# Downturn and Recovery in Previous US Economic Crises

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# Key Takeaways

- The US economy is unique in that, since the beginning of the 20th century, it has experienced only two events—the post-WWI downturn and the Great Depression—that resulted in declines of 10 percent or higher in both real GDP and real consumption per capita.
- The GDP decline from peak to trough in the post-WWI downturn was 12 percent and during the Great Depression it was 26 percent. During the Great Recession, GDP decline was just 4 percent, but the accompanying increase in unemployment was the highest and most sustained since the Great Depression.
- US real GDP recovered to pre-downturn levels within 4.5 years from the start of the Post-WWI downturn; it took seven years during the Great Depression, and just three years during the Great Recession.
- In all three events, however, unemployment took significantly longer to return to pre-downturn levels.
- Local disasters have resulted in large negative shocks to local economies. The most acute local downturn in recent history was caused by Hurricane Katrina.
- In general, the time to recovery from an economic crisis bears a direct relationship to the size of the drop in GDP or unemployment from peak to trough, as would be expected.
- We're in the early stages of the current downturn resulting from the COVID-19 pandemic and among the few data points available are the record highs in initial claims for unemployment insurance for the weeks ending March 21, 2020, and March 28, 2020.
- Unemployment is a leading indicator in the present situation, and not a trailing one, as is usually the case in macroeconomic downturns. While current unemployment numbers may be striking, they are not a consequence of structural issues with the economy, as was the case during the Great Depression.
- While all early indications are that the present downturn could lead to an economic crisis, the Federal Reserve and US Treasury of today have, at their disposal, the economic knowledge and political mandate that they did not at the time of the Great Depression or the Post-WWI downturn.

# Economic Crises in US History

The popular definition of a recession is two successive quarters of negative real Gross Domestic Product (GDP) growth—"real" meaning that it is adjusted for inflation. The National Bureau of Economic Research (NBER) defines recessions more broadly as "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales."[1]

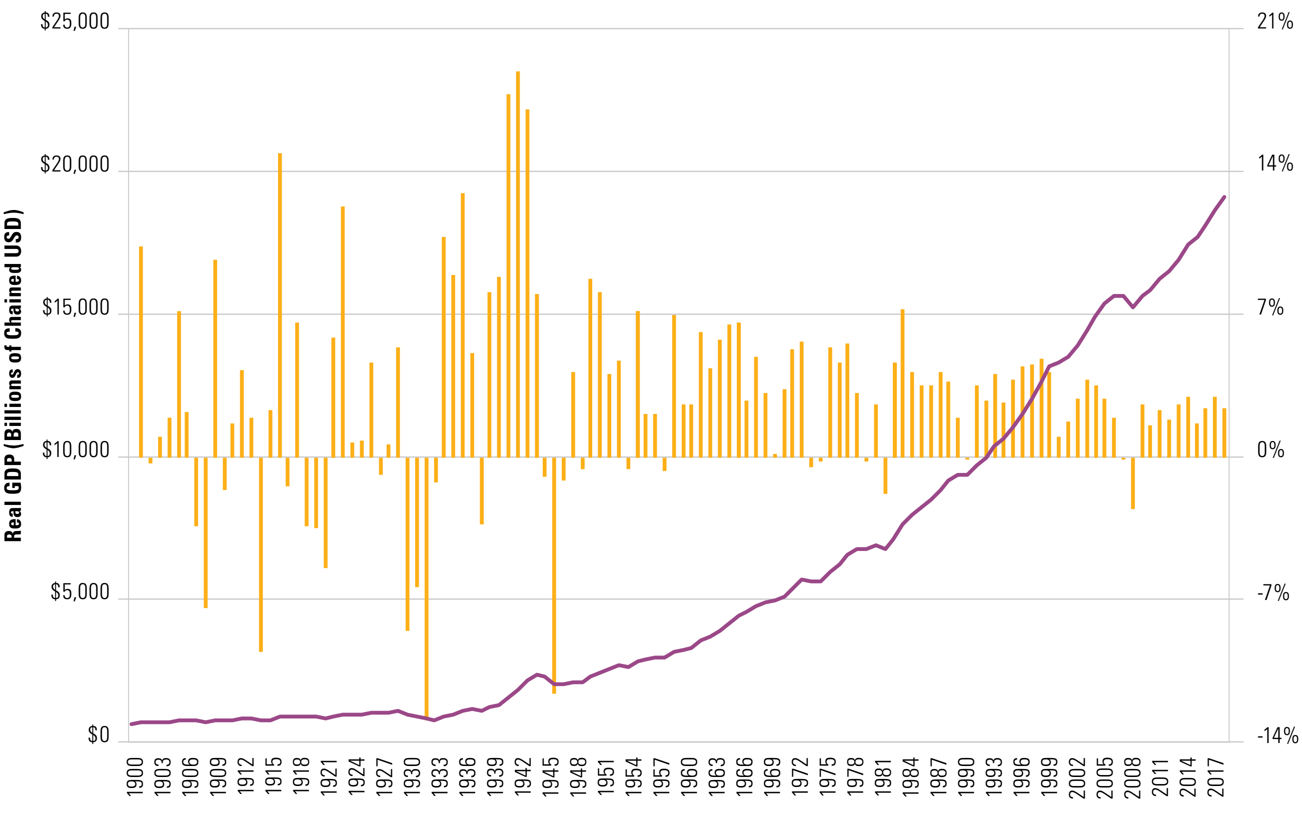
While there is no commonly accepted definition of a macroeconomic crisis, some economists define it as a cumulative decline of 10 percent in GDP or in personal consumption expenditure per capita, typically denoted as "C."[2] By this definition, the United States has been relatively "immune to crises"[3] having experienced only two crises since the beginning of the 20th century—the downturn from 1918 to 1921 (post-WWI) and the Great Depression. The post-WWI decline was possibly a consequence of the influenza pandemic of 1918-1919 (in addition to WWI), which resulted in 675,000 deaths in the US (and an estimated 50 million worldwide).[4]

There was a significant GDP downturn at the end of WWII, but it is understood by economists to be the consequence of a postwar demobilization and was not accompanied by a decline in C. Similarly, GDP declines greater than 10 percent occurred in 1908 and 1914, but both were results of banking panics, and not sustained economy-wide crises.[5]

Meanwhile, the rest of the world experienced numerous economic crises in the same period. In addition to the Great Depression, both World Wars ended in economic crises for Europe, Japan, and other Asian countries. Other more regional crises include the Asian financial crisis (late 1990s), the Latin American debt crisis (early 1980s), and the Venezuelan crisis of 2012-present, to name a few.

Figure 1 shows US real GDP from 1900 to the present. It is clear from the purple line showing real GDP that the US economy has grown substantially over the last century. The orange bars, which depict annual growth rates, show that there have been few large downturns, with a remarkable performance in avoiding large downturns since WWII.

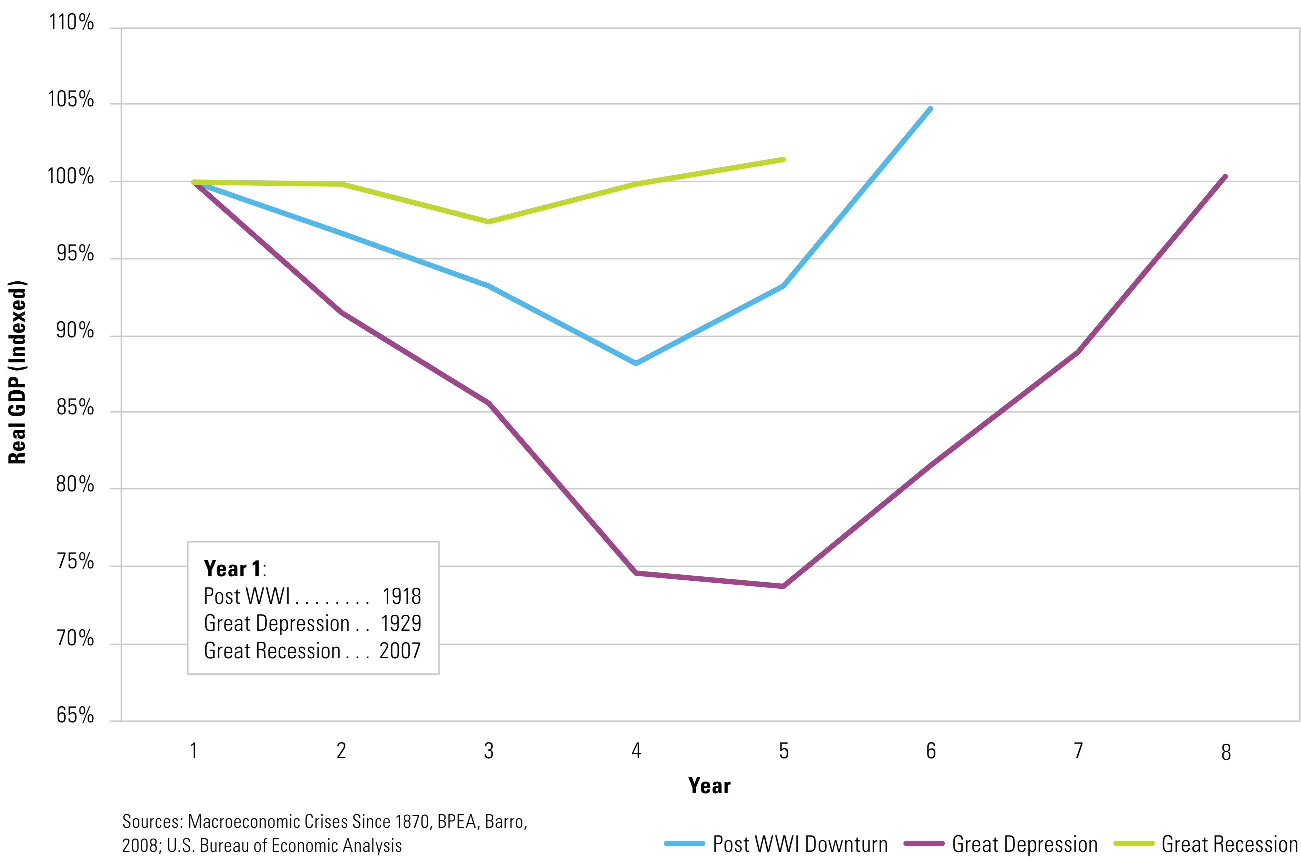
Figure 1
**US Real GDP and Y-O-Y Growth Rate %**
1900-2019




Sources: Macroeconomic Crises Since 1870, BPEA, Barro, 2008; U.S. Bureau of Economic Analysis

Figure 2 shows the extent of real GDP declines during three economic downturns: the post-WWI downturn, the Great Depression, and the Great Recession. While the real GDP decline during the Great Recession was only 4 percent (not a crisis by the above definition), the increase in unemployment was the highest and most sustained in the postwar period.[6] The Great Recession may be more relevant than pre-WWII downturns because the modern Federal Reserve has superior information and additional tools at its disposal.

Figure 2
**Indexed GDP During Three Major US Downturns and Recoveries**

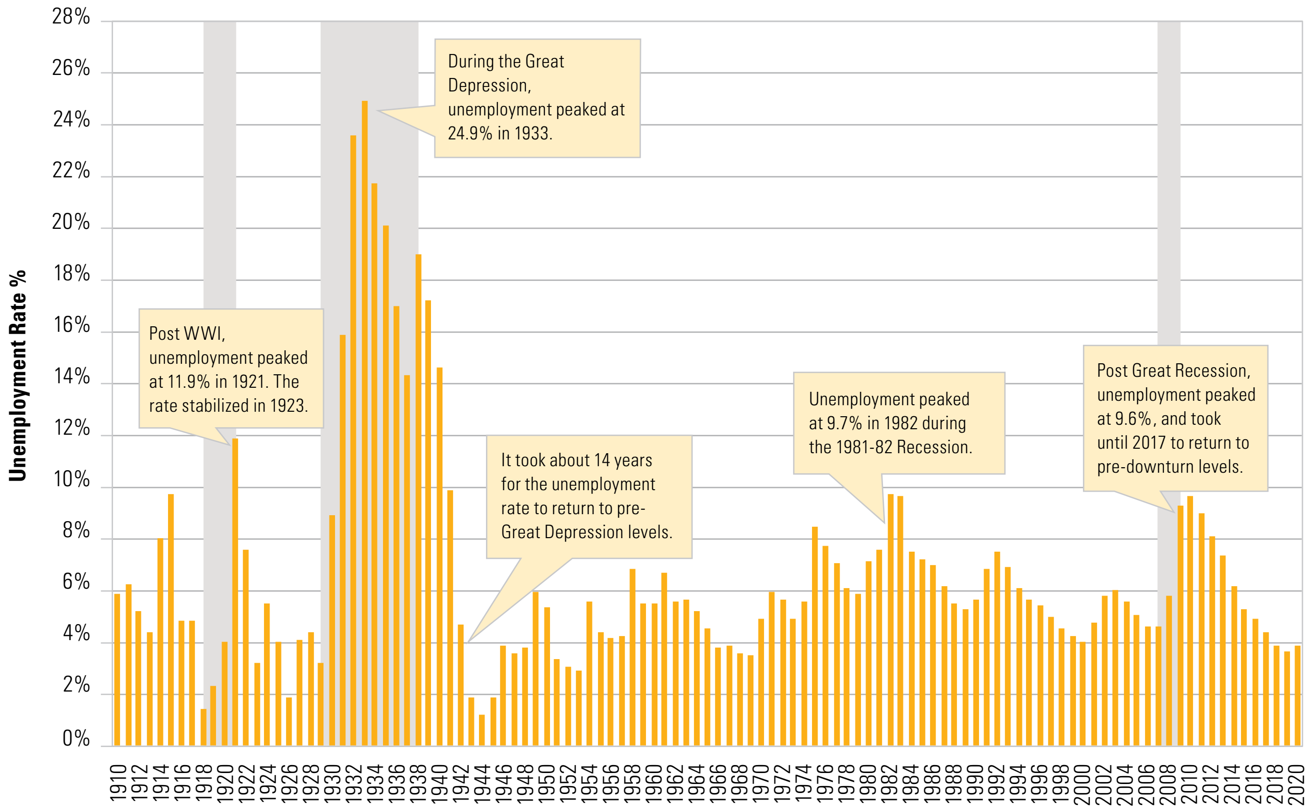



Sources: Macroeconomic Crises Since 1870, BPEA, Barro, 2008; U.S. Bureau of Economic Analysis

As seen above, it took seven years (1929-1936) for real GDP to return to its level before the Great Depression. The drop from the peak to the trough for the post-WWI downturn and the Great Recession was smaller, and the length of time to pre-downturn levels was shorter.

Figure 3 shows the unemployment rate for the US for the period from 1910 to the present.

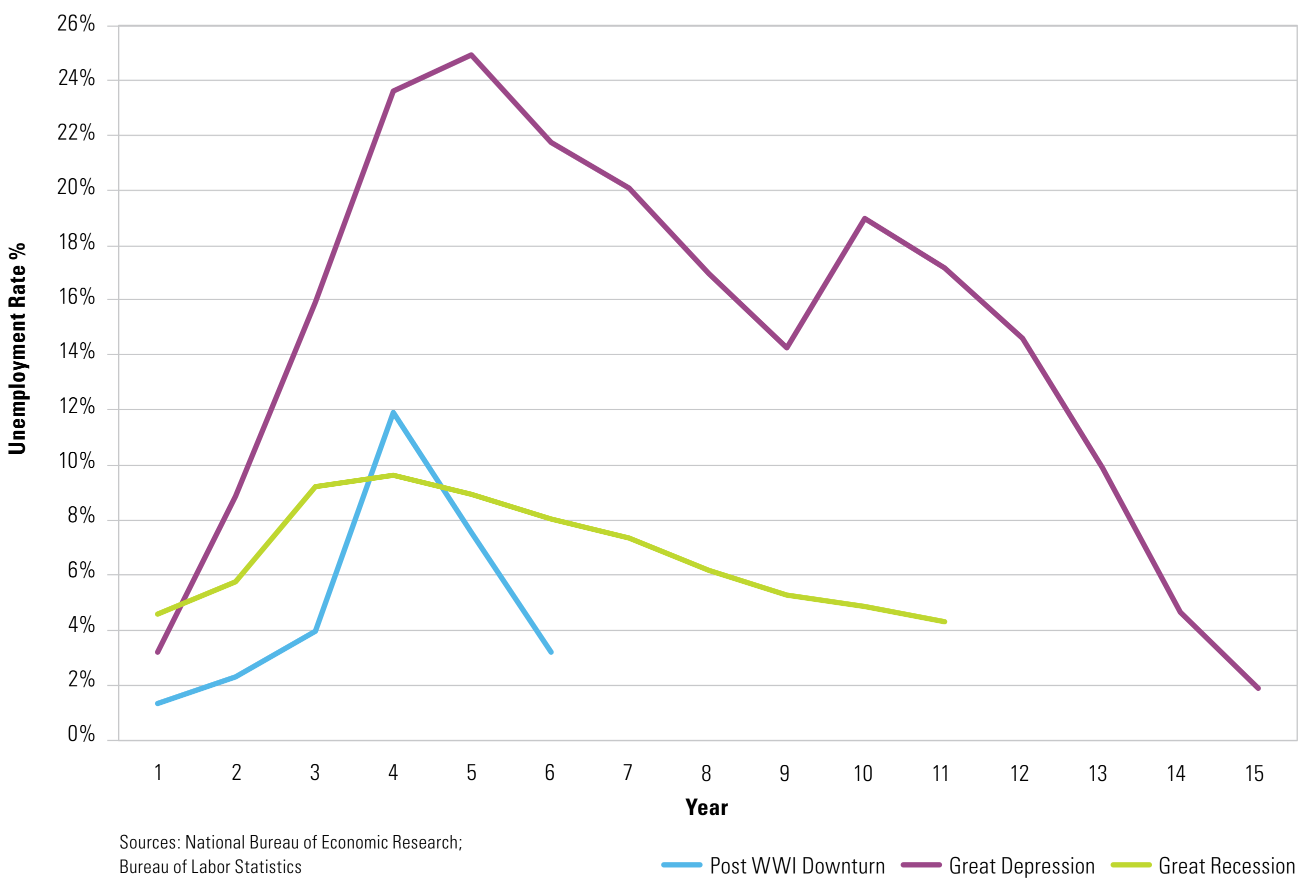
Figure 3
**US Unemployment Rate**
1910 – 2020




Sources: National Bureau of Economic Research; Bureau of Labor Statistics

In addition to the three downturns above, unemployment also peaked during the 1981-1982 recession. As seen in Figure 4 below, it took significantly longer for unemployment to return to pre-downturn levels for each of the three major downturns. Unemployment during the Great Recession took nearly 10 years to return to pre-2007 levels whereas GDP had already recovered by 2010-2011.

Figure 4
**Unemployment Rate During Three Major US Downturns and Recoveries**



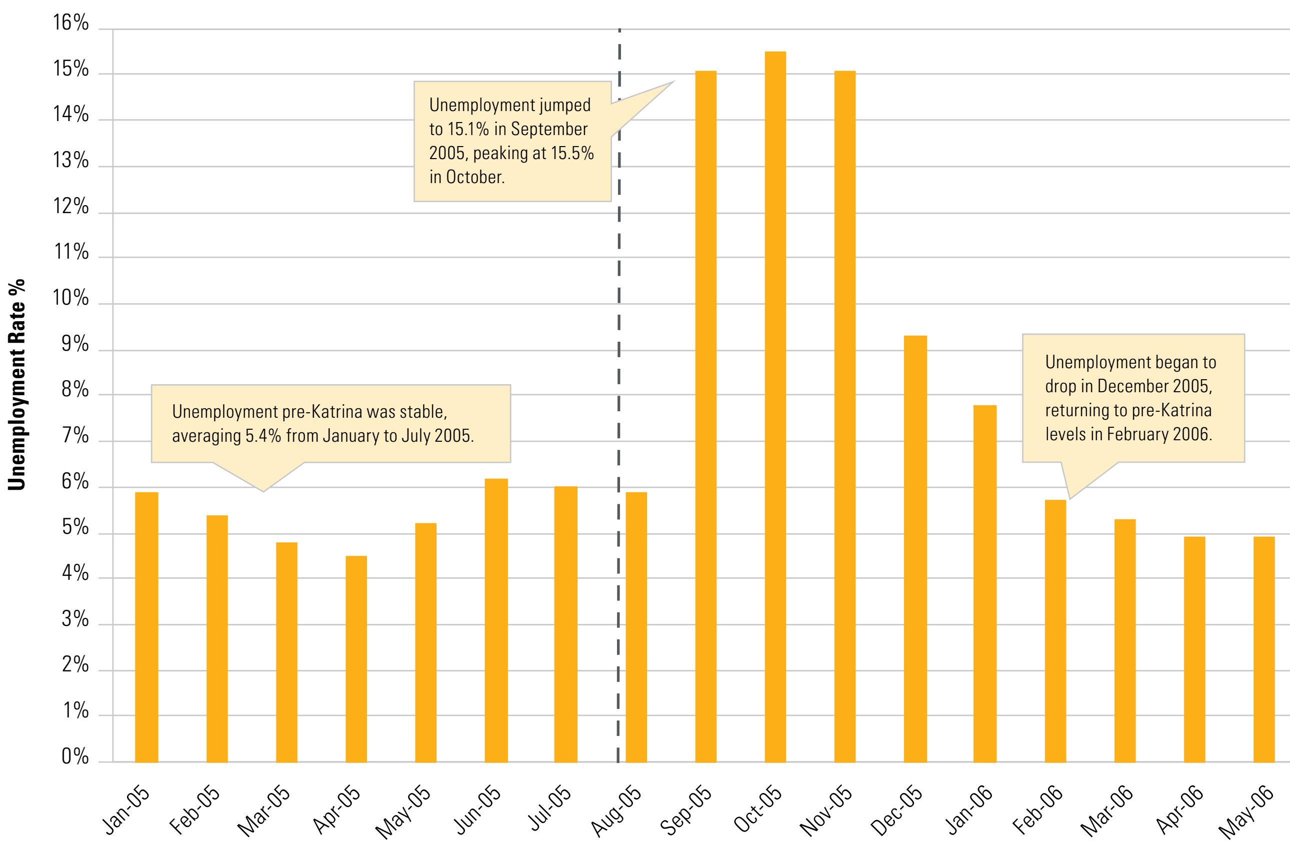

Sources: National Bureau of Economic Research; Bureau of Labor Statistics

## Local Economic Events

Given that the number of national economic crises experienced by the US is small, we also examine local or regional downturns to obtain information on the extent of decline and time to recovery. The 9/11 attacks, the Northridge earthquake in Los Angeles, and Hurricane Katrina are examples of events that had severe economic impact on local/regional economies—New York City, Los Angeles, and New Orleans, respectively. Of these, Hurricane Katrina's impact on local output and employment was most clearly visible in the data.

While local GDP did not change visibly for several possible reasons, including the influx of aid and economic activity from the rest of the country following the hurricane, the impact on the unemployment rate was stark. Figure 5 shows a spike in the unemployment rate for the New Orleans-Metairie Metro Statistical Area (MSA) immediately after the hurricane and a recovery in 6 months.

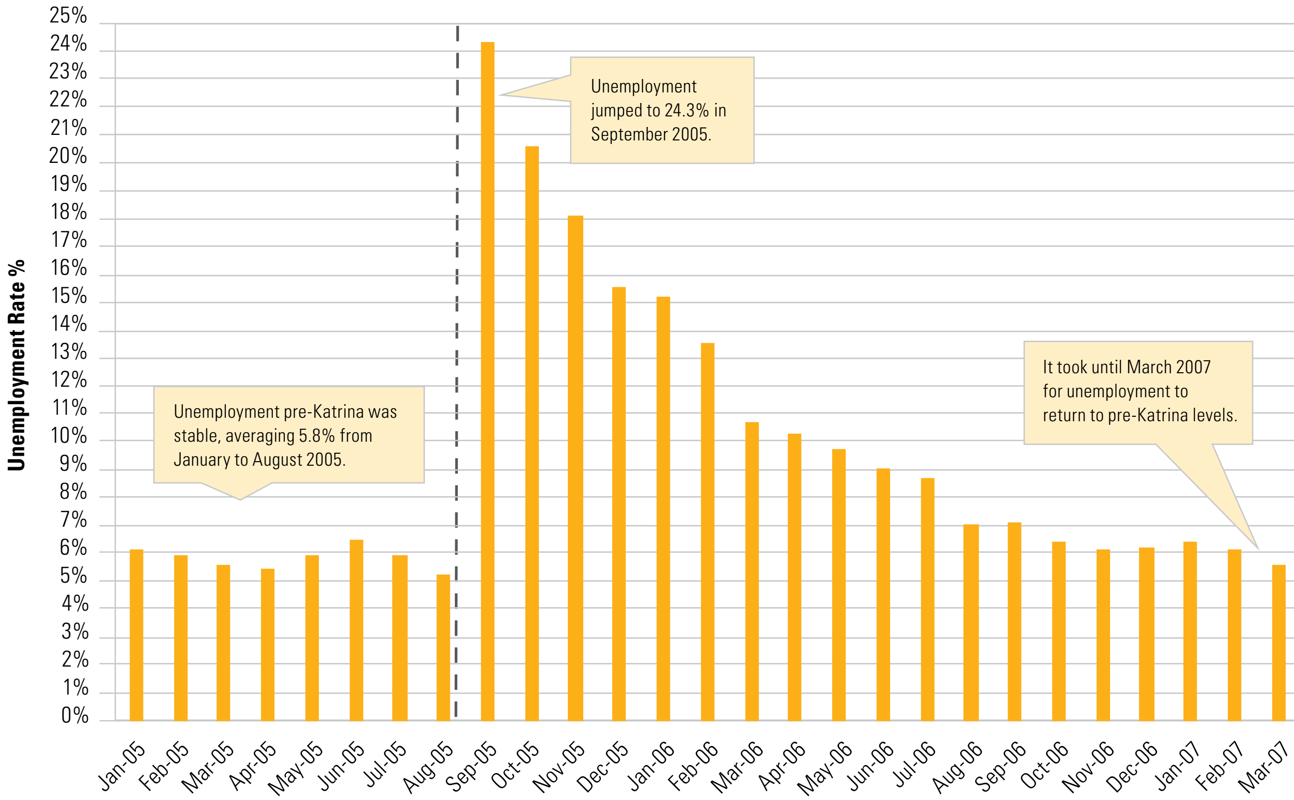
Figure 5
**Unemployment Rate in New Orleans-Metairie, LA MSA**
January 2005 – May 2006




Sources: Bureau of Labor Statistics

The neighboring MSA of Gulfport-Biloxi-Pascagoula, MS was not so resilient, experiencing a sharp increase in the unemployment rate from 5.8 percent in August 2005 to 24.3 percent in September 2005. As seen in Figure 6, it took a year and a half for the unemployment rate in the Biloxi area to return to pre-hurricane levels.

Figure 6
**Unemployment Rate in Gulfport-Biloxi-Pascagoula, MS MSA**
January 2005 – March 2007




Sources: Bureau of Labor Statistics

Table 1 summarizes the national and local downturns and their effects on real GDP and unemployment.

Table 1

| Event | Metric | Location | Duration Until Full Recovery | % Change to Trough |
|---|---|---|---|---|
| Post WW1 Recession | Real GDP | USA | 4.5 years | -6.3% |
| Great Depression | Real GDP | USA | 7 years | -26.3% |
| Great Recession | Real GDP | USA | 3 years | -4.0% |
| Post WW1 Recession | Unemployment | USA | 5 years | Increased from 1.4% in 1918 to 11.9% in 1921 |
| Great Depression | Unemployment | USA | 14 years | Increased from 3.2% in 1929 to 24.9% in 1933 |
| Great Recession | Unemployment | USA | 10 years | Increased from 4.6% in 2007 to 9.6% in 2010 |
| Hurricane Katrina August 2005 | Unemployment | New Orleans | 6 months | Increased from 5.9% to 15.5% in 2 months |
| Hurricane Katrina August 2005 | Unemployment | Biloxi | 19 months | Increased from 5.2% to 24.3% immediately |
| September 2011 Attacks | Unemployment | New York | 3 years | Increased from 5.3% to 6.3% in 6 months |

## Current Downturn

The impact of the COVID-19 pandemic on the US economy has been sudden and sharp. In the week ending March 21, 2020, 3,283,000 individuals filed claims for unemployment insurance. The number of jobless claims in the previous week (ending March 14, 2020) was 282,000. Claims for the week ending March 28, 2020, are in excess of 6.6 million. As has been widely reported, these figures dwarf the previous high of 695,000 in October 1982.

It is difficult to know the extent of decline in GDP and increase in unemployment that will result from the current downturn and how long it will take the economy to recover.

Unlike the Great Depression or Great Recession, unemployment in the present situation is not a consequence of structural damage to economic institutions or the bursting of a massive asset bubble. It is a direct result of the necessity of social distancing. In many ways, the current downturn bears more similarity to a natural disaster than to a typical macroeconomic crisis or recession, possibly pointing to a less protracted recovery period. However, the longer the state-by-state lockdowns persist, the greater the potential for structural damage to the economy. Of course, there may also be effects felt from overseas as other countries struggle to combat the virus, reducing their demands for US goods and services. We will continue to track developments in the coming weeks.

## References

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https://www.nber.org/cycles.html

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## Data

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Unemployment Statistics, New Orleans-Metairie, LA Metropolitan Statistical Area, 1990 – 2020, Bureau of Labor Statistics

Unemployment Statistics, Gulfport-Biloxi-Pascagoula, MS Metropolitan Statistical Area, 1990 – 2020, Bureau of Labor Statistics

## Notes

1 https://www.nber.org/cycles.html

2 Barro and Ursua (2008).

3 Barro and Ursua (2008), p. 270.

4 https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm

5 Barro and Ursua (2008), p. 270.

6 There was a higher spike in unemployment in 1982 but it was brief.

# About Edgeworth Analytics

Through education and consulting, Edgeworth Analytics empowers professionals and organizations to unlock data's potential. Data is the lifeblood of every organization. But the amount and complexity of data grows every day. Using proven methods for gathering, structuring, analyzing, and applying data, we help transform analytics from a source of anxiety to a consistent driver of stronger operational and competitive performance. Our unique approaches are rooted in the expertise and real-world experience of our sister company Edgeworth Economics—a firm of PhD economists who rigorously apply economic principles and hard data to high-stakes litigation, regulatory, and other challenges.

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