

**SAN ANTONIO
CHAMBER OF COMMERCE**

HEALTHCARE + BIOSCIENCE

**ECONOMIC IMPACT STUDY
2018**

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BASED ON 2017 DATA



**SAN ANTONIO CHAMBER
OF COMMERCE**

As the only civilian-military Level I trauma partnership in the nation, University Hospital and Brooke Army Medical Center (the only Level I Trauma Center in the Department of Defense) have worked together for more than 30 years,

**SHARING WHAT'S LEARNED
AT THE HOSPITAL AND ON
THE BATTLEFIELD TO SAVE
THE LIVES OF PEOPLE
ACROSS SAN ANTONIO AND
SOUTH TEXAS, AND INJURED
SERVICE MEMBERS AROUND
THE WORLD.**



ABOUT THIS STUDY

Pre-2009 versions of this study did not include the impact of The University of Texas Health Science Center at San Antonio (also called UT Health San Antonio), the Baylor College of Medicine's presence at the Children's Hospital of San Antonio, some elements of the military medical presence in the region, and the multiplier effects of the goods and services local Healthcare and Bioscience businesses sell or deliver to customers and patients outside the region.

This year's study attempts – as in the 2009, 2011, 2013 and 2015 studies – to include credible approximations of the size of these important contributors to the San Antonio economy. This expanded definition of the industry is represented in the “comprehensive” estimates. To facilitate comparisons with the past, “traditional” estimates using the previous industry definition are also reported.

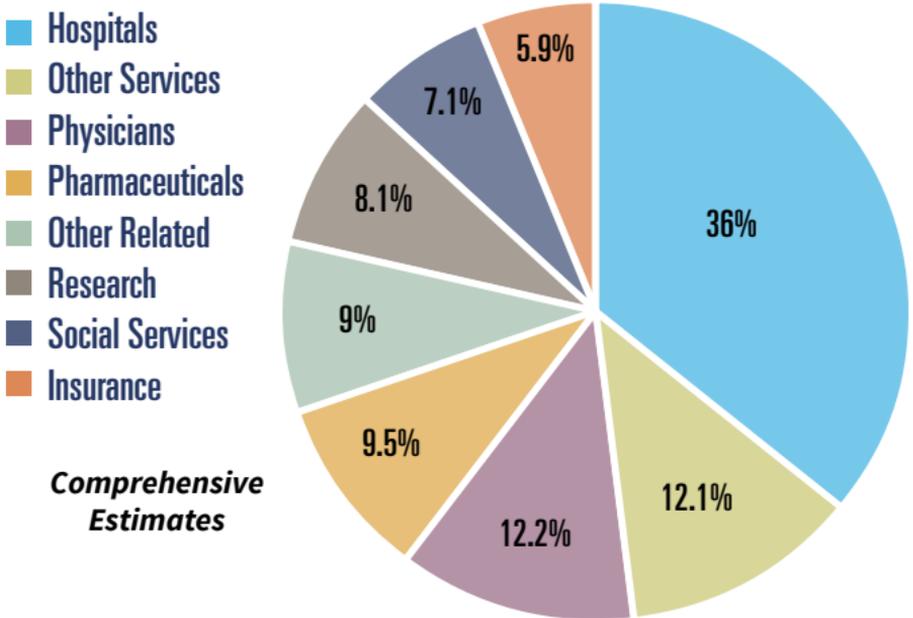
HIGHLIGHTS

- The Healthcare and Bioscience Industry continues to be one of **San Antonio's largest industries**. Its economic impact in 2017 was **\$30.6 billion** measured conservatively, and **\$40.2 billion** by a more comprehensive estimate.
- By the more comprehensive estimate, the industry paid **\$9.8 billion in wages and salaries to 182,112 employees** in 2017.
- **More than one of every six** San Antonio employees works in the Healthcare and Bioscience Industry.
- The Healthcare and Bioscience industry has added more than **50,000 net new jobs** over the past decade, fueling San Antonio's growth.
- As one of San Antonio's leading industries, Healthcare and Bioscience has shown steady growth and innovation over the past quarter-century.

OVERVIEW

San Antonio's Healthcare and Bioscience industry is both large and diverse. It includes a wide variety of direct healthcare services as well as industries related to the provision of health and medical care.

SAN ANTONIO HEALTHCARE AND BIOSCIENCE INDUSTRY IN 2017



Direct healthcare services include the care provided in hospitals, physicians' and dentists' offices, nursing homes, the offices and clinics of a variety of other healthcare providers, and various other outpatient and ambulatory care settings. In San Antonio, health services include both civilian and military medicine, a Veterans Administration medical center, and a variety of governmental, for-profit and non-profit operations and facilities.

Related industries complement and support the provision of medical and healthcare services. These industry sectors include health insurance carriers, pharmaceutical companies, medical equipment producers and manufacturers, civilian and military medical education, biomedical research organizations, residential care and social service providers, and a variety of related endeavors.



**THE CENTER FOR THE
INTREPID, ESTABLISHED
IN 2007 ENTIRELY
WITH PRIVATE FUNDS,
PROVIDES STATE-OF-
THE-ART PHYSICAL
REHABILITATION**

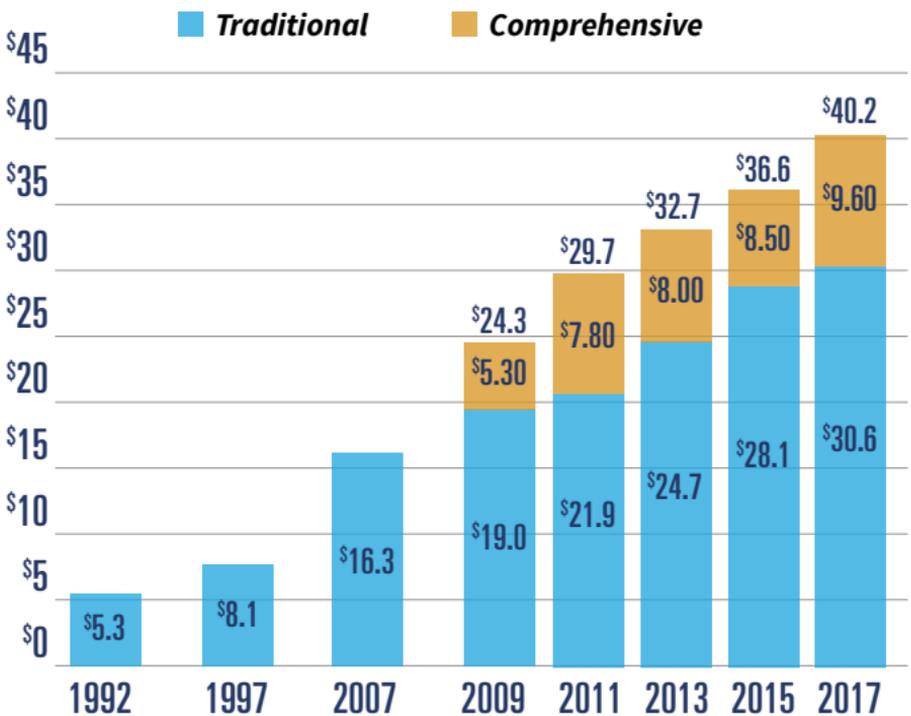
for service members who have sustained amputation, burns or functional limb loss and promotes research in orthopedics, prosthetics and physical and occupational rehabilitation.

OVERALL SIZE

Measured by the dollar volume of final sales of its products and services, the economic impact of San Antonio's Healthcare and Bioscience Industry in 2017 totaled **\$40.2 billion** by the comprehensive estimate (**\$30.6 billion** by the traditional method, which is the measure most useful for comparisons over longer periods of time). The \$30.6 billion figure represents a healthy 88% increase from the 2007 level. It is **approximately six times its size in 1992**.

Growth by the more comprehensive measure has been similarly impressive. The comprehensive estimate for 2017 is a healthy 23% above that for 2013, and 65% above the 2009 level.

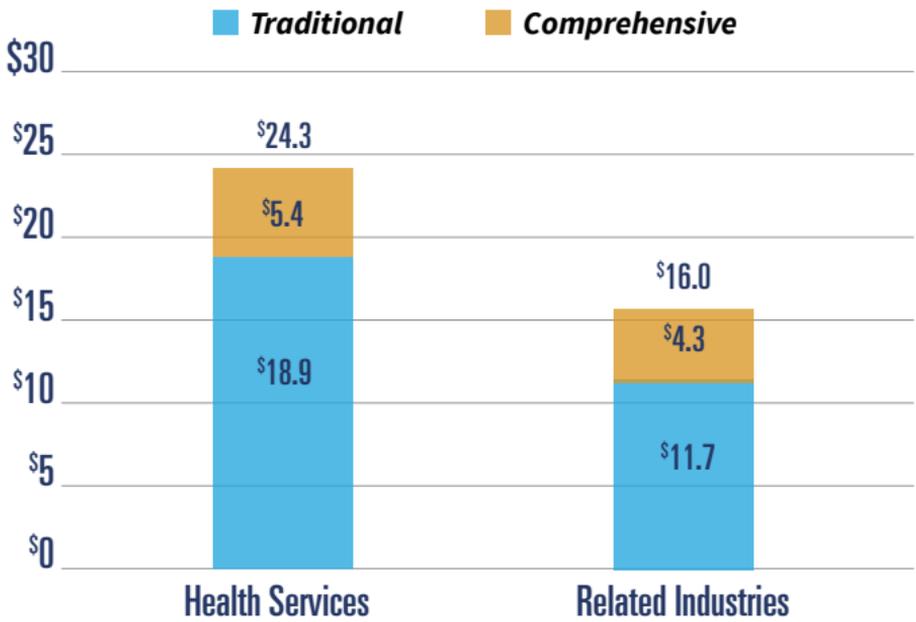
OVERALL ECONOMIC IMPACT (BILLIONS)



The impact of direct Health Services is higher than that of the Related Industries, representing about 60% of the total economic impact using the comprehensive estimates.

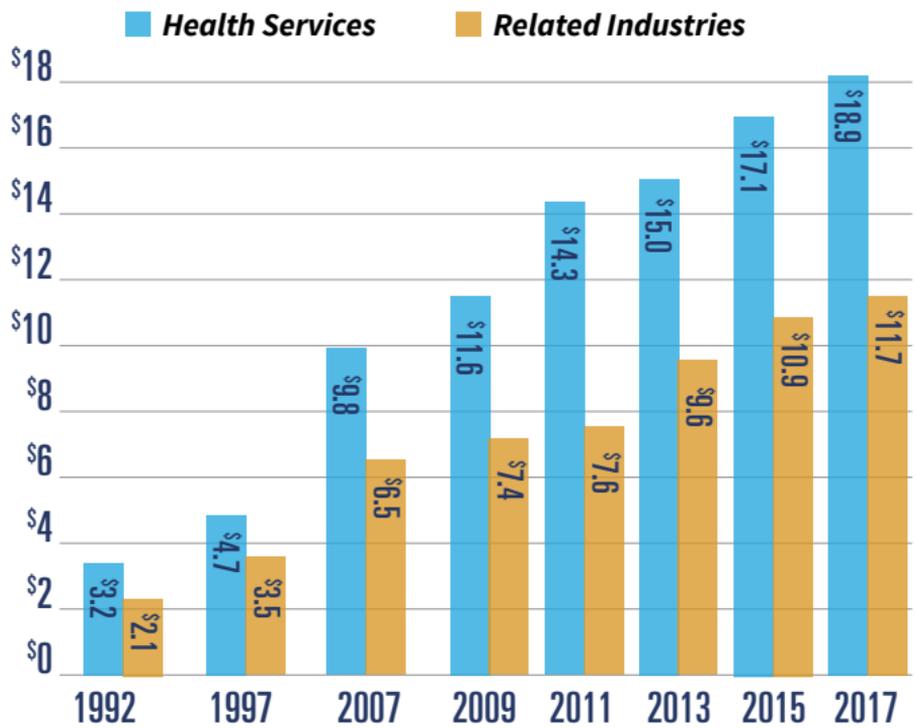


IMPACT OF SECTORS IN 2017 (BILLIONS)



Both sectors have experienced healthy growth in the past quarter-century, more than doubling since 2009 and increasing to nearly six times their size in 1992. Such growth can only be described as robust.

ECONOMIC IMPACT OF THE SECTORS (BILLIONS)



Traditional Method



Currently, there are no FDA-approved treatments or vaccines for the Ebola virus – but Texas Biomedical Research Institute researchers have recently teamed up with scientists at the Southwest Research Institute (SwRI) to develop a promising vaccine candidate. This research requires a biosafety level 4 laboratory.

TEXAS BIOMED IS HOME TO ONE OF JUST NINE SUCH LABS IN NORTH AMERICA; IT IS THE ONLY BSL-4 LAB IN THE UNITED STATES CONNECTED TO A NATIONAL PRIMATE RESEARCH CENTER.

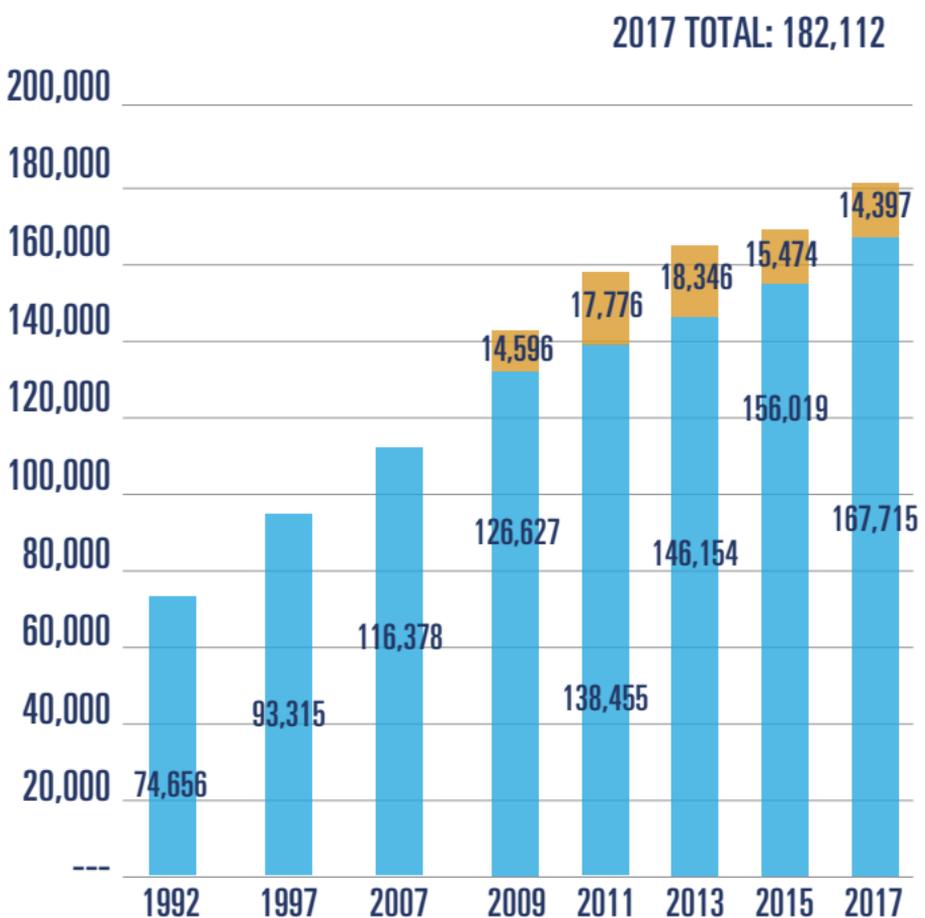


MORE THAN ONE-SIXTH OF THE SAN ANTONIO WORKFORCE

In 2017, a total of 167,715 San Antonians were employed in the portion of the Healthcare and Bioscience industry represented in the “traditional” data. This represents about one-sixth of the total San Antonio civilian workforce. The comprehensive total of 182,112 includes uniformed military personnel not counted in the Texas Workforce Commission (TWC) employment data, as well as some additional civilians working at establishments not included in our database. As a result, it is safe to say that the share of the total regional workforce employed in Healthcare and Bioscience exceeds 18%.

NUMBER OF EMPLOYEES

■ *Traditional* ■ *Comprehensive*



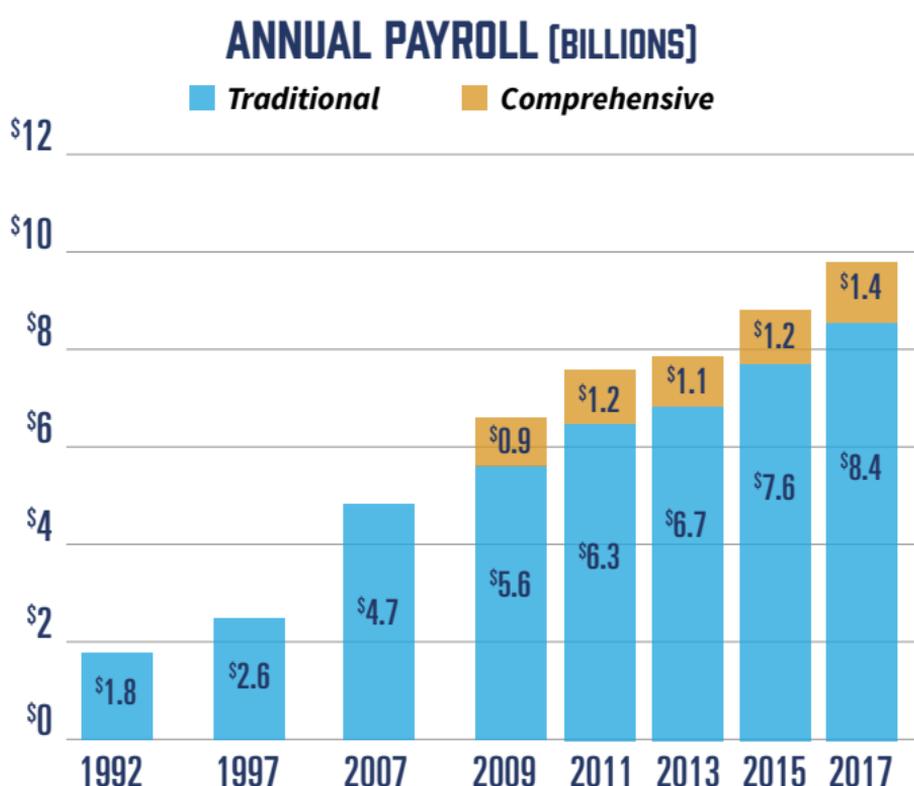
Using the comprehensive estimates, 69% of these employees were involved in the direct provision of health and medical services; the remaining 31% were employed in related industries.

Looking at the traditional estimates for a comparison over a longer period, the 167,715 employees in the narrower definition of the industry represent a 125% increase over the 1992 level.

Since 2009 the industry has added **40,889 net new jobs**, an increase of 29%. Employment in Health Services grew 26%, while Related Industries employment grew 36% – **strong growth all around**.

A GROWING ANNUAL PAYROLL

The total annual payroll in Healthcare and Bioscience (by the comprehensive estimate) was \$9.8 billion in 2017, an 11% increase over 2015. Payroll grew by **51%** since 2009.





The “Brothers in Arms” program, a joint effort of the South Texas Blood & Tissue Center, Southwest Texas Regional Advisory Council, University Hospital, UT Health San Antonio, the San Antonio Military Medical Center, medical helicopter services, Air Evac Lifeteam, PHI Inc. and San Antonio AirLIFE, and the San Antonio Fire Department, provides specially screened blood for transfusion in emergencies. San Antonio is the only community in the nation with a whole-blood transfusion program that is provided through such a broad network including medical helicopters, ambulances and emergency rooms.

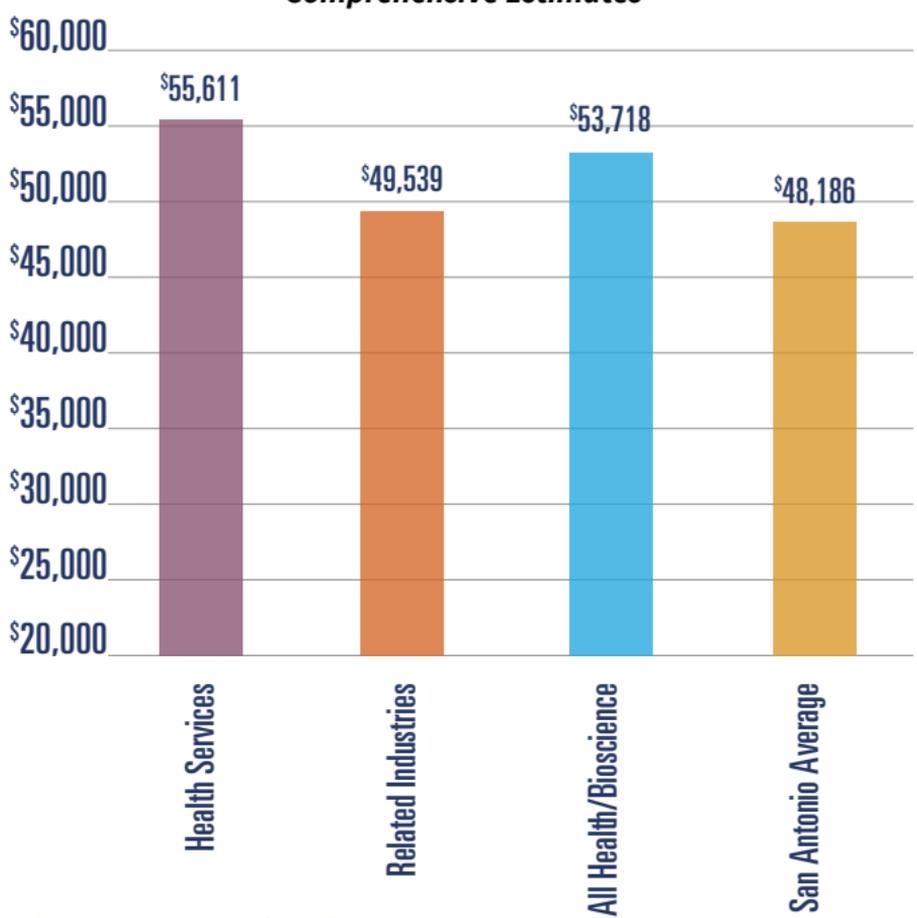
BY TRANSFUSING WHOLE BLOOD, THE PROGRAM DRAMATICALLY REDUCES MORTALITY RATES. IT IS TRANSFORMING TRAUMA CARE.



AN ANNUAL SALARY WELL ABOVE THE SAN ANTONIO AVERAGE

Using the comprehensive estimates, individuals employed in the Healthcare and Bioscience Industry earned, on average, **\$53,718** in 2017. This is about **11.5% above the 2017 average of \$48,186 for all workers in San Antonio.**

2017 AVERAGE SALARIES
Comprehensive Estimates



Annual incomes of workers in the Health Services sector averaged \$55,611. The average salary for the Related Industries sector was \$49,539.

These figures include only direct wage payments. Total compensation, which includes benefits, would be considerably higher.

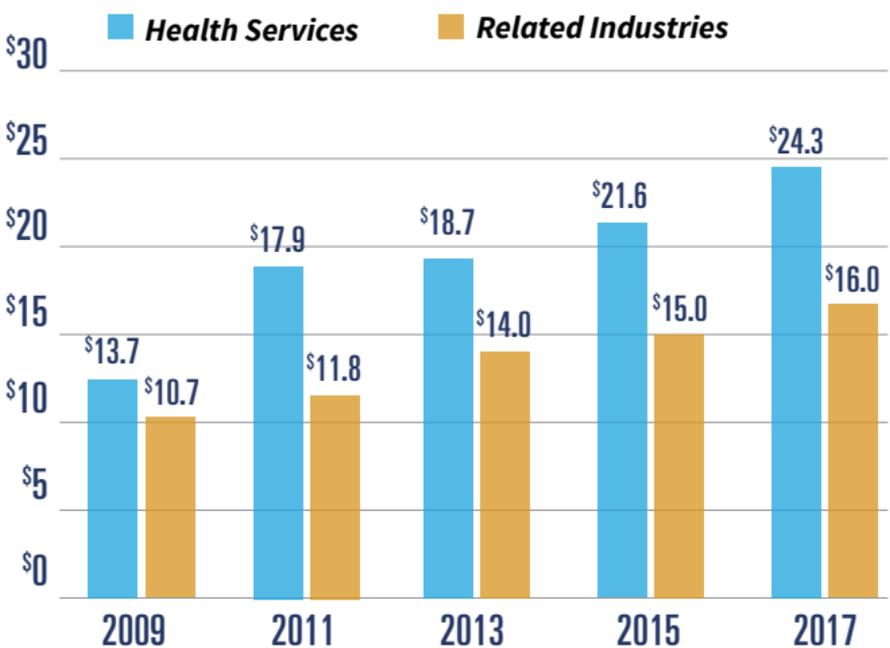
In interpreting these averages, it is important to note that employees in the Healthcare and Bioscience sector include not only well-paid healthcare providers and scientists but also support staff of various types. Also, since the employment figures include both full-time and part-time employees, the average salary reported here is no doubt lower than that received by a typical full-time employee.

A CLOSER LOOK AT THE TWO SECTORS

The Health Services sector has always been larger than the Related Industries sector, and that difference remains when the comprehensive definition of the industry is used.

ECONOMIC IMPACT OF THE SECTORS 2009 – 2017

Comprehensive Estimates

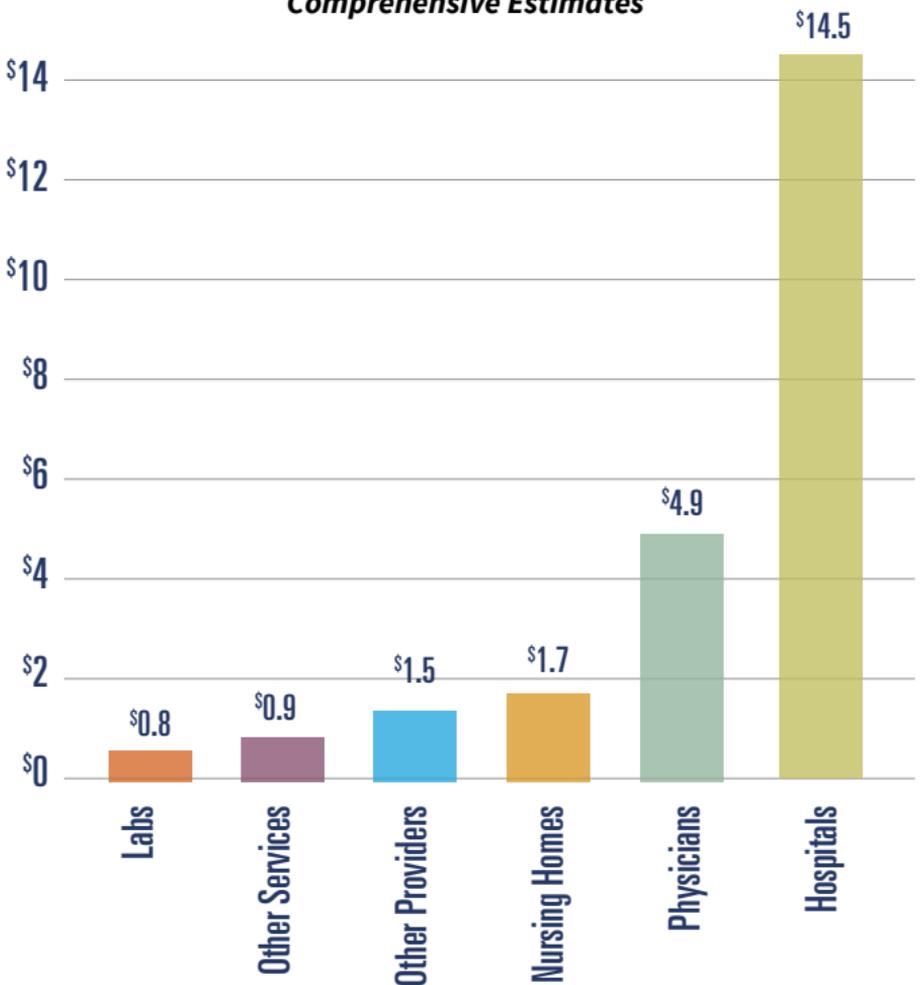


THE HEALTH SERVICES SECTOR

The Health Services sector includes a wide range of healthcare professionals and businesses providing direct care to patients. Within this sector, there are five major groups: hospitals; physicians; ambulatory and other services, including laboratories; nursing and home health services providers; and other providers of health services (dentists, therapists, optometrists, chiropractors and others). In San Antonio, this sector includes both civilian and military medicine, a Veterans Administration medical center and a variety of governmental, for-profit and not-for-profit operations and facilities.

IMPACT OF HEALTH SERVICES IN 2017 (BILLIONS)

Comprehensive Estimates

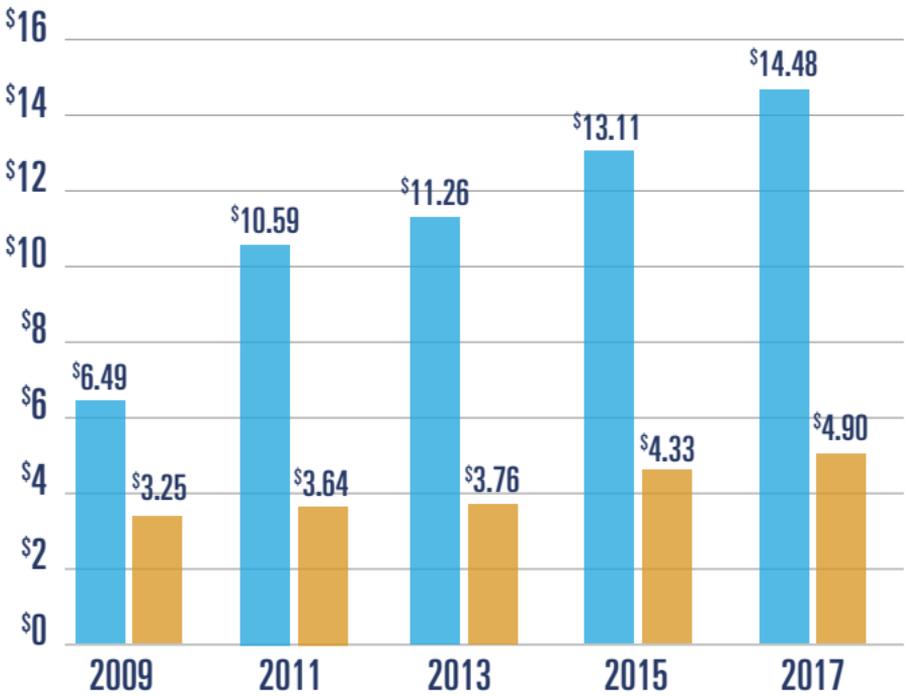


Physicians and Hospitals, the two largest provider groups, have consistently made a substantial contribution to the San Antonio economy. Since 2009, both have grown substantially: the economic impact of hospitals has more than doubled, and that of physicians has risen by 51%.

ECONOMIC IMPACT OF PHYSICIANS AND HOSPITALS

Comprehensive Estimates

Hospitals **Physicians**





**UT HEALTH SAN ANTONIO
LEADS THE WORLD'S
LARGEST RESEARCH GROUP
FOCUSED ON COMBAT-
RELATED PTSD AND
RELATED CONDITIONS,**

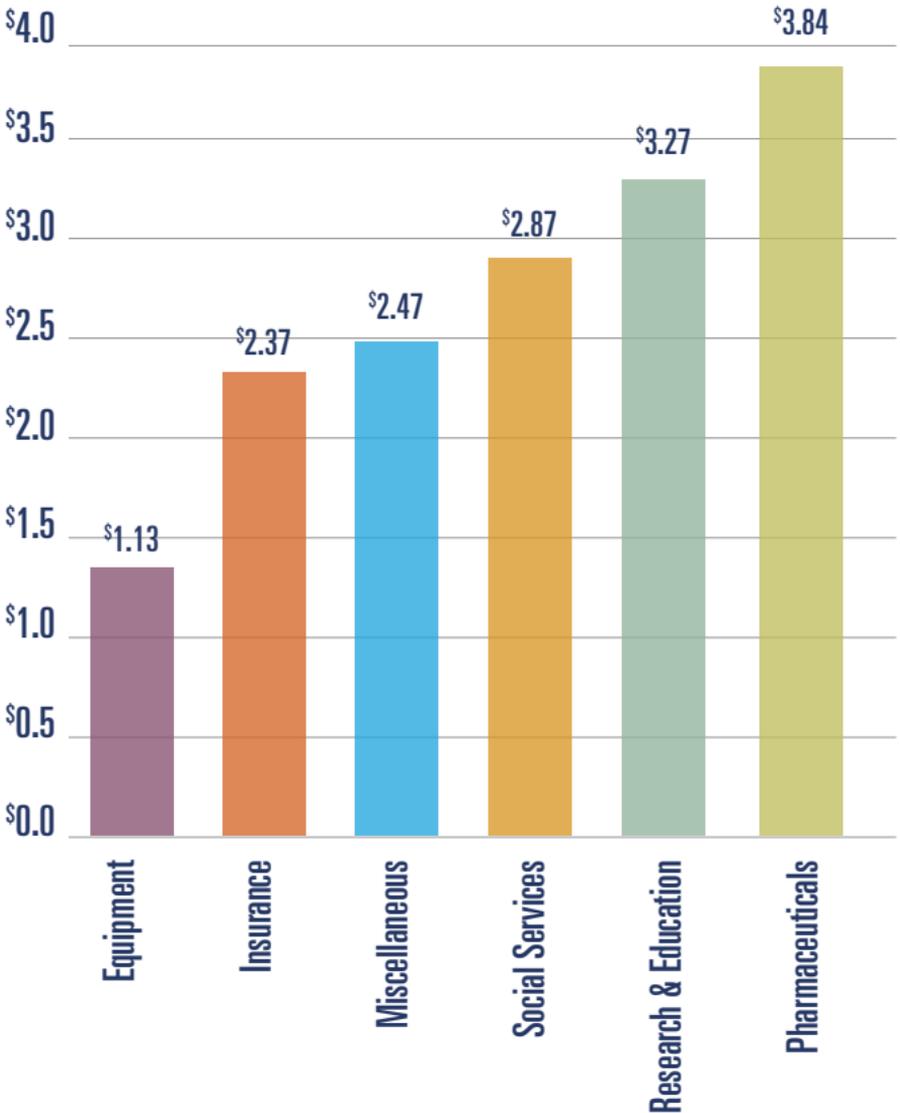
**with more than \$130 million in
National Institutes of Health and
Department of Defense funding
for more than 40 related research
projects.**

RELATED INDUSTRIES

The Related Industries sector incorporates a variety of businesses that support and complement the direct provision of healthcare services. The chart below shows the economic impact of some of the major industry groups in this sector.

IMPACT OF RELATED INDUSTRIES IN 2017 (BILLIONS)

Comprehensive Estimates



The Education and Research sector is buoyed considerably by the inclusion in the comprehensive estimate of UT Health San Antonio and military medical training employees absent from the TWC data used for the traditional estimates.

San Antonio's vibrant biomedical community is discovering, developing, and commercializing new products and services for some of mankind's most complex health challenges. The city's healthcare and bioscience industry is leveraging its unique assets and recognized expertise in five key disease areas through an Industry Action Plan being developed by BioMed SA, including: diabetes, cancer, infectious diseases, neurologic disorders, along with trauma, wound healing and regenerative medicine.

Many of these are closely associated with aging, another core strength of San Antonio's biomedical sector. As the seventh largest city in America, San Antonio is increasingly recognized as a "City of Science and Health" as well as the "Home of Military Medicine."



CITY OF SCIENCE AND HEALTH



In addition to being a regional hub for medical care and education in South Texas, San Antonio is increasingly recognized as a national center for life science research and innovation.

Transformational collaborations spearheaded by VelocityTX are energizing the entrepreneurial ecosystem with development of an "innovation superhub" downtown. At the same time, local economic developers and industry leaders are partnering with the military medical community to facilitate commercialization of new technologies to benefit military and civilian medicine alike.



INFORMATION SOURCES

The information for the “traditional” estimates presented here is derived from the Texas Workforce Commission’s Covered Employment and Wages database. The data is aggregated by the TWC into the lines of business defined by the North American Industrial Classification System (NAICS) coding framework. It represents essentially a 100% sample of all the businesses with employees in each NAICS subcode.

The specific subcodes included in this study are listed below. They cover both the healthcare and related industry segments in great detail.

The information necessary for the inclusion of the UT Health San Antonio and the military presence in San Antonio’s medical industry was derived from data supplied by these two entities from their own financial reports. Since these data are compiled for a different purpose than that reported to the TWC, using different procedures, the additional contributions attributed to these activities must be understood as approximations. Still, their impact is so great that it would be a significant understatement to exclude them.

Details of the methodology used to create the estimates reported in this study may be found on the Chamber’s website: sachamber.org

The Mays Cancer Center, a partnership between UT Health San Antonio and Houston's MD Anderson Cancer Center, brought together two NCI-designated cancer centers. This partnership offers local and area patients access to MD Anderson's

**TOP-RANKED
CANCER PROTOCOLS
AND TREATMENT
INNOVATIONS, WHILE
BEING ABLE TO STAY
CLOSE TO HOME.**



NAICS CODES (AND OTHER SOURCES) FOR THE HEALTHCARE AND BIOSCIENCE INDUSTRY

HEALTH SERVICES

PHYSICIANS

62111 OFFICES OF PHYSICIANS

OTHER HEALTHCARE PROVIDERS

62121 OFFICES OF DENTISTS

62131 OFFICES OF CHIROPRACTORS

62132 OFFICES OF OPTOMETRISTS

62133 OFFICES OF MENTAL HEALTH PRACTITIONERS

62134 OFFICES OF SPECIALTY THERAPISTS

62139 OFFICES OF ALL OTHER HEALTH PRACTITIONERS

NURSING HOMES/HOME HEALTH

62161 HOME HEALTHCARE SERVICES

62311 NURSING CARE FACILITIES

HOSPITALS

62211 GENERAL MEDICAL AND SURGICAL HOSPITALS

62221 PSYCHIATRIC AND SUBSTANCE ABUSE HOSPITALS

62231 OTHER HOSPITALS

MTF U. S. DEPARTMENT OF DEFENSE INPATIENT
MEDICAL TREATMENT FACILITIES - UNIFORMED
MILITARY (CIVILIAN EMPLOYEES INCLUDED IN
62211)

LABS

62151 MEDICAL AND DIAGNOSTIC LABORATORIES

OTHER DIRECT SERVICES

62191 AMBULANCE SERVICES

62199 ALL OTHER AMBULATORY HEALTHCARE SERVICES

MTF U. S. DEPARTMENT OF DEFENSE OUTPATIENT
MEDICAL TREATMENT FACILITIES - UNIFORMED
MILITARY (CIVILIAN EMPLOYEES INCLUDED IN
62199)

MILITARY IT DEPARTMENT OF DEFENSE IT RELATED TO
MEDICAL MISSIONS

RELATED INDUSTRIES

RESEARCH & EDUCATION

54171	PHYSICAL, ENGINEERING AND BIOLOGICAL RESEARCH
UTHSCSA	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO
METC	JOINT MILITARY MEDICAL EDUCATION AND TRAINING FACILITIES
AMEDDC&S	ARMY MEDICAL EDUCATION AND TRAINING FACILITIES
MIL RSCH	MILITARY MEDICAL RESEARCH
BAYLOR	BAYLOR COLLEGE OF MEDICINE OPERATIONS AT CHILDREN'S HOSPITAL OF SA

SOCIAL SERVICES

62141	FAMILY PLANNING CENTERS
62142	OUTPATIENT MENTAL HEALTH AND SUBSTANCE ABUSE CENTERS
62149	OTHER OUTPATIENT CARE CENTERS
62321	RESIDENTIAL MENTAL RETARDATION FACILITIES
62322	RESIDENTIAL MENTAL HEALTH AND SUBSTANCE ABUSE FACILITIES
6233	COMMUNITY CARE FACILITIES FOR THE ELDERLY
62399	OTHER RESIDENTIAL CARE FACILITIES
62412	SERVICES FOR THE ELDERLY AND DISABLED
62431	VOCATIONAL REHABILITATION SERVICES

PHARMACEUTICALS

32541	PHARMACEUTICAL AND MEDICINE MANUFACTURING
42421	DRUGGISTS' GOODS MERCHANT WHOLESALERS

EQUIPMENT MANUFACTURING AND WHOLESALING

33911	MEDICAL EQUIPMENT AND SUPPLIES MANUFACTURING
42345	MEDICAL EQUIPMENT MERCHANT WHOLESALERS
42346	OPHTHALMIC GOODS MERCHANT WHOLESALERS

INSURANCE

524114	DIRECT HEALTH AND MEDICAL INSURANCE CARRIERS
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MISCELLANEOUS

44611	PHARMACIES AND DRUG STORES
44613	OPTICAL GOODS STORES
44619	OTHER HEALTH AND PERSONAL CARE STORES
92313	ADMINISTRATION OF PUBLIC HEALTH PROGRAMS

SPONSORS

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SAN ANTONIO
MEDICAL FOUNDATION



University
Health System

CORPORATE LEVEL

METHODIST HEALTHCARE

"Serving Humanity to Honor God"



UNIVERSITY OF THE
INCARNATE WORD.



UT Health
San Antonio

FRIENDS OF THE STUDY



BioBridge
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"Serving Humanity to Honor God"

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