



# Teaching Macroeconomics Using the Coronavirus Pandemic Example in the High School Classroom

The COVID-19 pandemic offers a real-world framework to teach basic macroeconomics. Decreases in economic activity led to severe downturns in economic growth and increased unemployment. Both fiscal and monetary policies were used to limit the magnitude of the contraction, with continued conversations about additional stimulus. Since states re-opened in June, it is unclear what the new long-run equilibrium related to aggregate supply and demand will look like. What is clear is that the price tag to taxpayers will be substantial, with implications on the national debt. Content is written with high school economics and government classrooms in mind.

**Melanie Marks<sup>†</sup> David Zirkle<sup>†</sup> Montana Shanks<sup>†</sup> Emily Moran<sup>†</sup>**

<sup>†</sup>Longwood University

## 1. Introduction

Americans have spent many weeks sheltering in place to mitigate the spread of the COVID-19 virus. States began ordering non-essential businesses to close and workers to stay home in mid-March. By late May of 2020, some states began a gradual reopening that kept economic activity limited, while others announced that stay-at-home orders would continue into June. Many businesses temporarily or permanently closed, laying off or furloughing a staggering number of workers. With decreasing gross domestic product (GDP) for the first quarter of 2020 and double-digit unemployment, it appeared that a recession was looming. The fears became reality in June, with an official announcement of a recession that actually started in February.

To mitigate the effects of the economic downturn, the federal government implemented employee relief programs for businesses and sent stimulus checks to households. In addition, the Federal Reserve Bank set its target interest rate to zero in an attempt to stimulate activity. These activities illustrate fiscal and monetary policies employed during the pandemic, key topics taught in standard high school economics courses and often incorporated into civics lessons.

Shrinking government revenues and increasing expenses are also a reality during the pandemic. States employ thousands of workers (for example, Virginia employs over 100,000 people), fund public sector retirement programs, subsidize schools and universities, construct and maintain highways and roads, provide means-tested benefits (welfare and Medicaid), and manage law enforcement and prison systems. But these expenses are funded by state income taxes, sales taxes, and user fees. The federal government absorbs the cost of stimulus programs, despite facing lower tax revenues. As Congress discusses a second round of stimulus payments (that were not yet approved as of July), deficits and national debt will continue to rise.

Students of economics often fail to connect with the macroeconomic content taught in a standard economics course, as they are too young to remember the Great Recession and may not be employed or paying taxes. However, the pandemic offers instructors an opportunity to connect macroeconomic theory to real-world events. There are visible examples of macroeconomics that might have affected their households—job losses or furloughs for parents, challenges in finding summer employment, and decreased funding for colleges and universities, to name a few.

The content in this paper can be easily incorporated to make economics “come alive” in the classroom using the pandemic as an example. Many students would benefit from this, as a stand-alone course in economics is required for high school students in many states. Other states mandate that economics be infused into civics courses. For this reason, the paper addresses the role of government (especially the executive and legislative branches) in stimulating the economy during this downturn, offering key connections for teachers who must infuse economic topics into government classes.

The paper proceeds as follows. The first section details connections between economics and civics content standards that apply to the COVID-19 scenario. Second, key economic indicators are discussed and the data presented. Next, fiscal and monetary policy strategies used during the pandemic are detailed. Then, concerns about tax revenues, deficits, and debt are noted. Discussion prompts for students are embedded as well. Finally, the paper ends with areas of expansion for teachers. The goal is to help teachers make abstract concepts more concrete by connecting them to events familiar to students, whether the content is taught in an economics or civics course. Teachers might find that this content lays some groundwork for

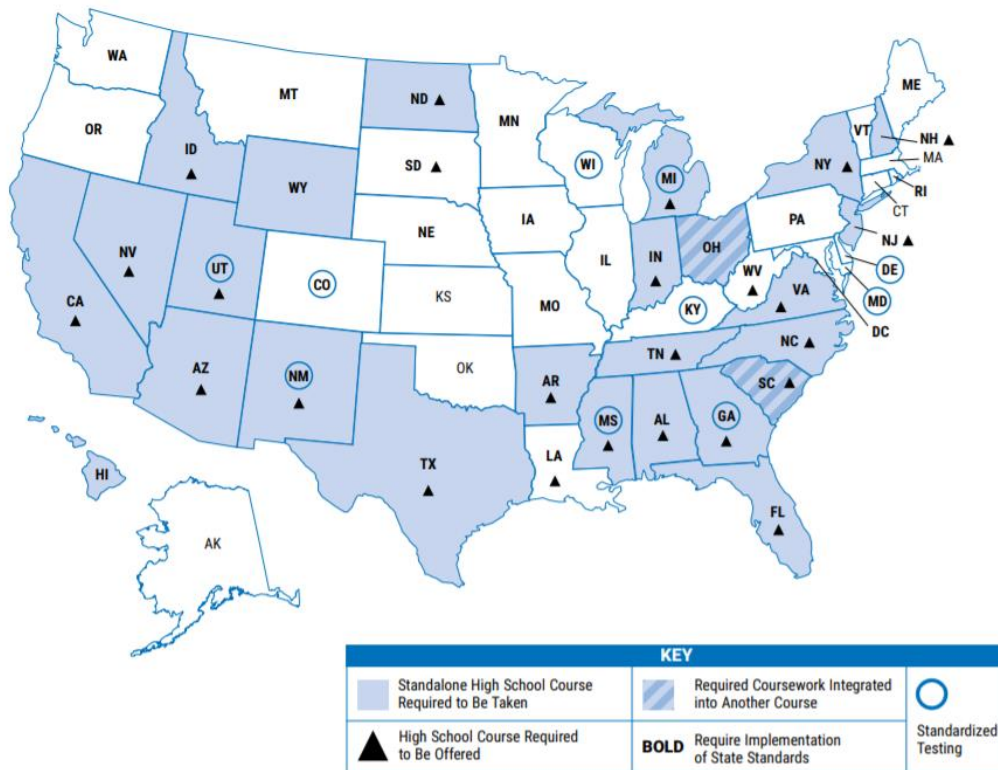
their own lessons that expand on these ideas.

As this paper is not written for professional economists, the discussion is maintained at a level appropriate for high school students. As such, not all elements of the economy are discussed. Furthermore, this manuscript was finalized in mid-July, about six months into the pandemic. While a recession has been officially announced, more will be learned as time passes. The extensions offered for teachers are designed to help them expand and update data, as more information becomes available about the continuing macroeconomic effects of the pandemic.

## 2. Content Standards in Economics and Government

While all states require high school students to take a civics class to graduate, coverage of economics varies across states. Figure 1 shows that 22 states require students to complete a stand-alone economics course, with two others requiring economics to be infused into other subjects (Survey of the States by CEE, 2020).

Figure 1: Status of Economic Education Across the Nation 2020



Graphic produced by Council on Economic Education is available in their report at <https://www.councilforeconed.org/wp-content/uploads/2020/02/2020-Survey-of-the-States.pdf>.

A review of social studies graduation requirements reveals that there might be a bit more exposure to economics than the map indicates. Three states require a full unit of

economics (year-long course), and 19 states require a half unit (semester-long). Six states offer economics as part of an integrated course where economics is infused with other social studies disciplines, like geography, American History, World History, or US Government. There are six additional states where standards vary across locality. There are only 16 states that do not require instruction in economics (High School Graduation Requirements, 2019).

The COVID-19 pandemic offers meaningful ways for teachers to make connections between government decisions and the macroeconomy as illustrated in Figure 2. For example, during the pandemic, Congress passed fiscal stimulus packages that channeled money to businesses and households. The role of fiscal policy in decreasing the recessionary effects can be discussed in economics and civics classrooms, and teachers of government can discuss the legislative process associated with the stimulus bill becoming law. Both disciplines can promote meaningful discussions on the impact of increasing deficits and national debt. These examples, and others, are discussed below.

Figure 2: Overlapping Topics in Economics and Civics

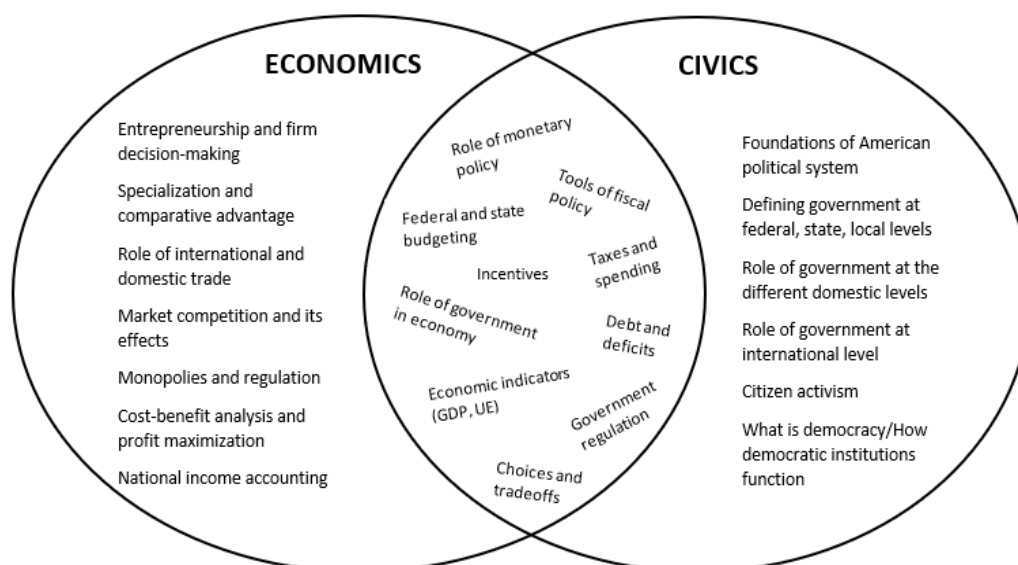


Figure generated using content standards from the Council for Economic Education and Center for Civic Education.

### 3. Economic Indicators and the Recent Pandemic

A fundamental element of an economics course is the discussion of economic statistics that describe the state of the economy. Both economists and policymakers rely on these indicators when judging the health of the macroeconomy with respect to stability and growth. Some of the most frequently referenced indicators and those most useful in evaluating the impact of the pandemic include consumer confidence, gross domestic product (GDP), growth rates, and unemployment.

#### A. A Look at Consumer Confidence

When incomes fall, household expenditures usually fall, and large purchases are

delayed. How much demand is reduced and how long purchases are delayed are related to consumer confidence, a measure of optimism related to the state of the economy. The index is measured by The Conference Board, a nonprofit research organization. Consumer confidence fell significantly, from 118.8 in March to 86.9 in April (almost 27%), a couple of months into the pandemic, putting consumers in the “pessimistic” range of outcomes. May revealed almost no change from April. But in June, consumer confidence increased to 98.1 (12.9%) after a bit of good news about the labor market (Consumer Confidence Index, 2020). Nevertheless, at the time this paper was finalized in July, consumer confidence was still well below its pre-pandemic level. When consumers feel pessimistic about the future of the economy, they might increase their savings (if possible) and cut spending, which depresses economic activity across a range of industries. This impacts another important indicator, GDP, discussed below.

## B. Gross Domestic Product and Economic Growth

Decreasing consumer confidence and stay-at-home orders dramatically decreased economic activity in many sectors, including the travel and restaurant industries. Some US states rely heavily on tourism dollars. For example, in 2018, tourism comprised almost 16% of southern Nevada’s (where Las Vegas is located) total economic output. Las Vegas usually expects 3.5 million visitors a month, a number that has fallen to zero. The iconic Tropicana Casino located on the Las Vegas strip announced they will be selling the casino for \$307.5M, reportedly \$50M less than the property is worth (Brown, 2020). In Hawaii, visitor spending was down more than 52% in March 2020, resulting in tens of thousands of jobs being lost (Schaefer, 2020). As travel/tourism accounts for over 10% of global economic activity, the effect is felt worldwide (Reed, 2020). The restaurant industry has also been hard hit, with \$80 billion lost in March and April alone (Guzior, 2020). Smaller, family-owned restaurants that lack large financial reserves are even much more susceptible to closing (Severson, 2020).

Declining consumer confidence and incomes, household shelter-in-place orders, business shutdowns, and associated increases in unemployment (discussed below) led to decreases in both aggregate demand and aggregate supply for goods and services. Both result in a decrease in GDP. Figure 3 provides a simplistic model of aggregate supply and demand. (Students in AP Economics learn a more sophisticated version of this.) The horizontal axis measures output (GDP) and the vertical axis measures the general level of prices in the economy. The decrease in aggregate demand lowers GDP and lowers prices. However, decreasing aggregate supply lowers GDP but increases prices. The net effect is that price levels will fall since the demand shock dominates the supply shock. As predicted, the Consumer Price Index (CPI) fell for March, April, and May. After that, prices began to rise, primarily due to increases in food and energy prices. As of June 2020, the CPI showed inflation of 0.6% for the previous 12-month period, down from 2.3% for the 12-month period ending in February of 2020 (US Bureau of Labor Statistics, 2020).

Figure 3. Aggregate Supply and Demand

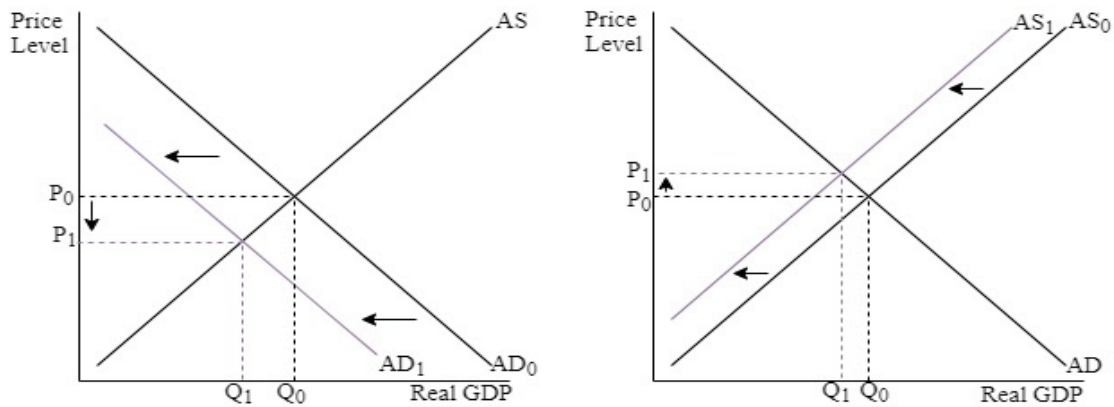
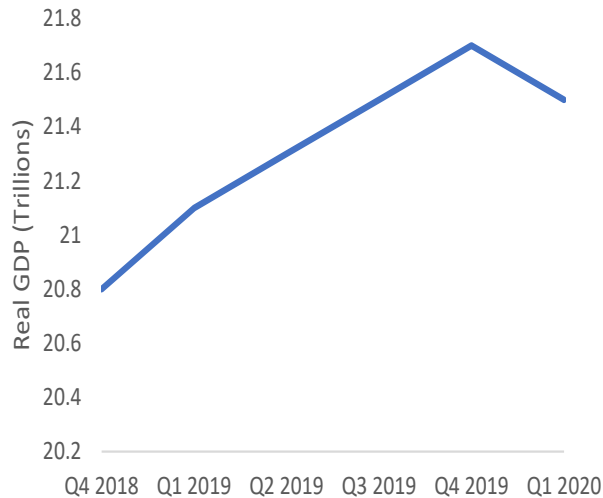


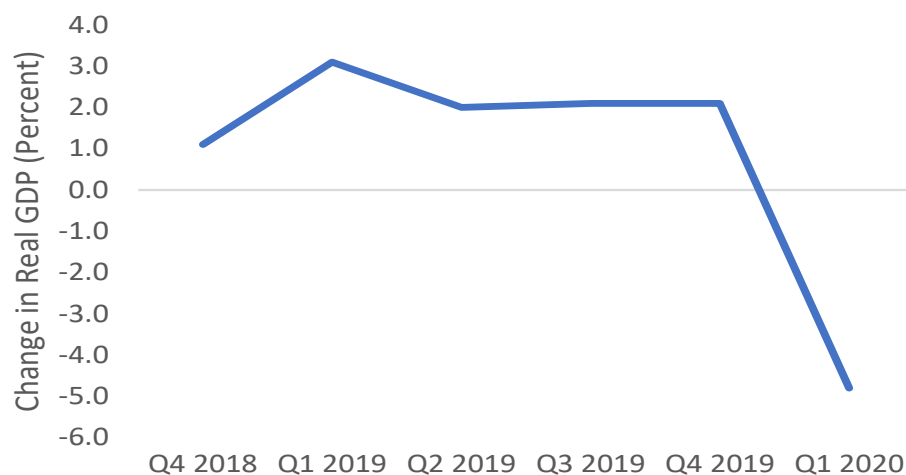
Figure 4 illustrates the level of real GDP (where “real” removes any inflationary component) for the United States, up through the first quarter of 2020, showing a sharp decline once the pandemic began. Figure 5 reports economic growth rates measured as the percent change in GDP. The negative GDP growth rate in the first quarter of 2020 fueled concerns about a recession at the time.

Figure 4. Real GDP (2018-2020)



Graph generated from data from Bureau of Economic Analysis available at Federal Reserve Bank of St. Louis.

Figure 5. GDP Growth Rates (2018-2020)



Graph generated from data from Bureau of Economic Analysis available at Federal Reserve Bank of St. Louis.

Real GDP decreased by 4.8% in the first quarter of 2020, but at the time, analysts suggested that the second quarter would provide a clearer picture of the impact of COVID-19 on the economy (Lundh, 2020). Some forecasts predicted a contraction as large as 43.7% (if looked at as an annual rate) in the second quarter, depending on what happened in June and to what extent states chose to resume economic activity (Lundh, 2020). As of mid-July, second quarter data has not been released. Instructors of AP Economics might choose to look at the Federal Reserve Bank of New York's Nowcast project where statistical models are used to forecast GDP. The Federal Reserve Bank of Atlanta runs a similar forecasting model called GDPNow. Interestingly, on July 16, the forecasts differed dramatically, with New York predicting a 15% decrease for the second quarter (annualized rate) and Atlanta predicting a 35.5% decrease (annualized rate).

Both websites discuss the underlying logic behind the forecasts.

#### Discussion Questions For Classrooms:

- In what ways can you tell that consumers in your community have/have not experienced a decrease in confidence? What observations have you made that lead you to your conclusion?
- If you have seen a decrease in consumer confidence, how has this led to a decrease in aggregate demand in your community? What kinds of businesses have been impacted?
- What business shutdowns or closures might have led to a decrease in aggregate supply in your community? (AP instructors might ask students to differentiate between decreases in supply and decreases in quantity supplied.)
- What have you observed about the pattern of prices? What prices appear to be



falling? What prices appear to be rising? Can you tie this into changes in supply and/or demand?

### C. Unemployment During COVID-19

Job loss has been a major discussion point in the news and on social media. Most students likely know someone who lost their job or had hours reduced as a result of the pandemic. Expanding on the discussion of the travel and restaurant industries, airlines across the globe are expected to lose \$113 billion in sales, jeopardizing 750,000 jobs for those in US airlines (Riley, 2020). American, Delta, and United Airlines have furloughed employees or have asked them to take unpaid leave (Sainato, 2020). Approximately 100 million positions (33%) and \$2.7 trillion in GDP are at risk if the crisis continues into the third quarter of 2020. Close to 419,000 jobs have been lost in the restaurant and bar industry. According to the American Hotel and Lodging Association, over four million people in the hotel industry alone (about 50%) could lose their jobs because of decreased travel (Wiley, 2020).

While there has been substantial job loss, there has also been an expansion in some industries. As consumers moved to online shopping, Amazon hired 100,000 more workers in April and needed 75,000 more in May (Palmer, 2020). The food delivery industry also experienced an expansion. Grubhub, the largest food delivery service provider, saw a 10% increase in revenue during the first quarter of 2020 (Digital Commerce 360, 2020). Domino's Pizza, one of the nation's largest pizza chains, needed to hire 10,000 more employees nationwide, to accommodate deliveries (Luna, 2020). Unfortunately, new employment opportunities do not offset the massive job loss experienced during the pandemic.

As shown in Table 1, the unemployment rate (U3) for February 2020 was 3.5% (at the very start of the pandemic in the US), a rate not seen since 1969. In April, the unemployment rate peaked at 14.7% and fell to 13.3% in May. By June it had fallen again to 11.1% but was still three times as high as the pre-pandemic level.

Table 1. Unemployment Rates February to June (2020)

	February	March	April	May	June
Unemployed	5.8 mil.	7.1 mil.	23.1 mil.	21.0 mil.	17.8 mil.
Labor Force	164.5 mil.	162.9 mil.	156.5 mil.	158.2 mil.	159.9 mil.
U3 Rate	3.5%	4.4%	14.7%	13.3%	11.1%
U6 Rate	7.0%	8.7%	22.8%	21.2%	18.0%
Monthly change in Unemployed	-.10 mil.	+1.3 mil.	+16.0 mil.	-2.1 mil.	-3.2 mil.

As also seen in Table 1, there are other measures of unemployment. While U3 captures those who are jobless but seeking employment, the U6 measure includes people who are "under-employed" and who are "discouraged." Under-employed workers include those in part-time positions who want full-time jobs and discouraged workers have given up on finding a job and have not searched for at least four weeks. Teachers of AP Economics might choose to explore the differences in unemployment measures in more detail. When comparing February and April, for example, it is seen that:

- The number of unemployed rose dramatically (an increase of 17.2M), but the labor force shrank slightly (decrease of 8M).
- The U6 rate was substantially higher than the U3 rate, suggesting significant under-employment and unemployed workers becoming discouraged workers
- The "headline" unemployment rate is generally an underestimate.



#### D. Types of Unemployment During COVID-19

The standard economics course reviews the different types of unemployment. Some unemployment is expected, even during the best of times, for reasons other than the business cycle. This is called the “natural rate of unemployment” and captures typical turnover in jobs and situations where workers’ skills do not match the available jobs. Economics teachers will recognize these as frictional unemployment and structural unemployment. For example, a waiter fired for poor customer service skills is frictionally unemployed because his skills did not match this job. A waiter permanently replaced by self-order kiosks is structurally unemployed. The Congressional Budget Office estimates the natural rate of unemployment (frictional plus structural unemployment) to be 4.4%, although unemployment has been below this since 2018 (Congressional Budget Office, 2020). Workers who have lost their jobs due to an economic crisis, like seen during the pandemic, are cyclically unemployed. This is unemployment exceeding the natural rate.

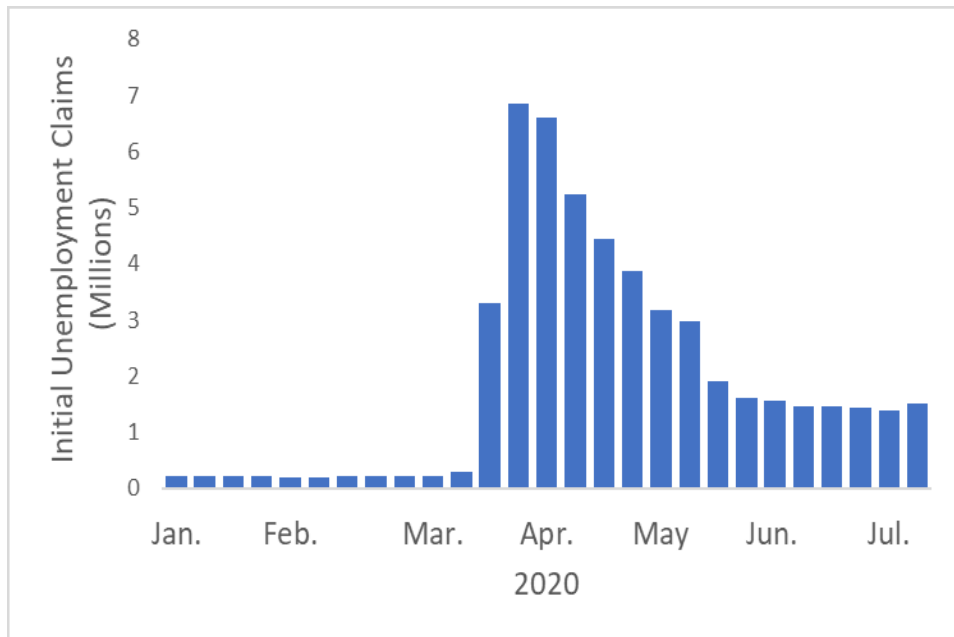
As states re-opened, there were new restrictions related to capacity, for example, restaurants only being able to seat half of their tables. This creates some interim structural unemployment until firms can operate at full capacity. However, in the process, firms are finding ways to operate with fewer workers. This could lead to innovations in the way they do business, some of which economize on labor. When the economy is completely re-opened, some workers might face permanent structural unemployment because industries might require fewer workers with their skill set. For example, Delta Airlines announced they will be consolidating and will emerge from the pandemic as a “smaller carrier” (Russell, 2020). Robots have been used in cleaning and food preparation jobs too dangerous for humans (Horwitz, 2020). The Gap added robots in their warehouses sooner than originally planned, due to COVID-19, with each replacing four workers (Dastin, 2020). Congress acted in an attempt to keep people in their jobs, as discussed below.

#### E. Unemployment Benefits and Incentives

Unemployment insurance is a perfect example of the interaction between the federal and state governments when it comes to implementing policy. In the US, unemployment insurance is paid out in the form of cash benefits weekly to workers who have become unemployed for reasons beyond their control. The details are determined by the state—who is eligible, how much will be paid, and for how long (AP Government teachers might want to discuss how the 10th Amendment delineates the interaction between the federal and state governments concerning to unemployment benefits). Workers pay a small tax that is deducted from their paychecks for this protection, even though they may never use it.

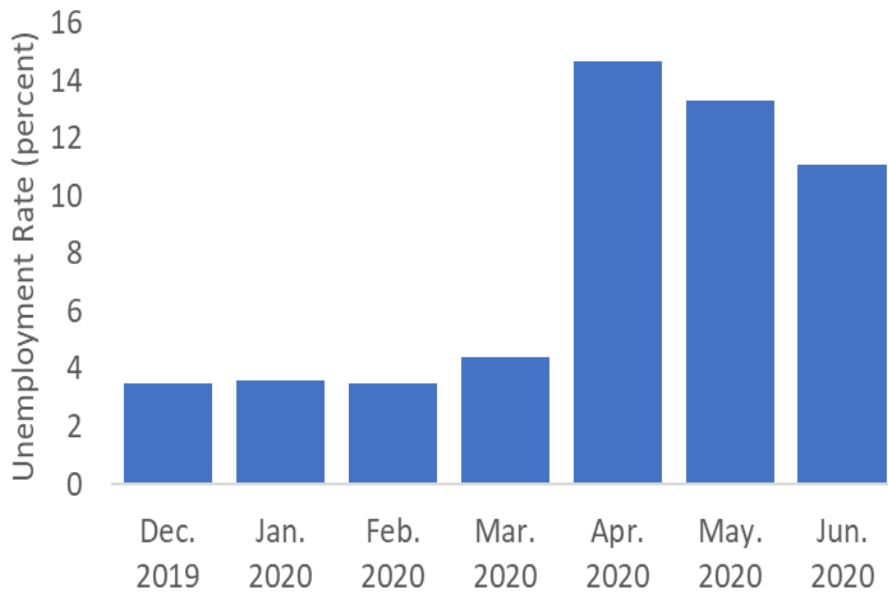
During the first two months of the shutdown, more than 30 million people filed for unemployment benefits (Unemployment Insurance Weekly Claims, 2020). Figure 6 reports weekly data on initial unemployment claims (filing for the first time). This information is valuable to both economists and government officials because it provides almost real-time data on the health of the economy, especially when GDP is reported quarterly. Teachers of AP Economics might remind students that the information is not directly comparable to the unemployment rate. First, Table 1 shows 8 million people leaving the labor force between February and April, so they are no longer counted as unemployed. Second, many of those who are unemployed are not normally eligible for unemployment insurance—self-employed, new graduates looking for their first job, and those fired for poor performance. Figure 7 shows the spike in unemployment rates in April.

Figure 6: New Unemployment Claims (2020)



Graph generated from data from Bureau of Economic Analysis available at Federal Reserve Bank of St. Louis.

Figure 7: U3 Unemployment Rate (2020)



Graph generated from data from Bureau of Economic Analysis available at Federal Reserve Bank of St. Louis.

As exists with other forms of insurance, the state and federal governments realize that the size of the benefits can create perverse incentives for workers and the unemployed. Car insurance companies understand that the benefit for a totaled 2012 Honda Civic must be no higher than the market value of that car. If payouts are too high, car owners might “accidentally” wreck their cars to replace them with better/newer models. Likewise, if unemployment benefits are too high, relative to wages, citizens might choose to be unemployed. To maintain incentives, the unemployment payouts must be significantly less than what workers would earn on the job.

Across the US, the average “normal” unemployment benefit is 38% of what a worker earned before they lost their job (Koeze, 2020), meaning benefits are only a fraction of the lost income. As a further incentive, most states limit benefits to 26 weeks and many require proof of an active job search. Both elements provide incentives to find new employment, but there is a tradeoff. While incentives are maintained, unemployed workers have less money in their pockets, which decreases their purchases of goods and services. When unemployment is widespread, like during the pandemic, this can lead to a large drop in economic activity. Furthermore, when recessionary times are expected to last for many months, telling workers to find a job in 26 weeks might be unrealistic.

Because the restrictions put in place during COVID-19 forced tens of millions of Americans out of work, Congress responded by increasing both the generosity and duration of benefits. The CARES Act increased benefits by an additional \$600 above their state benefits and extended those benefits to many who do not normally qualify, such as the self-employed (Gilbert, 2020). This dramatic increase in benefits strengthened the value of unemployment insurance as an instrument of stabilization. The average worker should have been able to continue spending on goods and services at the same level as before the shutdown. However, the incentive structure changed, giving an unemployed worker less incentive to find a job during the pandemic.

To illustrate incentives, Table 2 compares how much a low-income worker (25th percentile) and a high-income worker (75th percentile) would receive from a week of work versus a week of unemployment benefits. The “replacement rate” indicates the portion of weekly earnings that are replaced by unemployment benefits. A rate of more than 100 indicates that the worker earns more on unemployment than from their labor earnings. (Remember, on average, replacement rates are 38% in non-pandemic times.) Low-income workers in all four states shown have a strong incentive to stay on unemployment as long as possible. For this reason, employers with low income jobs to fill might have difficulty finding applicants. High-income workers in New York and Virginia face the traditional incentive of unemployment insurance, as they benefit from returning to work, whereas people in Ohio are essentially indifferent. Those in Montana, however, have a small financial incentive to remain unemployed. Virginia offers an interesting example, with a huge gap between the replacement rates of lower- and higher-income workers. Interestingly, Ohio attempted to combat work disincentives by providing citizens with a hotline they could use to report residents who were exploiting the generous benefits by not looking for new employment (Unemployment Help, 2020).

It should also be noted that workers pay a 7.65% social security tax on labor income (not reflected in the table). This tax does not apply to unemployment benefits, so this makes unemployment benefits even more attractive. Also, non-wage benefits such as healthcare are not factored in. (Healthcare might give someone a significant reason to stay employed even when unemployment benefits result in greater earnings.) Teachers might find it interesting to have students look up the data for their own states and compare it to others.

Table 2. Comparison of Wage Earnings Versus Unemployment Benefits (Per Week)

State	Low Income			High Income		
	<i>Wage</i>	<i>UE Benefits</i>	<i>Replacement Rate</i>	<i>Wage</i>	<i>UE Benefits</i>	<i>Replacement Rate</i>
Montana	\$382	\$790	207%	\$940	\$1071	114%
Ohio	\$466	\$825	177%	\$1094	\$1083	99%
New York	\$490	\$853	174%	\$1479	\$1109	75%
Virginia	\$438	\$828	189%	\$1479	\$976	66%

Table created using benefits calculator available at <https://bf.uchicago.edu/insight/blog/ui-calculator/>.

Congress can also extend the length of unemployment benefits if the pandemic-related downturn lasts for several more months. This happened during the Great Recession when Congress extended the time limit to as many as 99 weeks in some states (Reassessing the Effects, 2020).

#### Discussion Questions For Classrooms:

- What might be reasons that someone would give up looking for a job during the COVID-19 pandemic? Would this person be counted as unemployed?
- In your community, what kinds of firms have been laying off workers? Have any been hiring workers during this period?
- If Americans choose to travel less after the pandemic, what kind of workers might become structurally unemployed as a result?

## 4. Stimulating the Economy and Limiting Recessional Forces

The federal government and the Federal Reserve have instruments they can use to stimulate a sluggish economy. Congress can employ fiscal policy, involving government spending and tax strategies, whereas the Fed can use monetary policy to infuse money into the economy. The following sections offer discussions of fiscal and monetary policy seen during the pandemic.

### A. Using Fiscal Policy

During the pandemic, the federal government adopted many measures aimed at channeling funds to businesses and households. When these entities have additional funds, they can continue the activities that stimulate the economy—demanding goods and services, paying rent and mortgages, businesses paying workers, etc. The strategy limits the decrease in aggregate demand shown in Figure 3.

To promote fiscal policy, Congress enacted a sweeping \$2 trillion stimulus package called the CARES Act. The most visible part of the package authorized payments of up to \$1,200 for eligible earners. However, the checks were phased out by \$5 for every \$100 made above \$75,000 for single tax filers (and above \$150,000 for those filing joint returns). Qualifying families also received \$500 for each dependent (children or elderly parents), with the same

phase-out mentioned above. Despite statements on social media, the funds did not have to be repaid and did not increase future taxes owed by recipients. In this sense, it was “free money” that created no obligation for recipients (Courtney, 2020).

The expanded unemployment benefits discussed above (\$600 per week on top of traditional benefits) were also part of the CARES Act. The duration of benefits also increased from 26 to 39 weeks. As mentioned above, someone is not considered to be unemployed unless they are actively looking for work. However, eligibility guidelines became more flexible. A parent with permission to work from home, but who needed to care for young children (due to school closures) could be eligible for coverage for a limited period. Those who were self-employed and those seeking part-time work, populations not normally eligible, could also potentially receive benefits (Unemployment Insurance Relief During COVID-19 Outbreak, 2020).

Unemployment benefits are considered mandatory spending and are embedded in the government’s annual budget. This way, they serve as an automatic stabilizer for the economy, and funds are quickly put in the hands of those who lose their jobs. However, changes in these benefits require action from the Legislative branch, which involves time delays. The CARES Act originated in the House Ways and Means Committee on January 24, 2019, as a health insurance bill. After debate, the bill was approved by the House in July 2019 and was sent to the Senate for further debate. The bill sat in committee for several months, and when the pandemic began, the bill was amended into its current form. Upon passage by the Senate on March 25, 2020, the bill went through the “difference resolving process” to ensure the House and Senate agreed on the language. Finally, it was signed into law by the President on March 27, 2020. The timeframe for passage of the CARES Act illustrates that legislative action can take time. Therefore, unemployment benefits are built into the budgetary process.

Another element of fiscal policy action was the Payroll Protection Program (PPP), a loan program from the US Small Business Administration (SBA) to help businesses keep employees on the payroll. The loans are forgiven if a business keeps all workers on the payroll for eight weeks, where use of the money is restricted to paying wages, utilities, and rent/mortgage interest. However, 75% of the funds must be used for payroll. By May 23, 2020, over 4.4 million loans were approved totaling more than \$511B (Paycheck Protection Program, 2020).

In addition to PPP loans, some industries received bailout funds. To protect the airlines and keep workers employed, the CARES Act channeled \$25 billion into the industry. Airlines agreed to keep at least 90% of their workers in jobs through September. While 70% of the funds were offered as a grant, airlines must repay 30% as a low-interest loan (Bogaisky, 2020). The Act also allocated \$12.5 billion to colleges and universities. One requirement was that half of the money had to go directly to students. Responding to public outrage, some institutions including Harvard and Princeton chose not to accept funds (Andrzejewski, 2020). Money was also allocated for K-12 public education.

Some legislative branch actions might not meet the literal definition of fiscal policy, as they do not involve government spending or tax strategies, but they still served to keep money in households during the pandemic. The Families First Coronavirus Response Act (2020), extended by the CARES Act, required that some employers offer workers paid sick leave or expanded family and medical leave. This included up to 80 hours of paid sick leave at the same rate of pay, when workers were quarantined or experiencing COVID-19 symptoms. In other cases, employers were required to offer leave at reduced pay, for example, for those caring for a family member with the virus or if providing childcare during school closings. In addition, the CARES Act offered student debt relief, with no required payments and no interest accruing on federal loans between April and September (Smith, 2020). Households with a mortgage through the Federal Housing Finance Agency (Freddie Mac, Fannie Mae) that were able to prove financial

hardship could pause their monthly payments with no late fees. Foreclosures and similar legal proceedings were temporarily suspended (Coronavirus Assistance Information, 2020).

## B. Connections to Deficits and Debt

While some states have a balanced budget requirement, the federal government does not, allowing deficits to continue year after year. At the end of February, the national debt stood at \$23.4 trillion, approximately the same size as GDP. By mid-July, it was \$26.5 trillion, up 13.2% (Treasury Direct, 2020). Large deficits, and the resulting increases in the debt, have typically come during wars and recessions.

The expansion of the federal deficit and the national debt is inevitable during the pandemic. Millions of Americans have filed unemployment claims, businesses have temporarily or permanently closed, and consumer spending is down. This acts to decrease the tax revenue that the government collects. Also, Congress has approved massive expenditures—the \$2 trillion CARES Act, the \$134 billion Families First Act, and the \$484 billion Coronavirus relief package (Egan, 2020). The federal deficit was on track to be approximately \$1 trillion without Coronavirus spending. According to the Treasury Department, approximately \$3 trillion will be borrowed during the second quarter of 2020 (Egan, 2020). As of July 14th, the public debt stood at more than \$20.5 trillion and total debt was almost \$26.5 trillion (Treasury Direct, 2020). AP Government teachers may want to discuss how the growth of debt might be a campaign issue in elections.

### Discussion Questions For Classrooms:

- Stimulus checks were not just sent to families who experienced job loss. Many Americans who did not experience job loss received stimulus funds. What might have been the government's logic behind this approach?
- If there is a split Congress, how might this interfere with quick passage of additional stimulus measures?
- What would have happened if the President had vetoed the CARES Act? Could it still be passed?
- How do debt and yearly deficits affect everyday lives of Americans? Should young people be concerned about growing debt?
- How do the Executive and Legislative branches work together to both pass and provide oversight for the allocation of stimulus funds?

## C. Monetary Policy During the Pandemic

Monetary policy is used to stimulate the economy. First, the Fed's actions result in more funds for banks, and therefore, more loans. In mid-March, the Fed announced that they were cutting the Federal Funds Rate (FFR) rate target to near zero in response to the pandemic (Smialek, 2020), a clear signal that the Fed intended to stimulate the macroeconomy.

Interestingly, the Fed is innovating beyond its traditional instruments of monetary policy. Small businesses have access to loans (the PPP) as discussed in the fiscal policy section. But this leaves many medium-sized businesses without enough access to credit. To help these companies survive the pandemic, the Fed is taking the unprecedented step of lending directly to



previously healthy firms through its Main Street Lending Program. Students should appreciate that this is a major departure from the Fed's traditional approach of channeling money through banks. Similarly, the Fed is lending directly to states, counties, and cities through the Municipal Liquidity Facility. Also, to encourage banks to lend directly to consumers, the Term Asset-Backed Securities Loan Facility will let banks use new consumer and small-business loans as collateral when they borrow from the Fed (Before the Committee on Banking, Housing, and Urban Affairs, 2020).

#### Discussion Questions For Classrooms:

- What might cause banks to be fearful of lending during the pandemic?
- If the Fed wanted to slow down an economy that is growing too fast, would they want to buy or sell bonds? Explain how this would impact the economy.
- Why does it make sense that the Fed is not a government agency? How might this shield it from politics?
- Do Congress and the President have any vehicles for influencing the Fed if they are not a government entity?

### 5. Extensions for Teachers

As this paper was finalized in mid-July, 2020, the COVID-19 pandemic was still ongoing, as was the recession. New economic data will continue to be released. The following offers suggestions and resources, allowing teachers to expand on the discussion. Students can:

- Review the most recent reports about consumer confidence and the Consumer Confidence Index, which is available at <https://conference-board.org/data/consumerconfidence.cfm>.
- Collect monthly unemployment data provided by the Bureau of Labor Statistics (BLS) at [www.bls.gov](http://www.bls.gov) (the box labeled "Latest Numbers" on the right side of the page).
- Look at state-level unemployment data at [www.bls.gov/lau/](http://www.bls.gov/lau/) to see if the effects of the pandemic are similar across geographic locations.
- Track weekly unemployment claims (released every Thursday) at <https://www.dol.gov/ui/data.pdf>. During the last five years of steady economic growth the weekly claims were about 250,000 per week. Students can use this benchmark to determine if the economic situation is beginning to improve (or at least not getting worse).
- Collect the most recent data for GDP growth from the U.S. Bureau of Economic Analysis (BEA) at [www.bea.gov](http://www.bea.gov) (at the top of "Principal Federal Economic Indicators").
- Review the NBER decision and reasons for determining a recession. Note the official start date for the recession, available at <https://www.nber.org/cycles/cyclesmain.html>.
- Explore the forecasts of economic growth offered by the Federal Reserve Banks of New York (Nowcast) and Atlanta (GDPNow) available at <https://www.newyorkfed.org/research/policy/nowcast> and <https://www.frbatlanta.org/cqer/research/gdpnow>.
- Discuss how recessions can affect the outcome of elections. Is it detrimental to a presidential (or congressional) candidate if he is running for re-election during a

recession?

- Review bills related to a second round of stimulus payments (if exists) to see the type of aid given, the incentive structure created, and how the programs might have changed from the first bill.
- Discuss whether party ideologies prevented or delayed a second round of stimulus checks.
- Determine if there are changes to unemployment benefits (assuming a continued pandemic). Was the same incentive structure maintained?
- Compare national debt levels for 2020 versus previous years, as reported by the Treasury at <https://www.treasurydirect.gov/govt/reports/pd/debttothepenny.htm>. Discuss how Presidential and Congressional candidates are talking about the debt.
- Look up the size of the national debt the year your students were born: [https://www.treasurydirect.gov/govt/reports/pd/histdebt/histdebt\\_histo5.htm](https://www.treasurydirect.gov/govt/reports/pd/histdebt/histdebt_histo5.htm). Discuss if the debt has grown more during wars or recessions.
- Play 'Chair the Fed' (2020) game, where students choose the monetary policy, available at <https://www.sffed-education.org/chairthefed/> from the Federal Reserve Bank of San Francisco.

Teachers should also be aware that the Federal Reserve banks offer a great deal of free educational materials, for all ages, that are free to access. Materials can be found at <https://www.federalreserveeducation.org> where content ranges from cartoons to lectures from the Chairman.

## Conclusion

The COVID-19 pandemic and the resulting economic crisis dramatically altered daily life for Americans of all ages. Schools closed and moved to an online environment. All but essential businesses closed. Millions of Americans lost their jobs or were furloughed during the pandemic. Most households were impacted in some way by the economic downturn. Stimulus packages were employed to limit the recessionary effects, but the high price tag of such activity impacts the national debt. Given the dramatic fall in economic output and double-digit unemployment, a recession was officially announced in early June, with the start dating back to February.

The pandemic has provided high school teachers with a real-life example that illustrates topics in a standard economics course, one that will prove useful even years after its conclusion. It also allows teachers of civics (many of whom are required to infuse economics) to make meaningful connections. This paper is written in a way that is appropriate for the high school classroom. Topics in the national content standards for economics and civics are explained and connected to the pandemic—economic indicators, fiscal and monetary policy, and deficits and debts. Teachers are provided data, discussion questions, and useful websites where more information can be accessed. Since economic statistics and discussions of fiscal and monetary policy are time-sensitive, extension activities are offered for instructors who might want to guide students through data collection and further exploration of these topics.

## References

- 2018-19 Salaries of Virginia State Employees. 2019. Retrieved from <https://data.richmond.com/salaries/2018/state>.
- Amazon and Grubhub Fuel the Need for More Skilled Delivery Drivers to Ward Off Complaints. 2020. *DigitalCommerce360*. Retrieved from <https://www.digitalcommerce360.com/2018/06/14/amazon-grubhub-boom-fuels-cold-dinner-woes-and-hunt-for-drivers/>
- Andrzejewski, A. 2020. America's colleges and universities awarded \$12.5 billion in coronavirus bailout - Who can get it and how much. *Forbes*. Retrieved from <https://www.forbes.com/sites/adamandrzejewski/2020/05/05/americas-colleges--universities-awarded-125-billion-in-coronavirus-bailout--who-can-get-it-and-how-much/#753c91693181>
- Archived News Releases, Consumer Price Index. 2020. *US Bureau of Labor Statistics*. Retrieved from <https://www.bls.gov/bls/news-release/cpi.htm#2020>
- Before the Committee on Banking, Housing, and Urban Affairs. 2020. *Board of Governors of the Federal Reserve System*, US Senate, Washington, D.C. Retrieved from <https://www.federalreserve.gov/newsevents/testimony/powell20200519a.htm>
- Bogaisky, J. 2020. Airlines reach deal with Treasury on aid to cover workers' salaries. *Forbes*. Retrieved from <https://www.forbes.com/sites/jeremybogaisky/2020/04/14/airlines-reach-deal-with-treasury-on--aid-to-cover-workers-salaries/#6617943e23a3>
- Brown, B. 2020. Las Vegas reeling from coronavirus' economic impact: Millions of tourists to 'virtually zero'. *Fox News*. Retrieved from <https://www.foxnews.com/travel/las-vegas-coronavirus-tourists-zero>
- Bureau of Economic Analysis: US Department of Commerce. 2020. Retrieved from <https://www.bea.gov/>
- Chair the Fed: A Monetary Policy Game. 2020. Retrieved from <https://www.sffed-education.org/chairthefed/>
- Congressional Budget Office. 2020. *The Budget and Economic Outlook: 2020 to 2030*. Retrieved from <https://www.cbo.gov/system/files/2020-01/56020-CBO-Outlook.pdf>.
- Consumer Confidence Index. *The Conference Board*. 2020. Retrieved from <https://www.conference-board.org/data/consumerconfidence.cfm>
- Coronavirus Assistance Information. 2020. *Federal Housing Finance Agency*. Retrieved from <https://www.fhfa.gov/Homeownersbuyer/MortgageAssistance/Pages/Coronavirus-Assistance-Information.aspx>
- Courtney, J. 2020. H.R.748 - 116th Congress (2019-2020): CARES Act. March 27. Retrieved from [https://www.congress.gov/bill/116th-congress/house-bill/748?q={\"search\": \"families+first+coronavirus+cares+act\"}&r=4&s=1](https://www.congress.gov/bill/116th-congress/house-bill/748?q={\)
- Dastin, J. 2020. Gap rushes in more robots to warehouses to solve virus disruption. *Reuters*, May 21. Retrieved from <https://www.reuters.com/article/us-health-coronavirus-gap-automation-foc/gap-rushes-in-more-robots-to-warehouses-to-solve-virus-disruption-idUSKBN22X14Y>

Egan, M. 2020. The US is becoming the king of debt. It's a necessary risk. *CNN Business*, May 6. Retrieved from <https://www.cnn.com/2020/05/06/business/us-debt-deficit-coronavirus/index.html>

Families First Coronavirus Response Act. 2020. *Office of Unemployment Compensation*. Retrieved from <https://www.uc.pa.gov/COVID-19/Pages/FFCRA.aspx>

Federal Reserve Economic Data: FRED: St. Louis Fed. (n.d.). Retrieved from <https://fred.stlouisfed.org/>

Gilbert, G. 2020. 4 Things to Know About Unemployment Benefits Under the CARES Act. *US Department of Labor Blog*. Retrieved from <https://blog.dol.gov/2020/05/11/4-things-to-know-about-unemployment-benefits-under-the-cares-act>

Grubhub Reports First Quarter 2020 Results. 2020. Retrieved from <https://investors.grubhub.com/investors/press-releases/press-release-details/2020/Grubhub-Reports-First-Quarter-2020-Results/default.aspx>

Guzior, B. 2020. Restaurant industry losses could top \$240B in 2020. *Bizwomen*. Retrieved from <https://www.bizjournals.com/washington/bizwomen/news/latest-news/2020/04/restaurant-industry-losses-could-top-240b-in-2020.html>

High School Graduation Requirements. 2019. *Education Commission of the States*. Retrieved from <https://c0arw235.caspio.com/dp/b7f930000e16e10a822c47b3baa2>

Horwitz, J. 2020. Robots Rising: Coronavirus drives up demand for non-human labour in China. Retrieved from <https://www.reuters.com/article/health-coronavirus-china-robots/robots-rising-coronavirus-drives-up-demand-for-non-human-labour-in-china-idUSL4N2AY1SE>

Koeze, E. 2020. The \$600 unemployment booster shot, state by state. *The New York Times*. Retrieved from <https://www.nytimes.com/interactive/2020/04/23/business/economy/unemployment-benefits-stimulus-coronavirus.html>

Luna, N. 2020. Domino's Pizza hiring 10,000 workers to meet delivery demand during coronavirus crisis. Retrieved from <https://www.nrn.com/quick-service/domino-s-pizza-hiring-10000-workers-meet-delivery-demand-during-coronavirus-crisis>

Lundh, E. 2020. US GDP contracts by 4.8 percent in Q1, but the real damage won't be seen until Q2. *The Conference Board*. Retrieved from <https://conference-board.org/press/gdp-q1-april-2020>

News Release: Unemployment Insurance Weekly Claims. 2020. Retrieved from <https://www.dol.gov/ui/data.pdf>

Palmer, A. 2020. Amazon to hire 75,000 more workers as demand rises due to coronavirus. *CNBC*. Retrieved from <https://www.cnbc.com/2020/04/13/amazon-hiring-75000-more-workers-as-demand-rises-due-to-coronavirus.html>

Paycheck Protection Program: An SBA loan that helps businesses keep their workforce employed during the Coronavirus (COVID-19) crisis. 2020. *US Small Business Administration*. Retrieved from <https://www.sba.gov/funding-programs/loans/coronavirus-relief-options/paycheck-protection-program>

Reassessing the Effects of Extending Unemployment Insurance Benefits. 2020. *Federal Reserve Bank of Cleveland*. Retrieved from <https://www.clevelandfed.org/en/newsroom-and-events/publications/economic-commentary/2014-economic-commentaries/ec-201423-reassessing-the-effects-of-extending-unemployment-insurance-benefits.aspx>

Reed, D. 2019. Booming global travel and tourism is driving economies and job growth despite US-China trade strains. *Forbes*, March 8. Retrieved from <https://www.forbes.com/sites/danielreed/2019/03/08/booming-global-travel-tourism-is-driving-economies-and-job-growth-despite-u-s-china-trade-strains/#9d0f41f2b85a>

Riley, C. 2020. 'This is a crisis.' Airlines face \$113 billion hit from the coronavirus. *CNN Business*. Retrieved from <https://www.cnn.com/2020/03/05/business/airlines-coronavirus-iata-travel/index.html>

Russell, E. 2020. Delta to emerge a much 'smaller' airline from coronavirus crisis. *The Points Guy*. Retrieved from <https://thepointsguy.com/news/delta-air-lines-smaller-coronavirus/>

Sainato, M. 2020. 'Existential crisis': airline workers fear layoffs amid coronavirus pandemic. *The Guardian*. Retrieved from <https://www.theguardian.com/business/2020/mar/23/existential-crisis-airline-workers-fear-layoffs-amid-coronavirus-pandemic>

Schaefer, A. 2020. Coronavirus impact drove Hawaii tourism down over 50% in March, erasing earlier 2020 gains. *Star Advertiser*. Retrieved from <https://www.staradvertiser.com/2020/04/30/breaking-news/coronavirus-impact-drove-hawaii-tourism-down-over-50-in-march-erasing-earlier-2020-gains/>

Severson, K. 2020. Independent restaurants brace for the unknown. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/03/20/dining/local-restaurants-coronavirus.html>

Smialek, J, & Irwin, N. 2020. Fed slashes rates to near-zero and unveils sweeping program to aid economy. *The New York Times*. Retrieved from <https://www.nytimes.com/2020/03/15/business/economy/federal-reserve-coronavirus.html>

Smith, K. 2020. Your guide to the federal stimulus package. *Forbes*. Retrieved from <https://www.forbes.com/sites/advisor/2020/03/27/your-guide-to-the-federal-stimulus-package/#742f36f62711>

Survey of the States by CEE. 2020. Retrieved from <https://www.councilforeconed.org/survey-of-the-states-2020/>

The National Bureau of Economic Research. 2020. Retrieved from [nber.org/cycles/cyclesmain.html](http://nber.org/cycles/cyclesmain.html)

Treasury Direct. 2020. *The debt to the penny and who holds it*. Retrieved from [https://www.treasurydirect.gov/govt/reports/pd/pd\\_debttothepenny.htm](https://www.treasurydirect.gov/govt/reports/pd/pd_debttothepenny.htm)

Unemployment Help. 2020. Ohio: *Department of job and family services*. Retrieved from <https://unemploymenthelp.ohio.gov/employer/>

US Bureau of Labor Statistics. (2020, May 28). Retrieved from <https://www.bls.gov/>

US Bureau of Labor Statistics. 2020. How the government measures unemployment. Retrieved from [https://www.bls.gov/cps/cps\\_htgm.htm#where](https://www.bls.gov/cps/cps_htgm.htm#where)

US Department of Labor. 2020. Unemployment Insurance Relief During COVID-19 Outbreak. Retrieved from <https://www.dol.gov/coronavirus/unemployment-insurance>

U.S. Department of Labor. 2020. Unemployment Insurance Weekly Claims. Retrieved from <https://www.dol.gov/sites/dolgov/files/OPA/newsreleases/ui-claims/20200976.pdf>

Voluntary National Content Standards in Economics by CEE. 2020. Retrieved from <https://www.councilforeconed.org/resource/voluntary-national-content-standards-in-economics/#sthash.m0TGWdc3.dpbs>

Wiley, M. 2020. 4 million people who work in the US hotel industry could lose their jobs in the coming weeks due to the coronavirus. *Business Insider*. Retrieved from <https://www.businessinsider.com/hotel-industry-could-lose-4-million-jobs-coronavirus-covid19-unemployment-2020-3>