



Board of Regents
University System of Ohio

INCLUSIVE COMPETITIVENESS

Empowering Underrepresented Ohioans to
Compete in the Innovation Economy





To: Vinod Gupta, Chair - Ohio Board of Regents
John Carey, Chancellor - Ohio Board of Regents

From: Patricia A. Ackerman, Ph.D. - Chair
OBOR Subcommittee on Inclusive Competitiveness

Herewith please find the final report of the OBOR Subcommittee on Inclusive Competitiveness entitled Inclusive Competitiveness Empowering Underrepresented Ohioans to Compete in the Innovation Economy.

In revisiting and reflecting upon work the Regents have done in the past, the interrelatedness of all our endeavors was not only affirmed, but new insights and correlations were revealed.

It was “Hindsight is always 20-20” wisdom that guided revisitation of OBOR’s 4th Condition Report, Underrepresented Ohioans Need More Education To Meet the State’s Workforce Needs (2011), and linked its findings to the technology commercialization and completion goals established for the USO in 2012 and 2013.

The Subcommittee’s work shed new light on the status of underrepresented groups in the USO, and fine-tuned our understanding of how the innovation economy is largely unfamiliar to Ohioans of color, women and rural residents. Their minimal pursuit of careers in STEM and related studies suggests that the economic potential and entrepreneurial opportunities, as well as the significant investment the state has committed to these endeavors via the Ohio Third Frontier, and to minorities in particular, is mostly unknown to these groups.

Of particular note is the passing reference made to the Ohio Third Frontier in the 4th Condition Report (2011) without any mention whatsoever of the legislative mandates for specific outreach to minority and rural populations. Given the concerns expressed in that report about minority enrollment in higher education generally, and STEM disciplines in particular, the omission is glaring.

At minimum, if we had taken a deeper dive in 2011, one of our most logical conclusions would have been to recommend connecting underrepresented groups to inherent opportunities set forth within the OTF legislation.

Nevertheless, the Subcommittee is most appreciative to many individuals for the success of its work. However, we owe a special debt of gratitude to a few. First, and foremost, Johnathan Holifield, VP for Inclusive Competitiveness at Nortech; his invaluable guidance and perspective as a content area specialist greatly informed the work of the Subcommittee.

Lynn Gellermann, Executive Director of TechGROWTH and the Ohio University Center for Entrepreneurship, promoted the total effort with passion throughout his impressive network of colleagues and contacts within and outside the state. In addition, he and his staff graciously hosted the culminating summit at Ohio University on June 11, 2014.

Clearly, the USO embraced the opportunity to participate in one or more of the four stakeholder forums convened to accommodate the colleges and universities, the technology-based economic development organizations, and philanthropic entities across Ohio. Representatives from several USO institutions, as well as private institutions, were active participants in one or more forums, and the summit. Their testimony, time and talent provided quantifiable evidence of the intersection between underrepresented groups and entrepreneurship in the technology-rich innovation economy.

Of course, work of such magnitude cannot come to fruition without significant internal support. We are grateful to OBOR staff, led by Assistant Deputy Chancellor Charles See, including Briana Hervet, Ph.D., and Mitzi Dunn.

Last, but not least, OBOR Vice Chair Regent Lana Moresky and Regent Virginia Lindseth demonstrated extraordinary interest and commitment to the overall effort. Their consistent presence, insights and input reflected recognition of the magnitude and importance of issues associated with inclusive competitiveness.

Going forward, it is my hope that the response to this report is immediate, forthright and deliberate implementation of its six recommendations.

October 10, 2014



Patricia A. Ackerman, Ph.D

Ohio Board of Regents

Inclusive Competitiveness Subcommittee, Chair

TABLE OF CONTENTS

i. Ohio Board of Regents	Page 6
ii. Uses of this Report	Page 10
1. Executive Summary	Page 12
2. Background	Page 22
3. Analysis	Page 30
4. Recommendations & Rationale	Page 36
5. Promising Practices	Page 40
Appendix	Page 62



OHIO BOARD OF REGENTS



VINOD K. GUPTA, of Wadsworth, Chair, Ohio Board of Regents and Chair, Ohio Board of Regents Commercialization Task Force. He was appointed to the Ohio Board of Regents in 2011 and serves as an Entrepreneur-In-Residence (EIR) for JumpStart Entrepreneurial Network (JEN) Advisors, a venture development non-profit organization in Cleveland that focuses on the direct coaching of entrepreneurs, helping them to define their business plans and approach. Regent Gupta's work with JumpStart focuses on his business experience in the area of advanced materials. This work has led to considerable growth in the northeast Ohio technology entrepreneurial ecosystem.



LANA Z. MORESKY, of Shaker Heights, Vice Chair, Ohio Board of Regents and member of the Subcommittee on Inclusive Competitiveness. She was appointed to the Ohio Board of Regents in October 2008. She spent nearly 15 years serving Ohioans in county government as director of community services, and also served as vice president of the Heights Fund Inc., and acting director of the Women's Law Fund, a non-profit law firm founded to pursue litigation that set national precedent in gender law.



TIMOTHY M. BURKE, of Cincinnati, Secretary, Ohio Board of Regents, was appointed to the Ohio Board of Regents in October 2008. Regent Burke is the president of Manley Burke LPA in Cincinnati, where his law practice is concentrated in local government law, land use, zoning and eminent domain.



PATRICIA A. ACKERMAN, PH.D., of Richmond Heights, Chair, Subcommittee on Inclusive Competitiveness, was appointed to the Ohio Board of Regents for a term beginning March 12, 2010 and ending September 20, 2014. Regent Ackerman is completing the unexpired term of former Regent Daniel B. Hurwitz. Regent Ackerman is president and CEO of CHALKDUST Inc., a consulting firm serving education professionals and volunteers as executive director of Chalkdust Education Foundation, a non-profit organization created to offer enrichment opportunities, training programs and related resources to students, parents and faith leaders in urban communities.



THOMAS HUMPHRIES has been the president and CEO of the Regional Chamber since April 1997. He oversees the operational functions for the organization and initiates, leads and facilitates the overall strategic plan of economic development and member service issues and promotes and enhances the Chamber's image throughout the service region. Under his leadership, the organization has enjoyed unprecedented growth in both total number of members and membership services provided. The 3,000 member companies and organizations today represent well over 150,000 employees.



KURT KAUFMAN is an attorney who has owned and managed Kaufman Law Office in Lima for the past 16 years and is a member of the Subcommittee on Inclusive Competitiveness. His practice focuses on worker's compensation, representing both injured workers and employers. His practice areas also include business and probate.



VIRGINIA M. LINDSETH, PH.D., of Hunting Valley, was appointed to the Ohio Board of Regents in 2011. Lindseth is an educational psychologist with a professional career that spans every level of teaching from pre-school to graduate school. She has been a classroom teacher, counselor, school administrator, educational consultant, and university professor.



ELIZABETH P. KESSLER, of New Albany, was appointed to the Ohio Board of Regents by Gov. John Kasich for a term beginning August 1, 2013 and ending on Sept. 20, 2016. Kessler is filling the unexpired term of Bonnie Kaelter Milenthal.

Ex-officio members**SENATOR PEGGY LEHNER***Ohio Senate***REPRESENTATIVE GERALD L. STEBELTON***Ohio House of Representatives***JOHN CAREY**, *Chancellor, Ohio Board of Regents*

An experienced lawmaker, John Carey served nine years in the Ohio House of Representatives and eight years in the Ohio Senate. He is one of the few legislators in history to serve as chairman of both the House Finance and Appropriations Committee and the Senate Finance and Financial Institutions Committee. Prior to his work as a legislator, Carey was mayor of the City of Wellston and was an aide to former Congressman Clarence Miller of Lancaster.

**JOHNATHAN M. HOLIFIELD**,

Consultant to the Ohio Board of Regents Inclusive Competitiveness Subcommittee.



USES OF THIS REPORT

The Subcommittee on Inclusive Competitiveness intends that this report provide all Ohioans, especially underrepresented groups that include women, African Americans, Latinos and rural populations, a tool to think anew about Ohio's Innovation Economy and energetically pursue a contributing role in it.

The Subcommittee is invigorated by prospects that such thought and advocacy can positively impact policy and result in fresh approaches to education and economic inclusion and competitiveness – the substantive breakthrough needed to create and sustain programs and strategic initiatives to connect underrepresented Ohioans to the Innovation Economy.

The Subcommittee notes that policy refers to a much larger set of organizations and interests than purely municipal, county, state and federal governmental actors; these include K-12 and higher education, technology- and innovation-based intermediary organizations, the corporate and philanthropic sectors, and communities themselves. Each of these groups can exert significant influence on regional and state Innovation Economy strategies and practices, whether through the promotion of priorities or the funding of specific initiatives.

The narrower definition of policy – which is limited to public sector activity – remains important, as federal, state, county and municipal policy can create leadership and investment

mechanisms that influence Innovation Economy practices. Yet there are enough instances, where the practices of influential actors elude traditional public policy channels, that it is important to consider a broader view.

The Subcommittee is clear: The force of policy – defined as influential actors’ expression of important public objectives – is required to build the inclusive Innovation Economy infrastructures needed to form and attract the financial investment essential to further extend the benefits of 21st century opportunities to underrepresented Ohioans. Finally, the Subcommittee’s best hope for this report is that it is used by all manner of Ohioans to catalyze regional and state responses to the challenges and opportunities inherent in Inclusive Competitiveness. The hope is to draw attention in the state around education and economic inclusion and competitiveness solutions that kindle statewide interest.

New market behaviors are needed to create, sustain and ultimately achieve the desired education and economic inclusion and competitiveness impact – especially the creation of portals to empower underrepresented Ohioans and connect them to resources and economic opportunities in regional and state innovation ecosystems, industry clusters and emerging technology sectors.



EXECUTIVE SUMMARY

*The Ohio Board of Regents (OBOR) Subcommittee on Inclusive Competitiveness is pleased to submit the report:
"Inclusive Competitiveness: Empowering Underrepresented Ohioans to Compete in the Innovation Economy."*

THE NEED FOR A REPORT ON INCLUSIVE COMPETITIVENESS

Our report builds upon the foundation of the Fourth Report on the Condition of Higher Education in Ohio: Underrepresented Ohioans Need More Education to Meet State's Workforce Needs (Fourth Condition Report¹). Data from that report revealed a lack of academic achievement occurring at all levels among underrepresented Ohioans. These circumstances, as described in the Fourth Condition Report, have the potential to limit economic opportunities for millions of underrepresented Ohioans. Such a lack of preparedness and opportunity can have a negative impact upon the economic competitiveness of the state. The Fourth Condition Report called for improving college completion as a primary concern, with which this report concurs. But other equally concerning priorities include improving the overall relevance of higher education as it pertains to positive economic and social outcomes for students and bolstering the economic competitiveness of Ohio.

This is especially important in the Innovation Economy, defined as the transformation of the industrial manufacturing economy during the late 20th and early 21st centuries to its present-day condition, marked by socioeconomic changes brought about by a unique convergence of advanced globalized commerce, democratized widely available information, accelerated new knowledge-creation and exponential entrepreneurship growth².

¹ Fourth Condition Report

² Inclusive Competitiveness: A glossary of terms for communicating in the vernacular used in the profession of 21st century tech-based economic development, Johnathan M. Holifield, 2010.



In addition to actions which can be taken by local governments Inclusive Competitiveness can be furthered through policies, strategies, practices and metrics that serve to improve the performance of underrepresented populations and communities in the Innovation Economy including increased productivity within innovation ecosystems³, industry clusters⁴, emerging technologies⁵, and other areas critical to overall economic competitiveness. Inclusive Competitiveness neither alters nor replaces, but rather complements and enhances, existing and emerging education and economic competitiveness metrics and strategies, exclusively focusing on the performance of diverse populations⁶.

Higher Education's Role: Given the dramatic change in the state's economy, to include more 21st century knowledge- based and tech-driven jobs, operating in a globally competitive Innovation Economy, higher education has inherited the task of ensuring all students are prepared to meaningfully contribute to the economic competitiveness of Ohio. This

3 Innovation ecosystem is comprised of interconnected, interdependent and balanced communities of assets, including: talented people, capital, education institutions, research and commercialization resources, customers, philanthropy, government, and professional services – that work together to create new enterprises, jobs, wealth and economic prosperity, Johnathan M. Holifield, op cit., p. 4.

4 Regional industry clusters are geographic concentrations of interconnected firms and supporting organizations that represent a potent source of productivity at a moment of national vulnerability to global economic competition, Karen G. Mills, Elisabeth B. Reynolds, and Andrew Reamer, *Clusters and Competitiveness: A New Federal Role for Stimulating Regional Economies*, Brookings Institution, April 2008.

5 Emerging technologies are defined as technologies which arise from new knowledge, or the innovative application of existing knowledge; lead to the rapid development of new capabilities; are projected to have significant systemic and long-lasting economic, social and political impacts; create new opportunities for and challenges to addressing global issues; and have the potential to disrupt or create entire industries, World Economic Forum, 2010.

6 Johnathan M. Holifield, op cit., p. 2.

report on Inclusive Competitiveness is prepared as a catalyst that can stimulate awareness of the need for higher education, industry and government to adopt a shared vision that results in a collaborative effort toward the common goal of improving the performance of underrepresented Ohioans in the Innovation Economy.

Underrepresented Ohioans Defined: For the purposes of this report, underrepresented Ohioans is defined as women, African Americans, Latino Americans and residents of rural communities.

Urgency of Now: This report goes beyond identifying the challenges to introduce a set of initial recommendations designed for expedient proliferation and exponential impact. The recommendations of this report are offered with a sense of urgency and deep concern that the state's growing opportunities in the increasing pace of the Innovation Economy may leave behind too many underrepresented Ohioans. The Subcommittee on Inclusive Competitiveness has studied the problem and offers a set of recommendations that lead toward solutions.

Expanded Role of Higher education: Ultimately, this report can result in Ohio students recognizing the broad benefits of higher education as meeting their needs across a variety of economic impact and social outcomes in the 21st century.

Overall, the economy of Ohio is dependent upon the dual pipelines of a problem-solving, higher-educated workforce and problem-solving, job-creating entrepreneurs who bolster the economic competitiveness of the state. These two pipelines must include increased productivity from underrepresented Ohioans. Therefore, this report will focus on addressing the path toward establishing statewide education and economic frameworks promoting Inclusive Competitiveness.

THE NEED FOR A SUBCOMMITTEE ON INCLUSIVE COMPETITIVENESS

Subcommittee Charge: The Subcommittee is charged with proposing a statewide Inclusive Competitiveness framework of actions— including policies, strategies and practices – and assisting a statewide ecosystem that can effectively and efficiently improve the education, employment and job-creating entrepreneurial performance of underrepresented Ohioans in the Innovation Economy.

The Subcommittee is aware of the urgent need for the state to address the growing opportunity gap. If Ohio's economic competitiveness goals consistently outpace its growth rate in higher-educated Ohioans, it simply will not – indeed cannot – attain its highest economic competitiveness potential⁷. The Subcommittee believes the state cannot sustainably increase its overall economic competitiveness without adequately educating enough people to create and take advantage of expanded economic opportunity. Accordingly, the Subcommittee is charged with the task of laying the groundwork for transitioning Ohio's higher education to better support and connect to the state's evolving

⁷ Johnathan M. Holifield, op cit., p. 8.

economy. The Subcommittee's lens highlights underrepresented Ohioans, many of whom currently lack exposure to the best opportunities to contribute to the economic competitiveness of the state.

Subcommittee Formation: Led by OBOR Chairman Vinod (Vinny) Gupta, OBOR created the Subcommittee on Inclusive Competitiveness on November 20, 2013, at Youngstown State University, after the presentation titled, *New Policy and Action to Improve the Performance of Underrepresented Ohioans in the Innovation Economy*, by Johnathan M. Holifield, Vice President, Inclusive Competitiveness at NorTech, and Lynn Gellermann, Executive Director, TechGROWTH and Ohio University Center for Entrepreneurship. OBOR recognized that the University System of Ohio and other higher education institutions were uniquely positioned to provide statewide leadership to increase Ohio's education and economic competitiveness by improving the performance of underrepresented Ohioans in the state's regional innovation ecosystems, industry clusters, emerging technologies and other areas critical to the Ohio's economic competitiveness.

The work of the Subcommittee on Inclusive Competitiveness introduces an opportunity to break down silos within targeted regional innovation ecosystems. There is a need to establish cross-sector, interdisciplinary collaboration among leadership across the Communities of Influence⁸ that lead to a vision and collaborative strategic approach.

Subcommittee Members: The Subcommittee is composed of Regent Patricia A. Ackerman, Ph.D., who serves as Chair, and OBOR Vice-Chair Regent Lana Z. Moresky and Regent Kurt Kaufman. Administrative support was provided by OBOR staff, Mitzi Dunn, Briana Hervet, Ph.D., and Charles See, and subject matter expertise was provided by Johnathan Holifield of NorTech.

Subcommittee Statement: In support of a cultural, operational and systemic change that embeds and advances economic inclusion and competitiveness in the University System of Ohio's workforce preparedness and job creation efforts, the Subcommittee's report and recommendations provide a policy, strategy and practice blueprint detailing how Ohio's 14 research universities, 24 regional campuses and 23 community colleges can lead the way in joining with K-12 education districts, tech-based economic development (TBED) organizations, philanthropy, corporations and community groups to dramatically improve interest, access, opportunities and outcomes for underrepresented Ohioans in the Innovation Economy. Special focus is placed on higher education's role in engaging the state's myriad and diverse regional innovation ecosystems, industry clusters, emerging technologies, and other areas critical to Ohio's sustained education and economic competitiveness.

⁸ Communities of Influence (COI) are eight primary and identifiable communities that have significant impact upon the balance or imbalance of the overall innovation ecosystem - education, industry, policy, funding, entrepreneurs, community, development, and communications. These COI must be taken into account and incorporated into strategic planning efforts. Each community contains sub-listings of institutions, organizations, groups, leaders and stakeholders that collectively make up the local innovation ecosystem. The detailed version is contained in the appendix. Source: Inclusive Competitiveness, America's 21st century economic imperative, Mike Green, 2013.

This report serves as a strategic blueprint for building inclusive education and economic frameworks, from which pipelines of increased productivity connect to existing, and ignite new, innovation activity that can make Ohio the national model of 21st century education and economic inclusion and competitiveness.

OHIO JOB PREPARATION AND CREATION IMPERATIVE

Higher education has always had a job preparation imperative. Today, however, it has been tasked with not only preparing Ohioans to obtain good jobs, but also contributing to Ohio's job-creating entrepreneurship.

This is a task for this era, for this economic paradigm. The Subcommittee on Inclusive Competitiveness believes that higher education must be the tip of the spear in both preparing Ohioans for the jobs that are emerging in the Innovation Economy and developing generations of both entrepreneurs and intrapreneurs⁹ (employees infused with the principles and practices of entrepreneurship within an employee role).

Transitioning Narrative: From the second half of the 20th century to the present day, families, friends, teachers, counselors and other authoritative voices have communicated to underrepresented Ohioans the overriding societal expectation that a "good education" leads to obtaining a "good job."

However, in the Innovation Economy, focusing solely on education to secure gainful employment is not sufficient to build an inclusive, prosperous future for our state. Without doubt, a "good education," now more than ever, is important for obtaining "good jobs" that are relevant in an economic era in which entire industries have witnessed the disappearance of long-standing businesses and eradication of obsolete jobs. Experienced leaders in entrepreneurship and the Innovation Economy are debating the challenges of producing enough jobs in the near future. Equally, and perhaps more important than obtaining a quality education for relevant employment opportunities, underrepresented Ohioans must also be prepared and equipped to pursue higher education to create new jobs.

There is a pressing need in the 21st century to articulate and inculcate among underrepresented Ohioans the narrative of dual and complementary expectations to leverage higher education to compete for both top employment opportunities and to become higher-growth entrepreneurs who create not only their own job, but also perhaps jobs for many Ohioans.

The Subcommittee on Inclusive Competitiveness rejects the false choice of pursuing higher education to get jobs or create jobs. Rather, the Subcommittee notes that Inclusive Competitiveness promotes higher education to both obtain and create jobs. The recognition and adoption of the "and" conjunction is critical. This job preparation and creation imperative for higher education is best explained by the phenomena of the Innovation Economy Squeeze.

⁹ Recognize Intrapreneurs Before They Leave, Vijay Govindarajan and Jatin Desai, Harvard Business Review, 2013.

Innovation Economy Squeeze: The “flat world”¹⁰ is a metaphor for viewing the world as an increasingly level playing field in terms of commerce, where billions of people – new economic competitors – have access to improved opportunities in a worldwide competitive economy. Clearly, the world is not economically flat. It is much flatter, however, with more people able to compete globally for jobs and opportunity regardless of geographic location, than it has ever been.

A troublesome outcome of the increasingly “flat world” is the Innovation Economy Squeeze, in which economic pressures impacting millions of middle-class Americans are squeezing many into lower-earning capacity jobs, and some into poverty.

Today, Ohio is confronting 21st century twin forces that challenge us in profound ways: from the bottom up, technology efficiencies require fewer workers to produce greater outcomes; and from the top down, technological advances in information and communications have resulted in a worldwide competitive marketplace for “good jobs.” Combined, these two forces of technology efficiencies and global competition produce the Innovation Economy Squeeze.

Innovation for Efficiency: The Innovation Economy Squeeze is an outcome of the introduction of new innovations and technologies that have disrupted business models, given birth to new industries, accelerated obsolescence of some mature companies and evolved the 21st century marketplace to where substantially fewer workers produce ever more goods and services. The efficiency gains enabled by the simultaneous reduction of company expenses and increases in productivity – which are vital for Ohio businesses to remain globally competitive – also can result in low job creation. This dynamic is the hallmark of today’s Innovation Economy, wherein increases in productivity output are not necessarily tied to a need for more workers. The Subcommittee recognizes that this is an inescapable reality of the Innovation Economy. However, this is of particular concern for underrepresented Ohioans, who tend to fare poorly in such lower job creation scenarios.

Innovation for Expansion: In the increasingly “flat world,” competition for jobs stretches to nearly every corner of the globe, and dramatic increases in U.S. business productivity rely far less upon large amounts of human labor. The Subcommittee notes that this phenomenon can be effectively addressed only through innovations that create both needed business efficiency and expansion. Today’s economic era offers an opportunity for the University System of Ohio and other higher education institutions to adopt a leading role in preparing underrepresented Ohioans for these economic realities. This role encompasses the dual strategic thrusts to complement innovation to achieve greater business efficiency with innovation that promotes job-creating expansion of existing businesses and industries and sparks entrepreneurship within new and emerging industries. Higher education provides a reliable pathway for underrepresented Ohioans to improve their ability to contribute the kind of innovations that achieve both necessary ends.

¹⁰ The World Is Flat: Expanded Edition, A Brief History of the Twenty-first Century, Thomas L. Friedman, 2006.

EDUCATION AND ENTREPRENEURSHIP

There's no debate over the nation's need for more job creators. The question is, who will produce them? Entrepreneurship is being promoted at all levels of education, from Google's Lemonade Stand, which introduces entrepreneurial thinking as early as elementary grade levels, to Stanford Professor Steve Blank's Lean Launchpad, an educational package built around entrepreneurship that stems from initial entrepreneurial education experiments funded by the National Science Foundation. In Ohio, the phenomenal success of the experiment at Hawken School in Cleveland has exploded interest in the program, which is spreading rapidly across the country. There are also community efforts such as the Lighthouse Entrepreneurial Accelerator Program (LEAP), the flagship program of the Shaker LaunchHouse Institute, a premier summer program for high school entrepreneurs seeking a fun, innovative experience exploring the local entrepreneurial scene throughout Cleveland. Their experiments have been successful in multiple forums.

Higher education plays an especially important and leading role in providing educational, vocational and entrepreneurial training and resources across the spectrum to all populations who impact the economic competitiveness of cities, regions, states and the nation. Adults who lack competitive skills also require higher education interventions. This oft-overlooked population must be included when seeking solutions to preparing underrepresented Ohioans for a 21st century economy. Entrepreneurship is increasingly becoming a key educational tool that increases student engagement and produces real-world results.

Entrepreneurship as Core Competency: Entrepreneurship is not only the key to the nation's economic competitiveness – it's "America's secret sauce," says Karen Mills, former head of the Small Business Administration. Higher education institutions are starting to embed entrepreneurship into the culture of the campus.

Consider the approach by Arizona State University, which redesigned its entire campus curricula and culture around innovation and entrepreneurship. The Liberal Arts College, Lewis and Clark, recently opened its new Entrepreneurship Center -- not merely as a center for those who seek to become entrepreneurs, but rather as a center of cross-disciplinary focus embedded in the culture of the campus.

"People have always worried about what to be when they grow up," says Tuajuanda Jordan, dean of the College of Arts and Sciences. "But today's world is so different. You may not know the skill set you will need in the future. You may wind up creating your own job—and that's entrepreneurship."

These schools set themselves apart as forward-thinking 21st century institutions. Entrepreneurial thinking is rapidly spreading across higher education as an interdisciplinary skill that better prepares students with skills for today's Innovation Economy. Ohio is home to world-class higher education institutions, yet, there is always room for improvement. The Subcommittee's report on Inclusive Competitiveness can catalyze the change.



NO TREND; A PARADIGM SHIFT

The Kauffman Foundation reports that nearly all net new jobs in America since 1980 have been produced by startups (new companies less than five years old). Most tech-innovation entrepreneurs (a.k.a. startup founders) are college-educated, whether degreed or not. Preparing students for the higher-wage, tech-based workforce and the higher-growth, tech-driven entrepreneurial economy starts with a solid education steeped in STEM/STEAM (Science, Technology, Engineering, Arts and Math).

The K-12 public education landscape needs higher education leadership to establish guidelines and thresholds, as well as collaborative partnerships, activities and programs designed to scale up student interest in STEM curricula. Experiential entrepreneurship curricula are key components to development of a seamless pipeline of students matriculating through educational channels into dual productivity pipelines that feed Ohio's economic competitiveness and the nation's Innovation Economy.

EXPECTED OUTCOMES OF THIS REPORT: RECOMMENDATIONS

The Subcommittee urges the Chancellor to employ all the powers available to his office under the Ohio Revised Code to publicly advocate for overarching education and economic inclusion policies, strategies, practices and metrics to ensure that underrepresented Ohioans are competitive in Ohio's Innovation Economy. The Chancellor's leadership will set the stage and offer the best tone for filling a void that is necessary to bolster the economic competitiveness of the state.

The detailed recommendations, with supporting rationale of the Subcommittee on Inclusive Competitiveness, are contained in the Recommendations and Rationale section of this report. Below is a summary of the recommendations of the Subcommittee:

- Encourage the University System of Ohio and other higher education institutions to introduce, articulate and inculcate Inclusive Competitiveness economic narratives in schools, institutions and communities throughout the state, emphasizing deep saturation of the narrative throughout Ohio's underrepresented areas
- Encourage the University System of Ohio and other higher education institutions to promote inter- and multidisciplinary approaches to Inclusive Competitiveness.
- Encourage continued and increasing support for the Believe in Ohio Youth STEM Commercialization and Entrepreneurship Program.
- Encourage continued support for the Choose Ohio First Scholarship Program.
- Collaborate with the Ohio Department of Education to foster articulation and dissemination of Inclusive Competitiveness narratives to K-12 educators via Educational Service Centers that are recognized providers of professional development.
- Encourage the Third Frontier Commission to continue its on-going efforts in fulfilling the minority and rural outreach provisions of the Ohio Third Frontier initiative governing law and broaden the outreach to include women.



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BACKGROUND

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OHIO THIRD FRONTIER

According to the report, *Making an Impact: Assessing the Benefits of Ohio's Investment in Technology-Based Economic Development Program*, Ohio's thinking about issues related to technology-based economic development and how the state could play a catalytic role in this development dates back to the early 1980s. The state invested in the Thomas Edison Program in 1984, creating the Edison Technology Centers and Edison Incubators. The state's second major endeavor, nearly 20 years later, was to put in place a comprehensive set of programs to support world-class research from the University System of Ohio and other higher education institutions aligned with industry platforms, to encourage collaborative research and commercialization activities, and to spur new technology company formation. This \$2.1 billion set of programs is known as the Ohio Third Frontier (OTF Initiative).

The *Making an Impact* report notes several major accomplishments of the OTF Initiative:

- Dramatically increasing the availability of early-stage capital in Ohio
- Improving the environment for Ohio technology entrepreneurs
- Improving research & development collaboration among the University System of Ohio, other higher education and research institutions and industry
- Driving employment growth in Ohio's technology sector
- Contributing to the diversification and competitiveness of Ohio manufacturers
- Recruiting non-Ohio companies to the state
- Charting a course for Ohio consistent with successful Innovation Economy growth in other regions

In support of these unprecedented investments in innovation and outstanding results, the Ohio Third Frontier Internship Program is also developing talented workers in key areas of STEM relating to Ohio Third Frontier's technology focus areas. These students are gaining insightful, hands-on experiences related to their field of study at for-profit Ohio companies. In turn, the companies are benefiting from these students' innovative ideas and higher-value capabilities that are helping to make the companies more competitive in the global marketplace.

EMPOWERING UNDERREPRESENTED OHIOANS

The OTF Initiative is an example of Ohio's extraordinary leadership in the Innovation Economy. However, two provisions of the law governing the OTF Initiative are especially important to the work of the Subcommittee on Inclusive Competitiveness – the minority and rural outreach sections briefly described below:

ORC 184.17 Outreach activities - minority defined.

As used in sections 184.171, 184.172, and 184.173 of the Revised Code, "minority" means an individual who is a United States citizen and who is a member of one of the following economically disadvantaged groups: Blacks or African Americans, American Indians, Hispanics or Latinos, and Asians.

ORC 184.171 Minorities to be included in outreach activities and projects.

The Third Frontier Commission shall conduct outreach activities described in section 184.172 of the Revised Code that seek to include minorities in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission. The commission shall direct the activities at faculty and students involved in science and engineering disciplines, professional scientists and engineers, technical assistance providers, the investment community, minority-owned businesses, and minority entrepreneurs.

ORC 184.18 Outreach activities to rural areas

(2) “Rural area” means any area of this state not located within a metropolitan statistical area.

(B) The Third Frontier Commission shall conduct outreach activities that seek to include rural areas in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission.

(1) Working with all institutions of higher education in the state to support faculty and students involved in science and engineering who focus on third frontier projects and initiatives in rural areas.

Subcommittee Focus Includes Women: Although women are not defined in the OTF Initiative governing legislation as a minority, the Subcommittee believes that Ohio women may be a vital untapped source of an innovative, intrapreneurial workforce and entrepreneurial enterprise talent pool that will enhance our state’s education and economic competitiveness.

Different Trajectory; Different Needs: The OTF Initiative established a greater role for higher education in preparing and equipping all Ohioans to meet both the workforce and job-creation needs of Ohio in the 21st century. The \$2.1 billion State of Ohio investment was established to “create new technology-based products, companies, industries and jobs.” Those tech-based products will reach the market only with the help of innovators. Those companies and industries require entrepreneurs to create them. And the success of those entrepreneurs will increase the demand for intrapreneurial skilled workers. This intentional economic activity, catalyzed in part by the state’s investment, has introduced an urgent need for higher education to respond by developing a healthy flow of talent through the dual pipelines of a tech-ready workforce and higher-growth, tech-driven entrepreneurs.

ECONOMIC NARRATIVE

The importance of higher education as the on-ramp to a fast lane of greater economic inclusion and competitiveness of underrepresented Ohioans cannot be overstated. Ohioans are facing the continuously mounting, dual challenges of the increasingly “flat world” and the decoupling of business productivity growth from job creation. To best leverage the state’s growing success in the 21st century economy, and increase opportunities for underrepresented Ohioans, requires an economic narrative focused on the Innovation Economy that permeates every community and corner of the state.

The University System of Ohio can be the catalytic driver of this economic narrative, which refers to the dominant leadership and advocacy in underrepresented Ohio communities and informs the kind of educational leadership, advocacy, support services and opportunities that are available in these communities. Our report propounds the virtue and necessity of higher education. It can lead the way in development of vision, strategy and frameworks that bolster the capacity of students to identify and pursue economic opportunities in a radically different economy, which can lead to sustained economic resiliency and improved quality of life for underrepresented Ohioans.

Specifically, our report updates and expands conclusions expressed in the Fourth Condition Report that conclusively show higher education, now more than ever, is of utmost importance for obtaining higher-wage jobs and is equally important to entrepreneurship, job creation and delivering life-long learning opportunities.

Higher education can be a preparatory platform for higher-growth, tech-driven entrepreneurship and for the critical-thinking, problem-solving, entrepreneurial and collaboration skills that underscore the capacity for every individual to successfully navigate the shifting scenery of opportunity throughout their lives.

APPROACH

To inform our report, the Subcommittee spent more than six months examining national, state and regional quantitative economic and education data, which are bolstered by the qualitative dimensions of compelling dialogue with on-the-ground, experienced representatives of the University System of Ohio, other higher education institutions, state government programs, STEM -focused education programs and initiatives, minority- and rural-serving organizations and regional technology- and innovation-based economic development organizations.

Our recommendations seek to establish a cohesive and comprehensive statewide strategy that can help to create conditions for programs and strategic initiatives to improve the performance of underrepresented Ohioans in education and the Innovation Economy.

STAKEHOLDER FORUMS AND SUMMIT

In accordance with its charge to seek input from a diverse array of stakeholders from the University System of Ohio, the technology- and innovation-based economic development communities and STEM/STEAM programs and initiatives and minority- and rural-serving organizations, the Subcommittee on Inclusive Competitiveness hosted four regional stakeholder forums:

- **February 18** at OBOR, focused on the Southeast Region and rural areas of Ohio
- **March 12** at Miami University, focused on the Southwest Region of Ohio
- **April 9** at Cuyahoga Community College, focused on the Northeast Region of Ohio
- **May 7** at OBOR, focused on the Northwest Region of Ohio

The stakeholder forums examined the status of efforts to incorporate underrepresented Ohioans into regional and state initiatives targeted at creating new technology-based companies, supporting existing industries to create globally competitive products and services, developing more STEM/STEAM-based entrepreneurs and growing the talent pipeline in STEM/STEAM-related fields.

The Subcommittee culminated public engagement on June 11 with the Inclusive Competitiveness Summit, hosted by Ohio University. The Summit included capstone stakeholder presentations from regions across Ohio, a dynamic, facilitated ideation session and a review of the Subcommittee process and discoveries.

KEY STAKEHOLDERS

The Subcommittee engaged thought and action leaders from government, higher education, industry, non-profit, minority, rural, philanthropic, and technology intermediary organizations to examine the status of these efforts and explore ways they can be improved. In addition, the Subcommittee reviewed how institutions of higher education have responded to the need to produce more underrepresented and low-income graduates in STEM-related fields as outlined in the OBOR's Fourth Report on the Condition of Higher Education.

PUBLIC PROCESS

Stakeholder forum participants gave 10- to 15-minute presentations and engaged in open dialogue regarding their experiences and efforts to become a part of, and contribute to, the inclusion of underrepresented Ohioans in the Innovation Economy.

Moreover, participants provided progress reports on those policy and programmatic initiatives that are not only designed to attract, expose and prepare underrepresented Ohioans for the Innovation Economy, but are also responsive to minority and rural outreach provisions of the OTF Initiative and/or the OBOR's Fourth Condition Report. Of particular interest to the Subcommittee were efforts that addressed one or more of the following:

- Factors and successful strategies and practices
- Limitations and barriers
- Resources and incentives to accelerate activity; and
- University collaborations with technology, philanthropic and other organizations and institutions.

MORE THAN A MATTER OF EQUITY

In today's Innovation Economy, the education and economic competitiveness of Ohio relies significantly upon the leadership of the University System of Ohio to create a strong, diverse talent base to develop new innovations, successfully compete for employment opportunities in an increasingly competitive world and form new, higher-growth businesses that create jobs.

Catalyzed by the Ohio Third Frontier, a \$2.1 billion, internationally recognized TBED initiative, with sustaining and complementary investments from and regional philanthropic organizations, Ohio is successfully changing the product, service and job-creation trajectory of its economy.

By investing in higher education research and commercialization and supporting existing industries that are transforming themselves with globally competitive products and services – and fostering the formation and attraction of entrepreneurial, higher-growth enterprises in emerging and existing industry clusters, which contribute to job creation – these investments enable broad-based economic innovation.

Untapped Talent: However, underrepresented Ohioans may not be engaging and contributing to these opportunities as much as they could. Data that measure the performance of underrepresented Ohioans should be collected. Based on the extensive experience of those closest to these challenges, including leaders from the University System of Ohio and other higher education institutions and economic competitiveness organizations who provided critical observations to the Subcommittee, it is instructive to note national trends:

- African Americans and Latinos comprise nearly one-third of the U.S. population, yet their businesses account for less than 3.5% of GDP and employ slightly more than 1% of the workforce.¹¹
- Women comprise nearly 51% of the population, yet it is estimated there are more than 8.6 million women-owned businesses in the U.S., generating less than 10% of GDP and employing just 6% of the workforce.¹²

National Trends and Impact: Entrepreneurial growth rates among African American and Latino entrepreneurs are more than triple and double the national average (18%), reaching 60% and 44%, respectively. Additionally, between 1997 and 2013 women-owned businesses increased by 59%. Yet, business productivity output from these underrepresented groups is minimal, as presented in the above bullet points. Such low productivity resulting from such high activity is chiefly attributable to being disconnected from higher education, quality resource networks and economic opportunities available in the Innovation Economy.

Untapped Potential: The Subcommittee notes that this acknowledgement in no way advocates for a standardized quota for economic contribution, but rather recognizes the enormous untapped economic productivity potential inherent in these demographic groups. Ohio cannot, nor can any other state, reach its highest economic competitiveness goals without a collaborative vision and strategy.

In sum, underrepresented Ohioans are not generating substantive positive economic impact and creating jobs commensurate with the extraordinary 21st century opportunities that exist within Ohio and the U.S. Therefore, pursuing Inclusive Competitiveness should be a matter of highest importance to the state.

Our report calls for adoption of a higher education paradigm that reflects the changed economic circumstances of Ohio and America. These changes have affected every facet of life throughout our state and nation.

21st Century Paradigm: Education, from pre-K through higher education, must transform to recognize the fact that completion of high school is critical to successfully compete in today's Innovation Economy and beyond high school. Every student must be prepared for life-long learning, whether they are matriculating from high school at age 18 to pursue professional certificates, two or four year degrees or are returning to formal education following decades of work. Higher education is no longer an elective; it's a requirement. It is part of the culture to live and thrive in 21st century America. Recognition of this shift is part and parcel of the message that underscores the Subcommittee's recommendations to the Chancellor.

¹¹ Census Bureau Reports the Number of Black-Owned Businesses Increased at Triple the National Rate

http://www.census.gov/newsroom/releases/archives/business_ownership/cb11-24.html

Hispanic-Owned Businesses Grow by More than Double the National Rate

<http://www.commerce.gov/blog/2010/09/21/hispanic-owned-businesses-grow-more-double-national-rate>

¹² The State of Women-Owned Businesses , 2013

https://c401345.ssl.cf1.rackcdn.com/wp-content/uploads/2013/03/13ADV-WBI-E-StateOfWomenReport_FINAL.pdf

The University System of Ohio and the state's overall higher education landscape is a broad diverse platform of learning opportunities to prepare and equip students to fully understand their environment, society and the world at large. In this setting, students learn how to successfully pursue their ambitions and passions wherever they may be. This opportunity MUST be made available to all students.

Our report makes the case for the education and economic imperative of the state and urges the University System of Ohio and other higher education institutions to adopt an expectation that all students, in particular underrepresented Ohioans, be prepared to become productive members of a technology driven society.

SUMMARY

Our report confirms that Ohio's extraordinary higher education assets and Innovation Economy leadership – the most visible example of which are the University System of Ohio and the OTF Initiative – can be meaningfully bolstered by engaging and empowering underrepresented Ohioans. This leadership opportunity is clear when examining the Fourth Condition Report and Ohio's state and regional Innovation Economy strategic opportunities.

Educational: The Fourth Condition Report found that too many underrepresented Ohio students drop out of high school and are not academically or culturally prepared for college. Many of these students enroll in college, but too many do not reenroll after their first-year, and many more fail to graduate or seek a higher degree. Not only are tens of thousands of underrepresented Ohio students ill-prepared for higher education, they are ill-prepared to meaningfully contribute to, or extract value from, tech-based innovation ecosystems throughout Ohio.

Transitioning Role of Education: The Fourth Condition Report indicates a significant, dual challenge for higher education leadership to help align K-12 with the needs of both higher education and 21st century societal realities, and to also transform higher education to continue to align with the state's economic priorities.

Inclusive strategies and programs should be developed in Ohio's Innovation Economy, in areas such as higher-growth entrepreneurship and industry cluster initiatives (such as advanced manufacturing, biosciences, information technology and others). This a clear indication of the leadership opportunity for the University System of Ohio to develop, adopt, embed and continually execute strategies focused on improving education and economic inclusion and competitiveness to further grow and enhance Ohio's Innovation Economy.

Inclusive Competitiveness vision: The adoption of a vision of Inclusive Competitiveness across higher education will help guide strategic investments and frameworks that improve development of resource infrastructure throughout Ohio, bolstering the performance of underrepresented Ohioans. This vision will develop sustained support for the Chancellor's efforts to lead the state's higher education institutions in cultivating a cultural, operational and systemic change that advances economic inclusion and competitiveness in our state.



ANALYSIS

3

IMPORTANCE OF POLICY AND STRATEGY FIRST OBJECTIVE

Generally, economic inclusion in Ohio has not received the same level of scrutiny, study, strategy development, investment and evaluation as have other areas of our state's economy. Moreover, at the programmatic level, economic inclusion efforts have not had access to the resources, staff capacity, or operating models that have made some of our state's other tech- and innovation-based economic development organizations and programs effective.

Our report confirms that Inclusive Competitiveness is indeed more than a matter of equity; it is a statewide economic imperative for Ohio. Leading efforts to improve the performance of underrepresented Ohioans in the Innovation Economy is a task well-suited for higher education. There is no better-positioned group than the University System of Ohio and other higher education institutions for this work, given their position as a nexus point enabling and empowering increased education and economic competitiveness across the state.

The University System of Ohio has an open door of opportunity to catalyze, lead and drive an inclusive economic competitiveness narrative and strategic action plan that:

- identifies existing value hidden among underrepresented Ohioans;
- attracts investment to scale up little-known, yet promising, activity;
- bridges gaps in employment and entrepreneurial opportunities; and
- connects underrepresented Ohioans to resources that can yield increased, measurable results in the education and economic competitiveness of Ohio.

The Subcommittee recommends that the Chancellor take an overall policy and strategy first approach to Inclusive Competitiveness, working with the University System of Ohio to establish a vision of education inclusion and empowerment that bolsters the economic competitiveness of the state. Such a vision would provide guidance for investing in, and linking together where appropriate, programs and strategic initiatives designed to produce measurable outcomes in Ohio's Innovation Economy.

Our definition of "policy" is influential actors' expression of important public objectives. We define "strategy" as the sustained method or plan of marshalling resources to bring about a desired outcome.

The Subcommittee urges influential actors (*the OBOR, Chancellor and University System of Ohio*) to lead the way to develop and implement policy (expressions of important public objectives) that secure the requisite conditions for education and economic inclusion and competitiveness strategies (sustained plans of marshalling resources) to improve the performance of underrepresented Ohioans in the Innovation Economy.

The University System of Ohio can be the first public system of colleges and universities (and Ohio can be the first state) in the U.S. to adopt formal education and economic inclusion and competitiveness policies that align and connect to a state's leading priorities. The Subcommittee recommends the Chancellor pursue this course of action. By following a policy and strategy first objective, the University System of Ohio can provide critical

leadership to obtain the requisite conditions for more impactful programs with interconnected strategic initiatives – positioning the state to be the national leader in improving the performance of underrepresented populations in the Innovation Economy.

PRIMARY THEMES

Have we done this before? The Subcommittee continues to note that the best, but not exclusive, representation of Ohio's Innovation Economy leadership is the OTF Initiative, which reflects what's important to the state's Innovation Economy. The Subcommittee focused solely on inclusive Innovation Economy activity.

Connecting the Disconnected: The inquiries received from participants during the Subcommittee's stakeholder forums addressed issues and challenges inherent in connecting underrepresented Ohioans to the state's primary economic priorities. It is important to note that Ohio's outstanding minority business service offerings do not connect to Ohio's leading Innovation Economy opportunities.

For example, key terms and phrases excerpted from the OTF Initiative website, such as "technology companies," "innovation," "commercialize new technologies," "strategic technology sectors" and many others are not at all mentioned in Ohio's minority business services and support offerings.

Although the State of Ohio provides an extraordinary portfolio of minority business offerings, these efforts neither speak the same language nor are connected to the state's Innovation Economy priorities, best represented by the OTF Initiative.

Positive Intrusion: During each stakeholder forum, the Subcommittee and participants heard compelling presentations from members of the University System of Ohio and other higher education institutions about innovative STEM programs that are part of Choose Ohio First (COF). A primary theme that consistently fortified presentations was the need for, and success of, intrusive counseling and advising for students in Ohio's higher education institutions. Intrusive counseling and advising is based on the philosophy of shared responsibility. In other words, students and counselors / advisors share responsibility for academic success or failure of the student.

Intrusive counseling / advising may begin during summer bridge programs or other student orientation and is conducted with extensive follow-up on the part of counselors / advisors throughout the semester.

The follow-up can include development and refinement of educational plans; monitoring student performance in their classes; and counselors / advisors' consistent engagement with students, exploring their academic, career, personal, social and economic needs. This kind of positive intrusion can help to identify early a variety of barriers that impact the success of Ohio students in multi-disciplinary fields and address such challenges in a proactive fashion.

RECURRING THEMES:

The following themes surfaced often, but not in every discussion. The Subcommittee believes these recurring themes provide helpful insights that inform our report recommendations and rationale:

1. **Lack of Awareness:** Awareness of the OTF Initiative and provisions of the governing law mandating outreach to underrepresented Ohioans is lacking. This was the most pervasive recurring theme of the stakeholder forums. Outreach efforts require creating awareness, which is the beginning stage of engagement with underrepresented Ohioans.
2. **A need to connect:** The level of activity in Ohio – including the OTF Initiative's Entrepreneurial Signature Program, higher education programs and leadership, STEM/STEAM education programs and initiatives, and TBED organizational leadership – is truly impressive. Ohio is a dynamic, active state that is forging a place in the knowledge- and innovation-based economy. However, in terms of education and economic inclusion and competitiveness, there needs to be operating mechanisms to aggregate, organize and leverage disparate and disconnected resources. Such intermediary functions help achieve the desired connectivity and impact by assuming the role of a neutral convener – honest broker – that provides venues for real and tacit knowledge exchange and sustained efforts to develop collaborative actions that advance Inclusive Competitiveness throughout Ohio.
3. **Higher Education and TBED Alignment and Opportunity:** There is early, yet strong alignment among University System of Ohio and other higher education institutions and TBED organizations that steward Ohio's innovation economies. The state needs to capitalize on this early alignment, providing strong leadership focused on economic inclusion and competitiveness to complement and enhance the state and regions' broader Innovation Economy agendas.
4. **Need to Push & Pull:** With the lower economic productivity of underrepresented Ohioans in the Innovation Economy there is more than enough work for interested individuals, institutions and organizations throughout Ohio to do on a variety of issues. Ohio's Innovation Economy growth and development efforts have not translated into widespread opportunities for underrepresented Ohioans. The stakeholder forums made

clear that policies, strategies, practices and metrics are needed to intentionally “push out” awareness of opportunities from the state’s Innovation Economy to underrepresented Ohioans, while also “pulling in” underrepresented Ohioans to connect to these opportunities. Simultaneous efforts to both push and pull will result in mutual benefit to the state and its underrepresented residents.

5. **New Relationships, Build Bridges:** To effectively engage, empower and connect underrepresented communities to the state’s Innovation Economy, Ohio’s inclusive education and economic competitiveness thrust must be committed to nurturing strong collaborative relationships between K-12, higher education and tech- and innovation-based economic development organizations throughout state. Additionally, cultivating relationships with other stakeholders in Communities of Influence (such as social, education and human services organizations and economic-focused organizations serving underrepresented Ohioans to connect them with regional opportunity) should be a priority.
6. **Complementary Leadership:** Recurring themes of inclusion, such as outreach provisions of the OTF Initiative, present an opportunity to enhance leadership focused on generating measurable results in the efforts to empower underrepresented Ohioans and connect them to Ohio’s top economic priorities. The enhancement of economic inclusion and competitiveness leadership does not get in the way of other state economic inclusion and Innovation Economy leadership. Rather, such leadership complements incumbent efforts, with a laser focus on promoting the vision of Ohio’s Inclusive Competitiveness – improving the performance of underrepresented Ohioans in the Innovation Economy.
7. **Widely Differing Expectations:** Throughout Ohio, economic inclusion has not received the same level of scrutiny, study, strategy development, investment and evaluation as have other areas critical to our state’s economy. There appears to be a serious disconnect between investments Ohio has made in development of the state’s Innovation Economy and the state’s efforts to include underrepresented Ohioans.
8. **Ignite OTF Initiative Outreach Provisions:** For Ohio to achieve optimum results in the Innovation Economy, the minority and rural outreach provisions of the OTF Initiative governing legislation must be actively engaged and accelerated to improve awareness. In sum, economic inclusion and competitiveness must be embedded into Ohio’s overall Innovation Economy strategy.





RECOMMENDATIONS AND RATIONALE



Pursuant to powers and duties of the Chancellor under ORC 3333.04 and membership on the Third Frontier Commission, and its purpose under ORC 184.01, we urge the Chancellor to initiate the following recommendations:

RECOMMENDATION

Encourage the University System of Ohio and other higher education institutions to introduce, articulate and inculcate Inclusive Competitiveness economic narratives in schools, institutions and communities throughout the state, emphasizing deep saturation of the narrative throughout Ohio's underrepresented areas.

Economic narratives focused on multidisciplinary education attainment, producing job-creating, higher-growth enterprises, forming and attracting private investment capital to fuel enterprise growth are needed in schools and communities to make visible the currently invisible Innovation Economy opportunities.

RECOMMENDATION

Encourage the University System of Ohio and other higher education institutions to promote inter- and multidisciplinary approaches to Inclusive Competitiveness.

Ohio needs economic development focused on bringing together partners that traditionally have not been involved in TBED. In addition to the outstanding existing players – higher education, TBED organizations, researchers, higher-growth entrepreneurs, and investors – outreach also should be made to social, human and education services organizations in areas serving underrepresented Ohioans. These “unusual suspects” can be strong allies, helping to connect disconnected Ohioans to opportunities in the Innovation Economy. Without outreach to them, achieving broad inclusion and increased competitiveness throughout Ohio will be more difficult, if not impossible.

RECOMMENDATION**Encourage continued support for the Choose Ohio First Scholarship Program.**

During the 127th General Assembly, the General Assembly strengthened education in Ohio by leading the efforts to create the Choose Ohio First Scholarship, which will provide \$100 million in STEMM (science, technology, engineering mathematics and medicine) scholarship funds to Ohio students attending Ohio colleges and universities. The program is part of the state's strategic effort to significantly strengthen Ohio's K-12 education pipeline to productivity, positioning the state for sustained success in Innovation Economy markets such as aerospace, advanced manufacturing, medicine, and computer technology.

RECOMMENDATION**Collaborate with the Ohio Department of Education to foster articulation and dissemination of Inclusive Competitiveness narratives to K-12 educators via Educational Service Centers (ESCs) that are recognized providers of professional development.**

Encouraging ESCs to provide professional development to improve student learning about Ohio's Innovation Economy, including regional and statewide innovation ecosystems, industry clusters and emerging technology sectors, would activate education systems closest to underrepresented Ohioans. As geographically distributed assets across the state that serve schools in their respective areas, ESCs are uniquely positioned to advance education and economic competitiveness. ESCs have a unique understanding of the strengths and needs of Ohio's K-12 system and can use these insights to positively impact and improve Innovation Economy instruction and student achievement outcomes.

RECOMMENDATION**Encourage continued and increasing support for the Believe in Ohio Youth STEM Commercialization and Entrepreneurship Program.**

Ohio youth show interest in entrepreneurship, yet lack strong interest in STEM education – the gateway to creating successful higher-growth, tech-based startups in the Innovation Economy. Stronger investment in increasing the interest levels of Ohio youth toward STEM and entrepreneurship, will ensure that they understand where the opportunities are and strengthen the K-12 and higher educational gateway through which they must enter to access those opportunities.

RECOMMENDATION

Encourage the Third Frontier Commission to continue its efforts regarding the minority and rural outreach provisions of the OTF Initiative governing law and broaden the outreach to include women.

The Third Frontier Commission should complement the state's existing OTF Initiative focus areas by exploring, selecting and prioritizing Innovation Economy focus areas that promote widespread growth and development throughout Ohio. The Third Frontier Commission should include in all OTF Initiative programs, and other support focused on the Innovation Economy, the expectation that individuals and companies receiving state support participate in Inclusive Competitiveness activities that further the goals of economic inclusion and competitiveness throughout the state.

Launched in 2002, the OTF Initiative has earned continued support of the people of Ohio, who twice voted in favor; three successive Governors, Taft, Strickland and Kasich, each of whom provided vision and leadership; and the General Assembly, whose enabling legislation stands today, which includes minority and rural outreach. This outstanding leadership has enabled frameworks and infrastructure focused on the Innovation Economy that are great assets, delivering strong benefits. Building out the capacity of these existing assets to connect to underrepresented Ohioans is a policy that has significant merit.

Ohio taxpayers are investing heavily in higher education research, commercialization, technology transfer, higher-growth entrepreneurship and other forms of business support and private capital formation, attraction and investment. The state is counting on these investments to yield enterprises that create jobs in Ohio. It is not unreasonable to expect that beneficiaries of public support pay forward such support through participation in Inclusive Competitiveness efforts and activities, helping underrepresented Ohioans connect to and improve performance in the Innovation Economy.

PROMISING PRACTICES

5

DEFINITION

The University of Pennsylvania's Fels Institute of Government defines a promising practice as an action, program, or process that leads to an effective and productive result in a situation. Rather than call them best practices, the Subcommittee on Inclusive Competitiveness adopted the term promising practices because it acknowledges that solutions from one place might not directly transfer to another location – as is implied by reference to “best.” These promising practices are based on the Subcommittee’s public process, including stakeholder forums, the capstone summit, web-based submissions and subject matter observations and experiences:

COMMUNITY

- Consortium of African American Organizations
- TECH Corp
- Parker Family of Businesses

COLLEGES & UNIVERSITIES

- Ohio University
- Lorain Community College
- Baldwin Wallace

TECH-BASED ECONOMIC DEVELOPMENT

- NorTech

HIGHER-GROWTH ENTREPRENEURSHIP

- JumpStart
- Realm Systems, LLC

PHILANTHROPY

- Cleveland Foundation
- Philanthropy Ohio

IMPACT

The following promising practices, excerpted from stakeholder forums, observations and other sources, are leading to effective and productive results toward improving the performance of underrepresented Ohioans in the Innovation Economy, including increasing productivity in regional innovation ecosystems, industry clusters, emerging technology sectors and other areas critical to Ohio's economic competitiveness. The Subcommittee notes that these examples boosted confidence that Ohio has what it takes to lead the nation in Inclusive Competitiveness.

1. COMMUNITY

Consortium of African American Organizations

Connie Atkins is Director of Development for the Consortium of African American Organizations (CAAO). Ms. Atkins presented to the Subcommittee the CCAO's mission of economic development in the African-American communities of Northeast Ohio.

CAAO works with organizations globally, ranging from Abu Dhabi to Texas. The main topic of her presentation was the Youth Innovation Forum (YIF), which was developed in 2004 to get youth involved with innovation and creativity. Ms. Atkins said this program is an educational medium for idea generation and a think tank for urban youth. The youth range in age from 11 to 19 and some are classified "at-risk."

YIF classes take place from August through November each year. Each class is four hours and students share what they have done in school and extracurricular activities. Funding raised by the organization is used to invest in the education of the youth participants. Ms. Atkins shared some of the concept ideas of the YIF classes, such as the Universal Binder, Banking Buddy Nutritional Scanner, Shopping Buddy and Mall of the Future.

Outcome: 100 percent of YIF participants (180 students) attend college. CCAO partners with Cuyahoga Community College metro, John Carroll University, Great Lakes Science Center, Case Western Reserve University, think[box] Institute for Collaboration and Innovation, NorTech, University of Akron and the Cleveland Institute of Art.

TECH CORPS

Lisa M. Chambers is the National Executive Director of TECH CORPS in Columbus. She presented to the Subcommittee along with Alexis Crosby, Regional Director of Northeast Ohio. Ms. Chambers said that TECH CORPS is composed of social entrepreneurs in the K-12 space. The organization believes it is important to engage the youngest citizens in the economy as they move forward. She said TECH CORP was founded by Gary Beach who is the publisher emeritus of CIO Magazine and author of the U.S. Technology Skills Gap. His vision was that the technology industry could be a tremendous benefit to schools and communities if they were effectively connected. In 1995, TECH CORPS was born to be that connector.

Ms. Chambers said that in the 1990's startup phase, TECH CORPS programs focused on just getting technology into the schools. Today, the organization has changed as the needs of technology have transitioned – specifically in the K-12 space. Now they focus on the sets of skills a student needs to be successful in the classroom and as they prepare for the job market.

TECH CORPS' program focuses on three things:

- Program
- People
- Partners

TECH CORPS does two things:

- Develop technology programs for students and teachers
- Deploy talent to implement programs

TECH CORPS has three goals:

- Provide K-12 students with a valuable set of technology skills to prepare them for college or a career
- Empower communities to provide higher-quality technology programs, resources and support
- Increase the number of students interested in pursuing technology degrees, certifications and careers.

TECH CORPS has four signature programs:

- Student TECH CORPS
- Techie Club
- Techie Camp
- Student Web Corps

These are a combination of after- school, summer camp and Saturday programs. They also work with regional partners to deliver programs specific to their needs.

Ms. Chambers said that TECH CORPS is committed to engaging students that are typically underrepresented in computer science and engineering.

Outcomes: 2012-13 data revealed in the State of Ohio TECH CORPS serviced:

- Male 58%
- Female 42%
- Black/African American 50%
- White/Caucasian 38%
- Asian/Pacific Islander 3%
- Hispanic/Latino 3%
- Other 6%

Ms. Chambers said they have learned the following are key components to success:

- Early intervention
- Raising the bar
- Making clear connections related to technology careers

Parker Family of Businesses

Karl Parker, President and General Manager of Parker Family of Businesses (PFOB), presented to the Subcommittee. He said recruiting a talented, diverse workforce is what gets him excited, and recruiting technology talent is very important.

Mr. Parker said when they started in 2009, they focused on “transforming tax consumers into tax producers,” and their businesses drive sustainability efforts. He said the Parker Family of Businesses is focused on driving transformation and innovation to cause big change. He said they need this kind of thinking with the way their marketplace looks today, and with the lack of representation of minorities in the technology footprint.

Mr. Parker explained the evolution and organization of PFOB and said that they also have a nonprofit that provides training in the region. The nonprofit will provide boot camps for the Toledo Public School System for two weeks in June. These boot camps will engage the youth on topics such as solar design and an introduction to nanotechnology.

He discussed the PFOB history from 2008 and said it took a turn in 2009. They were approached by the Port Authority to write a recommendation letter about sustainability. From that point forward the PFOB went through a sustainability shift. He said for the next three years he created the Urban Green and Sustainability Forum (UGSF), which is focused on bridging the community divide. Mr. Parker said there is a major gap of people of color in the sustainability energy space.

Mr. Parker said that the UGSF led to the creation of the Urban Center of Excellence for Sustainability and Renewable Energy (UCOE). He said they reached out to several funding sources and were finally successful with securing funding from three sources (Port Authority, Ronald McDonald House and Fifth Third Bank).

Mr. Parker is concerned about innovation technology sectors, given that approximately 60% of the workforce will be retiring in the next five years. He said he is collaborating with the American Association of Blacks in Energy. Their goal is to develop individuals in that field. He said this is about ‘bridging’ the green inseparable divide. The model PFOB uses can be used with other industries to build the pipeline. Mr. Parker said this is why they created their business model around energy, engineering and education.

Mr. Parker said that when he sought funding he wanted to increase relevancy but also add to the programs that were already in place. He said he provided most of the funding until they were awarded grants. He said the things that he is discussing are absolutely necessary for building a broad Innovation Economy but they are not making investments into those kinds of activities.

2. COLLEGES & UNIVERSITIES

Ohio University

Inclusiveness in the opportunities for entrepreneurship, technology commercialization and venture investment activity in the Innovation Economy has strong support from Ohio University (OU) senior leadership. In particular, President Roderick McDavis has been a leader of Inclusive Competitiveness, not only at OU and in southeast Ohio, but also throughout the state. During the Subcommittee's capstone summit, President McDavis said, "Together, we have the power to make Ohio the national model of 21st century education and economic inclusion and competitiveness," becoming the first university president in the nation to call for statewide Inclusive Competitiveness leadership.

Certainly, policy and strategy endorsement from the top down helps make breakthroughs possible. However, equally important are bottom-up efforts. There has been an enormous effort at OU to inculcate a culture of entrepreneurship throughout the university. The following are a few of the bottom up activities that promote and nurture entrepreneurship and innovation at OU:

- TechGROWTH Ohio and the Center for Entrepreneurship (CE) have actively campaigned for both student and faculty involvement in entrepreneurial education and support services for startup ventures. The Center for Entrepreneurship's Director, Luke Pittaway, and the Center's Executive Director, Lynn Gellermann, have met with nearly every school, college, department, institute and center at OU to build grass roots support for entrepreneurship. They identified existing curriculum that can 'fit' an entrepreneurship certificate program, encouraging new course development and supporting outreach events (e.g., pitch competitions, startup weekend-like events, panels, etc.) to promote entrepreneurship and to inform the university community of the support services available for technology startups.
- Additionally, the CE sponsors pitch competitions, simulated trade shows, guest lectures, a "venture café," student clubs and fraternities organized around entrepreneurship and "The Hatchery," a dedicated space and facilitated activities for students to "ideate" (i.e., to explore "problem sets" and device technology solutions with commercial potential).

At the level of curriculum development, several entities at OU have sponsored contests and competitions to provide a forum and opportunities for student venture ideas:

- Scripps College of Communication sponsors the "Scripps Challenge" where student teams devise commercial solutions to challenges in the communications industry.
- The Russ College of Engineering sponsors senior "capstone" projects whereby graduating engineers build working prototypes of engineered solutions for market problems.

- The College of Fine Arts sponsors “The Create Space” staffed with by an entrepreneur to help develop entrepreneurial career pathways for arts students.
- The GRID Lab (OU’s gaming research and immersive design lab) helps students develop commercial gaming, simulation, and content visualization enterprise.
- The Office of the Vice President of Research and Creativity sponsors annual student expos of innovation and research, and the CE leverages the campus-wide event for pitch competitions for new innovations and technology startups.

The drive at OU for “inclusive” competitiveness is built into the programs that attract, welcome, and support diversity, but there are also specifically targeted initiatives where traditionally underserved populations can feel especially welcomed and supported:

- The CE hosted a special reception event at one of the most attended of OU’s alumni outreach programs: the OU Black Alumni Reunion event. Presentations were made about the growing entrepreneurial culture and opportunities for startup support, and matchmaking took place pairing student entrepreneurs with alumni mentors.
- The Black Student Business Caucus actively organizes and participates in entrepreneurial education and outreach events.
- The Appalachian Cohort for Engineering Scholars Program and the Appalachian Scholars Program specifically target economically underserved students and invite them to take advantage of OU’s opportunities for, among other things, entrepreneurial support and services.
- TechGROWTH and the CE celebrate innovation and entrepreneurship annually with awards and recognitions that call out women in entrepreneurship.

OU’s efforts to enable and support “inclusive competitiveness” spills over the borders of campus and has a regional reach and impact through the TechGROWTH Ohio program, which is entirely about increased rural and economically distressed regional participation in the Innovation Economy. While TechGROWTH is the only Third Frontier ESP with such a rural acceleration program, it is crucial to recognize the OU connection. Without OU support, and without the precedent of rural entrepreneurial outreach rooted in the partnership between OU’s Voinovich School and College of Business, TechGROWTH would not exist, nor would it have achieved the success levels that make it competitive with urban counterparts.

Lorain County Community College

Terri Burgess Sandu, Director, Entrepreneurship and Innovation Institute, represented Lorain County Community College (LCCC) to the Subcommittee. She said more than half of first-time students begin at a community college. LCCC has to be a partner for both preparing talent and creating jobs.

Ms. Sandu said there has been a decline in job growth and employment and they need to turn that around. She said the keys are:

- College Affordability
- Student Completion
- LCCC working closely in collaboration with industry

She discussed the population statistics of the county and said the key to the Innovation Economy is educational attainment. LCCC has a full range of programs starting in kindergarten through master's degree to meet industry needs. LCCC partners with other institutions to bring specific degree programs to its campus and outreach centers. This process enables the college to help people earn degrees at a fraction of the cost.

Ms. Sandu said that LCCC enrolls more than half of the Lorain County public system graduates. LCCC is seeing increases in Post-Secondary Enrollment Options (PSEO) – earning college credit while students are still in high school. Since 2008, LCCC has produced 254 students that have earned both their high school diploma and their associate degree. Ms. Sandu said dual diploma population is very diverse yet largely male. LCCC student population tends to be mostly female, so they were excited to see the male statistics for the program. Outcome: In the 2012-13 School Year, nearly 2,000 high school students earned over 20,000 LCCC credits, saving their families \$3 million in college expenses.

Ms. Sandu said there are many activities occurring at LCCC relating to STEM activities. LCCC partners with organizations such as TECH CORPS, and recently hosted a STEM symposium. LCCC is part of a national pilot with the Bill and Melinda Gates Foundation focused on completion rates. LCCC just launched a Tuition Guarantee Program and encourages students to make the pledge to complete their degree.

Ms. Sandu discussed LCCC's work surrounding industry engagement. She said they have to forge partnerships across community-based organizations, industry and higher education. Key components for success are:

- Common agenda
- Shared measurements
- Mutually reinforcing activities
- Continuous communication
- Backbone organization

Ms. Sandu said this is a basic model for collective impact. One of the ways LCCC is addressing the 'backbone' component is through the Regional Economic Technology Engagement (RITE) Board.

They are looking at addressing the gap of IT jobs going unfilled in the region. She discussed the Northeast Ohio Speed to Market Accelerator Grant and said there were four partners (LCCC, NorTech, Magnet and Jumpstart) involved in this project. The challenge was part of the Obama Administration's Regional Innovation Cluster Initiative.

Ms. Sandu said LCCC has recently become partners in the Blackstone LaunchPad, along with three other colleagues. They want to infuse the idea of entrepreneurship across all disciplines. The LCCC Foundation Innovation Fund provides early stage pre-seed financial support to entrepreneurs and emerging businesses. She shared the statistics on the fund and said it wasn't easy to obtain. "If you don't have the data, you can't drive policy," she said. Ms. Sandu also discussed the FabLab and said they were one of the first institutions, other than MIT, to have one. She said they recently launched The Richard Desich SMART Commercialization Center for Microsystems and now have a new degree program. This will open up a lot of opportunities for students to be involved in the Innovation Economy.

Ms. Sandu said it is encouraging to talk about the Innovation Economy with students and recognize the importance of STEM education. She discussed students coming in asking to get help with making more money and institutions assisting them with getting to know different industries in the process. She said LCCC has one more year on the Northeast Ohio Speed to Market Accelerator Grant. They have to decide as a region if it has value and how will it be sustained.

Baldwin Wallace University

Stephanie Forstner of Academic Affairs and the STEM Scholars Program at Baldwin Wallace University (BWU) and Charles Harkness, Chief Diversity Officer of BWU, represented the university. They presented to the Subcommittee the process of how BWU connects its initiatives individually through offices and programs, and collectively through the institution. Ms. Forstner said BWU is a small liberal arts institution with a strong STEM program.

BWU has 3,500 students. Approximately 40% of the students are Pell Grant eligible. BWU has the third largest percentage of Cleveland Metropolitan School District students, after Cleveland State University (CSU) and Cuyahoga Community College. Mr. Harkness said this is a surprising narrative for private higher education. He said in some instances, private institutions are becoming the new access institutions. They are really interested in being part of the conversation on how to solve some of these issues.

Ms. Forstner said that BWU is 21% diverse (2013 freshmen). More than 1 in every 4 of their incoming freshmen is a STEM major (26%). This is up from 18% just five years ago. Part of the reason for such growth is because of COF, which was started in 2008 at BWU and the National Emeritus. She said that 17% of all BWU students are STEM majors and this is up from 11%. BWU's STEM completion rate is 70% within six years.

Mr. Harkness said that BWU spent a great deal of time defining what diversity meant. He said the president of BWU wants them to be able to articulate why diversity is important not just what it is. They have institutionalized these four pillars:

- To Honor and Affirm the Living Legacy of Diversity
- To Embody the Best of Moral Action
- To Engage in Deep and Meaningful Learning
- To Thrive in the Global Future

Ms. Forstner outlined what BWU means by STEM. She said BWU has a renowned conservatory, and humanities and education departments. BWU doesn't want its students on the North campus to know only each other. She said they want students in different programs and disciplines to work with each other on projects. They need to be interested in this concept and BWU wants them to think differently. She said the focus on problem-solving is very important at BWU, as is the entrepreneurial component. The campus has a Center of Innovation and Growth with a primary focus to get students to understand that the job they want doesn't necessarily exist today - they will create this opportunity.

Ms. Forstner said BWU is working with the American Association of Colleges and Universities on a grant opportunity focused on this perspective for the computer science majors. They are really getting them to think differently from the classroom and preparing a different type of computer science major. She said you can't keep doing the same things you have always done and expect new students to thrive.

Ms. Forstner said it is not only about being a STEM major; it is about developing STEM competencies that translate into both workplace and life competencies. All the literature supports the notion that employers value and want these STEM competencies. She said that intentionally connecting people, resources and ideas is very important. The connections students made attending the forums they likely wouldn't have made otherwise, and this is valuable. This component receives little attention, but Ms. Forstner said it is truly essential for them to succeed in this effort.

Ms. Forstner said that BWU's COF Goal is to grow students graduating in STEM disciplines. They are reaching out to the first-generation, low- income, minority and underrepresented students. They refer to the COF students as STEM "Scholars" and they have their own gear. This lifts up both the program and the student. They provide intrusive success coaching and

this is very critical to the COF. The student has a success coach throughout the year that is customized to meet the student's needs. She outlined the typical exposures for a first-year COF student, which would include:

- Networking 101
- Center for Innovation & Growth Student Fellows
- Entrepreneurship Roundtable
- Entrepreneurship Immersion Week
- Blackstone LaunchPad
- Problem Solving
- Biomimicry

Outcomes: Ms. Forstner said the outcomes of the COF at BWU are that more than three in four of BWU's STEM Scholars are from underrepresented populations. Within the COF there is an 80% retention rate and a 68% four-year graduation rate. Approximately 82% of the non-seniors earned a GPA of 3.0 or higher and roughly half earned a GPA 3.5 or higher.

However, an academic achievement gap exists for underrepresented minority students. This summer they are putting together a study to better understand what is happening at BWU specifically. She shared the COF retention rates and said that males outpace females in nearly every retention category except for first-generation. The at-risk Scholars are retained at rates similar to all Scholars.

Ms. Forstner said that key economic drivers are the following:

- Aerospace
- Medical
- Computer Science
- Alternative Energy

BWU is building partnerships and relationships in these areas. She said because of the physics department it was critical that they build a relationship with the Ohio Aerospace Institute.

Mr. Harkness said BWU's Strategic Plan was recently updated and one of its key areas of focus was inclusion. The year-one priority is to establish a 'Center for Inclusion' (subject to name change). He said one of the biggest conversations campus leaders will have is that the student population traditionally served is changing. BWU has an Upward Bound Program (UBP) and it is one of the oldest and continuously operating UBP in the nation (since 1968). They also have a Baldwin Wallace Scholars Program in which they work with a cohort of students throughout their high school career.

BWU invests significant financial resources in those that matriculate to the campus. Mr. Harkness shared their bridge- building initiatives. He said if they discussed the new economy that existed with students but didn't change what they were doing they, weren't leading by example. BWU has the following examples:

- Summer Bridge academic remediation
- Jacket Link mentorship program
- Leveraging key faculty in retention efforts through grant funding
- Leveraging resources to more efficiently support academic and co-curricular diversity initiatives
- Foster problem solving culture by partnering with institutions and local school districts

BWU also has external examples of bridge- building initiatives, such as collaborating with industry (President's Council Foundation -the Emerging Entrepreneurs Program); healthcare (Conversations with physicians about doing joint ventures and research); and Business (Greater Cleveland Partnership).

Ms. Forstner explained that intrusive coaching at BWU is customized and involves one-to-one coaching. For example, a Leadership in Higher Education master's degree student who serves as a graduate assistant works with a student throughout the year. The student is held accountable for meeting with the coach on a regular basis. There is an established peer relationship and this is the key to the student's success.

In order to keep the COF scholarship there are many requirements in place for the students. They are treating the 'coaching' for academics as intensive as they would for sports. Ms. Forstner said that coaches are trained by the Leadership in Higher Education Program. BWU also does training based on past experience of what has been successful. Mr. Harkness added that this is a formalized thought process about how they do things that champions have been successfully done for generations.

3. TECH-BASED ECONOMIC DEVELOPMENT (TBED)

NorTech

Over the past two years, NorTech has built the capacity and network to create and lead a framework of Inclusive Competitiveness strategies. In June 2012 it hired Jonathan M. Holifield as Vice President of Inclusive Competitiveness to elevate its inclusion efforts and since has raised the level of conversation about Inclusive Competitiveness to make it a priority in technology-based economic development, becoming the first regional TBED organization in the U.S. to adopt Inclusive Competitiveness as a North Star vision.

Under Mr. Holifield's leadership, NorTech is pursuing a new, interdisciplinary type of economic development that brings together partners that traditionally have not been involved in TBED. In addition to its cluster companies and economic development partners, NorTech has begun to engage educational institutions and human and education services organizations in Cleveland to connect disadvantaged Clevelanders to opportunities in the Local Innovation Economy. Without collaboration among non-traditional leaders, achieving broad inclusion and increased competitiveness in the TBED field will be more difficult, if not impossible. Community organizations must be included as partners to advance Greater Cleveland's inclusion and competitiveness goals.

The following accomplishments to date position NorTech to take its inclusion work to the next level:

- Under NorTech's leadership, PolicyBridge and Cleveland State University conducted a thorough study assessing the performances of minorities and underserved populations in Northeast Ohio's Innovation Economy. The study was conducted in partnership with BioEnterprise, the Fund for Our Economic Future, JumpStart, MAGNET and TeamNEO. It confirmed an economic imperative for establishing coordinated Inclusive Competitiveness strategies in the region.
- NorTech helped launch an inclusion committee as part of an effort by Northeast Ohio's business, philanthropic and economic development community to shape a regional economic strategy. This effort, for the first time, connected more than 30 minority and education-focused organizations and leaders to the region's economic priority areas.
- NorTech assumed a statewide leadership role on the Ohio Board of Regents (OBOR) by facilitating the creation of an OBOR Subcommittee on Inclusive Competitiveness. In conjunction with Philanthropy Ohio, the Subcommittee hosted four regional stakeholder forums across the State and convened a culminating summit to activate the University System of Ohio in addressing the education and economic imperative of Inclusive Competitiveness.
- With the support of the Ohio Board of Regents – NorTech, the Ohio Academy of Science and Entrepreneurial Engagement Ohio jointly developed "Believe in Ohio," a \$5 million, state-funded program that will develop a youth entrepreneurial STEM ecosystem throughout Ohio to support its Innovation Economy. The program is designed to increase the pipeline of STEM graduates by developing regional STEM/STEAM courses, creating a STEM mentoring network for student and teacher support, and developing a statewide STEM commercialization plan competition for students.

- NorTech is providing thought leadership on a national scale. Among other things, it has joined the ACT Foundation's Aces Research Network, which aims to improve outcomes for low-income, young, working learners.
- NorTech has begun to convene numerous education and human services organizations, including the Consortium of African American Organizations, Esperanza, the Neighborhood Leadership Institute, PolicyBridge, the Progressive Arts Alliance, TECH CORPS, The Centers for Families and Children and Towards Employment. The top priority for the consortia is to support The Centers for Families and Children's and Esperanza's delivery of "wrap around" services in four Cleveland Metropolitan Schools District Investment Schools.
- As part of its commitment to inclusion, NorTech has increased diversity within its own Board of Directors to 20 percent and added more than over 100 diverse constituents to its stakeholder database.
- NorTech has revised its Cluster Membership Agreement to include language that asks cluster members to make a stronger commitment to inclusion. NorTech has asked all of its cluster members to sign the revised agreement, which asks them to:
 - Provide core-city high school and college students with internship opportunities to diversify the workforce
 - Work with inner city schools to share career opportunities with students
 - Increase the number of minority suppliers they work with

Initial feedback on the new cluster agreement indicates there is broad business support for these efforts.

These accomplishments are initial action steps that have created a solid base for the next phase of NorTech's more extensive Inclusive Competitiveness work. The time is now to pursue more aggressive inclusion efforts targeted at the core City of Cleveland. These efforts will allow NorTech to help address the disproportionately high unemployment and poverty rates in the City; to give minority-owned firms better access to resources and business opportunities in high-growth sectors of the economy; and to expose core-city students to and prepare them for career opportunities in the Innovation Economy.

While that work is focused on Cleveland, it impacts the entire region since a thriving Northeast Ohio needs a thriving Cleveland at its core. NorTech aims to help build a revitalized and diverse Cleveland economy that spurs vitality, innovation and job creation both in the city and the region. That work to create a fully inclusive innovation ecosystem consists of accelerating the growth of emerging industry clusters that drive Cleveland's growth and connecting the full range of diverse core-city residents to these opportunities.

4. HIGHER-GROWTH ENTREPRENEURSHIP

JumpStart, Inc.

Gloria Ware, Senior Advisor of JumpStart Inc. (JSI), provided comments on behalf of the organization. She presented a PowerPoint presentation to the Subcommittee on the work of JSI. She said that JSI is a 10-year-old non-profit venture development organization. It is one of the entrepreneurial signature programs that receive support from the OTFC. JSI works with 16 other entrepreneurial support organizations in Northeast Ohio and covers 21 counties. Ms. Ware said from the beginning JSI has had a culture of inclusion. The CEO recognized early the importance of an inclusive Innovation Economy. In 2006, Main Street Inclusion Advisors was retained to lead JSI's inclusion efforts.

Ms. Ware said JSI a four-prong approach connecting minorities and women to the Innovation Economy:

- Outreach and education
- Storytelling
- Intensive, hands-on assistance
- Access to capital and first clients

She said these four things are essential to JSI's efforts to connect the disconnected to the Innovation Economy. She summarized each phase of JSI's four-prong approach and said they want to continue to build relationships. Regarding storytelling, she said JSI connects with diverse populations in multiple ways:

- Videos
- Social media
- Podcasts
- Quarterly E-zine (3,000 recipients per issue)

As it relates to hands-on assistance, she said 36% of JSI assisted companies are women or minority-owned. The Burton D. Morgan Mentoring Program allows these companies to be assigned two to four mentors who have experience with raising capital or leading companies. Ms. Ware shared statistics JSI is trying to address regarding access to capital for women and minorities. She said they have two funds they use for early stage companies: Evergreen Fund (exclusively for early stage capital investments) and Emerging Market Fund (early startup capital with access to additional funds for existing companies with new technology that positions them for high growth). She provided statistics on these funds and said the Emerging Market Fund (EMF) made investments in three promising technology-based women or minority-owned companies. Ms. Ware said the goal of the EMF was to also serve as an educational tool for first-time individual investors. To date, 159 diverse JumpStart client companies have raised \$174M in follow-on capital since 2004. They are very proud of these numbers yet aware there is a great deal of work that has to be done.

Ms. Ware summarized by saying that JSI's goal is to be actively inclusive. Recently, JSI updated its core values and decided to pursue the following:

- Collaborative
- Customer Focused
- Entrepreneurial
- Results-Oriented
- Committed to Excellence
- Inspired
- Actively Inclusive
- Honest

Ms. Ware said JSI strives across the organization to:

- Encourage community engagement that leads to inclusive deal flow
- Provide the best resources across the organization to guide company growth
- Reach out to possible minority/women SMEs, startup talent, and resource providers to engage them in the ecosystem

She said for every tech sector job created, five service provider jobs are created as a result of that. She shared some examples of JSI entrepreneurs. Ms. Ware also explained that a lifestyle business is a small business (i.e., accountant or consultant) that typically doesn't hire many employees and tends to be local. A high/higher growth business has a national market, half-million or more in revenue, tends to create a great deal of jobs, and requires a lot of startup capital. JSI's primary focus is on African-American and Latino communities, but it is reaching out more this year to women support organizations.

Realm Systems, LLC

Devin Randolph and Doug Robertson, co-partners of Realm Systems, LLC (RSL) provided background on their experience with their startup. Mr. Randolph said that he and his partner formed RSL as an online service company that provides an innovative new operating system. Their service provides a way for individuals and their devices to connect to 'head display units' that immerse the user within a virtual 3D environment. They have three target markets: the military, education and retail (POS - Point of Sale).

The RSL founders met Dag Kittlaus, the co-creator of Siri (iPad) who encouraged them to pursue this business venture. They were introduced to Mr. Kittlaus by James Dworkin, Chancellor of Purdue University North Central. Mr. Robertson said the system is a next generation POS platform. Mr. Randolph said their solution is also a solution for distance learning. He explained the technology and said they received confirmation through their meeting with Mr. Kittlaus that this was a viable business concept.

Mr. Randolph said they were invited to attend the South by Southwest (SXSW) Conference. He said this is one of the largest venues for entrepreneurs. SXSW is focused on emerging technology and is a breeding ground for new ideas and creative technologies. The conference includes a trade show, speakers and a startup accelerator. This is where Twitter was discovered. Mr. Robertson said they were selected out of hundreds of companies to attend; they were one of the top 25 companies in the country, and subsequently selected as one of the top four companies. They were the only company from Ohio.

Mr. Randolph said SXSW named RSL this year's best education technology company in the State of Ohio. The conference organizers invited them to the interactive and media spotlight portion of the SXSW show. Mr. Randolph explained they were invited to different national events but couldn't attend due to lack of funding.

Chair Ackerman said that Mr. Randolph and Mr. Robertson are examples of challenging issues with the 'system.' To be invited to SXSW and other major conferences and not be able to attend would be detrimental to their company. Mr. Holifield added that the Inclusive Competitiveness concept was launched at SXSW last year on a national scale.

Mr. Randolph said he was a current master's degree program student at WSU and graduated from Central State University. Mr. Robertson said that he is a graduate of Central State University and a former professor.

5. PHILANTHROPY

The Cleveland Foundation

Imagine a city whose heart throbs with life, surrounded by stable neighborhoods; a city where construction cranes dot the landscape, attesting to a building boom, with a vibrant port and airport serving domestic and international markets. Think of an urban energy hub where offshore wind farms power and empower the residents on shore, marking the region as a hotbed for research, development and advanced manufacturing of 21st-century technologies. That's the Cleveland the Cleveland Foundation would like to see – a core city emblematic of a revitalized Northeast Ohio. It's captured in the vision that guides the Cleveland Foundation's economic development strategy: Cleveland as a thriving and sustainable economy that is globally connected and known for innovation.

To realize this vision, the foundation has invested heavily in economic transformation efforts that are closely linked, and build towards a healthy, sustainable economy. All this work is attributable to generous donors, who make the work possible.

In late 2012, The Cleveland Foundation undertook a strategic review of its efforts, using an independent consultant with an understanding of philanthropy and economic development issues and best practices.

The assessment came back mostly positive, showing real successes in capital, innovation and job growth on a regional basis. Thanks in part to the network of economic intermediaries, Northeast Ohio has experienced a turnaround in industry mix and business performance. Currently, its employment growth is on the same track as that of the country, and its mix of industries mirrors America's. In other words, at the regional level, the foundation's strategy is beginning to pay off.

However, at the city level, the assessment showed a different story. Serious challenges face the city itself. Population and employment losses in the city of Cleveland have been dramatic. If these trends continue, they will put great pressure on the city's fiscal and other systems. Any progress seems to have bypassed significant parts of the population. There is a 19 percent unemployment rate and a 32 percent poverty rate for African Americans in Northeast Ohio. Minority-owned firms are underperforming nationally and are concentrated in low-growth sectors of the economy. Cleveland's African-American high school graduates and two-year degree holders have relatively high poverty rates compared to other regions. Poverty and unemployment rates are three times higher in the city than in the rest of the Cleveland metropolitan area. Nearly half of all children in the city of Cleveland – our future workforce – are living in poverty today.

In short, a healthier region is not translating into a healthier core city. This harsh reality has caused The Cleveland Foundation to propose a shift in the foundation's priority areas. The foundation is currently exploring a new strategy for its work and investments in the next five to 10 years.

While it is still early in the planning stage, the strategy will be guided by a major goal: to ensure that the growth Cleveland achieves is inclusive, that it generates economic opportunities for all residents. As the planners envision it now, to achieve this will require focus on two priority areas, where the need is high and the foundation's involvement can be critical in changing the status quo.

First, there must be an aggressive pursuit of job growth in the city. The city has a disproportionate share of the region's employment and population loss. To achieve inclusive growth, resources will need to support minority entrepreneurship and employment. One example of this is the "Evergreen" strategy in the city of Cleveland, which is described within the Greater University Circle Initiative example below.

Another example is micro-lending, where the Cleveland Foundation was instrumental in identifying the demand-supply gap for micro loans and subsequently bringing the Economic and Community Development Institute to Cleveland in July 2012. ECDI brings capital training and technical assistance to neighborhood businesses, and has already established a track record of supporting minority companies, including women-owned firms. The Cleveland Foundation will also continue to support the growth of key industry clusters, seeing Cleveland



having a series of thriving, higher-tech, higher-growth clusters as well as local, nontraditional clusters that hold potential for job creation in the near term. Some possibilities include biomed, health IT, manufacturing, food processing, film, and business to business.

To encourage growth of regional or local clusters in the city, capital gaps need to be plugged and the land and building needs of target companies need to be met. One promising approach is to encourage the development of clusters along RTA's public transit systems so people can get to the jobs being created.

A great example of this is occurring in the Health Tech Corridor in the MidTown district. From the HTC website:

Launched in 2010, the Health Tech Corridor has been a focused effort to provide ample, affordable space for the new biotechnology companies that are spinning off research efforts at Cleveland State, Case Western Reserve University, University Hospitals and the Cleveland Clinic, as well as non-biotech companies who want to locate near University Circle. The corridor is linked to both University Circle and downtown by the HealthLine. Currently, the area offers 500,000 square feet of flexible, ready-to-occupy space, giving businesses a place to anchor for their entire lifecycle, from incubator to developed company. Occupancy levels are at or near capacity, and land values are rapidly escalating as development occurs.

In these and other ways, The Cleveland Foundation is working to build up the demand side of the equation, generating jobs and demand for workers in the city.

The same is true for the supply side, or human capital part, of the equation. Unfortunately, Cleveland fares worse than the U.S. on many important indicators, including labor force participation, employment rates, educational attainment levels and poverty rates. One of the



most disturbing findings is that even those Clevelanders who have post-secondary education are experiencing high rates of poverty, with African-American men most at risk.

To address these challenges, the Cleveland Foundation feels a need to align the area's education and training offerings to job opportunities, both current and future, so residents will get a return on their investment in terms of wages earned. In effect, it seeks need to create a new career and technical education system for the city.

Cleveland has successful examples of targeted workforce development it can build on, such as the NewBridge Cleveland Center for Arts and Technology. From the NBCC website:

We launched NewBridge in 2010 with University Hospitals, the Cleveland Clinic, KeyBank, and the Kelvin and Eleanor Smith Foundation. Patterned after the successful Pittsburgh-based Manchester Bidwell model of training centers, NewBridge provides adult vocational training based on the hiring needs of local institutions; it also offers soft skills training to remove obstacles to employment.

Its initial vocational tracks are phlebotomy and pharmacy technology, fields identified by UH and the Clinic as having a large number of available positions. NewBridge also offers after-school programs for youth, giving them encouragement to stay in school as well as exposure to adult role models and opportunities for future employment. Applications for both the adult and youth programs far exceed available spaces, and almost all graduates of the vocational program have gained employment in their chosen fields.

The Cleveland Foundation intends to build on the approaches there for broader economic development initiative, and will be driven by the same measure of success: not just growth, but inclusive growth that benefits all residents.

Philanthropy Ohio

Realizing that the economic competitiveness of Ohio relies upon a strong, diverse talent base to develop new innovations and successfully compete in an increasingly competitive world, in March 2014, Philanthropy Ohio, the statewide membership association of Ohio's philanthropic sector, hosted the webinar: Inclusive Competitiveness and Ohio's Innovation Economy. Johnathan Holifield, Vice President, Inclusive Competitiveness, NorTech; Lynn Gellerman, Executive Director, TechGrowth and Ohio University Center for Entrepreneurship and John Glazer, Director of TechGrowth, were webinar presenters.

Reflecting its statewide leadership role, Philanthropy Ohio embraced the challenge of introducing this concept and framework to its members. It was the first time the statewide organization has led a discussion of philanthropy's role in education and economic inclusion and competitiveness in the Innovation Economy.

The webinar was open to all members and was designed to help Ohio philanthropic organizations:

- Understand the importance of Inclusive Competitiveness as the education and economic imperative of the 21st century.
- Recognize the value of Inclusive Competitiveness to promoting philanthropic charitable purposes
- Identify key levers supporting Ohio's Innovation Economy – STEM/STEAM educational attainment; university research and commercialization of technology; creating higher-growth enterprises; and angel, venture and other private capital investment.
- Articulate and support a new Inclusive Competitiveness economic narrative within your area's underserved communities.

The webinar introduced Inclusive Competitiveness to a new audience – Ohio philanthropic organizations – that are an essential ingredient to advance Inclusive Competitiveness throughout the state. Philanthropy Ohio's continued interest and leadership in this area will boost efforts throughout Ohio.



APPENDIX

Ohio Third Frontier Minority and Rural Outreach Provisions

184.17 Outreach activities - minority defined.

As used in sections 184.171, 184.172, and 184.173 of the Revised Code, “minority” means an individual who is a United States citizen and who is a member of one of the following economically disadvantaged groups: Blacks or African Americans, American Indians, Hispanics or Latinos, and Asians.

184.171 Minorities to be included in outreach activities and projects.

The third frontier commission shall conduct outreach activities described in section 184.172 of the Revised Code that seek to include minorities in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission. The commission shall direct the activities at faculty and students involved in science and engineering disciplines, professional scientists and engineers, technical assistance providers, the investment community, minority-owned businesses, and minority entrepreneurs.

Effective Date: 01-04-2006

184.172 Outreach activities conducted by commission.

The outreach activities the third frontier commission shall conduct under section 184.171 of the Revised Code shall include the following:

- (A) Identifying and partnering with historically black colleges and universities to solicit and implement a minority technology demonstration project funded by the national science foundation;
- (B) Working with all institutions of higher education in the state to support minority faculty and students involved in science and engineering;

(C) Developing a plan to contact by telephone minority-owned businesses and entrepreneurs to notify them of and encourage them to participate in the various third frontier projects and initiatives;

(D) Identifying minority professional and technical trade associations and economic development assistance organizations and notifying them of the various third frontier projects and initiatives;

(E) Partnering with regional technology councils to foster local efforts to support minority-owned technology businesses or otherwise identify networks of minority-owned technology businesses, entrepreneurs, and individuals operating locally;

(F) Identifying minority technology firms and marketing them to the investment community including the Ohio venture capital authority created under section 150.02 of the Revised Code and the managers of all investment funds receiving third frontier project support.

184.173 Outreach activities and EDGE program

The Third Frontier Commission shall conduct the outreach activities described in sections 184.171 and 184.172 of the Revised Code in conjunction with the EDGE program created under section 123.152 of the Revised Code.

Effective Date: 01-04-2006

184.18 Outreach activities to rural areas.

(A) As used in this section:

(1) "Metropolitan statistical area" means an area of this state that is designated a metropolitan statistical area or primary metropolitan statistical area in United States office of management and budget bulletin No. 04-03, February 18, 2004, and its attachments, and the designated

area is located entirely within this state. An area of this state that is designated a metropolitan statistical area or primary metropolitan statistical area, but the designated area includes areas of one or more other states, shall be considered a metropolitan statistical area only if that area of this state could be designated a metropolitan statistical area or primary metropolitan statistical area without including the areas located in the other state or states.

(2) "Rural area" means any area of this state not located within a metropolitan statistical area.

(B) The third frontier commission shall conduct outreach activities that seek to include rural areas in the various projects and initiatives sponsored, funded, encouraged, or otherwise promoted by the commission. Those activities shall include the following:

(1) Working with all institutions of higher education in the state to support faculty and students involved in science and engineering who focus on third frontier projects and initiatives in rural areas;

(2) Developing a plan to contact by telephone businesses and entrepreneurs in rural areas to notify them of and encourage them to participate in the various third frontier projects and initiatives;

(3) Identifying professional and technical trade associations and economic development assistance organizations in rural areas and notifying them of the various third frontier projects and initiatives;

(4) Partnering with regional technology councils to foster local efforts to support technology businesses in rural areas or otherwise identify networks of technology businesses, entrepreneurs, and individuals operating in rural areas;

(5) Identifying technology firms in rural areas and marketing them to the investment community including the Ohio venture capital authority created under section 150.02 of the Revised Code and the managers of all investment funds receiving third frontier project support.

Pertinent Provisions of the Ohio Revised Code

Chapter 184: THIRD FRONTIER COMMISSION

184.01 Third Frontier Commission

(A) There is hereby created the third frontier commission in the development services agency. The purpose of the commission is to coordinate and administer science and technology

programs to promote the welfare of the people of the state and to maximize the economic growth of the state through expansion of both of the following:

(1) The state's high technology research and development capabilities;

(2) The state's product and process innovation and commercialization.

(B)

(1) The commission shall consist of eleven members: the director of development services, the chancellor of the Ohio board of regents, the governor's science and technology advisor, the chief investment officer of the nonprofit corporation formed under section 187.01 of the Revised Code, and seven persons appointed by the governor with the advice and consent of the senate.

Chapter 3333: OHIO BOARD OF REGENTS

3333.04 Chancellor - powers and duties.

The chancellor of the Ohio board of regents shall:

(A) Make studies of state policy in the field of higher education and formulate a master plan for higher education for the state, considering the needs of the people, the needs of the state, and the role of individual public and private institutions within the state in fulfilling these needs;

(B) (1) Report annually to the governor and the general assembly on the findings from the chancellor's studies and the master plan for higher education for the state;

(E) Recommend the nature of the programs, undergraduate, graduate, professional, state-financed research, and public services which should be offered by the state colleges, universities, and other state-assisted institutions of higher education in order to utilize to the best advantage their facilities and personnel;

(G) Recommend to the state colleges, universities, and other state-assisted institutions of higher education programs which should be added to their present programs;

(H) Conduct studies for the state colleges, universities, and other state-assisted institutions of higher education to assist them in making the best and most efficient use of their existing facilities and personnel;

(I) Make recommendations to the governor and general assembly concerning the

development of state-financed capital plans for higher education; the establishment of new state colleges, universities, and other state-assisted institutions of higher education; and the establishment of new programs at the existing state colleges, universities, and other institutions of higher education;

(K) Seek the cooperation and advice of the officers and trustees of both public and private colleges, universities, and other institutions of higher education in the state in performing the chancellor's duties and making the chancellor's plans, studies, and recommendations;

(L) Appoint advisory committees consisting of persons associated with public or private secondary schools, members of the state board of education, or personnel of the state department of education;

(M) Appoint advisory committees consisting of college and university personnel, or other persons knowledgeable in the field of higher education, or both, in order to obtain their advice and assistance in defining and suggesting solutions for the problems and needs of higher education in this state;

(T) Appoint consortia of college and university personnel to advise or participate in the development and operation of statewide collaborative efforts, including the Ohio supercomputer center, the Ohio academic resources network, OhioLINK, and the Ohio learning network. For each consortium, the chancellor shall designate a college or university to serve as that consortium's fiscal agent, financial officer, and employer. Any funds appropriated for the consortia shall be distributed to the fiscal agents for the operation of the consortia. A consortium shall follow the rules of the college or university that serves as its fiscal agent. The chancellor may restructure existing consortia, appointed under this division, in accordance with procedures adopted under divisions (O)(1) to (6) of this section.

8 Communities of Influence (COI)

Generally, eight Communities of Influence (COI) comprise the Local Innovation Ecosystem for most regions. This diagram is meant to serve only as a general guide. It is not a codified prescribed labeling of the Local Innovation Ecosystem. It is, however, a useful perspective for developing Inclusive Competitiveness strategies and frameworks.

"Inclusive" is the operative term that seeks to bring together prominent actors and leaders in all of these COI in a proactive manner, including those underrepresented. Generally, a Regional Development Organization (RDO) will produce a Comprehensive Economic Development Strategy (CEDS) for an entire Metropolitan Statistical Area (MSA), which will take into account trends in populations, demographic shifts, educational capacity and outcomes, migration patterns, growth sectors across industries, gross regional product (GRP) and a host of other metrics to offer a five-year projection of the economic landscape and regional environment.

Some RDOs will project farther than five years. In all cases, the communities below will be affected by the policies, strategies, plans and investments based upon the CEDS. These COI all play a role in, and have an impact upon, the economic development of the region.

EDUCATION	COMMUNITY	POLICY	FUNDING
K-12 Public Schools	Social / Health orgs	Government	Government/Taxpayers
Charter / Private Schools	Community -	Public-Private Alliances	Banks / Financial orgs
Faith-based schools	Development	Foundations	Foundations
Vocational schools	Housing / Residential	Professional	Pensions
Community Colleges	Faith-based	Associations	Private Equity
Universities	Non-government orgs	Elect/Appointed Officials	Venture Capital
	Parent / Student groups	Wealthy/Powerful	Angel Investors
	Fraternities/Sororities	Individuals	Crowdfunders
	Legacy Nonprofits		

DEVELOPMENT	INDUSTRY	ENTREPRENEURS	COMMUNICATIONS
Economic Development	Corporations	Entrepreneurs	Media
Tech-Based Eco Dev	Mature Large / Small Biz	Associations	Public Relations
Regional Development	Successful Startups	Incubators	Corporations
Orgs (CEDS Planning)	Gazelles	Accelerators	Government
Real Estate	Professional	Conference/	Foundations
Development	Associations	Competitions	Policymakers
Public-Private Partners	Fraternities/Sororities	Activities/Meetups	Newsmakers/Pundits
Faith-based Eco Dev		Hackathons	Columnists
Universities		Startup Weekends	

CONTACT:

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Johnathan Holifield, ScaleUp Partners at johnathan@scaleuppartners.com

INCLUSIVE COMPETITIVENESS SUBCOMMITTEE REPORT ADDENDUM – PARTICIPANTS

February 18, 2014 Southeast, Ohio Forum held at the Ohio Board of Regents

- Peggy Calestro, Vice President of the Ohio Children's Foundation
- Greg Dart, Vice President for Student Services, Zane State College
- Tiffani Gottlieb, Regional Director of Programs, Philanthropy Ohio
- Lynn Gellerman, Ohio University and Executive Director of TechGrowth Ohio
- John Glazer, Ohio University and Director of TechGrowth Ohio
- Johnathan Holifield, Vice President of Inclusiveness Competiveness, NorTech
- Annmarie O'Grady, College Tech Prep Coordinator of Belmont College
- Chris Shaffer, Director of Institutional Effectiveness at Shawnee State University
- Stephanie Sanders, Ph.D. Assistant Director for Diversity and Inclusion of Ohio University
- Randi Michael Thomas, Director, Miami University
- Jacqueline Williams, Chief of the Minority Development Division, Ohio Development Services Agency

March 12, 2014 Southwest, Ohio Forum held at Miami University

- Dorothy Air, Associate Vice President for Entrepreneurial Affairs and Technology Commercialization at the University of Cincinnati
- Matt Boaz, Director of Equity and Inclusion, Wright State University
- Dr. Phyllis Callahan, Dean College of Arts & Science, Miami University
- Shane Center, Accelerant, Dayton Development Coalition
- Kathleen Cleary, Associate Provost and Project Director for Completion by Design, Sinclair Community College
- Lisa Colbert, Public Information Officer, Ohio Development Services Agency
- Robert Coy, President, CincyTech
- Theresa Felder, Vice President Student Affairs, Clark State Community College
- Vinny Gupta, Chair of the BOR
- Johnathan Holifield, Vice President of Inclusiveness Competiveness, NorTech
- Natalie Johnson, Director of Academic Affairs, Clark State Community College
- Mark Lacker, Clinical Professor in Entrepreneurship at Miami University
- Patrick Longo, President of the Hamilton County Business Center
- Anthony Ponder the Dean of Science, Mathematics and Engineering Division, Sinclair Community College
- Monica Posey, Vice President for Academic Affairs, Cincinnati State Technical and Community College
- Devin Randolph, co-partner, Realm Systems, LLC
- Doug Robertson, co-partner, Realm Systems, LLC
- Patti Ross, Interim Senior Vice President of Academic Affairs/Dean of Information Technology and Engineering, Edison State Community College
- Kenneth Simonson Director of Academics and Director of Emerging Ethnic Engineering Program at the University of Cincinnati
- Dr. Brett Smith, Associate Professor and Director of the Miami Institute for Entrepreneurship at Miami University

- Rodney Swope, Director of the Minority Business Accelerator, Cincinnati USA Regional Chamber of Commerce
- Lyn Tolan, Director of Policy and Communications, Ohio Development Services Agency
- Adam Van Treese, Campus Recruiting Manager, PricewaterhouseCoopers
- Amber Vlasnik, Director of the Women's Center, Wright State University
- Jacqueline Williams, Chief of the Minority Development Division, Ohio Development Services Agency

April 9, 2014 Northeast, Ohio Forum held at Cuyahoga Community College

- Charles Harkness, Chief Diversity Officer for Baldwin Wallace University
- Stephanie Forstner, Academic Affairs, STEM Scholars Program for Baldwin Wallace University
- John Klipfell, Co-Director of the Believe in Ohio Program
- Donald Feke, Vice-Provost for Undergraduate Education of Case Western Reserve University
- Kathleen Kash, Chair of the Department of Physics of Case Western Reserve University
- Joe Ahern, Research Associate of the Center for Community Solutions
- Shilpa Kedar, Economic Developer at The Cleveland Foundation
- Connie Atkins, Director of Development for the Consortium of African American Organizations
- Alethea V. Ganaway, Career Coordinator of 3D Digital Design and Manufacturing for Cuyahoga Community College
- Dr. Sandy Robinson, Vice President, Learning and Engagement for Cuyahoga Community College
- Linda Woodard, Vice President, Workforce and Economic Development Division for Cuyahoga Community College
- Victor Ruiz, Executive Director for Esperanza, Inc.
- Emily Garr Pacetti, Director of Research and Evaluation for Fund for Our Economic Future
- Joy Roller, President of Global Cleveland
- Gloria Ware, Senior Advisor for JumpStart Inc.
- Dr. Jennifer Marcinkiewicz, Associate Professor, Biological Sciences, Coordinator, Integrated Life Sciences, Co-Director, Upward Bound Math-Science Program at Kent State University
- Daniel Mahony, Dean and Professor, College of Education, Health and Human Services at Kent State University
- Terri Burgess Sandu, Director, Entrepreneurship and Innovation Institute at Lorain County Community College
- Russell Donda, Director, Office of Community Technology Transfer for Lorain County Community College Innovation Foundation
- Darrin M. Redus, Sr., President and Chief Executive Officer of, MainStreet Inclusion Advisors, LLC
- Ana Rosa Badillo, Vice President of, MainStreet Inclusion Advisors, LLC.
- Trish Frazzini, Human and Social Services Faculty at Marion Technical College
- Rhea Edmonds, MCI Coordinator at Marion Technical College
- Cheryl Lamm, Community Relations at McMaster-Carr Supply Company
- Rebecca Bagley, President and Chief Executive Officer of NorTech
- Johnathan Holifield, Vice President of Inclusive Competitiveness of NorTech
- Brent Hartman, Program Manager of Ohio Aerospace Institute
- Alison L. White, Director of Ohio STEM Learning Network, Akron Hub
- Allie Watson, Program Officer of the Richland County Foundation
- James V. Treacle, Dean, Sciences and Assistant Professor Biology/Biotechnology of the Stark State College

- Alexis Crosby, Regional Director, Northeast Ohio of Tech Corps
- Lisa M. Chambers, National Executive Director of Tech Corps
- Lee Gill, Chief Diversity Officer, Associate Vice President for Inclusion and Equity of the University of Akron
- Ravi Krovi, Dean of the College of Business of the University of Akron
- Dr. Julie Zhao, Director, Increasing Diversity in Engineering Academics Program of the University of Akron
- Marsha Mockabee, President/Chief Executive Officer of the Urban League of Greater Cleveland
- Jacqueline Williams, Chief of the Minority Business Development Division of the Ohio Development Services Agency
- Vanquilla Wilks
- Jennifer Thomas

May 7, 2014 Northwest, Ohio Forum held at the Ohio Board of Regents

- Amy Brown, Community Relations Coordinator for Honda of America Manufacturing
- Sidney Childs, Assistant Vice President, Student Affairs, TRIO Programs for Bowling Green State University
- Blake Culver, Director of Business Analytics for Rocket Ventures
- David Enzerra, President of The Lubrizol Foundation (Vice President Community and Public Affairs, Lubrizol Corporation)
- Stephanie Forstner, Academic Affairs and the STEM Scholars Program at Baldwin Wallace University
- Lynn Gellerman, Ohio University and Executive Director of TechGrowth Ohio
- Charles Harkness, Chief Diversity Officer of Baldwin Wallace University
- Roy Hodge, Vice President of the Toledo African American Chamber of Commerce
- Johnathan Holifield, Vice President of Inclusive Competitiveness of NorTech
- Erik Johnson, Manager, Minority Business Development Center, University of Toledo
- Dr. Robert Midden, Director, COSMOS/ Associate Professor, Chemistry for Bowling Green State University
- Karl Parker, President and General Manager of Parker Family of Businesses
- Jamie Przybylski, Division Liaison for Special Projects in the College's Engineering, Technologies, and Mathematics Division at the Terra State Community College
- Jacqueline Williams, Chief of the Minority Business Development Division of the Ohio Development Services Agency

June 11, 2014 Summit held at the Ohio University (RSVPing were the following)

- Johnathan Holifield, Vice President of Inclusive Competitiveness of NorTech
- Karl Parker, President and General Manager of Parker Family of Businesses
- Lynn Gellerman, Ohio University and Executive Director of TechGrowth Ohio
- John Glazer, Ohio University and Director of TechGrowth Ohio
- Rodney Swope, Director of the Minority Business Accelerator, Cincinnati USA Regional Chamber of Commerce
- Terri Burgess Sandu, Director, Entrepreneurship and Innovation Institute at Lorain County Community College
- Kenneth Simonson Director of Academics and Director of Emerging Ethnic Engineering Program at the University of Cincinnati

- Larisa Harper, Interim Vice President for Student Services and Director of Secondary and Strategic Initiatives at Zane State College
- Jacqueline Williams, Chief of the Minority Business Development Division of the Ohio Development Services Agency
- Charles Harkness, Chief Diversity Officer of Baldwin Wallace University
- Alethea V. Ganaway, Career Coordinator of 3D Digital Design and Manufacturing for Cuyahoga Community College
- Stephanie Forstner, Academic Affairs, STEM Scholars Program for Baldwin Wallace University
- Devin Randolph, co-partner, Realm Systems, LLC
- Doug Robertson, co-partner, Realm Systems, LLC
- Tiffani Gottlieb, Regional Director of Programs, Philanthropy Ohio
- Connie Atkins, Director of Development for the Consortium of African American Organizations
- William Holdipp, Assistant Executive Director of the Consortium of African American Organizations
- Shari Rethman, Dean of Liberal Arts, Communication and Social Sciences Division at Sinclair Community College
- Gloria Ware, Senior Advisor, JumpStart Inc.
- Dr. Robert Midden, Director, COSMOS/ Associate Professor, Chemistry for Bowling Green State University
- Mark Weinberg, Director of Ohio University's George V. Voinovich School of Leadership and Public Affairs
- James Treacle, Dean of Sciences and Assistant Professor Biology/Biotechnology of the Stark State College, Nancy Bridgman, National Emerging Technology Incubator of Central State University,
- Keith G. Wisdom, Ph.D., Interim Executive Director, Division of Diversity, Equity and Inclusion at Kent State University
- David Enzerra, President of The Lubrizol Foundation (Vice President Community and Public Affairs, Lubrizol Corporation)
- Edward L. Collins, Ph.D., Director, Diversity Assessment & Research, Division of Diversity, Equity, & Inclusion at Kent State University
- Luke Pittaway, Director, Center for Entrepreneurship, Ohio University
- Shmuel Roth, Business Consultant for TechGrowth
- Bob Gordon, Project Manager, Voinovich School of Leadership and Public Affairs
- Faith Knutsen, Associate Director of Operations at Ohio University
- Dr. Shari Clarke Vice Provost for Diversity and Inclusion, Ohio University
- Ms. Allyssa Allen, Diversity & Inclusion Intern, Bowling Green State University
- Lee Gill, Chief Diversity Officer, Associate Vice President for Inclusion and Equity of the University of Akron
- Emily Garr Pacetti, Director of Research and Evaluation for Fund for Our Economic Future

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