Coppin State University Releases Country's First Economic Impact Study of a Makerspace Report Uncovers Open Works' Ongoing Significant Contributions to Jobs, Labor Income, Production and Sales Output, and Community; Model is Deemed Nationally Replicable

Baltimore, July 30, 2019 – Coppin State University's Center of Strategic Ingepreneurship (CSI) today released the results of the country's first organizational assessment and economic impact study of a makerspace in the U.S. The "2019 Turning Makerspaces into Greater Places" report provides an overview of the operation, key stakeholders, potential barriers to success, economic impact, and recommendations of Open Works, a national makerspace leader located in Baltimore City. The project was made possible by the Coppin-Open Works-PNC Bank.

The Nation of Makers (NoM), a national "coalition of diverse organizations that are working together to support the maker community through community building, resource sharing, and advocacy" (www.nationofmakers.us), recently reported the results of their national survey. Results indicate a wide variety of makerspaces that have been in existence an average of just over five years, with 79 percent of the 95 responding facilities being between 500 and 10,000 square feet. The statistic establishes Open Works' position as an outlier in the national pool of makerspaces at 34,000 sq. ft. and also illustrates the diversity of what conforms to the broad definition of makerspaces.

Launched in 2018, CSI's study sought to answer eight questions designed to provide valuable information to Open Works stakeholders: 1) How many jobs are supported by Open Works? 2) What is the demographic makeup of the jobs supported by Open Works? 3) What kind of businesses are pursued at Open Works? 4) What are the barriers faced by the businesses located at Open Works? 5) How can Open Works help reduce or alleviate barriers? 6) What are the characteristics of the workforce sought by businesses based at Open Works? 7) What is the three-year outlook of Open Works? and 8) What is the overall economic impact of Open Works?

"Until now, there has been difficulty quantifying the economic impact of a makerspace. Moreover, our study revealed the value makers place on belongingness, creative space, and access to tools. A strong sense of community exists that is based of trust," said Dr. Ron Williams, Principle Investigator and Former Interim Dean of the College of Business at Coppin State University. "Driven by engineers, hobbyists, tinkerers, crafters, artists, entrepreneurs and innovators, makerspaces are often stereotyped as places for white, affluent individuals. However, Open Works has found a way to provide equitable economic development opportunities by intentionally implementing policies and practices that facilitate inclusion and diversity."

The uniqueness and scale of the impact of Open Works is significant, especially considering that the average number of jobs supported by memberships within maker communities responding to the NoM survey is 8.1 jobs with the average number of fulltime positions being 1.1 and part-time 2.2. These statistics place Open Works, now directly employing a team of 33, six full-time, in a leadership position regarding the size of staff and scalability.

Job creation is the centerpiece of economic impact, along with labor income and output from production and sales. According to the report, as of March 2019, Open Works is contributing 138

jobs to the Maryland economy and 114 jobs to the Baltimore economy, a combined \$8.5 million in state and local income, and a combined \$17.9 million in state and local output. In addition, there is a \$7 return to the State and a \$5 return to the City for every operational \$1 spent at Open Works.

"The U.S. maker movement is entering a new phase, making the leap from a primarily hobbyist activity to an engine for grassroots economic development," said Will Holman, Executive Director Open Works. "Open Works not only gives small companies access to tools and a place to work, we are also training their future workforce, providing access to investment capital, and building markets for our makers' products."

The study reveals that the largest sectoral benefits in terms of total jobs arise in the education sector, with 38.5 jobs projected. In the second spot, the woodworking sector yields a total of 16 additional jobs while the architectural and engineering sector adds 10.4 Baltimore jobs. The apparel sector adds a total of six City of Baltimore jobs and the remaining sectors on the list add three or four permanent jobs each.

Further, the education sector gains \$1.1 million in labor income. Architectural and engineering workers gain \$758,044 in income and the woodworking, furniture and millwork sector adds \$251,636, reversing the order seen in the previous table. Landscape and related services contribute \$214,683 to labor income and the photographic services sector adds \$101,234. The insurance sector gains \$98,672 in additional labor income. Although the job gain in the hospital sector is small, the gain in labor income places this sector on the chart with \$65,320 in labor income added to the Baltimore City economy. Independent artists add \$64,217 in labor income—almost the same as the hospital sector—and four jobs. It is noted that some other sectors with larger contributions were omitted from the list due to confidentiality concerns.

"The study is groundbreaking in examining a community-embedded makerspace," added Holman. "It's not in a school, library, or on a college campus. That gives us a unique opportunity to assess the activity of neighborhood-level, city-level, and regional-level economic and social impact. That makes this a unique opportunity in Baltimore and nationally. It's a model that is can be replicated in rural and urban areas across the country through public/private partnerships."

The report indicates that Open Works has made a significant contribution to the entrepreneurial landscape of Baltimore and vicinity. Its impact is also experienced beyond the region as they emerge as a national pacesetter in the maker movement.

"The organization exhibits a blend of mission, vision, leadership, and strategic implementation that places it on a trajectory to influence small and medium-scale manufacturing for future decades and beyond," added Williams.

In addition to the prevalence of "communityship," (Mintzberg, 2017, p. 5) Open Works demonstrates national leadership in diversity and inclusion indicators. There is evidence of intentional trust-building in many of their policies and practices. This distinction provides an opportunity for the Coppin-Open Works-PNC Bank Collaborative to forge trust frameworks for

strengthening maker communities and enabling them to establish "trust hubs" for economic development and growth.

The CSI study has already inspired multi-contextual interest by exploring rural-urban ingepreneurial relationships between Baltimore and Bluefield, West Virginia and a plan to study the application of trust frameworks between such communities. The inspiration is a direct result of the inclusive community culture observed during this project.

About Open Works:

Open Works is a 501(c)3 nonprofit makerspace located in Baltimore City. Open Works opened in 2016 with founding underwriting support from the Robert W. Deutsch Foundation and the Baltimore Arts Realty Corporation. Open Works' mission is to make tools, technology, and the knowledge to use them accessible to all. Contact Will Holman, Executive Director, atwill@openworksbmore.com

About Coppin State University:

Coppin State University is a public historically black university located in Baltimore City. Founded in 1900, It is part of the University System of Maryland. The University is a member-school of the Thurgood Marshall College Fund. Contact Ron Williams, PhD, Department of Management & Marketing at rwilliams@coppin.edu

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