



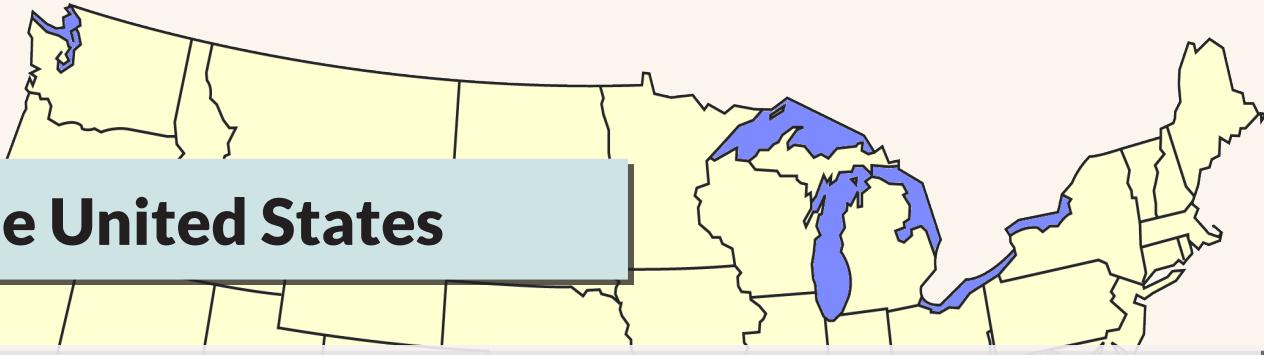
The 37th Annual

Perryman Economic Outlook Conference

Outlook for the US, Texas, and the San Antonio-New Braunfels Area

December 3, 2020 | 9:00AM-10:30AM | Virtual Event





The United States

The high human cost and loss of life due to COVID-19 is tragic and staggering. Few Americans remain untouched by the disease in one way or another, with US cases now exceeding 13 million. Although most of the fatalities have occurred among older age groups, The Perryman Group estimates that fatalities occurring during 2020 will cause a long-term loss of well over 600,000 job-years (a person working for a year). This value is fully adjusted for age, gender, ethnicity, worklife probabilities, labor force participation, stabilized unemployment rates, and uses the lower range of CDC estimates. As these direct losses flow through the economy in the coming years,

the cumulative effects include declines of approximately \$200 billion in gross domestic product, \$120 billion in personal income, and two million job-years. The most recent US jobs reports indicate substantial but slowing gains. The unemployment rate has decreased significantly from the high of 14.7% reached in April. However, the total increase since that time remains well below the job losses of 22.2 million during March and April. Moreover, the situation remains challenging and fluid, and the recovery will likely be bumpy. The Perryman Group's forecast indicates that it will take a significant amount of time for some industries and geographic areas to return to prior peak levels even with no

major additional disruptions. Health and safety remain of paramount concern, and progress will depend on the ability to continue to resume activity without infections reaching a level that will necessitate a new wave of major restrictions. The current economic crisis was caused by a health crisis, and to ultimately resolve the economic crisis requires effectively dealing with the pandemic situation. As the disease becomes better understood and effective therapeutics and vaccines are developed, both incidence and severity should be reduced. In the interim, it is important to do all that can be done to minimize the fallout.

PROJECTED KEY INDICATORS

Economic Indicator	2020 Level	2025 Level	Annual Growth	Five Year Increase
Real Gross Product	\$18.4 tr	\$22.2 tr	+3.78%	+\$3.8 tr
Real Personal Income	\$17.8 tr	\$21.2 tr	+3.55%	+\$3.4 tr
Population	329.6 m	340.2 m	+0.63%	+10.5 m
Employment	142.4 m	159.9 m	+2.35%	+17.5 m
Industrial Production Index	101.6	126.8	+4.52%	+25.1
Consumer Price Index	112.8	126.1	+2.27%	+13.4
20-Year Treasury Bond	1.34%	2.78%	N/A	N/A

The Perryman Group's most recent short-term forecast for the US economy indicates significant growth over the next five years.

Real gross product is projected to increase at a 3.78% annual pace, reaching a level of \$22.2 trillion in 2025.

About 17.5 million net new jobs are forecast to be added, for a total 2025 employment of 159.9 million.

Consumer prices and interest rates are expected to trend upward slightly over the next five years.

The State of Texas

Recent Texas jobs reports have been encouraging, even though the pace of recovery has slowed. Initially, large numbers of jobs were added reflecting the fact that as businesses began to reopen, what was essentially a sound economy before the pandemic began responded. More recently, hiring has continued, but at a slower rate. (The October numbers were encouraging, but recent patterns in unemployment claims reflect the ongoing surge in the virus.)

Even with gains through the summer and fall, employment in the state remains well below pre-pandemic levels.

Texas lost about 1.3 million jobs due to the pandemic, but other states fared even worse, including California and New York. The timing and severity of outbreaks and reopening decisions have varied widely, and states are entering phases of recovery at different times. The pandemic has wreaked havoc, and the road back will be slow in

many parts of the country.

COVID-19 will continue to cause economic fallout, slowing growth across the economy. Moreover, the state's largest export industry (energy) is among the hardest hit and will require time to rebuild (although there are some signs that the corner has been turned). On balance, however, Texas remains well positioned for long-term growth once a post-pandemic "new normal" is reached.

PROJECTED INDUSTRY GROWTH 2020-2025

Industry Sector	Employment		Real Gross Product	
	Absolute Change	Annual Growth	Absolute Change	Annual Growth
Agriculture	+4,548	+1.19%	+\$1.244 b	+1.90%
Mining	+64,759	+5.85%	+\$125.690 b	+9.05%
Utilities	+2,421	+0.92%	+\$3.048 b	+2.31%
Construction	+70,375	+1.80%	+\$9.670 b	+2.66%
Manufacturing	+56,104	+1.25%	+\$45.626 b	+3.58%
Wholesale & Retail Trade	+164,770	+1.69%	+\$43.040 b	+3.70%
Transportation & Warehousing	+50,306	+1.84%	+\$9.578 b	+3.41%
Information	+11,281	+1.11%	+\$17.113 b	+4.42%
Finance, Insurance & Real Estate	+59,429	+1.38%	+\$42.905 b	+3.24%
Services	+997,135	+3.54%	+\$99.404 b	+4.70%
Government	+72,867	+0.69%	+\$15.826 b	+1.86%
All Industries	+1,553,996	+2.33%	+\$413.144 b	+4.42%

Services industries will drive job gains, with wholesale and retail trade businesses also forecast to see notable hiring.

The Texas population is forecast to grow by 2.0 million over the next five years.

An estimated 1.6 million net new jobs are projected for the Texas economy by 2025, representing a +2.33% annual rate of growth over the period.

PROJECTED KEY INDICATORS

Economic Indicator	2020 Level	2025 Level	Annual Growth	Five Year Increase
Real Gross Product	\$1,712.6 b	\$2,125.8 b	+4.42%	+\$413.1 b
Real Personal Income	\$1,430.2 b	\$1,734.2 b	+3.93%	+\$304.0 b
Real Retail Sales	\$445.3 b	\$548.1 b	+4.24%	+\$102.7 b
Population	29.3 m	31.3 m	+1.37%	+2,058,572
Employment	12.7 m	14.3 m	+2.33%	+1,553,996

Real gross product in all major industry groups is projected to expand through 2025, with the mining and services segments likely to experience the largest growth in annual real gross product.

San Antonio-New Braunfels

metropolitan statistical area

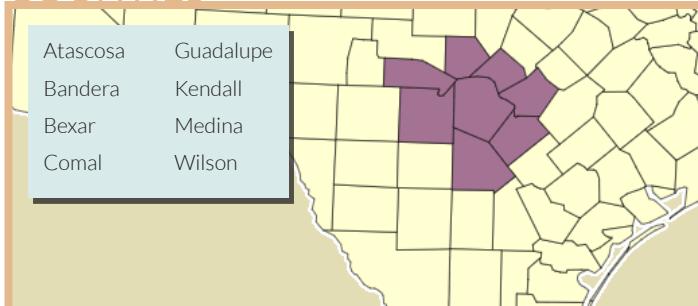
The San Antonio-New Braunfels area lost more than 110,000 jobs between February and April 2020. Gains in recent months have improved the situation, but employment remains significantly

below pre-pandemic levels. In addition, growth anticipated prior to the health crisis has been foregone.

Nonetheless, the area's economy is expected to recover and is well

positioned for long-term expansion. The Perryman Group's forecast indicates growth over the next five years, with improvement across most segments of the economy.

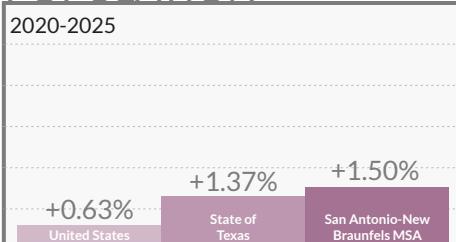
COUNTIES



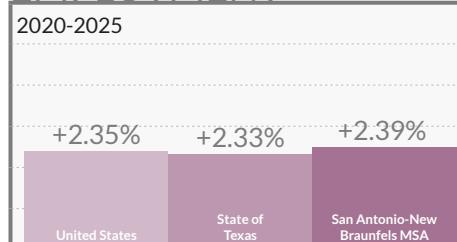
PROJECTED KEY INDICATORS

Economic Indicator	2020 Level	2025 Level	Annual Growth	Five Year Increase
Real Gross Product	\$129.5 b	\$163.0 b	4.71%	+\$33.5 b
Real Personal Income	\$117.1 b	\$142.2 b	3.95%	+\$25.1 b
Real Retail Sales	\$33.9 b	\$41.8 b	4.29%	+\$7.9 b
Population	2.6 m	2.8 m	1.50%	+198,926
Employment	1.1 m	1.2 m	2.39%	+137,296

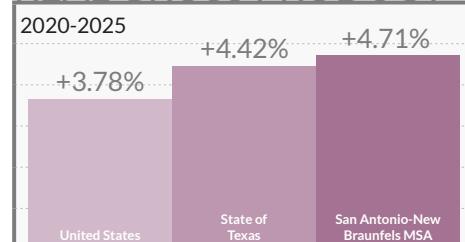
POPULATION



EMPLOYMENT



REAL GROSS PRODUCT



PROJECTED INDUSTRY GROWTH 2020-2025

Industry Sector	Employment		Real Gross Product	
	Absolute Change	Annual Growth	Absolute Change	Annual Growth
Agriculture	+172	1.25%	+\$0.004 b	1.95%
Mining	+2,814	5.79%	+\$13.316 b	8.99%
Utilities	+50	0.88%	+\$0.058 b	2.27%
Construction	+4,825	1.77%	+\$0.648 b	2.62%
Manufacturing	+3,015	1.21%	+\$1.689 b	3.54%
Wholesale & Retail Trade	+13,928	1.79%	+\$3.088 b	3.81%
Transportation & Warehousing	+2,870	1.82%	+\$0.389 b	3.40%
Information	+1,060	1.04%	+\$1.330 b	4.34%
Finance, Insurance & Real Estate	+6,951	1.40%	+\$3.862 b	3.29%
Services	+94,264	3.64%	+\$7.371 b	4.84%
Government	+7,347	0.71%	+\$1.759 b	1.87%
All Industries	+137,296	2.39%	+\$33.515 b	4.71%

The rate of economic expansion in the San Antonio-New Braunfels Metropolitan Statistical Area is expected to exceed that of the state and nation.

Employment is likely to expand at a 2.39% annual pace, leading to a gain of almost 137,300 jobs by 2025.

Real gross product is forecast to expand at a 4.71% annual pace, for a total gain of \$33.5 billion over the next five years.

All major industry segments are projected to expand in the next five years.

DEFINITIONS

Real Gross Product: Also called "output;" the final value of all goods and services produced in an economy during a given period of time (adjusted for inflation, 2012 US\$).

Personal Income (by place of residence): The total income accruing to households where the income-earner resides rather than works (adjusted for inflation and given in 2012 dollars).

Retail Sales: The total volume of retail goods sold (adjusted for inflation, in 2012 US\$).

Population: The total number of persons residing in a specific area.

Employment: (Wage and salary) a measure of the number of persons in the workforce excluding proprietors, but including agricultural workers and military personnel.

Annual Growth: Growth rate compounded annually, meaning that it reflects changes in the base from which growth is calculated.

Industrial Production Index: A measure of output in the core production sectors of the economy expressed as an index with 2012=100.

Consumer Price Index: A measure of inflation, the escalation of prices of consumer goods, expressed as an index with 2012=100.

Interest Rates: The rate set on the 20-year Treasury note.

Agriculture includes farming, ranching, commercial fishing, forestry, hunting and trapping, and related services.

Mining includes companies primarily involved in the extraction of minerals occurring naturally (largely oil and gas in Texas).

Utilities includes electric, water, and sanitary services (including all establishments of the US Postal Service).

Construction includes new work, additions, alterations, and repairs of buildings, water systems, highways, utility plants, and other projects.

Manufacturing involves both non-durable items consumed in a short time period such as paper, bread, chemicals, and clothing as well as durable goods typically consumed over a period of several years such as automobiles, washing machines, industrial machinery, and computers.

Wholesale & Retail Trade comprises establishments engaged in wholesaling & retailing merchandise.

Transportation & Warehousing includes transporting passengers and goods, warehousing and storing goods, and providing similar services.

Information includes establishments that create, disseminate, or provide the means to distribute information including data processing; newspaper, book, and periodical publishers; software publishers; broadcasting and telecommunications producers and distributors; motion picture and sound recording industries; and information services.

Finance, Insurance, & Real Estate includes depository and credit institutions, holding companies, insurance carriers and agents, real estate buyers and sellers, real estate agents, and real estate developers.

Services includes companies providing services to individuals, businesses, or government entities such as health care, business services (excluding finance, insurance, and real estate), hotels, and amusements.

Government includes federal, state, local, and international governments and military activity.

METHODOLOGY

Economic and population projections were derived using the **Texas Econometric Model**, which was developed by Dr. M. Ray Perryman, President and CEO of The Perryman Group, 40 years ago and has been consistently maintained, expanded, and updated since that time. It is formulated in an internally consistent manner and is designed to permit the integration of relevant

global, national, state, and local factors into the projection process. It is the result of more than three decades of continuing research in econometrics, economic theory, statistical methods, and key policy issues and behavioral patterns, as well as intensive, ongoing study of all aspects of the global, US, Texas, and Texas metropolitan area economies. It is extensively used by scores

of federal and state governmental entities on an ongoing basis, as well as hundreds of major corporations. The overall methodology, while certainly not ensuring perfect foresight, has been peer-reviewed on numerous occasions and permits an enormous body of relevant information to impact the economic outlook in a systematic manner.

Effective economics, accessible analysis

The Perryman Group provides the economic insights you need for the board room, the courtroom, the hearing room, or any other room where decisions are made.

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We are a focused team of analysts who know how to address any economic information task and present our findings effectively.

Our in-house professionals bring expertise in **finance, statistics, economics, real estate, valuation, systems analysis, mathematics, engineering, technical communications, and marketing**. Dr. Ray Perryman, President and CEO, has over 40 years of experience in developing systems, analyzing complex problems, and communicating effectively.

We have considerable pride in what we do. Our enthusiasm is both unbridled and

contagious; every day brings a new opportunity for us to tackle a new problem or create a new product or service tailored to our clients.

We also understand that the effective use of economic information can be a key ingredient in fostering the betterment of society and humankind. Our commitment to the world in which we live and work is why we also provide major pro bono analyses to promote initiatives that help to improve people's lives.

ABOUT DR. M. RAY PERRYMAN

Dr. Ray Perryman is President and CEO of The Perryman Group, an economic research and analysis firm based in Waco, Texas. His firm has served the needs of more than 2,000 clients ranging from major corporations to small start-ups and from local communities to the federal government.

Dr. Perryman has helped recruit corporations providing hundreds of thousands of jobs through economic development work, aided in the resolution of billion-dollar legal issues, and revamped public policy through impact assessments and other studies. His firm has measured economic impacts for corporate locations and expansions involving billions in investments, and

his economic forecasts are used by hundreds of corporations and government agencies. Dr. Perryman has provided economic analysis and expert testimony for civil litigation across a wide range of practice areas including antitrust and competition, patent infringement, securities, and complex commercial litigation and frequently testifies in legislative hearings.

Some of his most gratifying work has been in the field of economic development; he also dedicates a significant portion of his time to pro bono work aimed at helping to solve pressing social problems such as hunger, indigent health care, and child maltreatment.