The Perryman Group

COVID-19 Pandemic Could Cost the US Economy \$973 Billion March 2020

The disruptions caused by the coronavirus are wreaking havoc on individuals, families, the private sector, the public sector, the health care system, and the economy and society as a whole. In order to "flatten the curve" and prevent a major spike in infections, drastic measures have been taken. The inevitable result has been and likely will continue to be a strong shock to the economy.

Many factors will determine the ultimate effects of the coronavirus on the economy, most of which are highly uncertain at present. The length and severity of the outbreak, the nature and magnitude of the full policy response, and the capacity of businesses to resume normal activities are among myriad phenomena that will play a significant role.

The Perryman Group developed a plausible scenario for the ultimate effects based on 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 through this process. These direct effects were then used as inputs to The Perryman Group's dynamic and integrated

econometric and impact assessment systems to determine total economic costs of COVID-19 as various sectors interact throughout the economy.

The Perryman Group estimates that the COVID-19 pandemic could cost the US economy approximately \$972.6 billion in real gross product and 11.4 million job-years (a job-year is the equivalent of one person working for a year, though it could be multiple individuals working partial years).

This scenario assumes that some of the anticipated downstream losses will be dampened through aggressive monetary and fiscal policy measures. The ultimate outcomes will obviously be different than these projections, but they provide a guideline for planning and expectations. Note that jobs are reported on an annual basis; thus, many more individuals are likely to be affected for a portion of the year. More detailed results by industry are provided on the following page.

Clearly, unlike many economic issues, much of the solution to this situation must come from the health care and biosciences sectors. The physical wellbeing of the population is of paramount concern, yet the economic consequences must also be aggressively addressed.

A Representative Illustration of the Potential Overall Impact of the COVID-19 Pandemic on Business Activity in the United States

Results by industry sector in billions of 2012 US dollars

Industry Sector	Real Total Expenditures	Real Gross Product	Real Personal Income	Job- Years
Agriculture	-\$55.565 b	-\$14.526 b	-\$9.419 b	-148,735
Mining	-\$121.201 b	-\$31.807 b	-\$18.000 b	-145,119
Utilities	-\$88.517 b	-\$20.330 b	-\$8.872 b	-37,571
Construction	-\$81.454 b	-\$39.952 b	-\$32.923 b	-464,268
Manufacturing	-\$707.318 b	-\$216.937 b	-\$122.580 b	-1,801,934
Wholesale Trade	-\$125.973 b	-\$85.247 b	-\$49.154 b	-549,631
Retail Trade*	-\$348.381 b	-\$241.617 b	-\$137.000 b	-4,737,870
Transportation & Warehousing	-\$105.709 b	-\$65.773 b	-\$43.500 b	-601,228
Information	-\$27.575 b	-\$16.686 b	-\$7.124 b	-62,987
Financial Activities*	-\$213.904 b	-\$70.131 b	-\$28.709 b	-288,794
Business Services	-\$77.621 b	-\$46.207 b	-\$37.693 b	-458,609
Health Services	+\$25.858 b	+\$16.066 b	+\$13.584 b	+224,354
Other Services	-\$282.524 b	-\$139.430 b	-\$100.469 b	-2,366,242
Total, All Industries	-\$2,209.884 b	-\$972.578 b	-\$581.858 b	-11,438,635

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in billions of 2012 US dollars. Components may not sum due to rounding. Retail Trade includes Restaurants, Financial Activities includes Real Estate.

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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

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