Health Care Related Education in Tyler MSA

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In this issue of the *Hibbs Brief*, we discuss some facts related to the health care industry and the linkages it has to education in Tyler.

The *Health Care and Social Assistance* industry sector¹ is the largest employer in the Tyler metropolitan statistical area (MSA) with more than 26,000 employees working in this field (22.8% of total employment). *Retail Trade* (12.0%) and *Accommodation and Food Services* (9.5%) together (second and third largest industries in the Tyler MSA) account for less jobs than health care related jobs.² When a significant number of workers, compared to the state or nation, are employed in an industry sector within an economy, e.g. county, city, etc., we frequently find an industry cluster.³

The presence of an industry cluster is seen as positive to a regional economy because it typically results in having a comparative advantage with respect to other geographic areas due to local backward and forward linkages. Having backward and forward linkages in a particular field implies a greater development of suppliers and purchasers for the products and services offered locally. This interconnection of local businesses strengthens a regional economy and, eventually, results in more jobs and profits. Some renowned examples of industry clusters are Detroit and Silicon Valley with their automobile and computer technology clusters, respectively.

Besides employing a large number of workers, the *Health Care and Social Assistance* industry sector provides some well paid jobs to the Tyler MSA. The average annual wage per worker for the entire category⁴ was \$55,543 in 2018. More detailed sectors (four-digit), such as the office of physicians report \$136,128 of average annual wages per worker; specialty hospitals report \$83,196.

One important benefit of a regional industry cluster is its capacity to train more individuals. As more businesses enter the cluster, more skilled workers are required to fulfill the local employment needs. Tyler is doing a great job in this respect producing a large number of health care specialists in different local educational organizations. The University of Texas at Tyler has granted 4,728 health care degrees in the last five years (44 certificates, 2,918 bachelor's, 1,681 master's and 85 doctoral), while the University of Texas Health Science Center at Tyler has granted 48 master's degrees. See Table 1.

Additionally, Tyler Junior College has 31 health care related degrees (10 certificates, 19 associate's, and 2 bachelor's) within three different schools: School of Nursing and Health Sciences, School of Engineering, Mathematics and Sciences, and School of Professional and Technical Programs. The Tyler Junior College has granted 3,055 health care degrees in the last five years (1,070 certificates, 1,964 associate's and 21 bachelor's). See **Table 2**. Moreover, the Tyler Independent School District (Tyler ISD) offers health care programs at the high school level that prepare young students to excel when enrolling at postsecondary options in the near future.

In addition to the significant number of health care professionals being trained in Tyler, the University of Texas System Board of Regents has given their final approval to establish a medical school in Tyler.⁵ The medical school would work with the proposed single institution formed from a merger of The University of Texas at Tyler and The University of Texas Health Science Center at Tyler. Together with other educational institutions, the combined new university would continue to develop health care specialists in Tyler, the region and the overall nation.

Table 1. Graduates of the University of Texas System in Tyler, by Institution, College, School, Degree Level and Major (2014–2019)

| | | 2014–2015 | 2014–2015 | 2016–2017 | 2017–2018 | 2018–2019 |
|--------------------------|---|-----------|-----------|-----------|-----------|-----------|
| University of Texas at T | yler | | | | | |
| College of Education and | d Psycology | | | | | |
| Bachelor | Psychology | 76 | 83 | 87 | 95 | 101 |
| Masters | Clinical Mental Health Counsel | 19 | 23 | 19 | 16 | 25 |
| Masters | Counseling Psychology | 4 | 0 | 0 | 0 | 0 |
| Masters | Psyc-Clinical Psycology | 19 | 26 | 22 | 22 | 38 |
| College of Nursing and F | Health Sciences | | | | | |
| Bachelor | Health and Kinesiology | 11 | 2 | 4 | 4 | 1 |
| Bachelor | Health Sciences/Studies | 26 | 33 | 24 | 37 | 26 |
| Bachelor | Kinesiology | 89 | 90 | 87 | 80 | 95 |
| Bachelor | Nursing | 250 | 314 | 385 | 437 | 460 |
| Bachelor | Wellness | 0 | 0 | 0 | 9 | 12 |
| Certificate | Nurse Practitioner/Family Nurse Practitioner | 11 | 3 | 11 | 11 | 8 |
| Masters | Family Nurse Practitioner | 37 | 56 | 45 | 58 | 30 |
| Masters | Health and Kinesiology | 3 | 0 | 0 | 0 | 0 |
| Masters | Health Sciences | 1 | 4 | 2 | 3 | 7 |
| Masters | Kinesiology | 14 | 11 | 10 | 17 | 13 |
| Masters | Nurse Administration | 10 | 25 | 27 | 35 | 35 |
| Masters | Nurse Education | 16 | 22 | 16 | 48 | 21 |
| Masters | Pediatric Nurse Practitioner | 4 | 1 | 0 | 0 | 0 |
| Doctoral | Doctor of Philosophy in Nursing | 13 | 6 | 17 | 14 | 13 |
| Doctoral | Doctor of Nursing Practice | 0 | 0 | 0 | 0 | 8 |
| Fisch College of Pharma | су | | | | | |
| Doctoral | Doctor of Pharmacy | 0 | 0 | 0 | 0 | 64 |
| Soules College of Busine | ess ess | | | | | |
| Masters | Business Administration - Health Care | 97 | 176 | 211 | 209 | 184 |
| University of Texas Hea | olth Science Center at Tyler | | | | | |
| School of Medical Biolog | gical Sciences | | | | | |
| Masters | Science in Biotechnology | 11 | 7 | 5 | 4 | 5 |
| School of Community & F | Rural Health | | | | | |
| Masters | Public Health | 0 | 0 | 0 | 2 | 14 |
| | | | | | | |

Source: Office of Information Analysis, UT Tyler and UT Health Science Center

Table 2. Health Care Related Programs at the Tyler Junior College in Tyler, by School, Degree Level and Program

| | | 2014–2015 | 2014 –2015 | 2016–2017 | 2017–2018 | 2018–20 |
|---------------------|--|-----------|------------|-----------|-----------|---------|
| yler Junior College | • | | | | | |
| chool of Nursing an | d Health Sciences | | | | | |
| Associate | Dental Hygiene | 22 | 22 | 27 | 27 | 26 |
| Bachelor | Dental Hygiene | 0 | 0 | 1 | 13 | 7 |
| Certificate | Dental Assisting | 0 | 10 | 17 | 18 | 21 |
| Associate | Applied Science - Diagnostic Medical Sonography | 11 | 10 | 9 | 13 | 12 |
| Certificate | Applied Science - Diagnostic Medical Sonography | 12 | 12 | 8 | 0 | 0 |
| Associate | Addiction Counseling and Commmunity Health | 12 | 8 | 4 | 13 | 10 |
| Certificate | Addiction Counseling and Commmunity Health | 4 | 13 | 3 | 11 | 9 |
| Associate | Medical Laboratory Technology | 9 | 18 | 16 | 14 | 15 |
| Associate | Nursing | 170 | 112 | 99 | 225 | 171 |
| Certificate | Nursing, Vocational | 108 | 113 | 120 | 123 | 123 |
| Associate | Occupational Therapy Assistant | 0 | 22 | 18 | 16 | 15 |
| Associate | Ophthalmic Medical Assisting | 4 | 2 | 3 | 0 | 0 |
| Certificate | Ophthalmic Medical Assisting | 18 | 11 | 7 | 9 | 9 |
| Associate | Physical Therapist Assistant | 0 | 0 | 20 | 19 | 18 |
| Associate | Radiologic Technology | 17 | 20 | 15 | 17 | 16 |
| Associate | Respiratory Care | 17 | 11 | 10 | 14 | 20 |
| Certificate | Respiratory Care | 3 | 2 | 0 | 3 | 1 |
| Associate | Surgical Technology | 7 | 10 | 9 | 16 | 15 |
| Certificate | Surgical Technology | 10 | 13 | 18 | 29 | 24 |
| Associate | Applied Science - Wellness and Exercise Science* | NA | NA | NA | NA | NA |
| Associate | Applied Science - Veterinary Technician | 0 | 0 | 0 | 11 | 13 |
| chool of Engineerin | g, Mathematics and Sciences | | | | | |
| Associate | Health and Kinesiology* | NA | NA | NA | NA | NA |
| Associate | Psychology | 55 | 62 | 71 | 50 | 54 |
| chool of Profession | al and Technical Programs | | | | | |
| Associate | Emergency Medical Services Professions | 5 | 8 | 9 | 5 | 7 |
| Certificate | Emergency Medical Services Professions | 12 | 6 | 11 | 5 | 5 |
| Associate | Health Information Technology | 14 | 10 | 8 | 3 | 9 |
| Certificate | Health Information Technology | 0 | 0 | 0 | 3 | 10 |
| Associate | Healthcare Administration | 0 | 0 | 0 | 0 | 10 |
| Bachelor | Healthcare Technology and Medical Systems** | 0 | 0 | 0 | 0 | 0 |
| Associate | Medical Office Management | 31 | 27 | 28 | 21 | 27 |
| | | | | | | |

Notes: * Data not available.

Sources: The programs were gathered from the Tyler Junior College, Tyler, TX official website.

 $The \ number \ of \ graduates \ were \ collected \ from \ the \ in \ the \ Texas \ Higher \ Education \ Accountability \ System.$

^{**} This program is a fairly new program without graduates yet. The first generation is expected to graduate in December 2020.

More than single industries, clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services as well as providers of specialized infrastructure. Clusters also often extend downstream to channels or customers and laterally to manufacturers of complementary products or companies related by skills, technologies, or common inputs. Many clusters include governmental and other institutions that provide specialized training, education, information, research, and technical support."

Porter, Michael E.; (2000) "Location, Competition, and Economic Development: Local Clusters in a Global Economy"; Economic Development Quarterly.

 $\underline{\text{https://www.dallasnews.com/news/politics/2020/02/27/ut-system-gives-plan-for-tyler-medical-school-final-approval/}}$



¹The most common way of classifying employment by businesses is to use the North American Industry Classification System (NAICS), a system that starts with 20 main business categories or industry sectors, commonly known as 2-digit industries. Each of those 20 main industry categories is comprised of detailed subsector industry classifications going all the way to specific 6-digit lists of all kinds of business activities, such as finding under Sector 62 Health Care and Social Assistance, to the 6-digit business category 621511 Medical Laboratories.

 $^{^{\}rm 2}\,\mbox{Bureau}$ of Labor Statistics, provided by JobsEQ; Chmura Economics.

³ "A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The geographic scope of clusters ranges from a region, a state, or even a single city to span nearby or neighboring countries.

 $^{^4}$ The North American Industry Classification System (NAICS) - 62.

⁵ System gives plan for Tyler medical school final approval; The Dallas Morning News. Feb. 27, 2020.