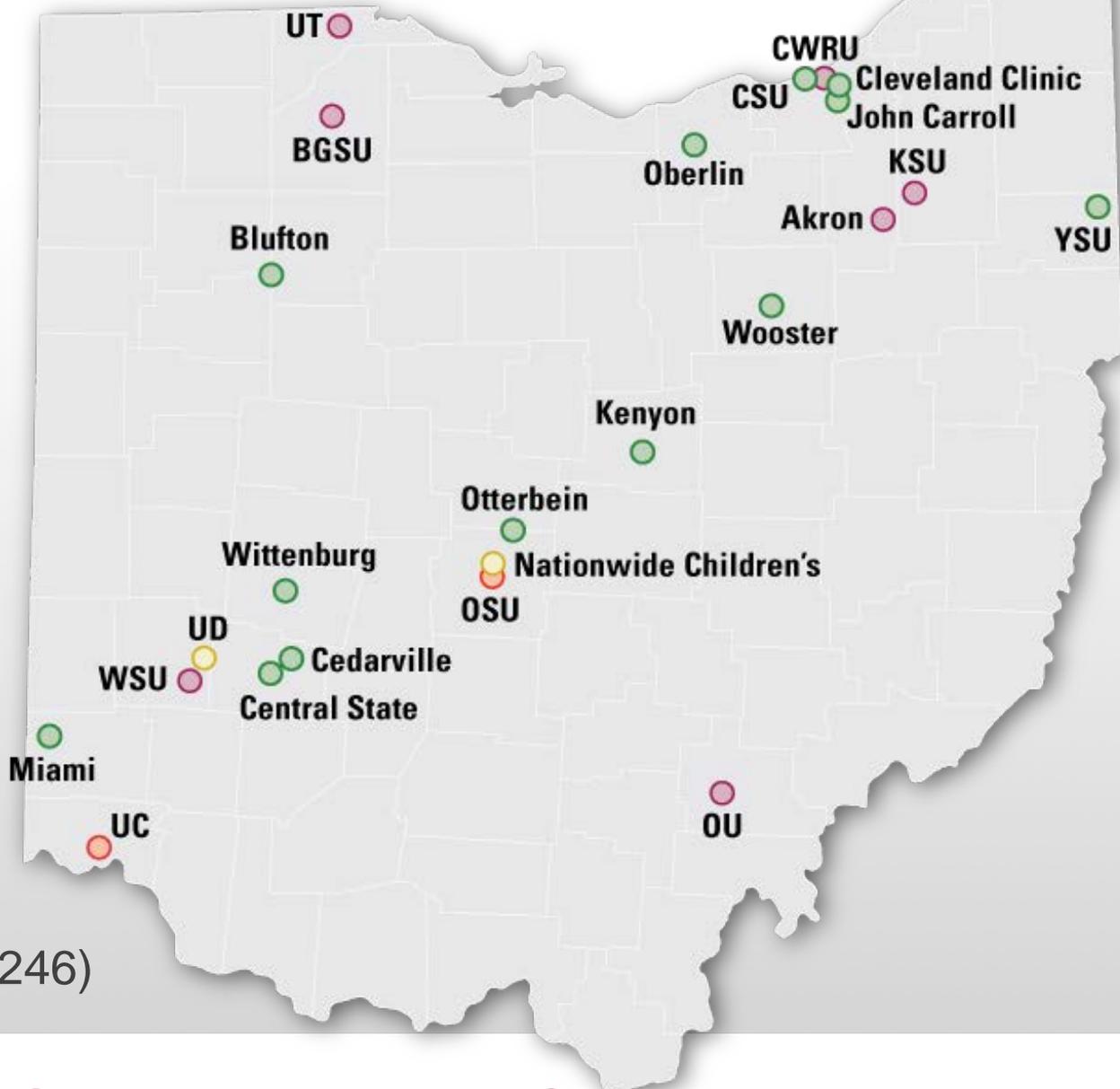
Client Service

- 24 universities served around the state
- 194 new projects awarded to Ohio faculty
- 948 individuals ran a computing simulation or analysis
- 330+ individuals attended 18 training opportunities



Active Projects by Institution, 2013-2014

- 1 – 5
- 6 – 10
- 10 – 20
- 21+ (UC 35 & OSU 246)



Projects Awarded by Institution, 2013-2014

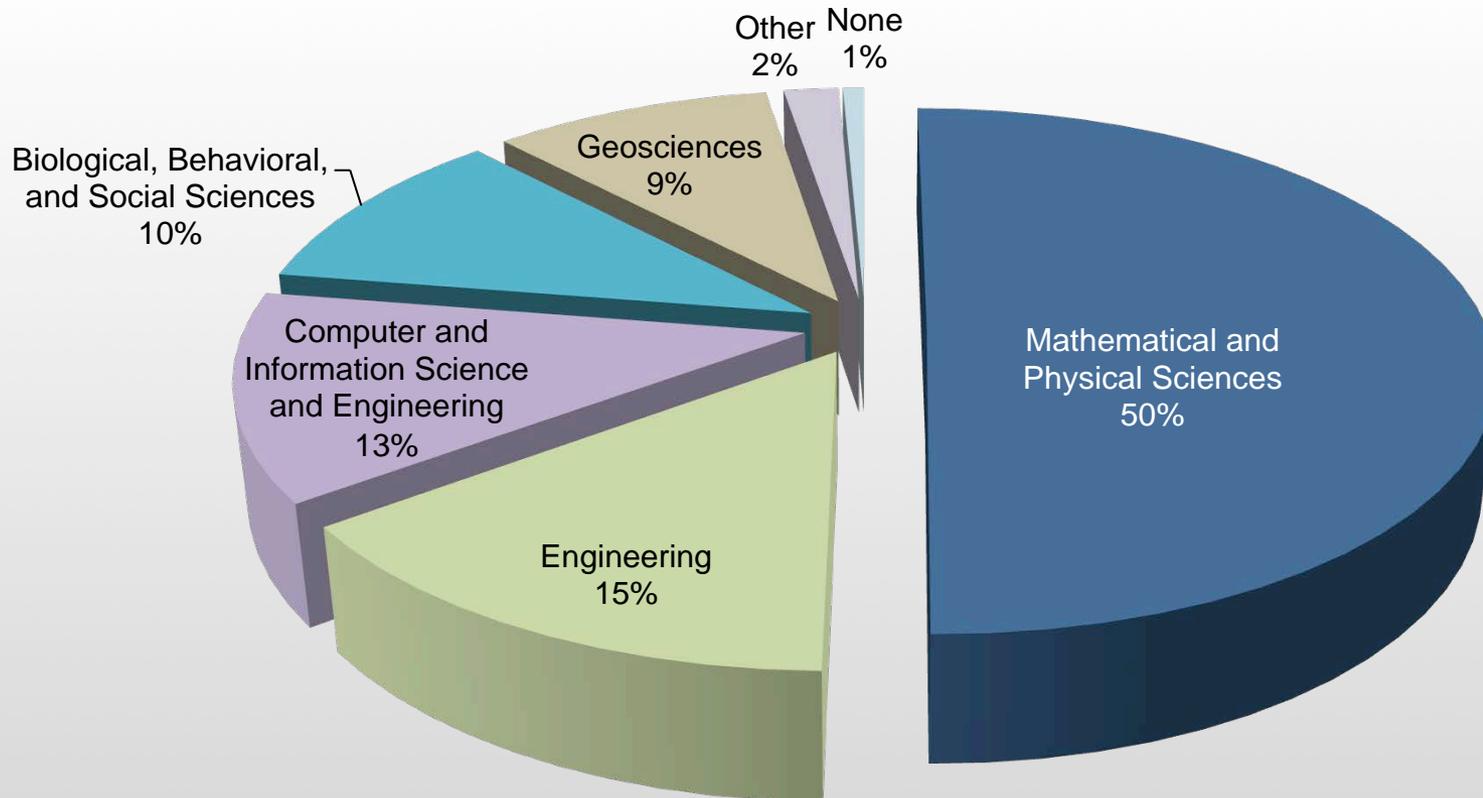


- 1 – 5
 - 6 – 10
 - 11 – 20
 - 21+ (OSU 116)
- * Discovery or Annual Awards



Computing Usage by Field of Science, 2013-2014

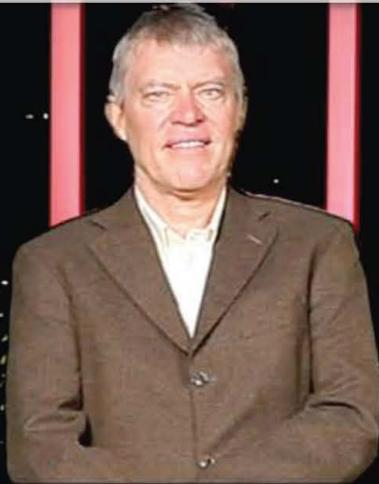
Aggregate Hours



OSC: Research in Action



#HPCMatters



Thomas L. Beck, Ph.D.
Professor of Chemistry



Case Study: Network Analysis



We are leveraging Ohio Supercomputer Center resources to refine a popular statistical tool by accounting for random effects in the formation of networks. Precise modeling could improve analytics that have become increasingly vital to public health and the social sciences."

— **Janet M. Box-Steffensmeier, Ph.D.**
Professor, The Ohio State University



Case Study: Photovoltaic Cells

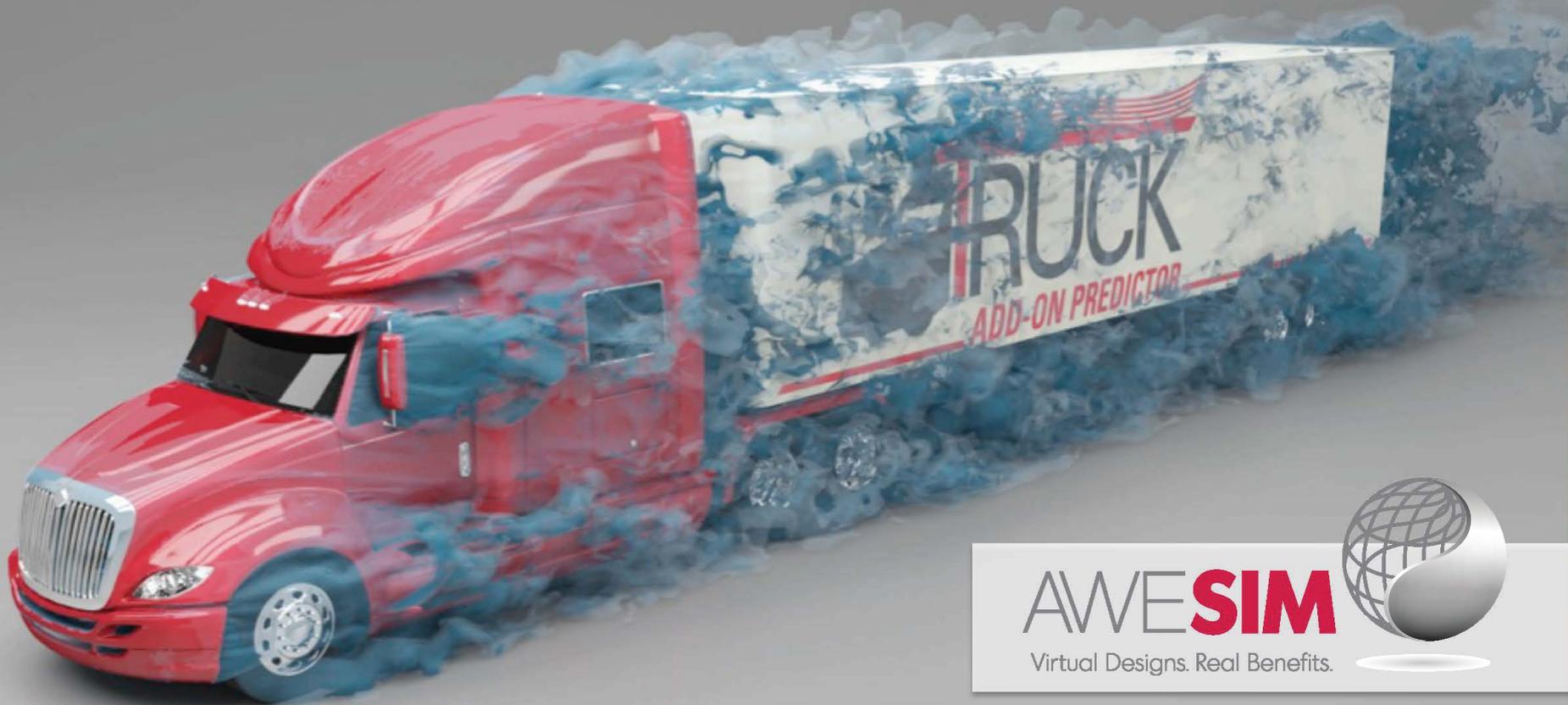


“Our goal is to develop unique semiconductors that can be made into polycrystalline thin films that are electronically as good as single-crystal thin films. This is a new grand challenge of our time.”

— **Yanfa Yan, Ph.D.**
Professor, University of Toledo



OSC: Industrial Engagement



AWE**SIM**

Virtual Designs. Real Benefits.



What is AWE**SIM**?

Provider of cloud-based manufacturing simulation apps, sold through an e-commerce marketplace





Why Care About AWE**SIM**?

AweSim is going to change the way companies compete, through adoption of simulation-driven design.



Example App: Truck Add-On SIM





New Simulation

Simulation Name:

Import STL Files From Local Machine:

Browse...

No files selected.

Reset

Or Choose STL Files From Server:

Show User Files

[Click here to download the truck wireframe model](#)

Speed:

 mph

Yaw Angles:

Select yaw angles



Truck Add-On SIM Behind the Scenes

Personal Laptop

Processors used: 2

Time: 3072 hours, or 128 days



OSC HP Intel Xeon Cluster

Processors used: 128

Time: 48 hours



Industrial Collaboration Examples



Product Research

Injection-Molded Lenses



Prototyping Fan Designs

Carbon Nanofiber Manufacturing



Welding Simulation

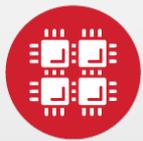
Optimizing Plastic Containers



Fuel Cell Modeling

Dissipating Thermal Energy





Ohio Supercomputer Center

An **OH·TECH** Consortium Member

Business Model

OSC Sustainability

- OSC's support is not keeping up with its demands
 - OSC's support comes predominantly from the state
 - But OSC's demand comes from universities and industry
 - When demand outstrips support, services may suffer
- We are working on a model where
 - Institutions and researchers can partner with OSC
 - Condo leasing for compute and storage
 - Contributions for software licenses
 - Including OSC extended support in proposals
 - Industry can partner with OSC
 - Condo ownership and/or fee for service



Faculty and Institutional Opportunities

- Co-invest in OSC's next cluster
 - We have a major acquisition (\$12M) this year
 - Client funds go directly to hardware
 - OSC providing central infrastructure
 - Unprecedented opportunity to leverage common buying power
- Support faculty who invest in OSC's clusters
 - Research awards budget for new resources
 - One-time costs (OTC): Nodes, disks and software licenses
 - To scale model, we need support for recurring per-award costs
 - Power and personnel (estimated 20% OTC annually)
 - Help proposals from Ohio's researchers to be competitive nationally

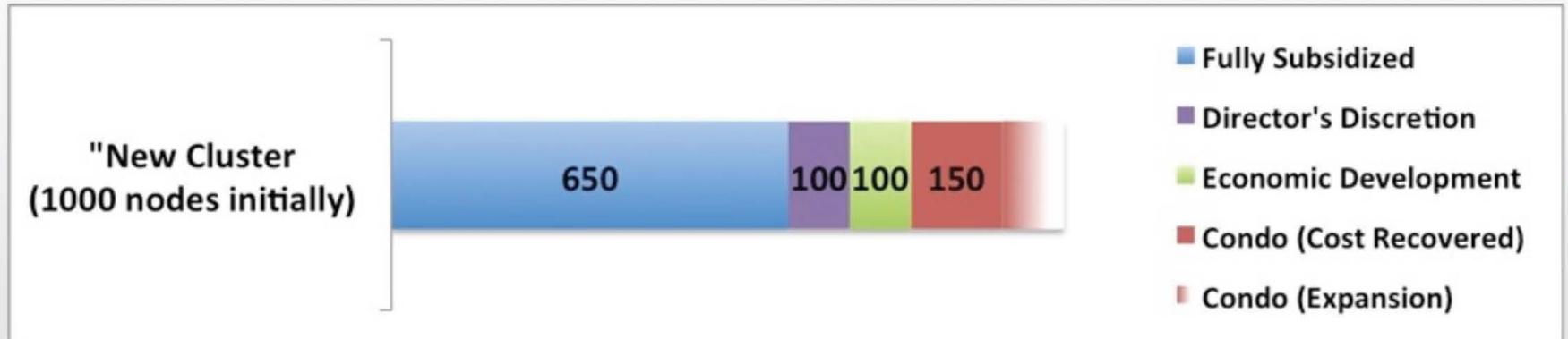


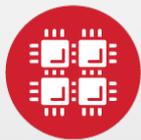
Support from Industry

- Honda
 - \$50,000 worth of CPU cycles for 2015-2016
 - \$50,000 worth of OSC staff time for projects
- P&G
 - MOU signed



Sustainability Strategy





Ohio Supercomputer Center

An **OH·TECH** Consortium Member

HPC Acquisition and Timeline



Ruby Dedication: April 9, 2015



Ruby Dee was an actress, poet, playwright, screenwriter, journalist and activist. She was born in Cleveland.



Ruby Cluster

- In Early User testing now
- Small size: 240 nodes (about 1/3 size of Oakley)
- Big impact: 144 TF (Oakley is 154 TF, Glenn 60TF)
- Expanded accelerator development (GPU, Xeon Phi)
- \$1.6M purchase
 - 1/3 funded by condo owners
 - Dr. John Beacom, Center of Cosmology and Astro Particle Physics, The Ohio State University
 - Dr. Datta Gaitonde, High-Fidelity Computational Multi-Physics Laboratory, The Ohio State University



Red Team: New System RFP Comprehensive Review

February 16-17

Draft RFP distributed
and reviewed
(4 hours)

February 18

Open discussion tele-
conference with OSC
RFP preparation team
(2 hours)

February 19

Closed panel review
teleconference and
report generation
(2 hours)



Honda R&D Americas, Inc.



New System Timeline

- RFP issued March 30, 2015, following Red Team review
- Vendor selection in May
- Delivery in late fall
- Expect the new system to be available for general use in late 2015



OARnet Updates



OARnet

Slide 32

OH·TECH | Ohio Technology Consortium
A Division of the Ohio Board of Regents

Big Pipes and High Throughput

2240+

Miles of 100 Gb/sec network backbone

13

Trillion Megabytes annual data transfer

600+

Connected public k-12 schools

88

Connected colleges and universities

314

Connected Higher Ed Regional Campuses & Sites



OARnet



OARnet

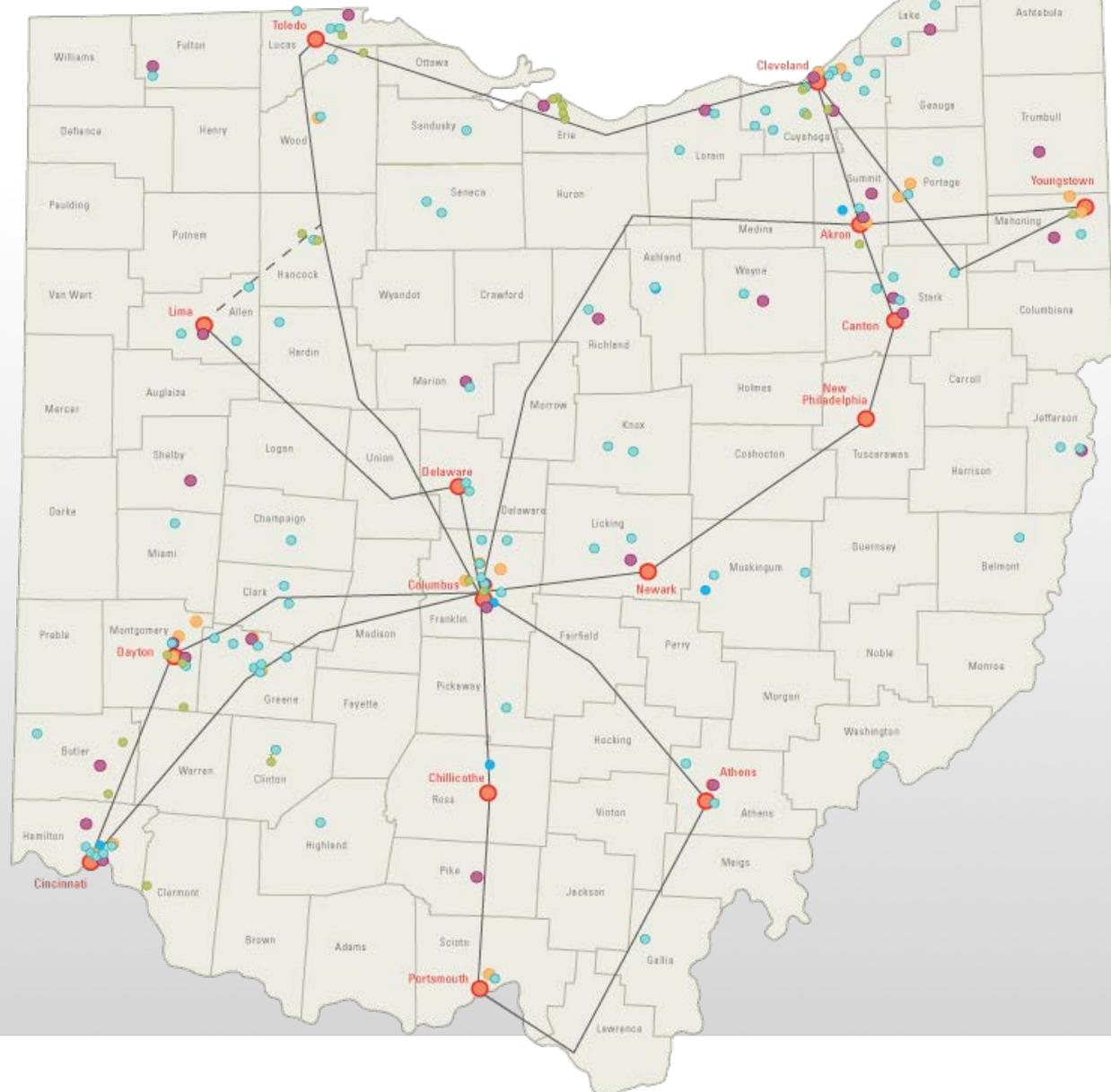
Slide 33

OH·TECH | Ohio Technology Consortium
A Division of the Ohio Board of Regents

OARnet: 2,240+ miles of high speed fiber

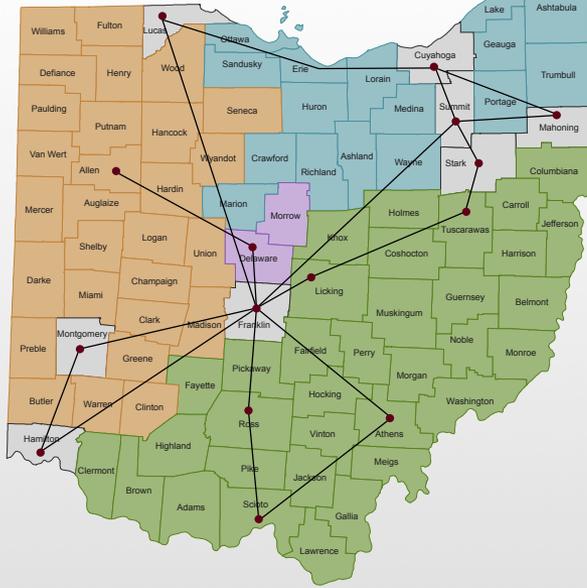
LEGEND

- 88 Higher Education Campuses & 314 Higher Education Regional Campuses & Sites
- 32 K-12 Education Centers
- 21 Local Government Agencies
- 140 State of Ohio Sites
- 9 Medical Centers & Research Institutions
- 25 Broadcast Education Media Stations & Services
- OARnet Backbone PoP Locations
- OARnet Backbone



Impact: OARnet's Network

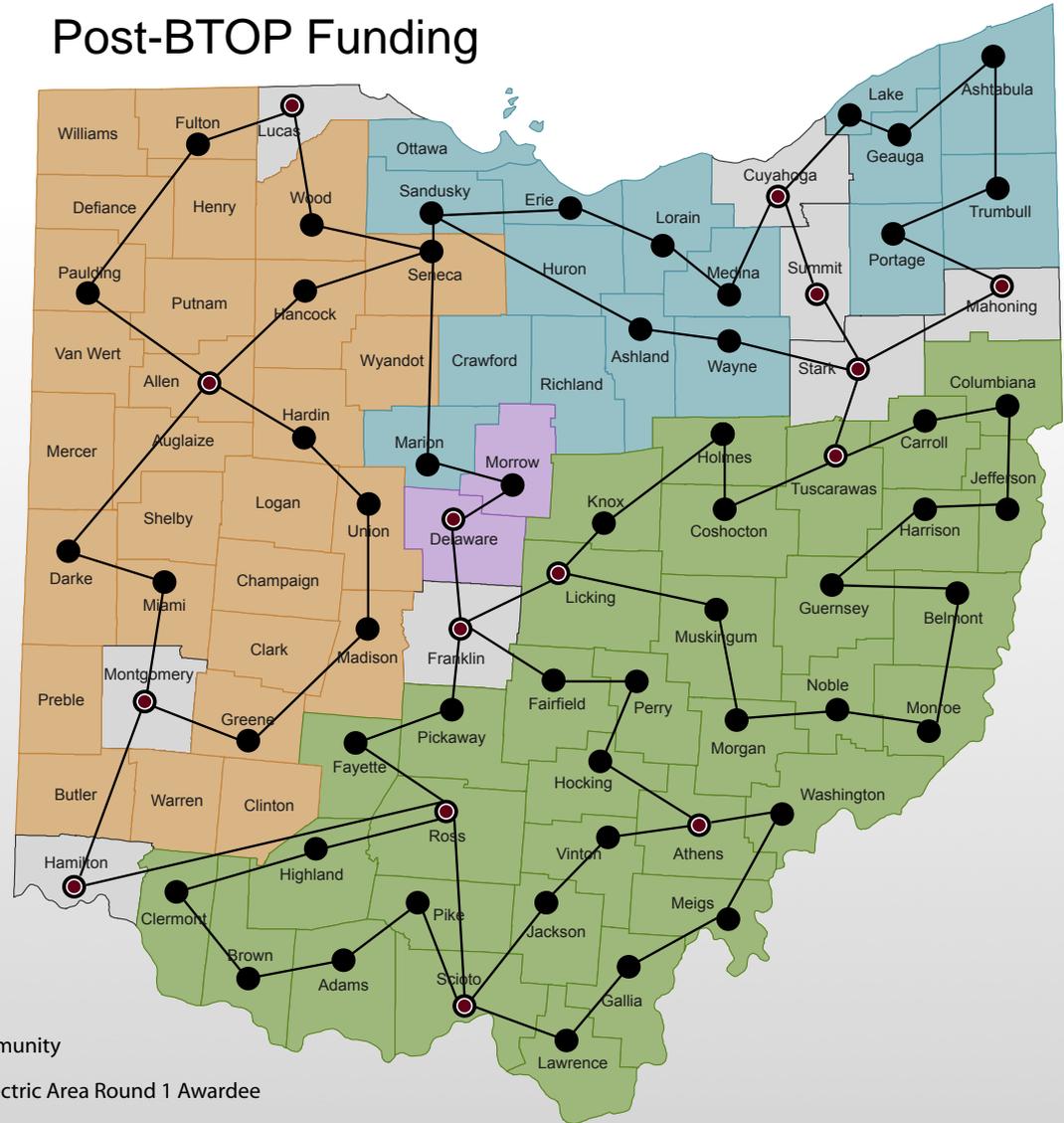
Middle Mile Connections Pre-BTOP Funding



- OARnet Middle Mile PoPs
- ARRA Middle Mile Expansion PoPs
- OARnet/OMMC Middle Mile PoPs

- Com Net, Inc.
- Horizon Telcom
- OneCommunity
- Interconnection Counties (Large Urban Areas)
- Consolidated Electric Area Round 1 Awardee

Middle Mile Connections Post-BTOP Funding



OMMC Impact: Community Anchor Institutions



K-12 Schools	622
Libraries	166
Medical/Healthcare	353
Community Colleges	25
Public Housing	476
Public Safety	407
Other Higher Ed Institutions	19
Other Community Support Orgs.	612
Other Gov. Facilities	722
Total CAI	3,424



K-12 Schools	705
Libraries	165
Medical/Healthcare	279
Community Colleges	12
Public Housing	377
Public Safety	322
Other Higher Ed Institutions	16
Other Community Support Orgs.	504
Other Gov. Facilities	488
Total CAI	2,868



K-12 Schools	1,403
Libraries	94
Medical/Healthcare	189
Community Colleges	39
Public Housing	0
Public Safety	74
Other Higher Ed Institutions	14
Other Community Support Orgs.	29
Other Gov. Facilities	36
Total CAI	1,878



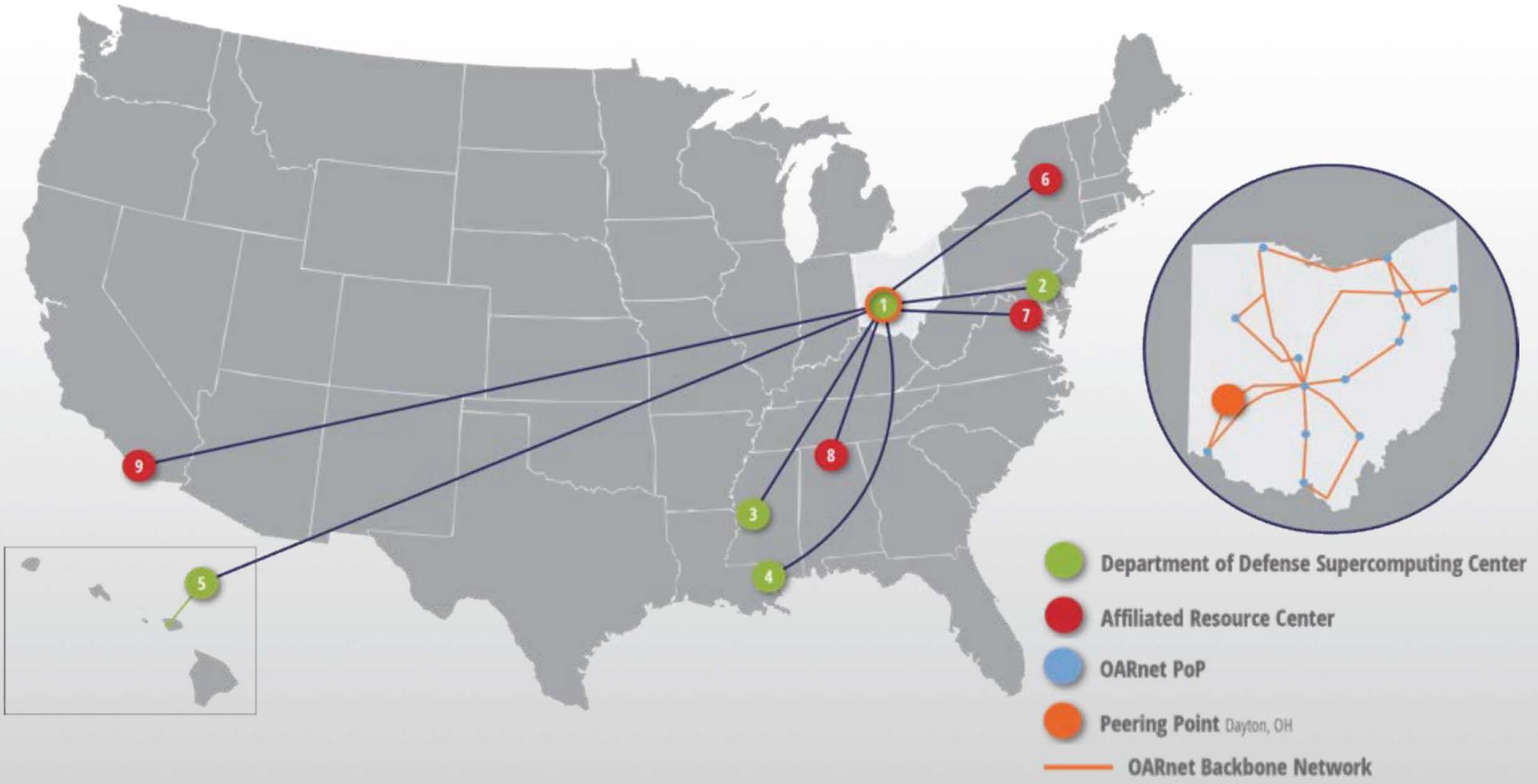
OARnet Regional Optical Network Alliance

Legend

- Partner Location
- Merit Partnership
- OARnet Partnership
- - - Potential Partnership
- In Partnership with 3ROX



Federal Agencies: DREN Peering

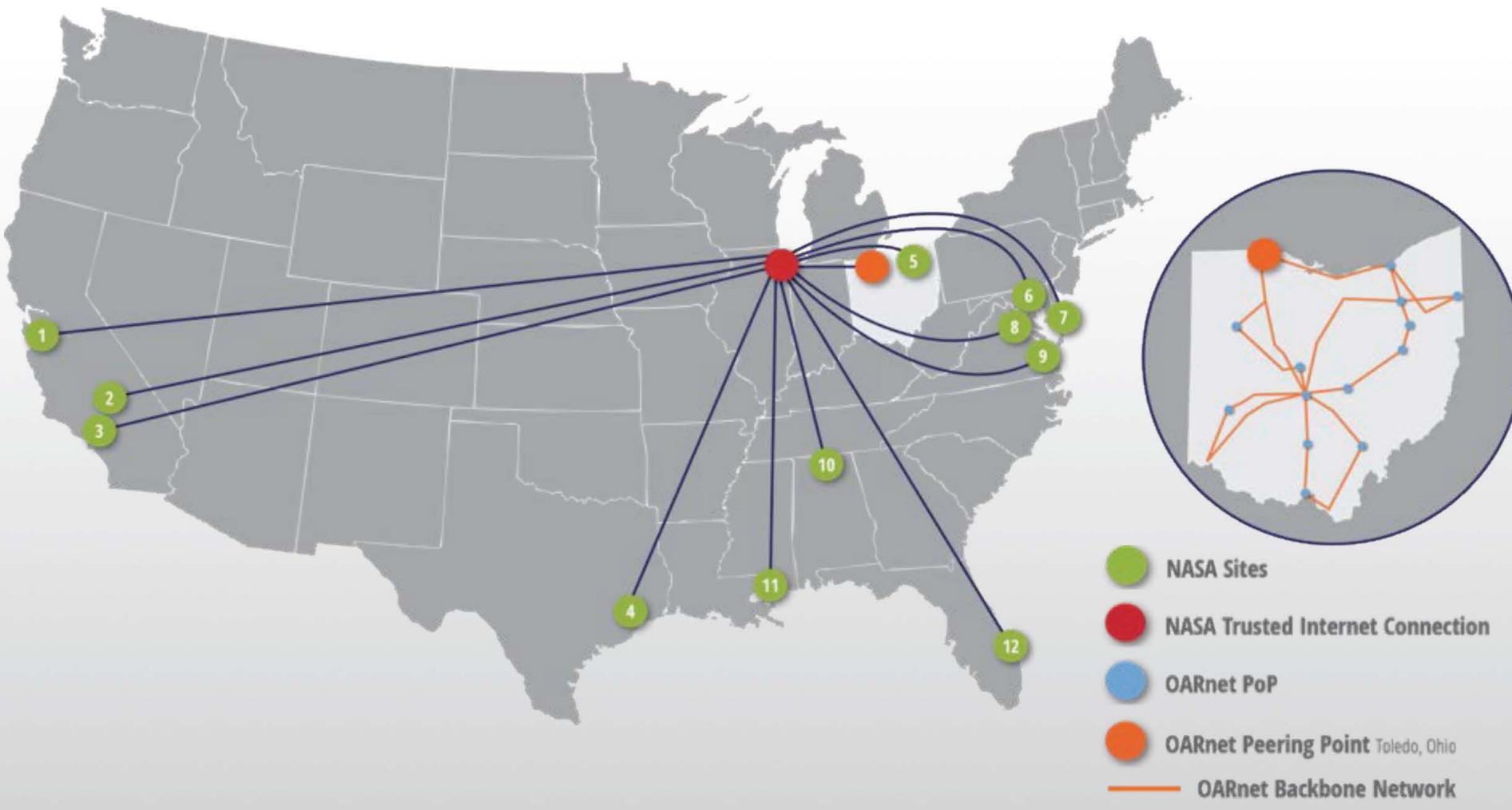


OARnet

Slide 39

OH·TECH | Ohio Technology Consortium
A Division of the Ohio Board of Regents

Federal Agencies: NASA Peering



OARnet Innovates with the World



OARnet



State of Ohio Moving To OARnet Backbone

- MOU signed May 7, 2014
 - 2015 renewal in process
- 2 pilot agencies
 - ODOT and BWC
- Migration of all agency sites to OARnet backbone began July 1, 2014
 - OARnet's supported customer end sites will grow from 300 to 2,300 in 18 months
 - Timeframes will be developed in conjunction with the IT Transformation Plan



OneNetwork: Impact

- State will see large increase in service and cost savings
- OARnet's supported customer end sites will grow from 300 to 2300 in 18 months
- Partnership will provide OARnet with additional operating funds to cover the growth allowing OARnet to expand on current services
 - Also leverages State aggregation with Higher Ed and K-12, which reduces Internet rates for all stakeholders in FY2015



Middle Mile and Last Mile (K-12 and Libraries)

Middle Mile

- K-12 Middle Mile RFQ completed and awarded by OSU Purchasing on March 26
- 29 ITC and Large Urban sites awarded
 - Will be upgraded from 1Gigabit to 10 Gigabits
- Awards approximately \$7M representing a 10 year agreement for dark fiber per site
- Other one-time costs: \$1.2M

Last Mile

- Will be based on available funding after completion of Middle Mile
- Draft RFQ for K-12 and Libraries (under 100 mbs) currently being developed by State OIT



Services Beyond the Network



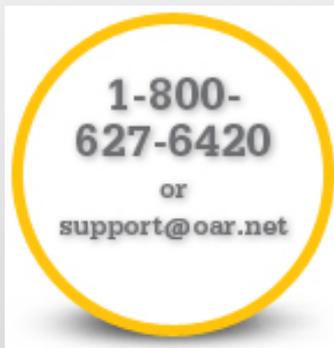
IntraOhio and
Intranet



Co-location



Emergency Web
Hosting



Service Desk



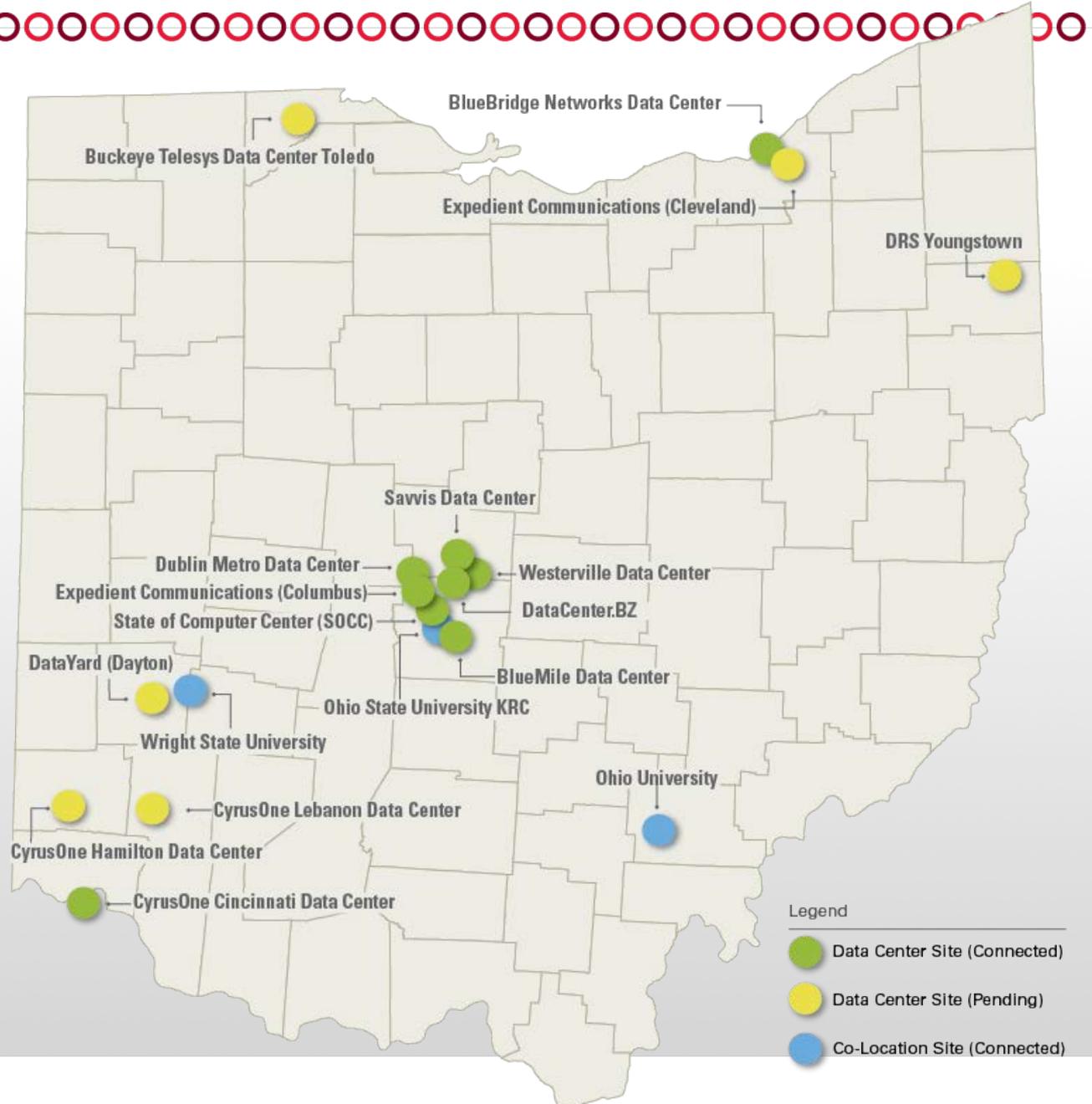
Identity
Management



Shared Services:
VMware & Salesforce



Data Center Co-location Sites



Shared Services



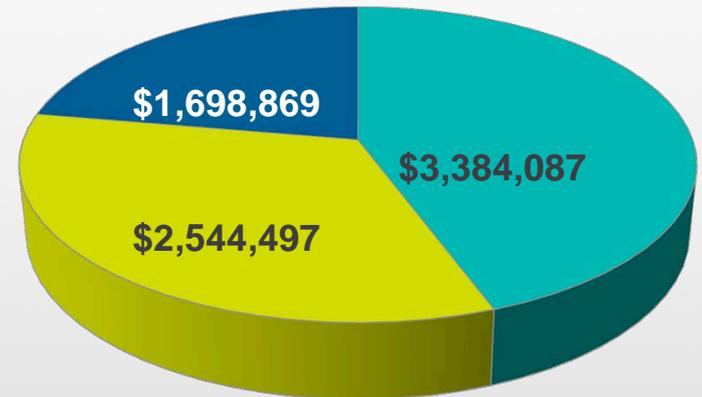
2008-2011

- Total VMware sales: \$17,193,609
- Estimated hard dollar savings: **\$22 million**



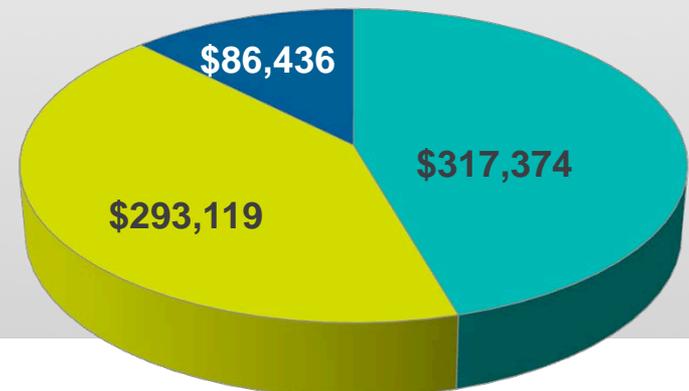
2011-2013

- Total VMware sales: \$7,627,453
- Estimated hard dollar savings: **\$9 million**



2013-2017

- 1st quarter sales, new contract: \$696,929
- Estimated hard dollar savings: **\$900,000**



- K-12/
Ohio Dept. of Education
- Higher Education/
Ohio Board of Regents
- State of Ohio



Salesforce.com

- 1-year, \$1.27 million agreement signed in November
- For all Ohio four year and two year campuses, K-12 schools, state and local governments
- Services under this program include:
 - Customer relationship management
 - Services and case management
 - Licensing and permitting
 - Identity management



Science DMZ

Objective: Create a safe, experimental research sub-network where institutions can safely share information past local firewalls

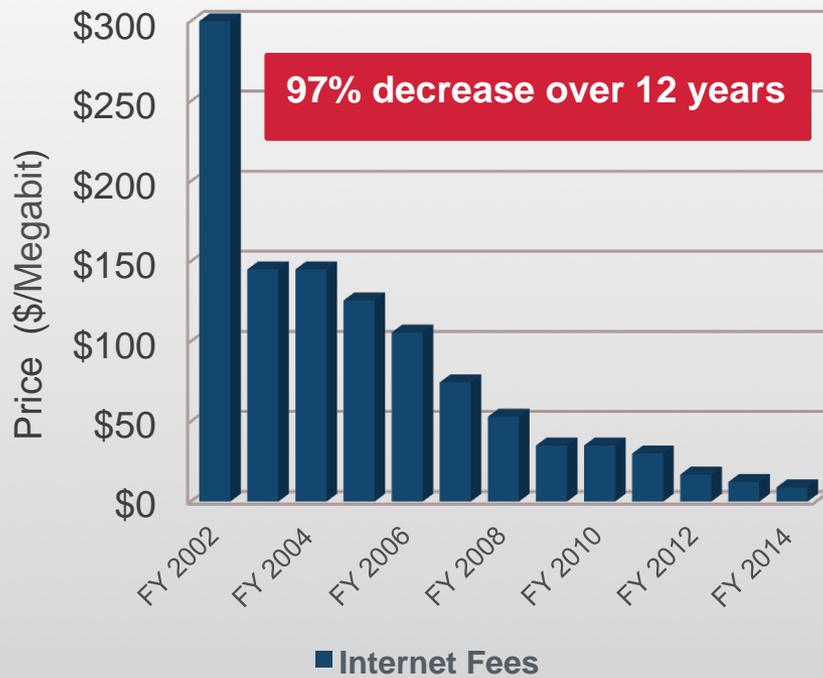
- PI: Caroline Whitacre, VP for Research, OSU
- Co-PIs:
 - Umit Catalyurek, Biomedical Informatics
 - D.K. Panda, Computer Science and Engineering
 - Datta Gaitonde, Mechanical and Aerospace Engineering
 - Prasad Calyam, University of Missouri
- 2-year, \$1 million grant from NSF
- Leverages 100 Gbps network
- Collaborating with University of Missouri



Overview: History of Pricing vs Subscriptions

Reduction of Expenses – Economies of Scale

Historical Internet Pricing
P-20; FY2002 – FY2014



Power of Aggregation

Historical Internet Subscriptions
P-20; FY2002 – FY2014



Outreach Activities

OSC and OARnet

- Focus: HPC resources and networking
 - University of Cincinnati, Jan. 30
 - Case Western Reserve University, Spring 2015
- University of Buffalo visit
- Represented at national meetings:
 - Coalition for Academic Scientific Computation
 - XSEDE
 - The Quilt



University of Cincinnati

OARnet

- Hosting Internet2 Tech Exchange, Oct 4-7, Cleveland

OSC

- Hosting International Industrial Supercomputing Workshop, Oct. 7-8, Cleveland (in conjunction with I2 Tech Exchange)



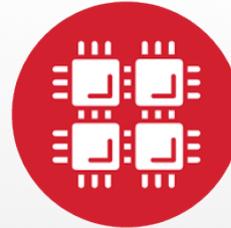
Why OSC and OARnet?



Tom Lange
Procter & Gamble

Contact Information

Pankaj Shah
Executive Director, OSC & OARnet
pshah@oh-tech.org



Higher Education Budget Overview (HB64) - FY16-FY17

Tuition Cap and Freeze

The executive budget caps tuition increases at 2% in FY16 and freezes tuition in FY17.

Task Force on Affordability and Efficiency in Higher Education

The governor recently created a nine-member task force to examine affordability and efficiency in higher education. The budget requires the task force to recommend ways for Ohio's public colleges and universities to foster increased innovation to drive down costs. After the task force issues its report, each public institution's board of trustees will be required to conduct an efficiency review based on the recommendations of the task force.

In order to incentivize these efforts, a new \$20 million innovation program will help colleges and universities implement their best reform ideas that deliver long-term, sustainable cost savings to students.

Competency-Based Education

Ohio will convene its public university and college presidents to develop competency-based courses in which students earn college credit by demonstrating competencies learned rather than spending a specified amount of time in a classroom. The budget provides \$4 million in each year of the biennium for this initiative, of which \$250,000 per fiscal year will be directed toward certificate-level programs for low-income workers.

The budget additionally requires public institutions to submit a competency-based program plan to the chancellor by December 31, 2015. If no plans are submitted from the public institutions, Ohio will work with Western Governors University (WGU) to extend its competency-based programming into Ohio.

College Credit Plus

The governor's budget provides \$18.5 million through the Straight A Fund to expand Advanced Placement and College Credit Plus courses and reward those schools that exceed a high level of participation in the program. This budget provides grant funding of \$10 million in FY16 and \$3.5 million in FY17 for teachers to fund graduate-level coursework at an Ohio institution that will credential them to teach college-level courses, or to increase hiring of credentialed teachers. Additionally, in the second year of the biennium, the budget provides \$5 million in incentive funding for districts with outstanding successful completion rates for students participating in College Credit Plus and Advanced Placement courses.

Relieving College Debt

The average amount owed by an indebted 2013 Ohio college graduate totals about \$29,000. The budget creates a fund to help relieve college debt for need-based students in high-demand jobs who promise to stay in Ohio for five years. This bill requires the chancellor to establish a four-year program using state surplus funds from the current biennium and develop a plan to allocate these funds to have the greatest impact.

Community Colleges Offer Bachelor's Degrees

This budget allows Ohio's community colleges to offer affordable bachelor's degrees in instances where local businesses are saying they need workers with advanced, highly skilled training. If a university in the region is unable to offer the degree, Ohio's community colleges should be able to step in and fill that workforce need for local employers.

Campus Safety and Training

This budget provides \$2 million for campus safety and training, specifically for developing and implementing best practices for preventing and responding to sexual assault on our campuses.

State Share of Instruction Increases

The State Share of Instruction (SSI) receives a 2% increase per year. This increased funding, which is distributed to public universities and community colleges under the performance-based funding formula, further incentivizes our institutions toward student success. Funding is also increasing by \$1 million (6.3%) for Ohio Technical Centers (Ohio's adult career centers).

Preparing Students for the Workforce

The budget requires the chancellor to coordinate with public colleges and universities to develop, by the end of 2015, an implementation plan to embed work experiences (including co-ops and internships) into the curriculum of degree programs. This work will also include strategies to ensure that OhioMeansJobs.com is the central location for college students to access information on work experiences and career opportunities. Further, all public institutions of higher education will be required have a career counseling program in place by December 31, 2015 and have a link to OhioMeansJobs.com on their websites.

State Grants and Scholarships

Ohio currently provides nearly \$130 million each year in various higher education scholarship programs to keep post-secondary education affordable to Ohio students. The executive version of the budget adds \$4 million (3.4%) in each year of the biennium.

- **Ohio College Opportunity Grant (OCOG):** The budget provides an additional \$1 million in OCOG funding to help students at community colleges and regional campuses who are attending year-round and have exhausted their annual federal Pell grants.
- **War Orphans:** The governor's budget proposes covering 100% of tuition and general fees at two-year and four-year public institutions for children of deceased or severely disabled Ohio veterans. Currently, these scholarships cover 77% of tuition and general fees.
- **Ohio National Guard:** In recognition of the commitment of Ohio National Guard members, the governor's budget adds more than \$1 million to this scholarship program in order to continue covering 100% of tuition and general fees for all eligible applicants at public universities and community colleges.
- **Choose Ohio First:** To bolster Ohio's economic strength in areas of science, technology, engineering, math, and medicine, the budget adds \$750,000 to this important program in order to enroll an additional cohort of high-performing students in these in-demand fields.

Research Collaboration to Solve Key Ohio Problems

The budget allocates \$8 million to facilitate collaborative research activities across both public and private universities and disciplines, and prioritizes improving water quality and reducing infant mortality.

Federal Choice Act Compliance

This budget includes a change to Ohio's GI Promise residency statute to align with recently enacted federal legislation, which requires states to provide in-state tuition rates to individuals who live in Ohio and are receiving federal GI Bill benefits for terms beginning after July 1, 2015.

Name Change

The budget includes language that changes "Chancellor" to "Director," and also changes the name of the agency from "Ohio Board of Regents" to the "Ohio Department of Higher Education." The advisory board, also known as the Board of Regents, will remain intact, and this name change will provide clarity to differentiate the functions of the board from those of the state agency.





Workforce Development

Presentation to the Ohio Board of Regents
April 13, 2015

Workforce Topics

1. Career Services
2. Ohio Means Internships and Co-ops (OMIC)
3. Public Education Supply and Demand Occupations

Career Services – Conditions Report - Recommendations Update

Recommendation	Update
Required Engagement	Public Institutions of Higher Education are required to have a career counseling program in place by 12/31/2015
Inclusion of Career Services in the Performance Formula	Site Visits Staffing Review (1/2300) – USO System-wide Matrix on key service components
Develop/Implement Career Pathways	Career Pathway Maps lead by ODE
Broaden Collection/Reporting of Employment Data	ODJFS/OBOR MOU with Ohio Education Research Center and FEDES Reporting
Increase utilization of OMJ	Regional Meetings OBOR/ODJFS Post-Secondary Adoption of Virtual Career Center
Convene an Ohio Career Conversation	Awaiting dates Inside Track – coaching at risk students in navigating college by proactive interaction with resources

Recommendations: Strengthening PreK-12 Educators and Student Success in the Economy

Governor's State Budget:

The legislation proposes a requirement that the Ohio Educator Standards Board develop standards for school counselors and a standards-based framework for the evaluation of school counselors by May 2016.

By September 2016 each Ohio school district must adopt a standards-based school counselor evaluation policy that conforms to the framework. Implementation in the 2016-2017 school year.

Evaluation results beginning in 2017-2018 for decisions regarding the retention and promotion of school counselors and the removal of poorly performing school counselors.

Internships and Co-Ops – Recommendations Update

Recommendations	Update
Diversify Student Populations	Choose Ohio First/Third Frontier Regional Conversations around Diversity
Expand Strategies across Programs and with Career Centers	Focus in Last RFP on OTC partnerships
Utilization of OMJ	Regional meetings and OMJ section devoted to internships
Regional Strategy and Best Practice Development	Implemented Regional Meetings
Sustaining Internship Programs	Sustainability build into on-site review meetings
Academic Credit	Collecting data on the various campus approaches
Expand Straight A Fund and College Credit Plus Strategies	OBOR/ODE working closely on the implementation of College Credit Plus Next round of Straight A in current budget

Recommendations: Addressing the Skills Gap

Approach: innovation in Curriculum Design and Delivery

- Workforce Alliances
- Honda
- Insurance
- Regionally Aligned Priorities in Skills (RAPIDS) – NW Ohio – Catalyst to come together as a group in the region. Mike Jay, JobsOhio, “RAPIDS process - the beginning of ongoing collaboration in our region.”
- JobsOhio Support
- Competency-Based Education – Convene public university and college presidents to develop competency-based courses in which students earn college credit by demonstrating competencies learned rather than spending a specified amount of time in a classroom. \$4 million in each year of the biennium for this initiative (\$500,000 directed towards certificate-level programs)

OMIC Regional Proposals

West

- University of Dayton - Lead
- Clark State University
- Sinclair Community College
- Edison State Community College
- Wright State University - Lake Campus

Northwest

- Bowling Green State University - Lead
- Owens Community College
- Rhodes State College
- Terra State Community College
- University of Toledo

Northeast

- Cuyahoga Community College - Lead
- Baldwin Wallace University
- Cleveland State University
- Eastern Gateway Community College
- Lakeland Community College
- Lorain County Community College
- Kent State University
- Youngstown State University

Southwest

- University of Cincinnati - Lead
- Cincinnati State Technical and Community College
- Mount Saint Joseph University
- Shawnee State University
- Great Oaks Institute of Technology and Career Development
- Miami University

Central

- The Ohio State University - Lead
- C-TEC Career and Technology Education Centers of Licking County
- Columbus State Community College
- Marion Technical College
- Tolles Career and Technical Center
- Tri-Rivers Career Center

Southeast

- *RFP in Progress*

Proposed placements - 539

OMIC Future Investment

Regional coordination

- Targeted industries
- In-Demand Occupations
- Shared infrastructure
 - Data
 - Curriculum
 - Marketing
- Career pathways

Funded Activities – OMIC Rounds I and II

- Ohio Means Internships and Co-ops (OMIC)
- Scholarships
- Wage Support
- Personnel
- Faculty training
- Assessment tools
- Industry data

Public Education Supply- Analyzed Against Demand – Two Occupations

Public Education Supply Data Research/Analysis

Assignment:

**Analyze public education supply data on two occupations:
Select Engineering and Welding In-Demand SOC Codes**

Supply data re-run with the following factors applied:

- Re-checked logic and mapping
- Re-aligned time frames from first run to ensure annual cohorts
- Re-checked mapping of Classification of Instructional Programs (CIP) to Standard Occupation Codes (SOC)
- Removed duplicate social security numbers (Example: students earning more than one degree/credential in the graduation year)

Engineering Supply Data

Occupation	Original 2-4 Year Program Supply Total (2012-2013)	Revised 2-4 Year Program Supply Total (2012-2013)	Weighted Demand Score	Supply/Demand Ratio	Raw Difference in Supply to Demand
Biomedical Engineers	291	298	38.4	7.76	259.6
Chemical Engineers	597	420	97.8	4.29	322.2
Civil Engineers	526	466	110.6	4.21	355.4
Electrical Engineers	848	744	512.4	1.45	231.6
Materials Engineers	131	146	122	1.20	24.0
Mechanical Engineers	1119	1066	927	1.15	139.0

- Total Engineering Graduate Retention Rate:
 - **51%** Employed in Ohio*
 - Retention Rate of Engineering Graduates who are Ohio In-State Students: **60%***

**Source: ODJFS UI Wage Data*

Public Education Supply Data Research Analysis - Welders

Supply data re-run with the following factors applied:

- Eliminated credential duplications “**number of credentials**” awarded to students
- Re-aligned timeframes between the 2-year/4-year institutions and the Ohio Technical Centers
- Added a run of supply against In-demand by region

Welding Supply Data

Welders, Cutters, Solderers, and Brazers

	2-4 Year Program Supply Total (2012-2013)	OTC Program Supply Total (FY 2013)	Apprenticeship Supply Total (2013)	Total Supply (Graduates)	Weighted Demand Score	Supply/Demand Ratio	Raw Difference in Supply to Demand
Original	151	1423	35	1611	259.4	6.21	1351.6
Revised	95	1283	35	1413	259.4	5.45	1153.6

Welding Completion and Retention

Last Cohort	369 students
Most Recent Cohort	1283 students
Increase	914
	347.70%

- Supply has increased 347.7% since last year
- Retention: 73% employed in Ohio (used previous cohort)
- Supply data does not include high school graduates from secondary career technical programs

SWEAP (State Workforce Education Alignment Project) – Supply and Demand Reports:

- Assist policy leaders understand the potential uses of supply and demand reports; refine Ohio’s approach to supply and demand analysis, including additional sources of supply and demand projections, and the use of supply and demand information to help develop state policies that will close identified skill gaps.
- Data Linking: Provide assistance to state officials and project staff on navigating FERPA and UI restrictions on data sharing, and obtaining out-of-state data.
- Provide analysis of what the state’s data tools tell state policymakers.
- Provide recommendations on state policy options.



Adult College Completion: Strategies for Success

Presentation to the Ohio Board of Regents
April 13, 2015

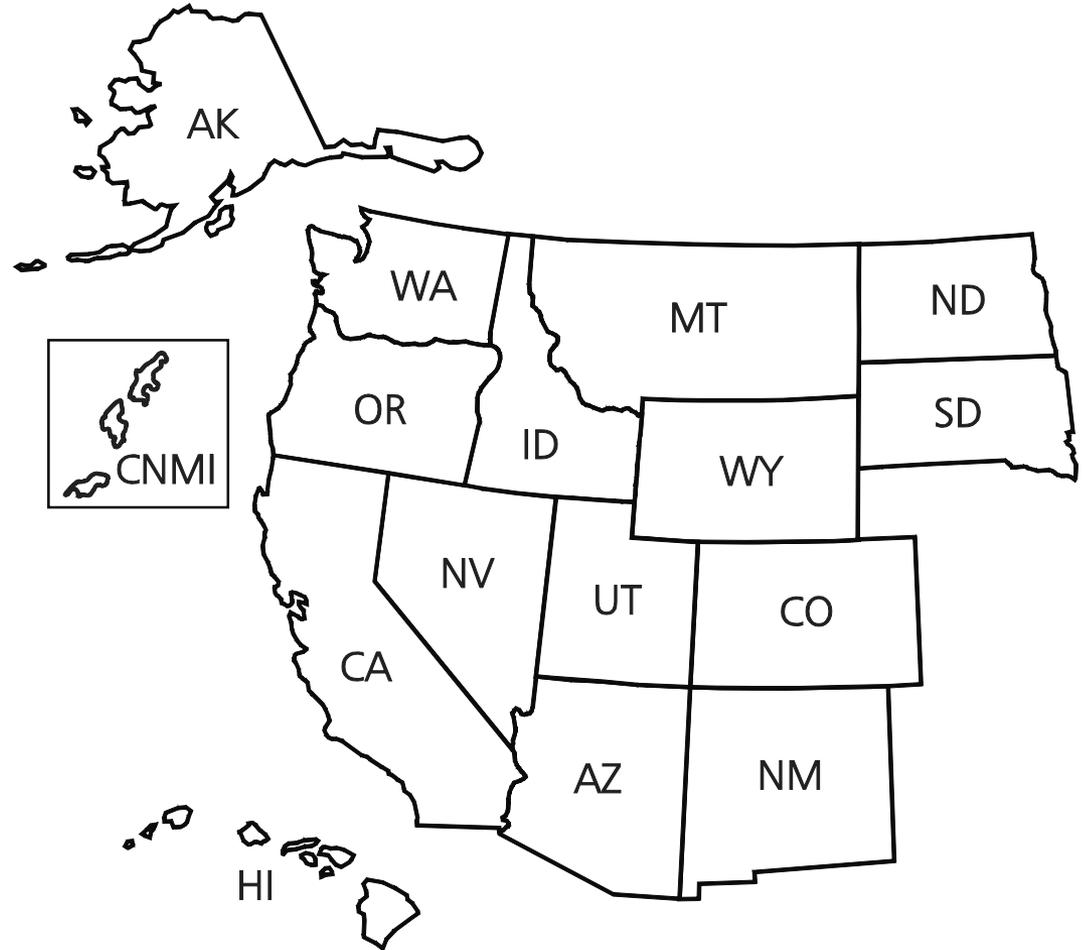
Demarée K. Michelau
*Western Interstate Commission
for Higher Education (WICHE)*

Presentation Overview

- Background
- Why Serve Adults?
- Defining Adults
- General Lessons about Serving Adults
- Promising Strategies for Effectively Serving Adults

What is WICHE?

- Promotes access and excellence in higher education for all citizens of the West



Adult College Completion Network

- Unites diverse organizations and agencies working to increase college completion by adults with prior college credits but no degree in a collaborative learning network
 - State higher education agencies
 - Workforce-focused organizations
 - Economic development organizations
 - Postsecondary Institutions
 - Non-profit organizations
- National in scope
- Funded by Lumina Foundation

Non-traditional No More: Policy Solutions for Adult Learners

- Project funded by Lumina Foundation for Education
- To stimulate and guide state and institutional policy and practice changes so that adults with prior college credit can earn college degrees

Comprehensive Approach

- State and institutional policies and practices
- Five areas of focus
 - Data
 - Academic Affairs
 - Student Services
 - Financing/Financial Aid
 - Communications/Marketing

Why Serve Adult Students?

- The nation can't reach attainment goals without serving adults
 - Similarly, most state and city goals are out of reach without adults
- Adult students and the workforce benefit from completed credentials
- Adults with prior college credit have demonstrated that they can succeed

Jobs Will Require Postsecondary Education

- By 2020:
 - 23% of jobs will require a bachelor's degree
 - 33% will require some college, an associate's degree, or a postsecondary vocational certificate
- As of 2012, of working-age Americans (25-64):
 - 20% have a bachelor's degree
 - 9% have a two-year degree
 - 22% have some college, but no degree

Why Serve Adults in Ohio?

- By 2020:
 - 21% of jobs in Ohio will require a bachelor's degree
 - 34% in Ohio will require some college, an associate's degree, or a postsecondary vocational certificate
- As of 2012, of working-age Ohioans (25-64):
 - 18% have a bachelor's degree
 - 9% have a two- or four-year degree
 - 22% have some college, but no degree
(1,329,396 people)
- Institutions benefit
 - Ohio's performance-based funding formula incentivizes institutions to serve adults

Adult Learner - Definitions

- **National Center for Education Statistics**
Nontraditional – “Most often age (especially being over the age of 24) has been the defining characteristic for this population.”
- **Lumina Foundation**
Working age – 25-64 years of age
- **Ohio Performance-Based Funding Access Category**
Adult – 25 years of age or older

Adult Learner - Definitions

- **Varies by State and Institution**
 - Age
 - Characteristics, such as whether a person:
 - Works
 - Has children
 - Stopped out for some period of time
 - Defined number of previous credits

Terminology

- Adult learners
- Adult students
- Mature learners
- Non-traditional students
- Post-traditional students
- Some college, no degree
 - Near completers
 - Stop-outs
 - Come-backers (Philadelphia)

Definition - Considerations

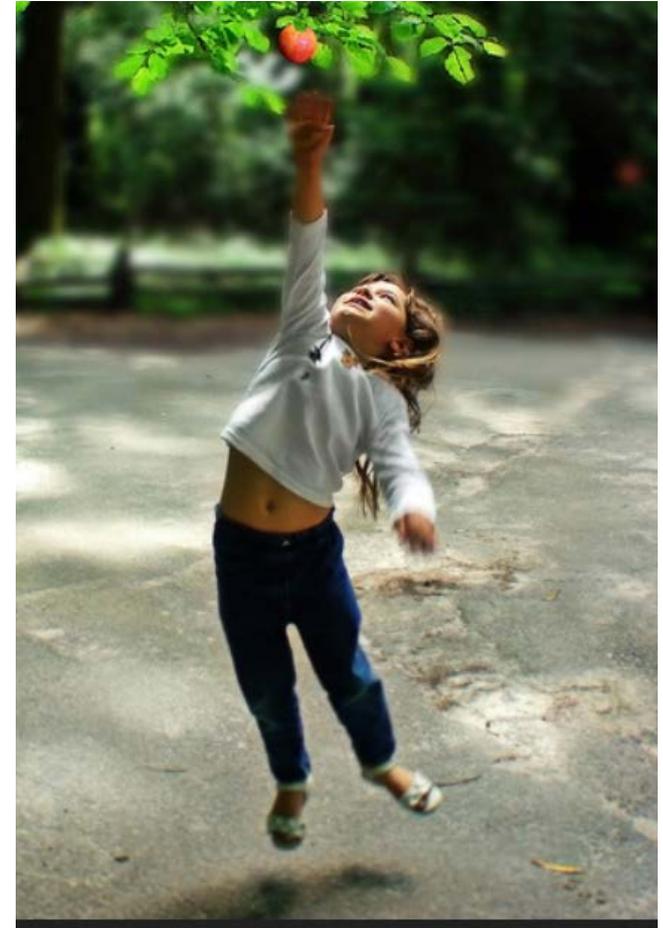
- What is your goal? What do you want to accomplish?
- What do your data look like?
- How do you balance a precise definition versus something that everyone can easily understand?

Don't let the perfect be the enemy of the good.

What Have We Learned About Adult Students?

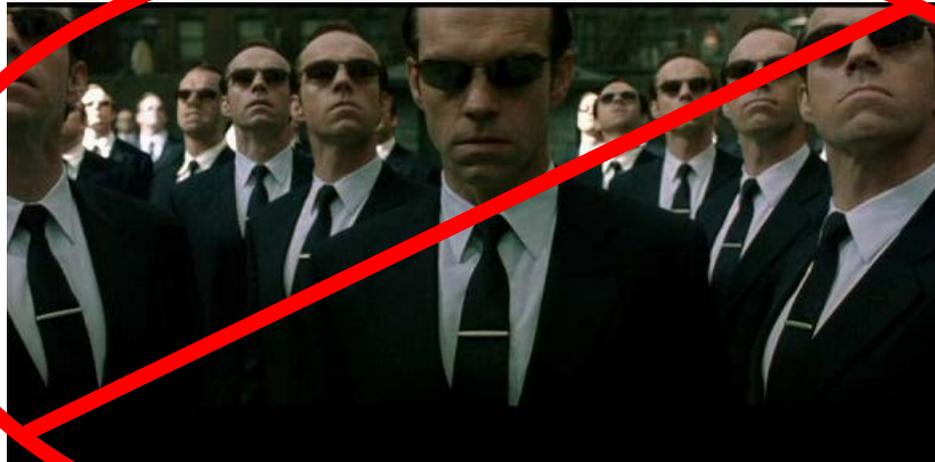
General Lessons Learned in Serving Adults

- Often referred to as “low-hanging fruit,” but are they?
- With the right supports, they can succeed!



General Lessons Learned in Serving Adults

- Adult learners are a diverse group with varied needs requiring different interventions



General Lessons Learned in Serving Adults

- They are concerned about **three** things:
 - Cost
 - How am I going to pay for this?
 - Time
 - How am I going to balance this with my busy life?
 - How long will it take to get a degree?
 - Return on Investment
 - How will this benefit me?

General Lessons Learned in Serving Adults

- They need **flexibility** – not just with classes, but also:
 - Student services
 - Academic issues
 - Financial issues
 - Other supports (e.g., parking, child care, etc.)
- And they're often nervous.

General Lessons Learned in Serving Adults

- “Don’t reinvent the wheel,” but sort of do...

An Ingenious Shock-Absorbing Wheel for Bikes and Wheelchairs

BY JOSEPH FLAHERTY 05.05.14 | 6:30 AM | PERMALINK

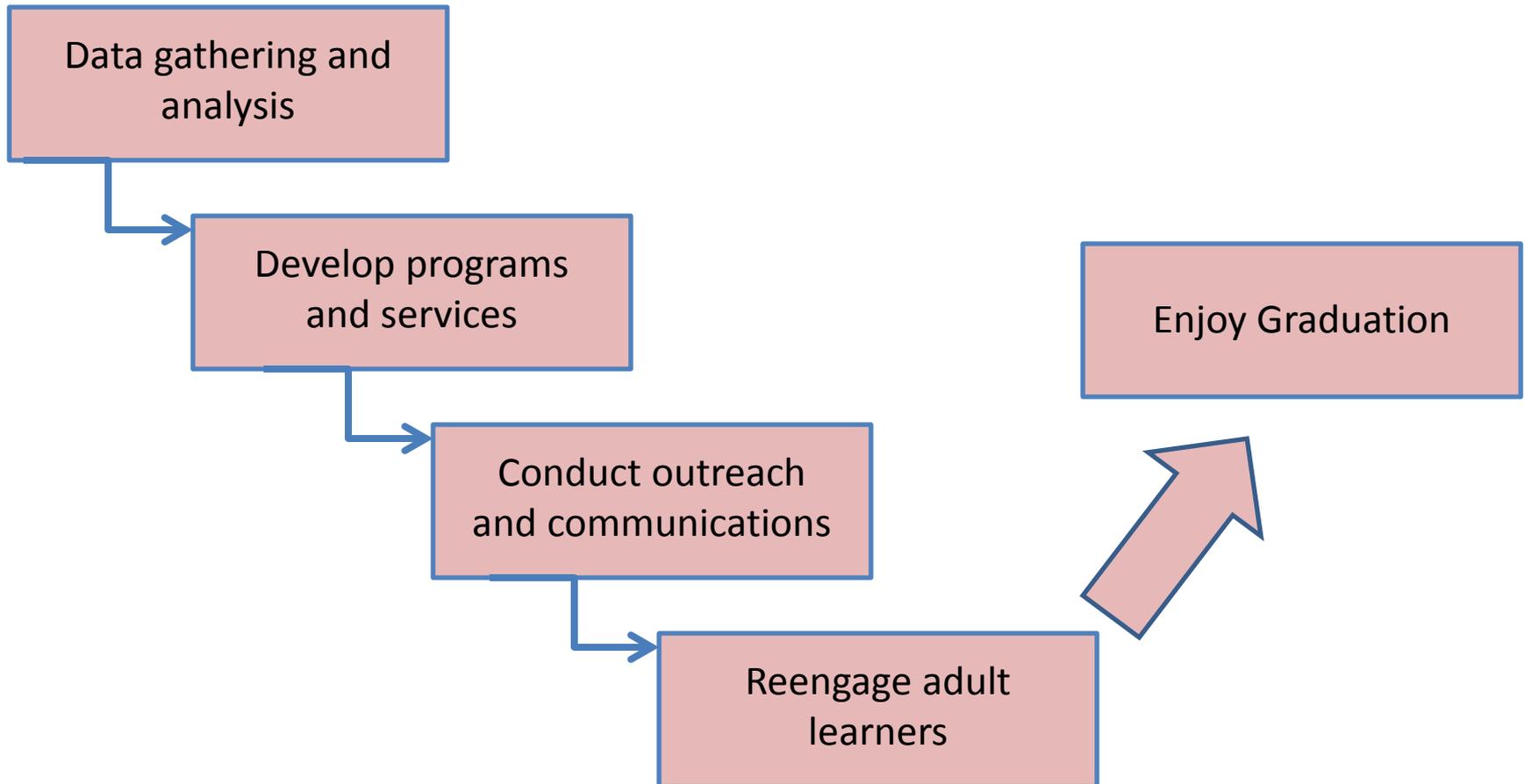
[f Share](#) 3.5k [t Tweet](#) 718 [g+1](#) 350 [in Share](#) 462 [Pin It](#) 217



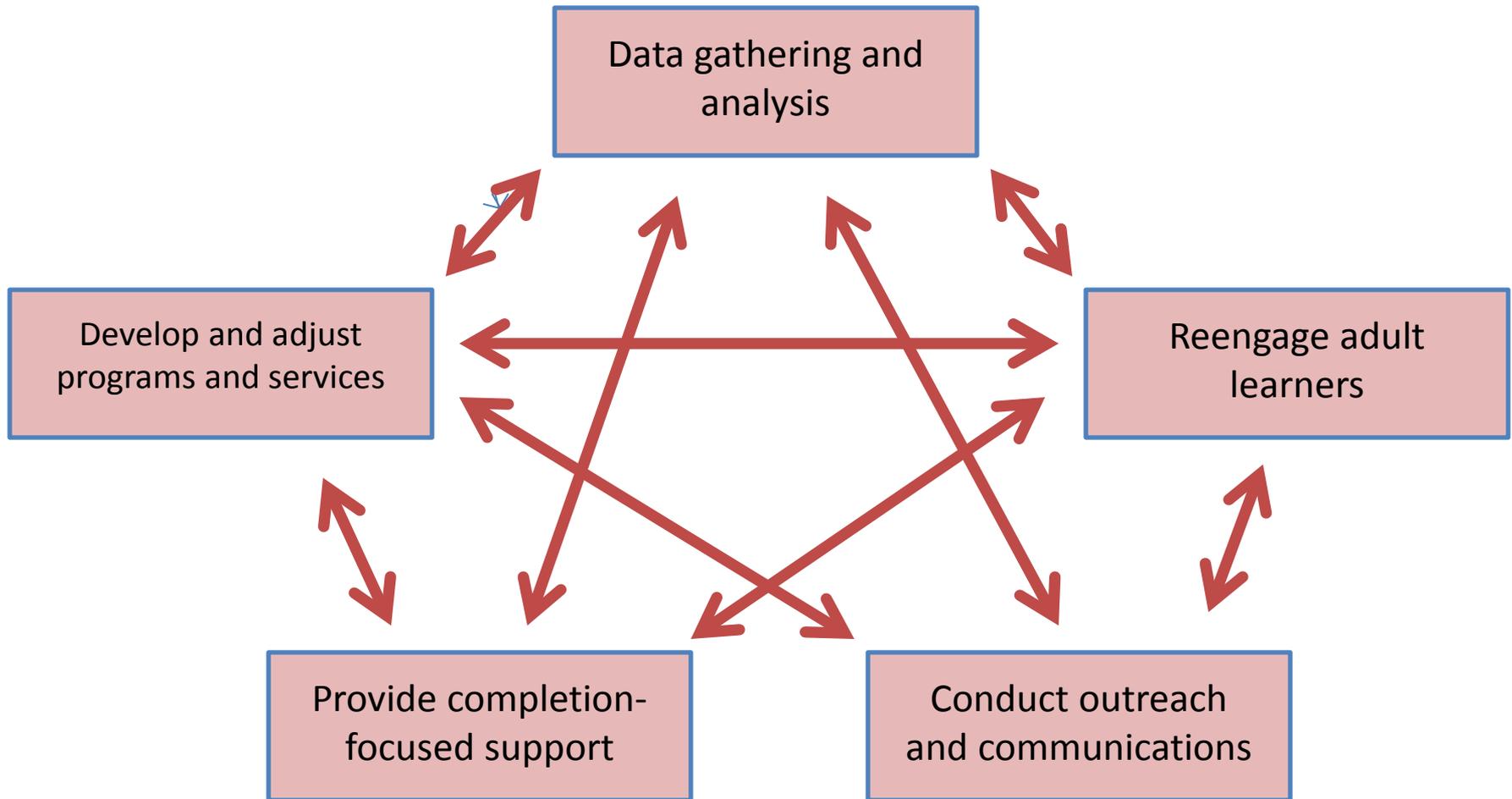
1 / 5 When Israeli farmer Gilad Wolf broke his pelvis in 2008, he resolved not to let his crops wither on the vine and became determined to turn his wheelchair into a workhorse.

[f](#) 5 BY SOFTWHEEL

Adult College Completion: A Simple View



Adult College Completion: A More Realistic View



Data – The Place to Start

- See what your data really tell you and don't make assumptions.
 - Who are these students?
 - Why did they leave?
 - Where are they now?
 - What were there majors?
 - What prevents them from coming back?

South Dakota Board of Regents (Governing Board)

- 36,532 headcount (Fall 2014)
- 8 four-year institutions

Why Did They Leave?

LIFE HAPPENED...at least in South Dakota

- System Average Loss
 - Average of 378 students each year
 - Comparable to the overall campus size
- Average Credits to Degree
 - Search criteria = 90 or More
 - Average completed = 124 Hours

Why Did They Leave?

- Academic Performance
 - 90% in Good Academic Standing
 - 98% Have Passed the Collegiate Assessment of Academic Proficiency (CAAP)
- “Life Happens”
 - Cumulative GPA – 2.72
 - Final Term GPA – 1.68
 - 35% - 0.00 in Final Term
 - 31% - 3.00 or Higher in Final Term

Why Did They Leave?

Other reasons...

- Factors associated with stop outs' satisfaction at original school:
 - Dissatisfaction with quality of teaching
 - Lack of useful feedback about work
 - Felt that the college didn't care about them
 - Lack of a close-knit campus community
 - The school wasn't worth the money

Lessons about Adults: Please See Our “Concierge”

Returning adults:

- Lack the support structure available to traditional students
- May have complicated credit transfer, financial aid, and other needs
- Can be better served by a single point of contact

Ivy Tech Community College System (Governing Board)

- About 200,000 students
- 32 community college campuses

Creating a Culture of Completion

THE GOAL:

IDENTIFY - Adults with substantial Ivy Tech credit, but not completed a certificate or degree

RECRUIT - Adults into Ivy Tech degree completion programs

GRADUATE - Adults with Associate Degrees

TRANSFER - Associate Degree graduates to IU General Studies for Bachelor's Degree

Targeting the “Low Hanging” Fruit

- Students with the following:
 - 45 or more total credit hours earned
 - 39 or more college credit hours earned
 - Cumulative GPA or 2.0 or higher
 - Not enrolled in apprenticeship
 - Degree-seeking
 - No Technical Certificates or Degrees Awarded
 - *Last term of enrollment between Fall 2006 and Fall 2009

The Concierge Service

- Initial phone calls and postcards came from our statewide marketing group
- Contact identified at each campus - Interested students escalated to contact at appropriate campus
- Contact served to assist student with all needs – including having access to a scholarship fund for students with 15 hours or less to complete
- Additional campus events geared toward this population

Impact at the Terre Haute Campus

- Fall 2012
 - 1,147 students identified
 - 59 registered for classes (5%) of total
 - For Spring 2013, 41 ADC students registered
 - 30 were continuing from the fall semester
 - 16 of the “non-returning” from the fall were still in good standing

Where They are Now – All Regions

54,598 students have been sent marketing materials related to the Adult Degree Completion Project

8,423 (15%) have returned for at least 1 subsequent term

1,486 students have earned **2,006** credentials

989 students have earned **1,005** associate degrees

834 students have earned **1,001** certificates



Lessons about Adult Students: You Need Strategies that Reduce the Financial Impact

- Financial aid policy and practice audit
- Open educational resources
- Debt forgiveness
- Loan rehabilitation
- Fee waivers
- Payment plans



Nevada System of Higher Education (Governing Board)

- 68,550 FTE (Fall 2014)
- 3 four-year institutions
- 4 community colleges
- 1 Desert Research Institute

Monthly, Automatic Tuition Payment Plans

Policy change that resulted in monthly, automatic tuition payment plans.

- System- and institutional-level leaders came together in a series of meetings to conduct a policy and practice audit
- **IMPACT:** Several campuses allowed their students to pay in this fashion, removing a financial barrier to many adult students

Connecticut State Colleges and Universities (Governing Board)

- 92,000 students
- 4 state universities
- 12 community colleges
- Charter Oak State College

Go Back to Get Ahead (www.gobacktogetahead.com/)

Adults returning to state institutions with prior college credit were eligible for up to three free courses under a buy-one-get-one free arrangement (June 2014-March 2015)

- Marketing Campaign (*Cost per conversion: \$42.16 per inquiry*)
 - Statewide radio campaign and online ad campaign
 - Mass mailing to 68,000 previous CSCU students
 - PR campaign featuring the Governor, President of the BOR, and other college presidents
 - System referrals
- Retention Initiatives
 - Periodic e-mail campaigns, mostly centered on registration reminders
 - Open registration events at certain schools
- **IMPACT:** Received nearly 9,000 inquiries and enrolled over 1,400 (25% at Charter Oak/75% at other state institutions)

Lessons about Adult Students: You Need Strategies to Reduce Time (to Degree)

- Developmental courses: Redesign, placement preparation
- PLA – Move beyond just accepting it
 - How do students know if they're eligible?
 - What type of credit will they earn?
 - Market towards students and employers
- Better and more effective advising –24/7 advisors
- Streamlined transfer policies – eliminate wasted time and money
- “All you can eat” – Competency-Based Education



Kentucky Community and Technical College System (Governing Board)

- 52,6814 Headcount (Fall 2014)
- 16 two-year colleges (70 campuses)

Learn On Demand

(<http://learnondemand.kctcs.edu/>)

- In 2006 - KCTCS surveyed prospective adult students without a college degree
 - Three times more likely to enroll in an entirely online college course than they were to attend a traditional in-person class
- 24/7 Online Student Services Help Desk
- Success Coaches
- Online Tutoring
- Affordability
- Flexibility
- Credit for What You Know
- Relevant

University of Wisconsin System (Governing Board)

- About 180,000 students
- 13 four-year institutions
- 13 freshman-sophomore UW Colleges campuses, and statewide UW-Extension

UW Flexible Option (<http://flex.wisconsin.edu/>)

Group of University of Wisconsin degree and certificate programs offered in a self-paced, competency-based online format (the first system-level competency-based program in the country).

- Partnership between University of Wisconsin System institutions and UW-Extension
- Competency-based bachelor's degrees, associate degrees, & certificate offerings
- Developed by UW system faculty
- Online courses
- Credit for prior learning
- Academic success coaches
- **IMPACT:** Too early to tell!

Strategies to Save Time

- Re-entry classes
- Academic amnesty
- Adult-focused policies and practices
- Peer networks

TEXAS HIGHER EDUCATION COORDINATING BOARD (COORDINATING/POLICY)

- 1,464,489 (Fall 2014)
- 146 institutions

Grad TX

(<http://gradtx.org/>)

A program to help Texas adults with prior credit return to college and finish their bachelor's degrees.

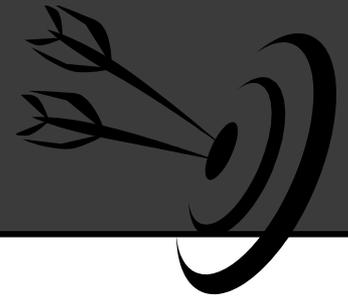
- Grad TX offers a website connecting students with universities that offer programs designed specifically for returning students
- Curated list of adult-friendly institutions
- Designated point of contact for returning students at participating institutions
- 13 Texas universities that offer specialized programs with online, compressed, and regular course offerings for returning students (selected via RFP)
- Facilitated by the THECB
- Initially funded by College Access Challenge Grant, now state-funded
- **IMPACT:** Do not currently have data on site users

Texas Affordable Baccalaureate Program (<http://myaffordabledegree.com>)

A competency-based degree program in organizational leadership offered at two public institutions in an online and hybrid format

- Texas A&M University-Commerce and South Texas Community College (Facilitated by the THECB)
- Tuition for the degree is \$750 per term.
- Bilingual (English/Spanish) Marketing Campaign
- Pandora Ads
- Media Campaign
- Direct Mail
- Funded by a Next Generation Learning Challenge Grant
- **IMPACT:**
 - Pandora ads generated 16.7 million impressions and 46,000 site visits
 - Coverage in national media outlets: Forbes and USA Today

Lessons about Adult Students: They Have to Know Their Options



- Launch **well-researched, statewide** marketing and communications efforts that are **targeted** to adult learners (Kentucky, Oklahoma).
 - Can be coordinated at the institutional level
 - Sometimes, you have to do this inexpensively (Don't Wait, Graduate!)



Minnesota State Colleges and Universities (Governing Board)

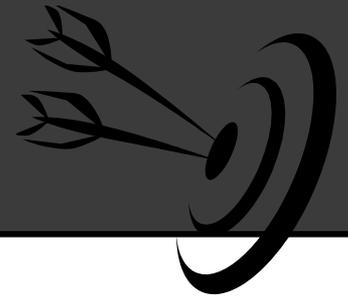
- About 410,498 headcount (FY 2014)
- 31 institutions (54 campuses)

Graduate Minnesota (www.graduateminnnesota.org)

Effort to increase re-enrollment and degree completion among students who previously attended Minnesota State Colleges and Universities or other institutions of higher education but did not earn a degree.

- Marketing Campaign
 - Phase 1: Direct Mail campaign (to 36,891 former students), radio, and TV ads
 - Phase 2: Digital media marketing, email outreach campaign (to over 19,000 former students)
- Centralized Call Center staffed by student advisors
- Distribution of printed postcards through partnerships with the Minnesota Workforce Council
- Association and Goodwill-Easter Seals to inform and connect with job seekers
- Led by MnSCU system & University of Minnesota
- Funded by a Lumina Foundation grant
- **IMPACT:** 11.8% of targeted former students re-enrolled and 2.8% earned awards from July 2011 through August 2013

Lessons about Adult Students: Adults Can't Be an Afterthought



- Don't promise what you can't deliver.
 - Before launching your campaign, make sure institutions are prepared to serve adults
- Coordinate web presence to include adult learners.

University System of Georgia (Governing)

- 312,936 students (Fall 2014)
- 4 research universities
- 4 comprehensive universities
- 9 state universities
- 13 state colleges

Adult Learning Consortium

(<http://www.discoveryourgoal.net/>)

A group of USG schools who voluntarily came together to increase the number of adults with some college but no degree who return to complete a credential.

- Research-based marketing campaign
- Regular meetings of institutional staff and faculty
- Shared leadership among institutions
- Common outcome measures
- 13 of the system's 32 schools participate (does not include Georgia's separate Technical College System)
- Facilitated by UGS
- Funded by College Access Challenge Grant Consortium
- **IMPACT:**
 - ALC institutions saw a 7.3% increase in enrollment of nontraditional learners vs. a .001% increase for nonparticipating USG institutions (Fall 2011-Fall 2012)
 - Longer membership in the ALC is correlated with larger enrollment increases
 - Launch of Governor-led adult-focused initiative, *Go Back. Move Ahead.*
 - Board of Regents established an Academic Advisory Committee for Adult Learning
 - Increased statewide acceptance of credit for prior learning (proposed Georgia Senate Resolution 13)
 - Created "eMajor" - a collaborative online certificate and degree program

Marketing Example



Make a you-turn.

A COLLEGE DEGREE. What's it worth to you?

Learn more at **DiscoverYourGOAL.net**

What Have We Learned About Employers?

- Close relationships between companies and institutions benefit both business and students
- Employers can offer:
 - low- or no-cost benefits to entice employees to complete degrees
 - Flexible work hours
 - Class meeting space
 - Mechanism for marketing degree completion programs
 - ACE CREDIT for training programs

What Have We Learned about Employers?

- BUT...there are challenges to building support among businesses :
 - Two very different types of organizations
 - Language barriers, ideological differences, speed
 - ‘Doing the right thing’ is nice, but not necessarily a persuasive argument
 - Communicate value and benefits to private sector, government, and institutions
 - Power of data and stories
 - Partnerships work: Manufacturing Institute, Goodwill, Inc., Louisville, Maine Development Foundation
 - Some businesses have ‘college advocate’: Louisville, KY – Usually HR staff, based at company to help employees return and complete degrees or certificates

HARPER COLLEGE (PALATINE, IL)

- 90,899 headcount (Fall 2013)
- 12 campuses
- **Institutional Goal:** 10,604 additional degrees and certificates by 2020

Business Partnerships

Executive Level Position: **Senior Executive to the President, Board Liaison and Vice President of Workforce and Strategic Alliances**

- Vision
 - Build a framework for public and private partnerships in workforce program development
 - Credentials that pay
- Goals
 - Embed early internships
 - Create stackable certificates
 - Pathways to associate degrees and transfer
 - Develop industry-recognized credentials
- Partnerships
 - Earn and Learn Career Lattice Model
 - Illinois Network for Advanced Manufacturing
 - Advanced Manufacturing Partnership

Business Partnerships

- Earn and Learn Career Lattice Model
 - Early Internships
 - Stackable Certificates
 - Industry-recognized Credentials
 - Associate's Degree
 - Transfer
- Illinois Network for Advanced Manufacturing
 - 14 community colleges
 - Share programs
 - Makes connections
 - Leverage Resources
- Advanced Manufacturing Partnership
 - Enable innovation
 - Secure the Talent Pipeline (veterans)
 - Improve Business Climate

New Ways of Doing Business

- Expand everyday thinking to include students who are not normally part of the routine.
- Develop new and creative ways to promote and encourage student success – it doesn't have to cost a lot of money!
- Remember that your course of action depends on the context – state, system, and/or institutional strategies.
- Some strategies are simple – many are not!

For More Information

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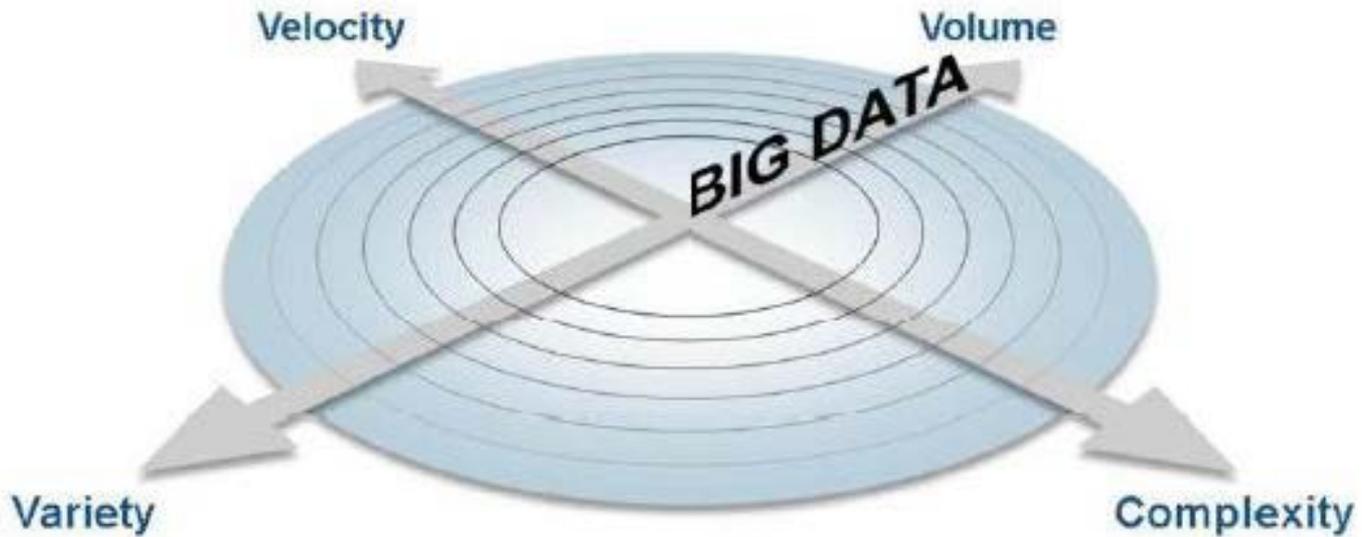
dmichelau@wiche.edu

www.adultcollegecompletion.org

The Problem

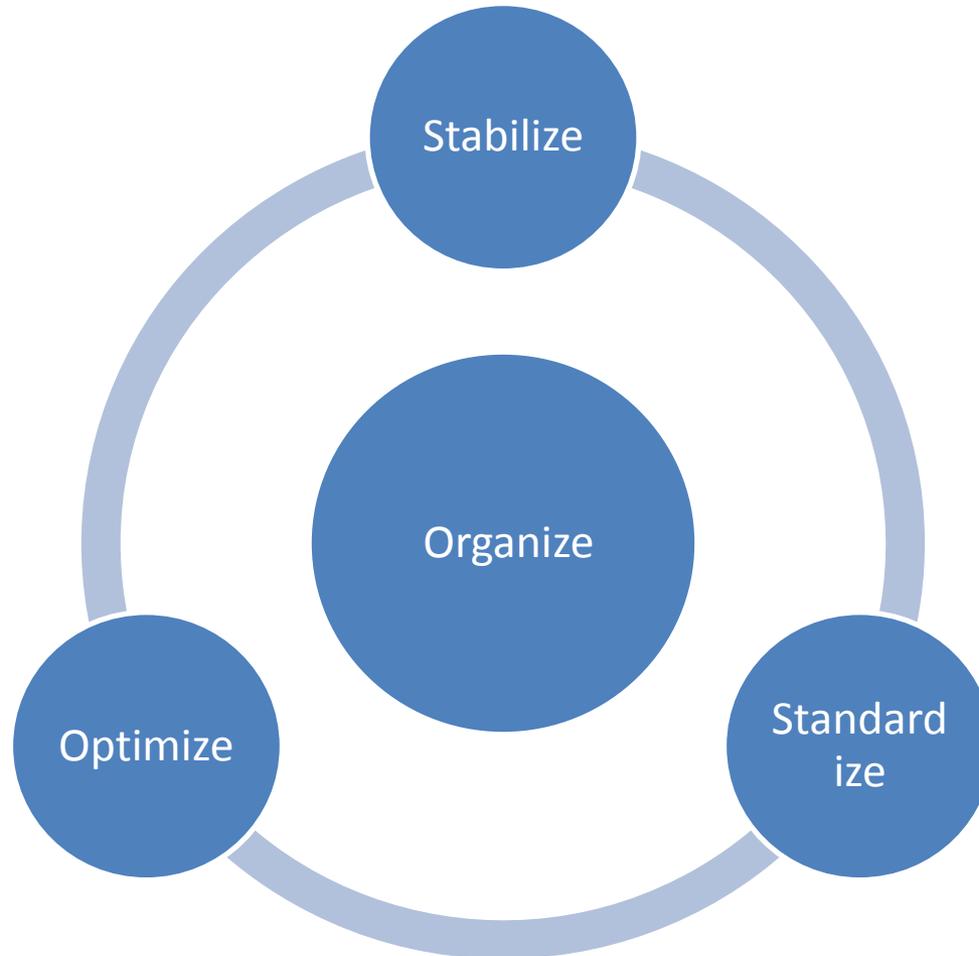
- HEI is an aged, mission critical system
- Physical servers and software platform are both beyond end-of-life (i.e. no vendor support)
- Software platform is not supported on newer servers
- Disaster recovery time is measured in weeks
- HEI does not comply and cannot comply with current technology operational standards around, among others: encryption, audit trail, authentication/authorization, performance
- The application can no longer support modifications due to business needs; peripheral systems are necessary
- Resource constraints and organizational priorities have thwarted prior remediation plans.
- Ongoing business needs require significant change.

The Problem



Source: 'Big Data' Is Only the Beginning of Extreme Information Management, April 7, 2011, Gartner Group

Incremental Change Approach



Work Categories

Organize

Document As-is

Gap analysis

Change Management

Issue Management

Project Management

Align OBR Objectives and Tactical Systems

Stabilize

Address most critical issues

Mitigate nagging issues

Achievable (small) improvements

Prepare for long term goals

Essential functionality

Essential processes

Standardize

Sunset outdated systems

Formalize and Enforce standards and best practices

Systematically build upon Stability

Enhanced functionality

Enhanced processes

Optimize

Big Data Strategies / Technologies

Data Analytics

Distributed Storage / Processing

Unified Information Access

Reporting architecture

Process Reviews

Previously ...

Choose the Work to create the Roadmap

This is not Waterfall, it's more like Tetris

Organize

Inventory body of Work from 90D

Document Decisions

Review Actionable Items

Choose Work Items for Roadmap

Plan to perform the Work

Plan to monitor the Work

Stabilize

AXX.1

AXX.2

AXX.3

AFN.1

AEN.1

AEN.2

AEN.4

AEN.6

AEN.7

AEN.8

AEN.9

ACAP.2

ACAP.3

AFS.2

AAP.1

AAP.2

AAP.6

Standardize

Choose from AFN.2

Choose from AEN.5

Choose from ACAP.1

Choose from AFAC.1

Choose from AFS.1

Choose from AAP.3

Choose from AAP.4

Choose from AAP.5

Optimize

Business Process Reviews

Data Analytics

Reporting Dashboards

Unified Information Access

Parking Lot

Fin Aid

ABLE

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Guiding Principles

1. Successful advancement of HEI capabilities will require all parties representing both OBR and OH TECH to cooperatively work together in determining optimal solutions.
2. OH TECH owns the technology environment and establishes and enforces standards and best practices.
3. OBR owns the business processes, moderates competing business priorities and interests, and sets priorities for technology initiatives.
4. All applications - including HEI - adhere to technology standards and best practices.
5. Advance HEI capabilities with the least Risk in a reasonable timeframe.
6. Stabilizing the environment and achieving security compliance is a foundational requirement for advancing HEI capabilities.
7. It will not be acceptable to make wide ranging changes to the existing application in it's current hardware and software state.
8. It will not be acceptable to make no changes to the application until after the infrastructure is migrated and refreshed at the SOCC.
9. For HEI, change is constant. A change management process must be operational.
10. We cannot wait for perfect information and perfect vision.

Choose the Work to refine the Roadmap

Organize

Inventory body of Work from 90D

Inventory body of work for Infrastructure

Document Decisions

Review Actionable Items

Choose Work Items for Roadmap

Plan to perform/monit or the Work

Stabilize

System Reports

Adhoc Reports

ABLELink

AXX.1

AXX.4

AAP.4

AAP.6

ACAP.3

AEN.4

AFN.1

AXX.3

AAP.2

ACAP.2

AEN.1

AEN.6

AEN.7

AEN.8

AEN.9

AFS.2

Standardize

AXX.2

AAP.2

Choose from AFN.2

Choose from AFS.2

Choose from AFN.5

Choose from ACAP.1

Choose from AFAC.1

Choose from AFS.1

Choose from AAP.3

Choose from AAP.4

Choose from AAP.5

Optimize

Business Process Reviews

Data Analytics

Reporting Dashboards

Unified Information Access

Parking Lot

Fin Aid

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Tentative Roadmap Timeline

		L	P	Jan				Feb				Mar					Apr				May				Jun					Jul - Dec		2016
ID	TASK	1	1	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5			
1	Approach Approval/Signoff	1	1	█								█									█											
30	Identity Mgmt Planning / Implementation	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█								
50	Datacenter Migration Planning	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█																
70	Datacenter Migration	1	50												█																	
90	HEI Reporting Development (new Infra)	1	1													█	█	█	█	█	█	█	█	█	█	█	█	█				
120	HEI Adhoc Reporting	1	1																													
140	HEI Platform Build Out	1	70																													
160	90D Stabilize	1	140																													
200	Progress Assessment	1	1			█				█					█								█									
220	Progress Planning	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				
240	HEI Issue Management	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				
250	HEI Change Management	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				
260	HEI Project Tracking	1	1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				

1

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4

3

4

Tentative Roadmap Task Detail

ID	TASK	Feb	Mar	Apr	May	Jun	Jul-Dec	2016
1	Approach Approval/Signoff							
30	Identity Mgmt Planning/Implementation							
50	Datacenter Migration Planning							
70	Datacenter Migration							
90	HEI Reporting Development (new Infra)							
120	HEI Adhoc Reporting							
140	HEI Platform Build Out							
160	90D Stabilize							
200	Progress Assessment							
220	Progress Planning							
240	HEI Issue Management							
250	HEI Change Management							
260	HEI Project Tracking							

Includes approval of approach to Compliance

Includes:

- 3rd party professional services (\$)
- Authentication/Authorization functionality
- Development of admin tool (\$)
- Repurpose End-of-Life servers to HEI Disaster Recovery

April is a tentative date; and therefore a schedule dependency

Reporting Development includes:

- Existing system reports
- 3rd party professional services (\$)
- Change Management
- Rollout planning

Adhoc Reporting includes:

- Reporting tool selection (\$)
- Procurement
- Training/Support
- Rollout planning

Includes:

- Premier tier storage procurement (\$)
- Disaster Recovery
- Database Encryption (\$)
- Audit Trail
- New ETL platform/procurement
- HEI Core Port to new platform
- Dev/Test/Prod Environments
- Source Code Management
- HEI Regression Testing
- Change Management
- Rollout planning

Choose from Stabilize body of work.

Approach Benefits

- Repairs and refreshes technology foundation for future application optimization
- Achieves some relatively immediate mitigation to Disaster Recovery Risk
- Achieves compliance of Encryption technology standards
- Achieves compliance of Audit Trail technology standards
- Achieves Authentication/Authorization technology standards
- Improved application performance (premier tier storage)
- Improved application support
- Refreshes Extract/Transform/Load platform in preparation for future application optimization
- Achieves standards for development/test/production environments for future application optimization
- Implements source code management in preparation for future application optimization
- Improves change management, includes related OBR project impacts
- Mitigates resource constraints for OH TECH through efficient use of resources and tactical use of professional services

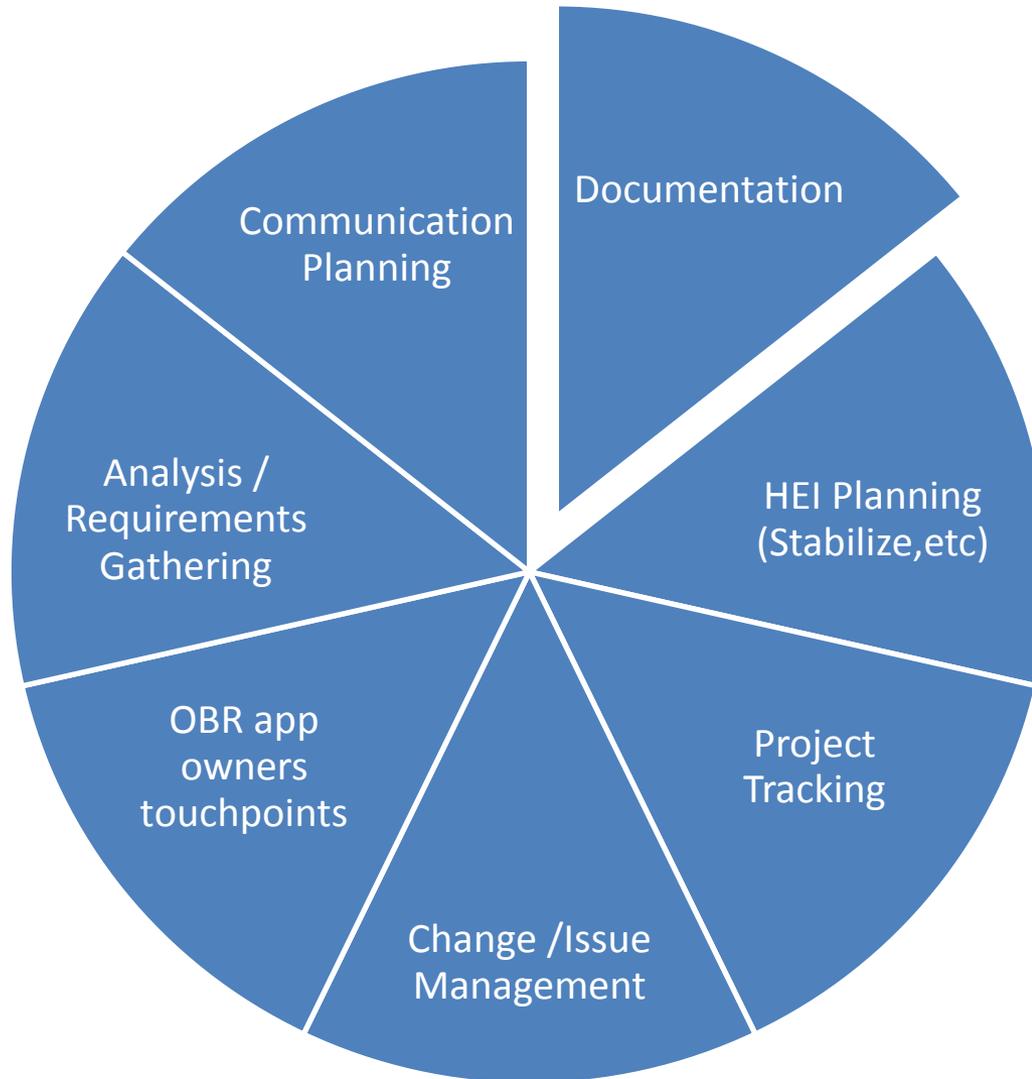
Risks/Issues

- Ongoing resource constraints for OH TECH Subject Matter Experts.
- The SOCC migration is at high risk to trigger a Disaster Recovery event.
- Current HEI Disaster Recovery is measured in weeks.
- Feasibility/Effort of porting MF COBOL is largely unknown.
- Effort to migrate the existing application source code is largely unknown due to inadequacy of inherited dev/test environment.
- All effort durations are educated guesses.
- Need visibility to Identity Management Planning and Implementation / Datacenter Migration
- SOCC migration planning for OH TECH has not yet completed.
- Tentative migration date in April is a dependency for HEI work.
- Identity Management planning for OBR/OH TECH has not yet completed.
- Compliance requires a formal process for approval from State of Ohio and Ohio State re: data security, identity management, and application administration (legacy applications are grandfathered).
- Processes for issue management, change management, and source control exist, but will require planning to fully establish and enforce.
- Related OBR project dependencies include (e.g., ATC, OTC, CurricUNET) and must be folded into the change management process.
- Specific Workforce Development requirements are not clear.

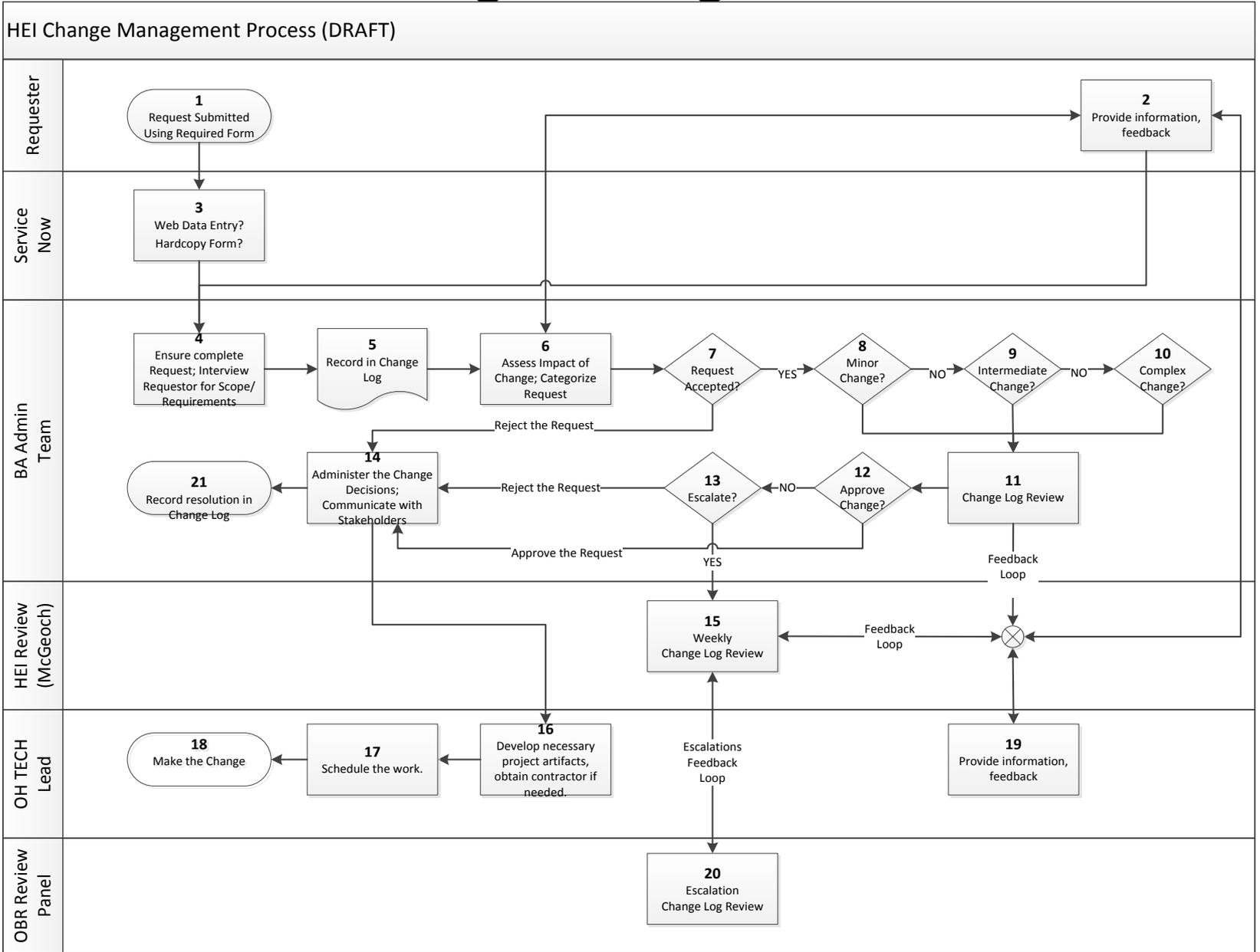
Next Steps

- Continue planning and identification of Approach tasks (i.e. flesh out a schedule):
 - Review/prioritize entire 90D body of work; Refine Stabilize body of work
 - Pursue reports inventory/prioritization; progress to requirements gathering
 - Adhoc reporting tool selection
 - Prepare BA team for duties: project tracking, etc.
 - Identify costs around third party professional services, hardware/software licenses, etc.
- Change and Issue management - must be defined and in place
- Communication Planning – identify stakeholders, messaging, timelines

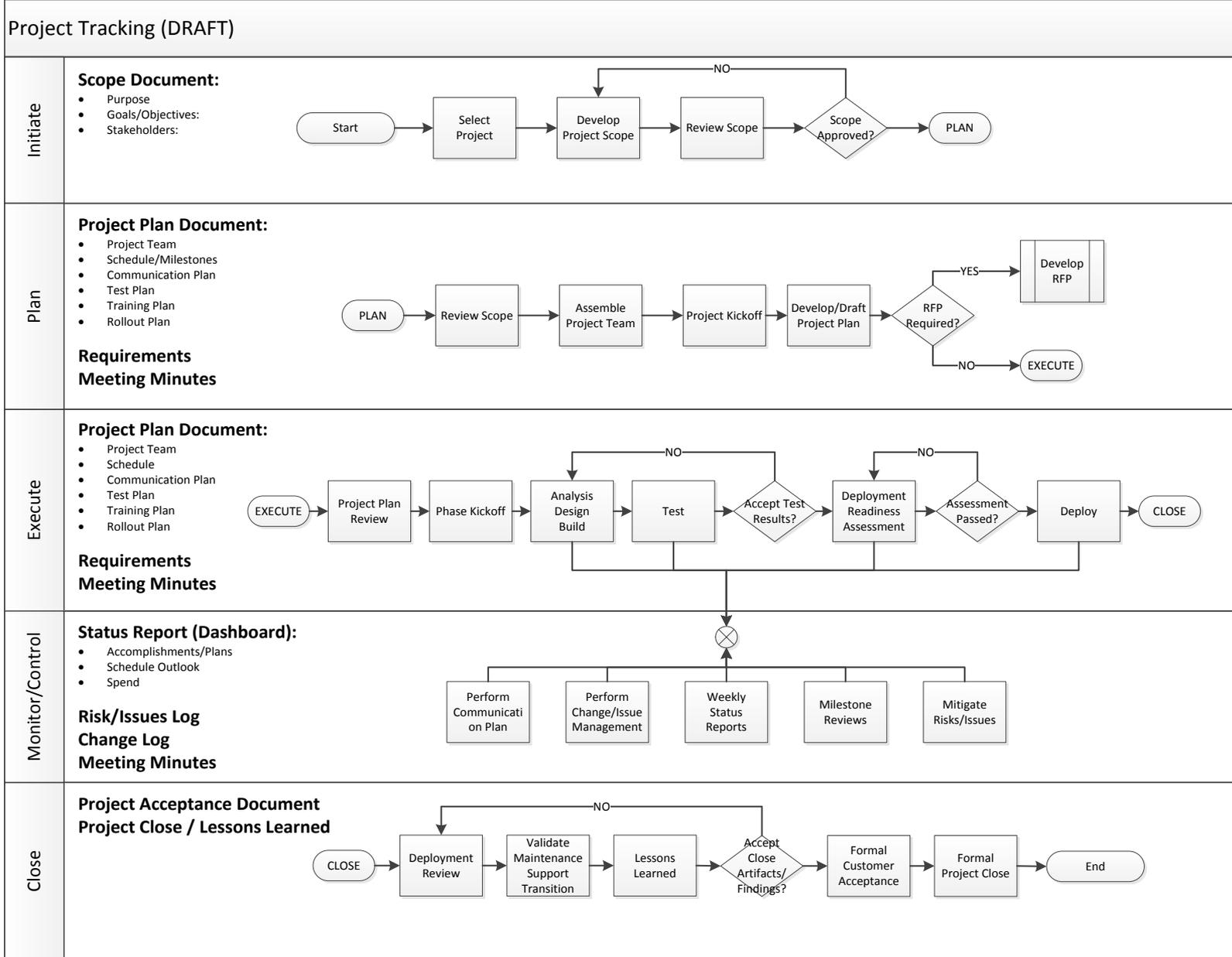
Business Analyst Admin Team Duties



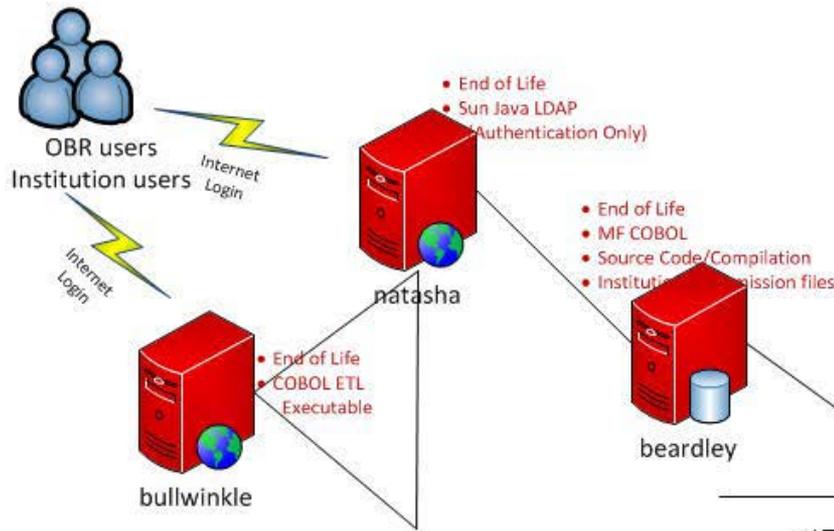
Change Management



Project Tracking



Current HEI Infrastructure

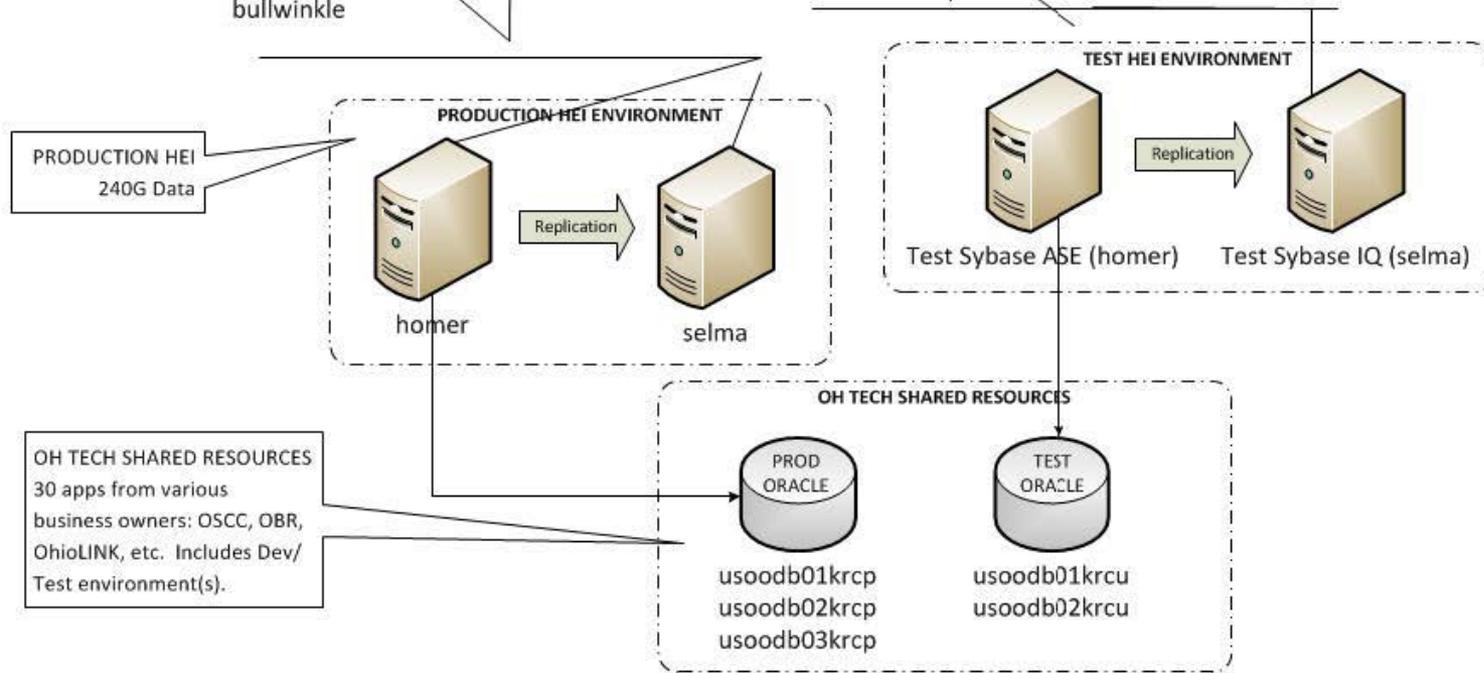


ISSUES - WEB APP SERVERS / AUTHENTICATION / CODE MANAGEMENT

- Multiple servers at End of Life
- LDAP software at end of support – deprecated functionality, outdated implementation, ongoing support needs
- MF CCBOL at end of support - deprecated functionality
- Endemic compliance issues: Identity Management, Encryption, Audit Trail, etc
- Related Risk/Issue: DC Migration
- Related Risk/Issue: ATC

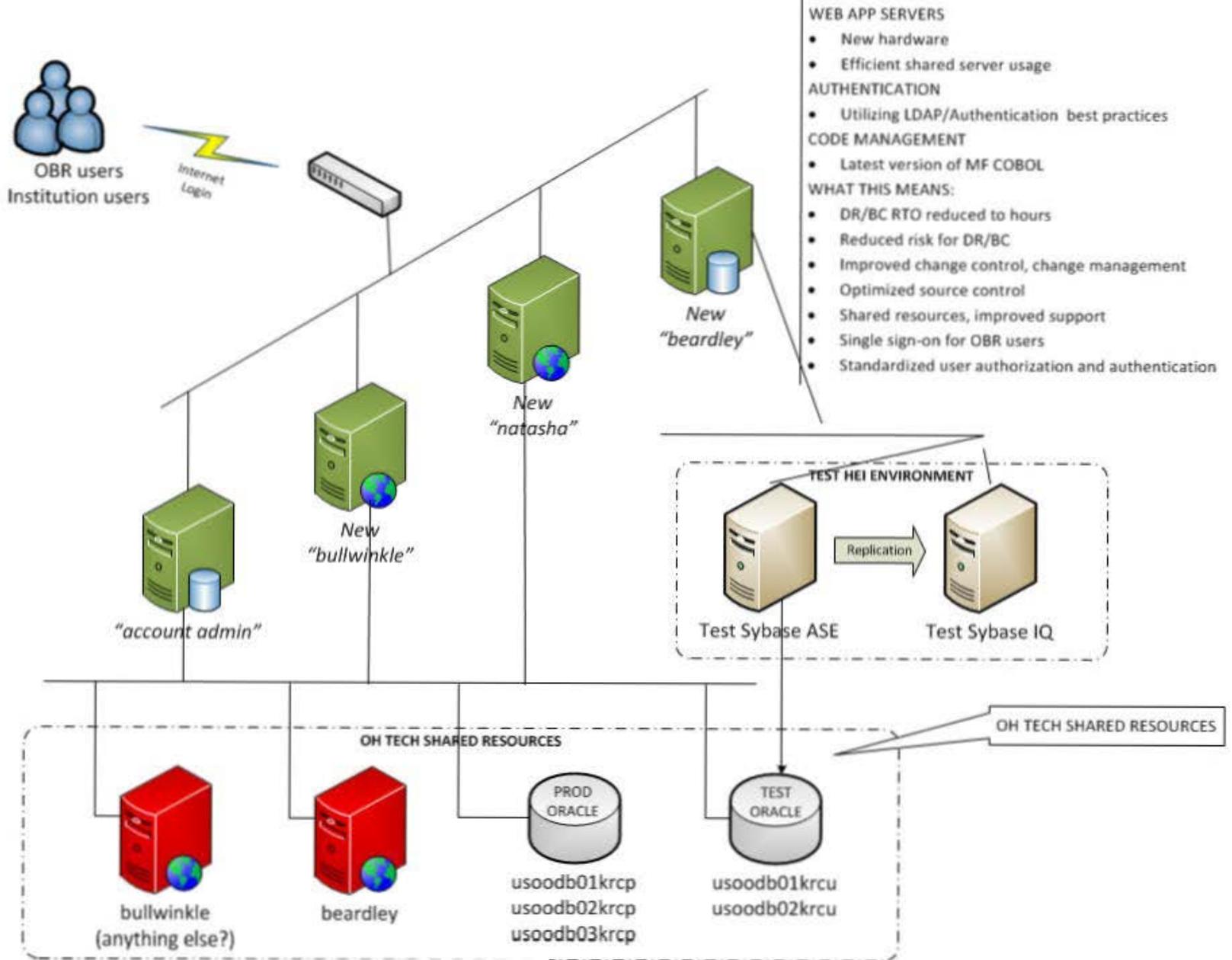
WHAT THIS MEANS (among others):

- A new DR or BC event RTO may be several weeks
- Extensive modifications should not be made to unsupported platforms (LDAP, COBOL)
- Because the current environment is so aged, porting to a newer platform will encounter functional discrepancies (COBOL)
- Current LDAP implementation cannot accommodate single sign-on. (LDAP)
- Substandard user authorization and authentication processes.



OH TECH SHARED RESOURCES
30 apps from various
business owners: OSCC, OBR,
OhioLINK, etc. Includes Dev/
Test environment(s).

Intermediate HEI Infrastructure



Current ATC Infrastructure

ATC

