BIOINNOVATION & HEALTH SERVICES

Background

The BioInnovation and Health Services cluster is actually two separate industry segments combined here because of the significant overlaps around clinical trials and bench research, medical training and talent, and commercialization opportunities, that require similar inputs to achieve economic growth. This cluster includes traditional health service delivery (hospitals, doctors' offices, etc.) as well as health manufacturing, wholesale, supply, research and development, devices, and pharmaceuticals. New Orleans' location quotient in BioInnovation is 0.3 and in Health Services is 0.7. Health Services is the larger employer with more than 13,200 employees compared to BioInnovation's approximately 700. However, the opportunity for expansion of commercialized scientific products relies on the synergy between the two segments of the cluster.

BioInnovation, which includes research, development, and commercialization of scientific efforts, is a relatively small cluster in New Orleans, but one with strong opportunities if given the right supports. As mentioned above, BioInnovation accounts for only 700 jobs, but most of these are high-paying jobs in an entrepreneurial environment. While biosciences and research commercialization require significant investments, the potential payoffs can be substantial. That said, there is stiff competition across the country. For at least two decades, states, regions, and cities across the nation have pursued the biosciences as an avenue for economic development. According to a number of research projects conducted over the last eight years, potential niche areas for New Orleans include neuroscience, orthopedics and rehabilitative wellness, infectious diseases, cancer, and translational medicine.

Health Services is the third largest employer in the city and provides a wide spectrum of jobs with attractive career opportunities. The average annual wage is approximately $78,700 in BioInnovation and approximately $45,400 in Health Services. While many research and medical positions require advanced education and training, workers in ancillary positions in institutions like hospitals need only high school diplomas or the equivalent.

Strengths

Major investments in rebuilding physical assets have invigorated the BioInnovation and Health Services cluster, including a combined $149 million investment to develop the New Orleans BioInnovation Center and the Louisiana Cancer Research Center, and more than $2 billion to redevelop the Louisiana State University Academic Medical Center and the Veterans Administration Hospital. As the anchors of the BioDistrict, these institutions have the potential to make New Orleans a center for both bioscience and specialized destination health care. Another $130 million is being invested to rebuild the New Orleans East Hospital, a much-needed medical center in the New Orleans East neighborhoods.

The State has developed strong incentives such as the research and development tax credit to support business growth and attraction. Further, there has been growth in start-up and venture capital assets since Hurricane Katrina, such as Louisiana Fund II, the New Orleans Startup Fund, and the BIO Fund, all of which fund various stages of turning scientific research into viable products.

Given that most bioscience clusters develop near academic institutions, the city's concentration of higher education institutions provides another natural asset to this cluster, not only producing a deep labor pool, but also providing a home to researchers who create technologies that can evolve into commercial products.

Additionally, a wealth of research and planning has been completed in preparation for the BioDistrict, the state-enabled economic development district in downtown New Orleans that is home to a hub of major medical, training, and research facilities. The preparatory work has focused on the physical development as well as the steps to ensure economic benefits from the massive redevelopment and investments in capital and talent.

Challenges

New Orleans is well-positioned to become known as a center of academic research and medicine, but it must clear a number of hurdles. The cluster's biggest challenges are recruiting, training and retaining talent as well as making sure that there is enough capital available to provide state-of-the art healthcare, conduct research, and bring products from the lab to market.

The cluster faces a serious talent retention and attraction challenge. With the redevelopment of the health care facilities throughout the city, there will be a need to recruit and hire an estimated 4,000 to 6,000 employees to fill existing and new healthcare related jobs. The city's medical institutions identified negative perceptions of New Orleans as one of the main issues impacting talent attraction and retention. In addition, although there have been strides made, there is a need for greater coordination among the workforce training community and hospitals to link workers with job opportunities at the medical centers currently under construction.

In BioInnovation, the main workforce shortage is that of management-level expertise necessary to spur research into commercial products. The negative perception issue mentioned above is one reason for management talent staying away from New Orleans, but the main reason is that the city does not have enough tools to compete with other cities with strong biosciences clusters. Companies seeded in New Orleans are being recruited away by cities and universities that have greater capital and the ability to develop more state-of-the-art facilities. The departure of companies from the city once they reach a critical mass means that the seeds of the city's labor are being sown and reaped elsewhere. As these companies leave, the city not only loses the income from the tax revenues of new product development, but a wealth of entrepreneurial talent that often goes on to create new firms.

Key to the growth of this cluster is the availability of capital. For BioInnovation, capital sources are needed at all stages of a project, from proof-of-concept to product launch. Health Services depends on funding from two main services – patient care and clinical trials. Unfortunately, there is a shortage of funding in all areas. Long-term commitments to BioInnovation at the state, regional and local levels – including recent capital investments, tax credits for research and development, and other financial tools and incentives – have positioned New Orleans to be highly competitive in this cluster. However, many of these investments have been threatened in recent years due to budget constraints. Recent cuts at the federal level to prominent research funding at the National Institutes of Health and National Science Foundation put in jeopardy many of the research projects currently underway. Despite a growth in new funding streams at the local level, there are not enough resources to secure proof-of-concept funding or raise venture capital for growing companies. This leaves both the research field and medical centers vulnerable to losing talent. New Orleans cannot currently compete with other locales that offer significant infrastructure and capital packages to attract or retain the city's research and medical talent.

Further, the financial future of the Health Services cluster is uncertain at best. The funding for the infrastructure is in place, but other capital commitments are not. Changes in federal and state health care policy, Medicaid cuts, and major cuts in state funding have placed extreme pressure on the cluster to serve more with less, leaving fewer resources available for clinical trials, research and product development, and quality healthcare for the most vulnerable[4].

This cluster is primed to increase demand for health services and grow New Orleans as a center for specialized health care. However, the perception of disagreement among the cluster's institutions as to how to make this growth happen hinders the city's efforts to become a world-class center of academic medicine.

Opportunities

Successful academic medical centers, including the centers under construction in New Orleans, must have the "trifecta: diverse and complex clinical research, teaching capacity, and state-of-the-art facilities."[5] The trifecta helps to attract both medical professionals and patients. New Orleans has this trifecta in place. The redevelopment of the Veterans Administration Hospital, Louisiana State University Academic Medical Center, and New Orleans East Hospital, combined with the research and clinical talent in these and other partner institutions, creates an exciting opportunity to offer exceptional quality health care to residents of New Orleans as well as destination health care to patients who travel from all over the country or internationally for medical treatment.

New Orleans has the trifecta as mentioned above, but it must address gaps in talent and capital within medical research as well as commercialization.

[4]From the Kaiser Family Foundation, available at http://www.statehealthfacts.org/comparetable.jsp?ind=125&cat=3
[5]Julie Catellier, Director of the Southeast Louisiana Veterans Health Care System, Veterans Administration