



The Perryman Group

The Economic Outlook for the US and Texas: Projected Recession and Recovery from COVID-19 April 2020

Drastic, but necessary, measures to “flatten the curve” and prevent a major spike in COVID-19 infections have involved shutting down much of the economy. The inevitable result has been the loss of millions of jobs and a sudden and unprecedented downturn. Massive layoffs and talk of double-digit unemployment have led to ubiquitous comparisons to the Great Depression. These assertions are simply wrong! Prior to the Great Depression, there were massive structural problems in the economy, and policy responses were less well understood. The current situation emanates from a horrific pandemic, but the economic structure was basically sound as we entered this situation. Aggressive actions are being taken by the Federal Reserve, the federal government, and states and local areas across the country to help mitigate the economic damage. Assuming the underlying structure remains essentially in place, the downturn, while sharp and painful, will likely be more of a pause than a fundamental change. There will certainly

be permanent changes in many aspects of the economy, some of them major, but the overall size and scope of activity should return to essentially its prior path in the coming years.

US ECONOMIC OUTLOOK

The Perryman Group’s most recent projections incorporate the potential effects of COVID-19. The US forecast calls for significant losses this year of an estimated 9.8 million jobs and \$1.0 trillion in output (real gross domestic product). However, a fairly rapid recovery is expected once the worst of the virus issues has passed, with the addition of a projected 7.3 million jobs in 2021 (a 5.2% gain) and \$973.7 billion in output (5.4% growth). Projections indicate that US employment does not get back to 2019 levels until 2022, with about two to five years required to achieve pre-virus baseline expectation (assuming no additional shutdowns are required).

United States Economic Outlook through 2021

Results by key economic indicator

Industry Sector	Loss in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Nominal Gross Product	-\$776.9 b	-3.69%	+\$1,278.2 b	+6.30%
Real Gross Product	-\$1,042.3 b	-5.47%	+\$973.7 b	+5.40%
Personal Income	-\$762.8 b	-4.09%	+\$1,241.0 b	+6.93%
Total Employment	-9.818 m	-6.49%	+7.338 m	+5.19%

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Monetary values given in billions of current US dollars, “real” values given in billions of 2012 US dollars.

TEXAS ECONOMIC OUTLOOK

For Texas, the negative effects of COVID-19 have been compounded by turmoil in energy markets, with a price war between Saudi Arabia and Russia causing an increase in supply even as demand dwindled with COVID-19 disruptions. Although recent agreements have reduced global oil production, the market remains oversupplied and prices have fallen dramatically. The Perryman Group's forecast for Texas indicates losses this year of a projected 861,000 jobs (a 6.48% decrease) and \$133.8 billion in output (down 7.6%). For 2021, the state is forecast to add almost 685,000 jobs for a 5.51% gain, with an increase in output of \$154.4 billion (9.5% growth).

CONCLUSION

Although several years will be required for recovery, The Perryman Group's long-term outlook remains positive for the US and Texas. As noted, the economy was sound going into the COVID-19 pandemic and should be able to emerge and recover in a reasonable period of time.

United States Key Economic Indicator Change from Pre-Virus Projections

Results by key economic indicator

Industry Sector	Change
Nominal Gross Product	-\$1,624.0 b
Real Gross Product	-\$1,455.4 b
Personal Income	-\$1,682.9 b
Total Employment	-12.257 m

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Monetary values given in billions of current US dollars, "real" values given in billions of 2012 US dollars.

Texas Wage & Salary Employment Change from Pre-Virus Projections

Results by industry sector

Industry Sector	Change
Agriculture	-6,441
Mining	-95,959
Utilities	-5,003
Construction	-49,551
Manufacturing	-120,938
Wholesale Trade	-49,604
Retail Trade	-178,945
Transportation and Warehousing	-54,926
Information	-22,614
Finance and Insurance	-24,602
Real Estate and Rental/Leasing	-8,757
Professional, Scientific, Technical Services	-36,701
Management of Companies	-9,191
Administrative, Support, Waste Management	-34,568
Educational Services	-14,956
Health Care and Social Assistance	+3,436
Arts, Entertainment, and Recreation	-41,282
Accommodation and Food Services	-301,917
Other Services	-64,769
Government and Government Enterprises	+5,565
Total, All Industries	-1,111,724

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Components may not sum due to rounding.

Texas Economic Outlook through 2021

Results by key economic indicator

Industry Sector	Loss in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Nominal Gross Product	-\$78.6 b	-4.11%	+\$204.3 b	+11.13%
Real Gross Product	-\$133.8 b	-7.60%	+\$154.4 b	+9.50%
Total Employment	-860,967	-6.48%	+684,793	+5.51%

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Monetary values given in billions of current US dollars, "real" values given in billions of 2012 US dollars.

Texas Nominal Gross Product Outlook through 2021

Results by industry sector

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-\$422.5 m	-4.45%	+\$670.9 m	+7.39%
Mining	-\$49,845.7 m	-28.87%	+\$46,675.8 m	+38.01%
Utilities	-\$1,730.3 m	-5.74%	+\$2,572.1 m	+9.05%
Construction	-\$1,055.2 m	-1.03%	+\$8,408.5 m	+8.26%
Manufacturing	-\$20,184.4 m	-8.12%	+\$31,165.7 m	+13.64%
Wholesale Trade	-\$3,795.9 m	-2.39%	+\$14,985.1 m	+9.65%
Retail Trade	-\$8,338.0 m	-8.11%	+\$11,805.9 m	+12.50%
Transportation and Warehousing	-\$3,658.3 m	-5.26%	+\$6,847.0 m	+10.39%
Information	-\$4,403.0 m	-6.55%	+\$6,710.8 m	+10.69%
Finance and Insurance	+\$509.9 m	+0.48%	+\$6,976.0 m	+6.58%
Real Estate and Rental/Leasing	+\$3,687.8 m	+1.96%	+\$13,827.2 m	+7.21%
Professional, Scientific, Technical Services	+\$3,999.7 m	+2.95%	+\$11,831.9 m	+8.49%
Management of Companies	+\$56.1 m	+0.21%	+\$2,339.1 m	+8.74%
Administrative, Support, Waste Management	+\$1,546.2 m	+2.42%	+\$4,940.7 m	+7.55%
Educational Services	-\$99.2 m	-0.72%	+\$1,348.4 m	+9.84%
Health Care and Social Assistance	+\$9,540.9 m	+8.14%	+\$7,716.6 m	+6.09%
Arts, Entertainment, and Recreation	-\$2,740.0 m	-20.64%	+\$2,685.5 m	+25.49%
Accommodation and Food Services	-\$9,603.2 m	-17.43%	+\$10,301.7 m	+22.64%
Other Services	-\$1,281.8 m	-3.31%	+\$4,466.4 m	+11.93%
Government and Government Enterprises	+\$9,218.4 m	+4.77%	+\$7,989.8 m	+3.95%
Total, All Industries	-\$78,598.5 m	-4.11%	+\$204,265.2 m	+11.13%

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Monetary values given in millions of current US dollars. Components may not sum due to rounding.

Texas Real Gross Product Outlook through 2021

Results by industry sector

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-\$799.5 m	-6.51%	+\$583.2 m	+5.08%
Mining	-\$72,719.0 m	-31.03%	+\$54,281.1 m	+33.58%
Utilities	-\$1,904.8 m	-7.34%	+\$1,731.2 m	+7.20%
Construction	-\$2,987.1 m	-3.92%	+\$3,754.3 m	+5.12%
Manufacturing	-\$22,672.5 m	-9.82%	+\$23,977.3 m	+11.51%
Wholesale Trade	-\$6,594.6 m	-4.54%	+\$10,041.2 m	+7.25%
Retail Trade	-\$9,404.7 m	-9.55%	+\$9,572.2 m	+10.75%
Transportation and Warehousing	-\$3,918.5 m	-6.87%	+\$4,525.5 m	+8.51%
Information	-\$5,245.6 m	-7.13%	+\$7,134.9 m	+10.44%
Finance and Insurance	-\$827.5 m	-1.05%	+\$3,855.9 m	+4.95%
Real Estate and Rental/Leasing	-\$1,089.1 m	-0.68%	+\$7,025.7 m	+4.45%
Professional, Scientific, Technical Services	+\$50.4 m	+0.04%	+\$6,687.6 m	+5.45%
Management of Companies	-\$461.7 m	-1.76%	+\$1,705.9 m	+6.63%
Administrative, Support, Waste Management	+\$171.4 m	+0.31%	+\$2,947.7 m	+5.37%
Educational Services	-\$417.3 m	-3.66%	+\$726.1 m	+6.62%
Health Care and Social Assistance	+\$4,770.8 m	+4.57%	+\$2,858.9 m	+2.62%
Arts, Entertainment, and Recreation	-\$2,596.3 m	-23.51%	+\$1,772.0 m	+20.98%
Accommodation and Food Services	-\$8,610.0 m	-19.84%	+\$6,638.9 m	+19.09%
Other Services	-\$2,115.8 m	-6.80%	+\$2,298.0 m	+7.93%
Government and Government Enterprises	+\$3,554.7 m	+2.18%	+\$2,328.2 m	+1.40%
Total, All Industries	-\$133,816.6 m	-7.60%	+\$154,445.8 m	+9.50%

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Monetary values given in millions of 2012 US dollars. Components may not sum due to rounding.

Texas Wage & Salary Employment Outlook through 2021

Results by industry sector

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-6,076	-7.19%	+3,394	+4.33%
Mining	-88,660	-34.11%	+50,558	+29.52%
Utilities	-4,485	-8.59%	+2,744	+5.75%
Construction	-39,923	-5.02%	+29,609	+3.92%
Manufacturing	-114,996	-12.64%	+64,821	+8.16%
Wholesale Trade	-38,418	-6.29%	+30,399	+5.31%
Retail Trade	-156,548	-11.59%	+99,901	+8.37%
Transportation and Warehousing	-44,621	-8.44%	+32,657	+6.74%
Information	-20,193	-9.91%	+12,504	+6.81%
Finance and Insurance	-17,878	-3.04%	+16,600	+2.91%
Real Estate and Rental/Leasing	-5,587	-2.38%	+6,227	+2.72%
Professional, Scientific, Technical Services	-12,433	-1.53%	+30,559	+3.82%
Management of Companies	-5,322	-3.63%	+6,529	+4.63%
Administrative, Support, Waste Management	-13,658	-1.63%	+27,706	+3.36%
Educational Services	-9,275	-4.70%	+10,330	+5.50%
Health Care and Social Assistance	+50,744	+3.31%	+22,127	+1.40%
Arts, Entertainment, and Recreation	-36,539	-24.13%	+23,034	+20.05%
Accommodation and Food Services	-268,392	-21.32%	+167,737	+16.93%
Other Services	-48,958	-7.53%	+42,918	+7.14%
Government and Government Enterprises	+20,251	+0.97%	+4,437	+0.21%
Total, All Industries	-860,967	-6.48%	+684,793	+5.51%

Source: US Multi-Regional Econometric Model, The Perryman Group

Notes: Components may not sum due to rounding.

METHODS AND ASSUMPTIONS

These projections are based on The Perryman Group's forecasting system, the US Multi-Regional Econometric Model, which provides detailed industry-level projections for the various regions and metropolitan areas within the United States. 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. The model is the result of more than four decades of continuing research in econometrics, economic theory, statistical methods, key policy issues, and behavioral patterns, as well as intensive, ongoing study of all aspects of the economy. It is extensively used by scores of federal and State governmental entities on an ongoing basis, as well as hundreds of major corporations.

The firm's US Multi-Regional Impact Assessment System was also integrated in this dynamic analysis of COVID-19's effects on the outlook for the US and Texas. The Perryman Group developed a scenario for estimating the effects of COVID-19 which reflects a variety of public and private source materials including, among others, data from sectors that have been particularly affected, information from areas where the pandemic spread earlier (as well as prior pandemics and natural disasters), performance patterns in other economic downturns and recoveries, and historical responses to oil price fluctuations. Reasonable measures of potential direct effects by detailed industrial category were developed and used as inputs to the impact assessment system. The anticipated

effects of the virus going forward and recent and expected monetary and fiscal policy actions were incorporated into projections of economic indicators.

These systems have been developed, maintained, and expanded by The Perryman Group over the past four decades. They have been used in thousands of applications, including numerous crisis situations (including several natural disasters), major health care issues (such as cancer and diabetes), pressing social concerns (such as hunger, child maltreatment, homelessness, and indigent health care), and substantial disruptions in global energy markets.

THE PERRYMAN GROUP



The Perryman Group is a focused team of analysts who know how to address complex economic information tasks and present our findings effectively.

Our in-house professionals bring expertise in **economics, finance, statistics, mathematics, real estate, valuation, systems analysis, engineering, technical communications, and marketing**. Dr. Ray Perryman, President and CEO, has 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 different problem or create a product or service specifically tailored to our clients.

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M. RAY PERRYMAN, PH.D.

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 2,500 clients, including two-thirds of the Global 25, over half of the Fortune 100, the 12 largest technology firms in the world, 10 US Cabinet Departments, the 9 largest firms in the US, the 6 largest energy companies operating in the US, and the 5 largest US banking institutions.

Dr. Perryman was named Outstanding Young Person of the World for Business and Economic Innovation in 1987, was designated Texan of the Year by the Texas Legislative Conference in 2012, received the Baylor University Distinguished Service Medal in 2013, was inducted into the Texas Leadership Hall of Fame in 2014, and received the Cesar E. Chavez Conscience Builders Award in 2016 for his humanitarian efforts. He recently received the 2019



Chairman's Award for Lifetime Achievement in Economic Development from the International Economic Development Council and the 2019 "Go Global" Award from the International Trade Council as the outstanding global economic analyst for his work on trade, energy, the environment and other international issues. He dedicates a significant portion of his time to *pro bono* work aimed at helping to solve pressing social problems such as hunger, indigent healthcare, poverty, and child maltreatment.

Reach out to us for more information!



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