



The Perryman Group

The Economic Outlook for Tyler and the East Texas Region: Projected Recession and Recovery from COVID-19 May 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.

TEXAS ECONOMIC OUTLOOK

The Perryman Group’s most recent projections incorporate the potential effects of COVID-19. 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 (real gross domestic product), which is a 7.6% decline. 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). Projections indicate that 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).

EAST TEXAS REGION ECONOMIC OUTLOOK

The rapid decline in energy demand has magnified the effects of COVID-19 in the East Texas COG Region to some extent, and the downturn in 2020 is likely to be somewhat larger than for the state as a whole.

The forecast for the East Texas COG calls for significant losses this year of an estimated 22,400 jobs and \$3.2 billion in output (real gross domestic product). However, some recovery is expected once the worst virus issues have passed and oil markets begin to recover, with the addition of a projected 17,400 jobs in 2021 (a 5.53% gain) and \$3.5 billion in output (10.23% growth).

TYLER METROPOLITAN AREA

For the Tyler area, a strong base of health care and higher education will lend some

economic stability, though job losses are inevitable.

The Perryman Group's forecast for the Tyler Metropolitan Statistical Area indicates 2020 losses of a projected 6,770 jobs and \$2.3 billion in output (real gross domestic product). In 2021 as the economy begins to recover, the area is forecast to see an increase of 5,680 jobs (a 5.44% gain) and \$2.1 billion in output growth (14.67%).

CONCLUSION

Although several years will be required for recovery, The Perryman Group's long-term outlook remains positive for Texas and the East Texas COG. 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.

Economic Outlook through 2021

Key economic indicators for selected regions

Region	Economic Indicator	Loss in 2020		Recovery in 2021	
		Absolute	Percent	Absolute	Percent
State of Texas	Real Gross Product	-\$133.8 b	-7.60%	+\$154.4 b	+9.50%
	Total Employment	-860,967	-6.48%	+684,793	+5.51%
East Texas COG	Real Gross Product	-\$3.2 b	-8.55%	+\$3.5 b	+10.23%
	Total Employment	-22,385	-6.65%	+17,390	+5.53%
Tyler MSA	Real Gross Product	-\$2.3 b	-14.02%	+\$2.1 b	+14.67%
	Total Employment	-6,768	-6.09%	+5,683	+5.44%

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

Notes: Monetary values given in billions or millions of 2012 US dollars.

East Texas COG Wage & Salary Employment Outlook through 2021

Results by industry sector

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-324	-7.23%	+181	+4.36%
Mining	-2,542	-27.00%	+1,488	+21.65%
Utilities	-204	-8.72%	+122	+5.74%
Construction	-1,136	-5.18%	+822	+3.95%
Manufacturing	-4,199	-13.50%	+2,336	+8.69%
Wholesale Trade	-926	-6.33%	+749	+5.46%
Retail Trade	-4,352	-11.85%	+2,698	+8.33%
Transportation and Warehousing	-1,097	-8.59%	+799	+6.85%
Information	-348	-10.74%	+203	+7.01%
Finance and Insurance	-322	-2.96%	+303	+2.87%
Real Estate and Rental/Leasing	-95	-2.64%	+93	+2.67%
Professional, Scientific, Technical Services	-257	-2.34%	+451	+4.20%
Management of Companies	-125	-10.39%	+93	+8.65%
Administrative, Support, Waste Management	-174	-1.12%	+460	+2.99%
Educational Services	-239	-4.38%	+276	+5.29%
Health Care and Social Assistance	+1,746	+3.35%	+754	+1.40%
Arts, Entertainment, and Recreation	-672	-26.34%	+415	+22.08%
Accommodation and Food Services	-6,463	-21.55%	+4,033	+17.14%
Other Services	-1,156	-7.42%	+1,008	+7.00%
Government and Government Enterprises	+500	+0.96%	+106	+0.20%
Total, All Industries	-22,385	-6.65%	+17,390	+5.53%

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

Notes: Components may not sum due to rounding.

East Texas COG Real Gross Product Outlook through 2021

Results by industry sector, in millions of 2012 US dollars

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-\$48.8 m	-6.54%	+\$35.7 m	+5.12%
Mining	-\$1,899.1 m	-23.61%	+\$1,561.6 m	+25.42%
Utilities	-\$60.2 m	-7.47%	+\$53.6 m	+7.19%
Construction	-\$67.3 m	-4.07%	+\$82.0 m	+5.17%
Manufacturing	-\$520.0 m	-10.71%	+\$522.9 m	+12.06%
Wholesale Trade	-\$124.1 m	-4.60%	+\$190.0 m	+7.38%
Retail Trade	-\$272.5 m	-9.82%	+\$267.8 m	+10.70%
Transportation and Warehousing	-\$69.0 m	-7.03%	+\$78.7 m	+8.62%
Information	-\$70.2 m	-7.98%	+\$86.2 m	+10.65%
Finance and Insurance	-\$9.6 m	-0.96%	+\$48.9 m	+4.92%
Real Estate and Rental/Leasing	-\$23.4 m	-0.95%	+\$107.3 m	+4.39%
Professional, Scientific, Technical Services	-\$10.3 m	-0.78%	+\$77.0 m	+5.85%
Management of Companies	-\$14.8 m	-8.68%	+\$16.7 m	+10.70%
Administrative, Support, Waste Management	+\$6.6 m	+0.83%	+\$40.3 m	+4.99%
Educational Services	-\$7.8 m	-3.33%	+\$14.5 m	+6.41%
Health Care and Social Assistance	+\$148.2 m	+4.61%	+\$88.2 m	+2.62%
Arts, Entertainment, and Recreation	-\$26.4 m	-25.73%	+\$17.6 m	+23.04%
Accommodation and Food Services	-\$154.3 m	-20.08%	+\$118.6 m	+19.30%
Other Services	-\$50.9 m	-6.70%	+\$55.2 m	+7.78%
Government and Government Enterprises	+\$69.3 m	+2.17%	+\$45.3 m	+1.39%
Total, All Industries	-\$3,204.5 m	-8.55%	+\$3,507.9 m	+10.23%

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

Notes: Components may not sum due to rounding.

Tyler MSA Wage & Salary Employment Outlook through 2021

Results by industry sector

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-56	-7.25%	+31	+4.33%
Mining	-709	-35.42%	+400	+30.93%
Utilities	-27	-8.70%	+16	+5.76%
Construction	-245	-5.06%	+185	+4.02%
Manufacturing	-781	-14.59%	+429	+9.39%
Wholesale Trade	-336	-6.12%	+287	+5.58%
Retail Trade	-1,572	-11.88%	+969	+8.31%
Transportation and Warehousing	-405	-8.42%	+306	+6.96%
Information	-128	-10.08%	+76	+6.61%
Finance and Insurance	-127	-3.10%	+121	+3.04%
Real Estate and Rental/Leasing	-31	-2.63%	+31	+2.68%
Professional, Scientific, Technical Services	-97	-2.13%	+186	+4.21%
Management of Companies	-43	-6.52%	+40	+6.43%
Administrative, Support, Waste Management	-67	-1.09%	+189	+3.11%
Educational Services	-85	-5.47%	+88	+5.95%
Health Care and Social Assistance	+801	+3.36%	+346	+1.41%
Arts, Entertainment, and Recreation	-284	-24.93%	+177	+20.75%
Accommodation and Food Services	-2,316	-21.54%	+1,442	+17.10%
Other Services	-405	-8.95%	+329	+7.99%
Government and Government Enterprises	+145	+0.99%	+32	+0.22%
Total, All Industries	-6,768	-6.09%	+5,683	+5.44%

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

Notes: Components may not sum due to rounding.

Tyler MSA Real Gross Product Outlook through 2021

Results by industry sector, in millions of 2012 US dollars

Industry Sector	Loss/Gain in 2020		Recovery in 2021	
	Absolute	Percent	Absolute	Percent
Agriculture	-\$6.1 m	-6.57%	+\$4.4 m	+5.08%
Mining	-\$1,900.6 m	-32.40%	+\$1,389.4 m	+35.03%
Utilities	-\$8.4 m	-7.44%	+\$7.6 m	+7.20%
Construction	-\$16.9 m	-3.95%	+\$21.5 m	+5.22%
Manufacturing	-\$128.5 m	-11.83%	+\$122.5 m	+12.79%
Wholesale Trade	-\$39.5 m	-4.37%	+\$64.9 m	+7.52%
Retail Trade	-\$126.2 m	-9.84%	+\$123.5 m	+10.69%
Transportation and Warehousing	-\$24.9 m	-6.85%	+\$29.6 m	+8.73%
Information	-\$28.2 m	-7.31%	+\$36.6 m	+10.24%
Finance and Insurance	-\$5.2 m	-1.12%	+\$23.3 m	+5.09%
Real Estate and Rental/Leasing	-\$10.5 m	-0.93%	+\$49.4 m	+4.40%
Professional, Scientific, Technical Services	-\$3.3 m	-0.57%	+\$33.7 m	+5.85%
Management of Companies	-\$4.1 m	-4.70%	+\$7.0 m	+8.47%
Administrative, Support, Waste Management	+\$2.6 m	+0.86%	+\$15.7 m	+5.11%
Educational Services	-\$3.1 m	-4.44%	+\$4.7 m	+7.08%
Health Care and Social Assistance	+\$76.5 m	+4.62%	+\$45.5 m	+2.63%
Arts, Entertainment, and Recreation	-\$12.1 m	-24.31%	+\$8.2 m	+21.69%
Accommodation and Food Services	-\$56.4 m	-20.07%	+\$43.3 m	+19.26%
Other Services	-\$16.4 m	-8.23%	+\$16.1 m	+8.78%
Government and Government Enterprises	+\$21.8 m	+2.20%	+\$14.2 m	+1.41%
Total, All Industries	-\$2,289.5 m	-14.02%	+\$2,061.0 m	+14.67%

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



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Dr. Perryman addresses dozens of audiences throughout the world every year, catering to a wide variety of events.

M. RAY PERRYMAN, PH.D.

Dr. Perryman is the President and CEO of the Perryman Group and Distinguished Professor of Economic Theory and Method at the International Institute for Advanced Studies. Over the past 40 years, Dr. Perryman has helped recruit corporations providing tens of thousands of jobs through economic development work, resolved 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 corporations and government agencies alike.



He has provided economic analysis and expert testimony for civil litigation across a wide range of practice areas including antitrust and competition, intellectual property disputes, securities, and commercial and complex litigation. His work combines strong expertise in economic damages calculation, asset valuation, market analysis, and statistical methods and econometrics.

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