US PRESIDENTIAL ECONOMIC ANALYSIS

BATTLEGROUND STATES 2020

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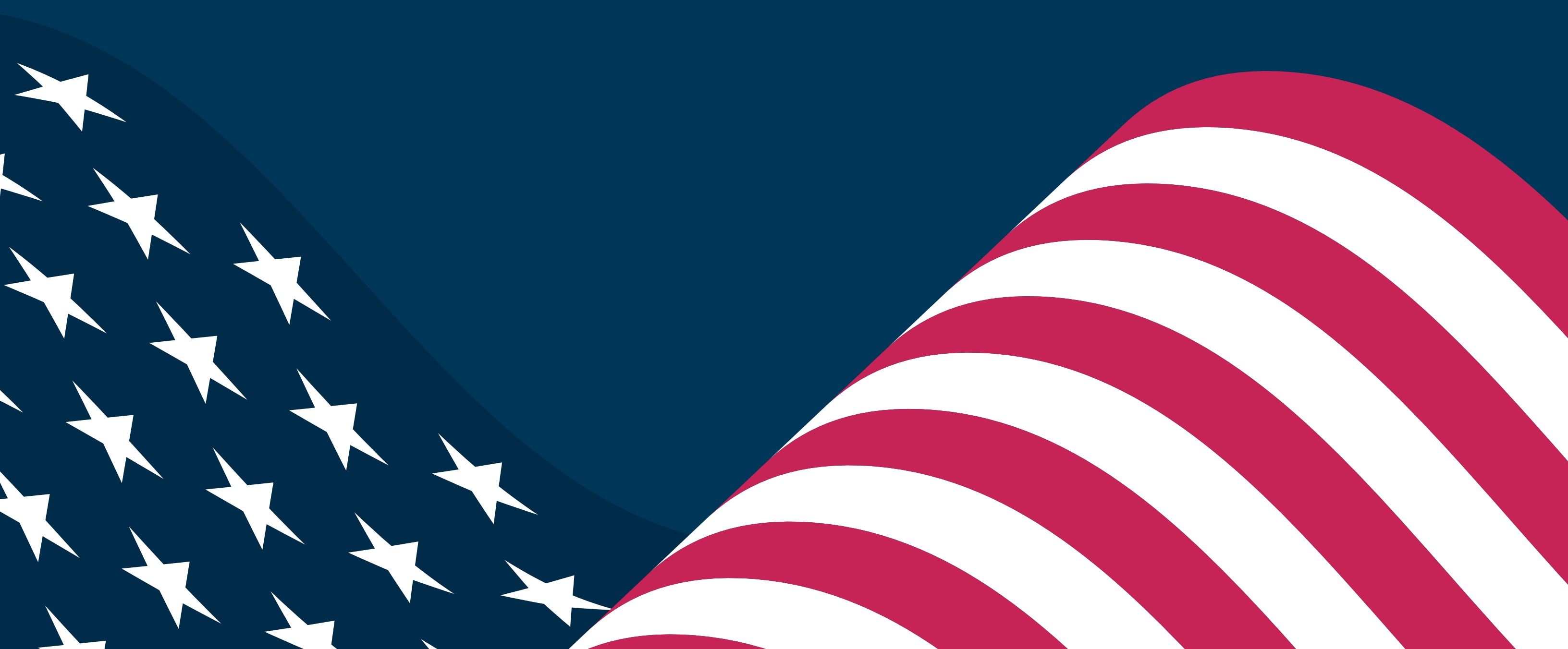

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Introduction and Methodology

OVERVIEW OF STUDY

The 2020 United States presidential election is taking place amidst an unprecedented economic landscape. Following the outbreak of the novel Coronavirus (COVID-19), the U.S. now finds itself mired in the challenge of balancing public health measures alongside supporting the livelihoods of its citizens.

This report analyzes the 2020 presidential election policy platforms of President Donald Trump, the incumbent Republican candidate, and Former Vice President Joe Biden, the Democratic nominee, as to the corresponding impacts of those platforms on voters in five swing states—Florida, Michigan, Ohio, Pennsylvania, and Wisconsin.

Like prior presidential elections, each candidate offers different economic policies. Under the Obama-Biden Administration, Vice President Biden, by his own admission, was trusted by former President Obama to lead the economic policy agenda of the Administration. On the Republican side, President Trump led the economic policy agenda during the first three years of the Trump-Pence Administration. The President is likely to continue doing so if he wins a second term. Therefore, in addition to each candidate's economic agenda, there is a record to review economic policy impacts on economic growth, employment, and other indicators.

The main difference between the two economic policy plans is centered on the use of tax and federal policies to implement public sector spending decisions.

The Biden-Harris economic plan raises individual, capital gains and corporate taxes to spend on targeted public priorities of the Administration, such as "Medicare for All," strengthening the ACA and sharply increasing the role of the federal government in education and "green" infrastructure, among others.

The Trump-Pence economic policy agenda maintains the 2017 tax overhaul and proposes a payroll tax decrease, relying primarily on a private-sector and individual-led economic growth agenda.

Thus, there is a clear difference between the two candidates in the economic policy area, impacting economic performance, employment levels and the allocation of scarce resources between the public and private sectors starting in 2021.

Subsequent sections of this report provide estimates of economic performance comparing the two candidates' records based on the diverging economic plans and prior economic policy implementation. The estimates utilize the IMPLAN (Input/Output) methodology for the U.S. and five states based on their population and employment levels to portion the estimated nationwide impacts.

Table 1 summarizes the principle differences in economic policies expected from either a Biden or Trump Administration starting in 2021. The matrix also highlights the tendency in economic activity and employment levels due to these policies as indicated by the arrows.

Table 1: Expected Principal Economic Policies Under Biden-Harris & Trump-Pence Administrations

BIDEN-HARRIS†	TENDENCY IN ECONOMIC ACTIVITY IN U.S. & IN TOP POPULATION STATES	LIKELY IMPACT (S)
Raises taxes on individual incomes, corporations and capital gains. Repeals most of 2017 tax overhaul.	↓↓	Slow growth in GDP and employment.
An estimated increase of $2 trillion over time to modernize infrastructure. Emphasis on "green" projects.	→	Uncertain, depends on policies to finance the increase.
Public option for Medicare, lower eligibility for Medicare for All to down to 60-year old from the current level. Strengthen Affordable Care Act (ACA).	↓	Decrease in private insurance plans. Growing fiscal deficit.
Favors trade agreements in collaboration with allies.*	↑	Positive for growth if reduction in trade barriers. Improving in supply chains.
Confronts China on IPR violations in collaboration with allies, no to tariff increases.	→	Uncertain impacts, depending on outcomes.
TRUMP-PENCE††	**TENDENCY IN ECONOMIC ACTIVITY IN U.S. & IN TOP POPULATION STATES**	**LIKELY IMPACT (S)**
Maintain lower individual and corporate taxes contained in 2017 tax overhaul. Propose decrease in payroll tax.	↑↑	Incentive to save, spend and invest. Growing employment levels.
Investments of $1 trillion plus to modernize infrastructure.	→	Uncertain, depends on financing method.
Spending cuts to Medicare, Medicaid to free resources for other priorities and lower fiscal deficit.	↑	Allows private-sector insurance companies to innovate healthcare policies.
America "First" on trade policy, use of tariffs to implement policy.	↓	Negative impact on consumers and resource allocation.
Confronts China through tariff increases.	↓	Uncertain impacts in solving Intellectual Property Rights (IPR) issues, but negative on economic growth.

†Joe Biden's Economic Plan - ††As presented in 2021 Budget Proposal.
Key: ↑ = Up ↑↑ = strongly up ↓ = down ↓↓ = strongly down → = uncertain

The fiscal and economic implications of six key policy areas will be considered, utilizing cost estimates provided by the Biden campaign, as well as cost scoring models by third-party institutions for relevant proposals, which often provide a more in-depth breakdown than estimates published by the Biden campaign. Given that Trump has not put forward any plan that alters the current political and economic landscape, Biden's proposals for the six key policy areas are evaluated against policies implemented by Trump over the course of his four-year term, where possible.

It should be noted that cost estimates presented herein are calculated based off data that do not include the effects of the COVID-19 pandemic. This is because, despite ongoing improvements in data collection methods and practices, the release of economic activity data are lagged. As a result, market structure and qualitative analyses are included to provide readers with the tools to decipher what the impact of COVID-19 could mean for these cost estimates and, more importantly, what the impact of the Democratic and Republican presidential policy proposals could mean for the economy in light of COVID-19.

The policy platform put forth by Biden has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[1] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[2] For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 2).

Table 2: Cost of Biden Proposals

PROPOSAL	TRILLIONS OF US$, 10-YEAR PERIOD	
	PLAN A (INCL. MEDICARE FOR MORE)	PLAN B (INCL. MEDICARE FOR ALL)
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[1]	$3.65	$3.65
Total	**$5.95**	**$36.4**

Biden has claimed that he will pay for his proposals through his tax plan, which is estimated by the Tax Foundation to increase revenues by $3.8 trillion on a static basis by increasing the tax burden of corporations and individuals earning more than $400,000 by largely scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion, and would result in an increase in the federal tax burden borne by the five swing states according to the breakdown presented in Table 3.

However, Trump's recent trade war with China has also cost taxpayers considerably. According to a working paper released in early 2019 by then Chief World Bank Economist Pinelopi Goldberg, the trade war has weighed heavily on U.S. consumers, who faced "significantly higher prices as a result of the tariffs," and U.S. producers, who suffered through lost foreign sales as demand for the goods subjected to tariffs declined.[2] Thus, rather than favor U.S. firms, Trump's trade policy has placed most at a disadvantage as the costs of imported inputs has increased while competitors have not faced the same cost increases. As such, exporters from other developing countries have been able to substitute lost sales from the U.S. and China in each other's markets, thereby threatening the complete removal of U.S. producers and suppliers from these global value chains.

Reinvigorating the U.S. economy should be the top priority for federal and state leaders, and U.S. voters must decide which presidential platform will serve to fulfill this goal as the U.S. economy begins its nascent recovery from COVID-19. Pro-growth policies that remove government intervention, facilitate free trade, and ensure sound fiscal policy will serve to promote the innovation and growth necessary to counter the ramifications of the pandemic, and will prove crucial to determining whether the U.S. will emerge from this crisis stronger.

Table 3: Swing State Tax Burden of Biden Proposals

		IMPACT PER YEAR (US$)				
		FLORIDA	MICHIGAN	OHIO	PENNSYLVANIA	WISCONSIN
Plan A (Incl. Medicare for More)	Cost per taxpayer	$1,600	$1,421	$2,100	$1,867	$1,560
	Cost per family of 4	$6,401	$5,684	$8,400	$7,469	$6,240
	Net budget impact (billions)	$0.0	$(1.7)	$0.0	$(0.3)	$0.0
Plan A (Incl. Medicare for All*)	Cost per taxpayer	$9,389	$8,142	$12,299	$10,605	$9,020
	Cost per family of 4	$37,556	$32,568	$49,197	$42,419	$36,078
	Net budget impact (billions)	$7.9	$3.2	$5.8	$9.1	$2.8

*States will presumably continue paying their share of Medicaid costs for long-term care

Methodology of Analyses

FISCAL IMPLICATIONS

The United States Internal Revenue Service (IRS) publishes data annually on the characteristics of tax returns filed in each state and aggregated for the United States. These data, the Statistics of Income (SOI), demonstrate the breakdown in adjusted gross income, taxable income, number of returns, and types of deductions and credits claimed. In order to determine the increase in tax burden as a result of Biden's presidential platform, the share of total U.S. federal income taxes paid by each state is averaged over the 2016-19 tax collection years and applied to the expected increase in spending.

The net budget impact for Plan A is estimated to include the impact of Biden's tax plan and no budgetary impact for Medicare for More. The net budget impact for Plan B is estimated as the net between the impact of Biden's tax plan and the impact of reduced state spending under Medicare for All.

The state-level budget impact of Biden's tax plan is estimated using 2019 revenue impact data as a result of TCJA. The data for Michigan and Pennsylvania have been projected and published by each state's Department of Treasury, and can be accessed through the Tax Foundation's catalogue of state tax conformity reports.[3] The impacts estimated for Medicare for All utilize 2018 Medicaid data published by the Kaiser Family Foundation and net out long-term care spending, which is expected to remain under the states' purview.

ECONOMIC IMPLICATIONS

The potential economic impacts under Biden-Harris or Trump-Pence Administrations were estimated utilizing the widely accepted IMPLAN *Input/Output (I/O)* methodology. The IMPLAN Group, LLC. (IMPLAN) provides the software and basic data needed to formulate the economic multiplier model developed for this study. IMPLAN has been providing economic multiplier models for regional economic impact analysis since 1985.[4] Models developed using IMPLAN software have been widely used by the private sector and economists, as well as by federal, state and local government agencies to measure the impacts of specific economic policies and projects. In addition to the ***direct*** **impacts**, ***indirect*** and ***induced*** economic impacts were calculated for the U.S. and specifically for the States of Florida, Michigan, Ohio, Pennsylvania and Wisconsin economies.

United States

CURRENT ECONOMIC CLIMATE

Over the course of a few months, the COVID-19 pandemic has transformed the global economy, completely halting activity and progress in the U.S. as states and cities mandated full quarantine lockdowns to slow the virus' spread. The result has pushed the United States into its most severe economic recession since the Great Depression, forcing thousands of businesses to close and millions of workers to be laid off or furloughed.[5]

Prior to the pandemic, private employment had risen for 120 straight months and the unemployment rate had been hovering around 3.5 percent, its lowest level since 1969. Labor force participation and unemployment for the U.S. population, including for people of color (POC), had reached pre-Great Recession levels, and were improving. Stock market indices were at record highs.

In contrast, in the four weeks following the Coronavirus stock market crash in mid-March, 25 million Americans filed for unemployment benefits, quickly eclipsing the 22 million jobs that were created over the course of the decade since the Great Recession.[6] As a result, the unemployment rate surged to 14.7 percent in April 2020, the highest level since the Great Depression.[7]

In an effort to cushion the U.S. against the wave of job losses and drop off in consumer and business spending, Congress passed the largest relief bill in history, the Coronavirus Aid, Relief, and Economic Security (CARES) Act, in March 2020, which authorized $2 trillion in aid to households and businesses.[8] Combined with the additional emergency legislation measures that Congress has passed to increase spending and introduce further tax breaks, the U.S. government has spent a total of $3.3 trillion as of August 2020 to combat the economic damage created by COVID-19.[9]

In conjunction with fiscal relief efforts, the Federal Reserve (the Fed) has also injected trillions of dollars into the financial system following its unprecedented decision in March to purchase an unlimited amount of Treasuries and mortgage-backed securities.[10] The move has also been combined with $2.3 trillion in lending support to a wide range of borrowers; a relaxing of regulatory capital requirements; and a 1.5 percentage point reduction in the federal funds rate, bringing interest rates close to zero.[11]

While fiscal and monetary efforts have helped to soften the severe dip in activity witnessed during the quarantine lockdown, the gradual reopening of state economies in June has helped to support a modest improvement in indicators. After plunging 32.9 percent in the second quarter of 2020, U.S. GDP is expected to rebound up to 26.2 percent in the third quarter, according to the Federal Reserve Bank of Atlanta's Nowcasting model.[12,13] Payroll employment also picked up, causing the unemployment rate to decline to 8.4 percent and the employment to population ratio to increase to 55.1 percent according to the August jobs report. The

improvement promoted a boom in equity markets and asset prices through August, with the S&P 500 index climbing 35 percent since March and 8.3 percent since the beginning of 2020; however, recent speculation has introduced volatility into stock markets in early September.[14] Across the country, housing prices have surged amidst low interest rates and increased demand for space in light of lockdown measures.

Yet, as news of a nascent recovery fuels investor appetite, segments of the U.S. economy continue to struggle, revealing the unevenness and depth of the coronavirus recession. According to data released by Opportunity Insights, while jobs for high-wage workers have all but recovered, registering only one percent below baseline, jobs for low-wage workers remain 15 percent below.[15] Additionally, as of the August U.S. jobs report, there are still 11.5 million fewer jobs than there were in February.[16]

The speed of the post-Coronavirus economic recovery will depend on the actions of elected leaders to manage the pandemic-induced crisis as the world awaits the development of a vaccine. A pro-growth, free market economic landscape is crucial to incentivize production, investment, and innovation, thereby maintaining and attracting industries and entrepreneurs and facilitating the increased economic growth and employment necessary to bring the U.S. and its 50 states back to prosperity.

Agenda Analysis

FISCAL IMPLICATIONS

Table 4: Cost of Biden Proposals

PROPOSAL	PLAN A (INCL. MEDICARE FOR MORE) — TRILLIONS OF US$, 10-YEAR PERIOD	PLAN B (INCL. MEDICARE FOR ALL) — TRILLIONS OF US$, 10-YEAR PERIOD
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[17]	$3.65	$3.65
Total	**$5.95**	**$36.4**

HEALTHCARE

Former Vice President Joe Biden has engineered his presidential platform by bringing together the main proposals of the entire Democratic Party. As such, Biden's healthcare plan should be considered in the context of the candidate's two main concepts: a "Medicare for More" plan that seeks to expand upon the Affordable Care Act (ACA) by offering a government-sponsored option on the existing ACA exchanges, and a "Medicare for All" plan that would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

According to the Committee for a Responsible Federal Budget, Biden's "Medicare for More" healthcare plan would cost between $1.45-2.15 trillion on a static basis over a 10-year period (Table 5):[18]

Table 5: Cost of Medicare for More

	TRILLIONS OF US$, 10-YEAR PERIOD		
	LOW	CENTRAL	HIGH
Total spending	$2.05	$2.25	$2.50
Expand the ACA and introduce a public option	$1.50	$1.70	$1.90
Improve affordability of long-term care	$0.15	$0.15	$0.20
Expand rural and mental health funding	$0.20	$0.20	$0.20
Lower Medicare enrollment age	$0.20	$0.20	$0.20
Cost reduction	-$0.60	-$0.45	-$0.35
Allow drug negotiations and restrict launch prices	-$0.40	-$0.30	-$0.20
Cap drug price growth and lower drug costs	-$0.15	-$0.10	-$0.10
End surprise billing and reduce healthcare costs	-$0.05	-$0.05	-$0.05
Total cost	**$1.45**	**$1.80**	**$2.15**

The M4A plan proposed by Bernie Sanders and increasingly adopted by the Democratic party would cost between $2.6-$4.2 trillion **per year** according to an analysis performed by Charles Blahous of the Mercatus Center, thereby totaling $32.6 trillion over a 10-year period, or more than 15 times the cost of the "Medicare for More" plan.[19]

Under the "Medicare for More" plan, a public, government-sponsored option would be available to anyone who purchases their own health insurance, regardless of whether they purchase insur-

ance through the ACA exchanges or are offered benefits through their employer. Health insurance premiums would be subsidized, not just for those who meet the current $50,000 income threshold, such that no person would spend more than 8.5 percent of their income on health insurance premiums. This initiative would be achieved by permitting an unlimited amount of federal assistance be made available to anyone as a means to help pay for health insurance premiums. The federal government would also automatically enroll in the public option the 4.8 million people who were excluded from Medicaid when the ACA was first implemented as a result of their state's decision to not expand Medicaid, at no cost to them or the state that they live in. This would suggest that those states that chose to expand Medicaid back in 2009 will be required to continue paying their portion of costs for the expanded population, while those states that refused to expand Medicaid will not be required to contribute to cover their portion of the 4.8 million people who will consequently be enrolled.

To give an idea of how much spending this would add to the federal government's budget, doubling all currently projected federal individual and corporate income tax collections would be insufficient to finance the added federal costs incurred by adopting M4A.

Alternatively, "Medicare for All" (M4A) would seek to bring all health insurance under the umbrella of a government-sponsored plan, or a national single-payer healthcare system. The static estimates for the cost of M4A published by the Committee for a Responsible Federal Budget are in line with estimates published in 2018 by Charles Blahous, which estimate that the M4A healthcare plan would increase federal spending by **$32.6 trillion** over its first 10 years of implementation, assuming drastic cuts in provider payments are implemented and accepted.[20] To give an idea of how much spending this would add to the federal government's budget, doubling all currently projected federal individual and corporate income tax collections would be insufficient to finance the added federal costs incurred by adopting M4A.[21]

In his analysis, Blahous provides an in-depth look at the estimated costs created by the M4A plan, incorporating all expected provisions outlined in the Medicare for All Act of 2017. These provisions include: a "maintenance of effort" mandate that would require states to continue providing long-term services and supports (LTSS) expenditures; substantial administrative cost savings that would be generated given the simplified, single-payer structure; application of the Medicare reimbursement rate of 40 percent below market to all providers; and implementation of lower drug prices through negotiations and mass substitution of generics alternatives where possible.

The assumptions inherent to cost estimates of the M4A and transitional "Medicare for More" plan indicate that the underlying assumptions rely on a best-case scenario in which all expectations—including that drug makers will lower prices substantially in response to government negotiations, that administrative costs will be reduced, and that the 40 percent Medicare reimbursement rate will be expanded across participating providers—are implemented quickly and effectively starting the first year of implementation. Additionally, these cost estimates are based upon data that do not include the effects of the COVID-19 pandemic and the subsequent economic crisis. As such, it is highly likely that the actual cost incurred will be far greater given the current state of the economy.

Beyond the considerable static cost implications of enacting the healthcare plan options being considered by the Democratic Party, it is worth analyzing the potential impact on market structure and national healthcare expenditures (NHE). Government involvement through the use of subsidies and entitlements makes price discovery in a market much more difficult. This results in consumers being further and further separated from the actual cost of their consumption and, consequently, from producers as well. In the healthcare market, this growing economic separation between effort and reward, or patients from healthcare providers, is known as the "healthcare wedge."[22] An economic wedge is formed as a result of government interference in a market—this obscures prices and distorts consumers' ability to properly allocate scarce resources. As the government continues to try and expand its control over the healthcare market and resulting expenditures, first through Obamacare and now through proposals that would introduce a government-sponsored healthcare plan and, eventually, expand this plan to include all U.S. residents under M4A, the wedge continues to grow, shielding patients from the actual cost of their consumption. Because they do not bear the cost of consumption, patients are then incentivized to overconsume healthcare services beyond an economically efficient point. This in turn puts upward pressure on the price of healthcare.

Under the "Medicare for More" plan, the quantitative impact on NHE is complicated to estimate. Because the plan accomplishes little in the way of altering current market structure of Americans sourcing healthcare through their employers, current estimates range from reducing NHE by three percent in low-cost estimates to increasing NHE by one percent in high-cost estimates over the next decade relative to current law.[23] In relation to the M4A plan, the considerable uptick in healthcare utilization given the plan's requirement that "no cost-sharing…be imposed on an individual" is likely to push up the trajectory of NHE as individuals are shielded from the actual cost of their healthcare consumption.

The central challenge with M4A is that it provides short-term

relief (through simplicity of one central provider) at the expense of long-term gain (diminished economic output, innovation, continued rise of costs and inflation). Government is ill-equipped to handle the operational challenges that would be presented by introducing a single-payer healthcare system. Rather, both consumers and producers benefit when the government partners with private firms and corporations to fulfill government's initiatives. This is because private entities are better able to respond to market incentives, such as profitability, consumer experience and feedback, cost management, and employee engagement. Whenever government seeks to displace market participants, the result is a less than desirable outcome. In the case of healthcare, creating and funding a less than desirable market outcome would be detrimental not only to the U.S. healthcare market, but to the entire world.

The answer to the U.S. healthcare challenge is not more government intervention, but rather incorporating ways in which consumers and providers are able to better respond to market incentives. Rather than curbing growth in healthcare spending and inflation, M4A would amplify incentives to overconsume by widening the wedge between individuals and their actual cost of healthcare consumption.

CLIMATE | GREEN NEW DEAL

Originally coined by political commentator Thomas Friedman, the Green New Deal rose to prominence when it was adopted by New York House Representative Alexandria Ocasio-Cortez and Massachusetts Senator Ed Markey as part of House Resolution 109 and Senate Resolution 59.[24] The plan called for the U.S. to become 100 percent reliant on renewable energy sources in 10 years and, in the process, create a clean energy industry that would provide "economic security for all who are unable or unwilling to work."[25]

The Green New Deal has recently transformed into the current $2 trillion climate plan proposed by former Vice President Joe Biden as part of his campaign platform. The plan outlines investments in clean energy, jobs, and infrastructure that are all but assured to be enacted if Biden were to be elected. Per the Biden-Sanders Unity Task Force, the plan aims to pair investments with new performance standards, such as the clean electricity standard that would transition the United States to a carbon pollution-free power sector by 2035.

In order to achieve this initiative, the Green New Deal seeks to combine clean power mandates along with massive government spending and involvement, circumventing existing markets. However, the unfortunate reality is that when the government decides to intervene in lieu of the market, the outcome is never as beneficial.

Proponents of the Green New Deal attempt to emphasize the plan's similarities to the New Deal that was implemented by Franklin D. Roosevelt in the wake of the Great Depression as a means to employ millions of unemployed workers. As outlined by the plan's original authors, the Green New Deal will create millions of "good, high-wage jobs and ensure prosperity and economic security" through directed investments in alternative sources of energy.

What proponents of the Green New Deal and Biden fail to address is that in the process of creating millions of "good, high-wage jobs," it will also destroy millions of already existing jobs and industries (those both directly and indirectly tied to energy production), likely netting any expected benefits that would be realized in the process. In fact, by bypassing markets altogether, the plan will amount to even higher costs and increased economic damage.

A solution to carbon emissions that causes a depression is not only unnecessary, it's reckless. Any climate-based policy solution should incorporate the costs of carbon emissions into the price of the market distortion itself—in this case, the carbon emissions themselves or any product that produces carbon emissions as a by-product—rather than on trade or production.[26]

By forcibly redirecting spending, the Green New Deal would severely increase market distortions, resulting in profound economic harm. The reason for this is embedded in the notion that jobs created by government spending programs are not the same as jobs created by companies through natural market forces. When the government spends money, it is taking money from taxpayers who consequently have less money to spend on food, clothes, cars, entertainment, travel, or any manner of other items. This money is then invested in businesses and organizations who otherwise may not have received funding by market participants for a variety of reasons. The government cannot and does not distribute money according to the most efficient, effective, and sound judgement. Markets distribute money by allowing individuals, businesses, and even governments, to interact and judge the value of investments, thereby arriving at an economically efficient outcome.

The current scientific consensus contends that minimizing our fossil fuel use will yield potential short-term and long-term environmental benefits. For those who do not believe that we are in fact facing a crisis, or that man has caused such a crisis, all one needs to assume is that burning less fossil fuel and burning more of an alternative source will be more efficient and will not hurt the planet. In short, the tradeoff should not be bothersome as long as it is an economically-sound exchange. The Green New Deal simply does not achieve this end, and states and voters must take this into account when considering Trump and Biden's presidential platforms this fall.

Table 6: Comparison of Trump & Biden Tax Policies

	PRE-2017	TRUMP TAX CUTS AND JOBS ACT (2017)	BIDEN TAX PROPOSAL (2020)
Individual income tax	Top marginal rate: 39.6% Applied Pease limitation for incomes above $261,500 (indexed to CPI)	Top marginal rate: 37% Repealed Pease limitation	Top marginal rate: 39.6% Restores Pease limitation for incomes above $400,000 Itemized deductions capped at 28%
Payroll tax	12.4% on income up to $137,700	No change	12.4% on incomes up to $137,700 and over $400,000
Corporate income tax	Rate: 35% Alternative minimum tax	Rate: 21% Repealed alternative minimum tax	Rate: 28% Alternative minimum tax of 15% on book income for companies earning more than $100 million in profits Doubles minimum tax rate on foreign income to 21%
Capital gains tax	Long-term capital gains rate: 20%	No change to 20% rate, but tax bracket limit increased	Long-term capital gains and qualified dividends: 39.6% (on income above $1 million) Eliminates step-up basis

TAXES

The main premise of Biden's tax plan is to increase the tax burden of corporations and individuals earning more than $400,000 by largely scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). In regard to individuals, this entails a full reversion of the top marginal income tax rate back to its previous level of 39.6 percent, as well as creating additional measures that would raise individual income and payroll taxes on those who meet the high-income threshold of $400,000 per year. For corporations, Biden's plan would increase the tax rate from 21 percent to 28 percent, which is half of the 14-percentage point decrease enacted under the TCJA.

These tax increases are being proposed in order to generate additional revenue to offset the cost of Biden's proposed "Medicare for More" healthcare plan. For the purposes of this analysis, the revenue estimates calculated by the Tax Foundation are used as a baseline to evaluate Biden's tax proposal. It should be noted that the Tax Foundation's static revenue estimates are in line with estimates released by institutions that have developed their own scoring models as well (Table 7).[27]

Table 7: Biden Tax Plan Revenue Generated, by Scoring Model

INSTITUTION/SCORING MODEL	STATIC REVENUE (BILLIONS OF US$)
Penn Wharton Budget Model	$3,746
Tax Foundation	$3,796
American Enterprise Institute	$3,848
Tax Policy Center	$3,994

According to the Tax Foundation, Biden's plan is expected to generate a total of approximately $3.8 trillion over the next 10 years based on a "conventional," or static, basis, per the below breakdown in Table 8:

Table 8: Cost Breakdown of Biden's Tax Proposal[28]

	MEASURE	IMPACT, BILLIONS OF US$
Payroll and individual income tax	Imposes a 12.4% Social Security payroll tax on income above $400,000	$808
	Reverts the top individual income tax rate for taxable incomes over $400,000 from 37% to 39.6%	$151
	Restores the Pease limitation on itemized deductions for taxable income above $400,000	$56
	Taxes long-term capital gains and qualified dividends at the ordinary income tax rate on income over $1 million	$503
	Eliminates the step-up basis	
	Caps itemized deductions at 28% of value	$301
	Phases out the qualified business income deduction for filers with taxable income over $400,000	$197
Corporate tax	Increases the corporate tax rate from 21% to 28%	$1,306
	Creates an effective alternative minimum tax on corporations with book profits of $100 million or greater, in which corporations pay the greater of their regular corporate income tax or a 15% minimum tax	$318
	Doubles the tax rate on Global Intangible Low Tax Income earned by foreign subsidiaries of U.S. firms from 10.5% to 21%	$303
Other changes	Additional credits	-$146
Total (static)		**$3,796**

The static estimates provided by the Tax Foundation are calculated by "stacking" one provision after the other, which means that the impacts of each provision are calculated as if the policies are implemented cumulatively in the order indicated above. Mathematically, this is done by: 1) calculating the estimated revenue for the provision being considered + the provision(s) above it; 2) calculating the estimated revenue for the provision(s) above **not** including the provision being considered; and 3) taking the difference between the two scenarios. This difference is then considered the estimated revenue generated by the provision being considered.

The Tax Foundation's estimates in the above table also assume that the number of taxpayers, the distribution of taxpayers, and the size of the economy do not change. When incorporating the expected impact from the economy responding to Biden's tax proposal, which is known as the dynamic response, the Tax Foundation estimates that Biden's plan would only generate $3.2 trillion in revenue between 2021 and 2030, or $0.6 trillion less than its static calculation.

While a useful starting point for our analysis, current cost estimates simply do not reflect the state of the U.S. economy, as well as the considerable damage that would result should Biden's tax plan be implemented. This is because the estimates provided by the Tax Foundation, as well as by several comparable scoring models, reflect assumptions inherent to a time before the COVID-19 pandemic, when the economy was well into its longest expansion on record and benefiting from the bump in growth generated from Trump's tax rate cuts in 2017.

In 2012, when the Tax Foundation was estimating the impact of Obama's plan to increase taxes, it estimated that the considerable drop in economic growth, job creation, and wage growth would result in smaller income gains and would ultimately reflect back on federal revenues, offsetting much of the revenue growth that was anticipated as a result of the tax rate increases.

Simply put, an increase in taxes disincentivizes the economy from producing output, employment, and production. The basis of this claim is the observation that taxes influence behaviors. People do not work and invest to pay taxes; they work and invest to earn an after-tax return. When tax rates increase, people are less incentivized to work, as the marginal increase in their after-tax return is reduced. For high-income individuals, a response to higher tax rates can take the form of altering income for tax purposes by changing the size, timing, and location, or choosing to relocate from the U.S. entirely.

Corporations respond in much the same way as individuals, but on a much larger scale. In fact, corporate income taxes are perhaps the most harmful type of tax, as they not only encourage profit shifting to lower-tax jurisdictions, but they reduce business investment and increase taxes on workers, who end up shouldering a portion of corporate taxes.[29] The tax rate cuts put into place by TCJA were central in reversing these damaging effects, helping U.S. companies regain a competitive edge in the global marketplace, incentivizing U.S. companies to relocate back to the U.S. and repatriate lost corporate income, and spurring economic growth and prosperity through the resulting job and productivity creation.

In contrast, Biden is seeking to not only raise tax rates on businesses, but to significantly increase tax rates on capital income. According to an analysis released by the American Enterprise Institute, Biden's tax plan would raise the weighted average marginal effective tax rate (METR) on business assets from 19.6 percent to 27.5 percent.[30] By significantly increasing the overall tax burden

on business investment and capital stock, Biden's plan would disincentivize saving and investment decisions, as well as distort the allocation of assets across different sectors and entities. The result of disincentivizing this behavior would have devastating ramifications: a smaller capital stock, lower labor productivity, lower wages, and lower total output for businesses and reduced ownership of capital assets and reduced savings for individuals. In total, these reductions would pull down national output and national income.[31]

Biden's plan will invariably weigh on the U.S. overall economic outlook at a time when spurring growth is vital to the country's economic survival and long-term prospects in light of COVID-19. The risk of such a dramatic tax increase, in addition to worries of a further COVID-19 induced downturn, will have severe ramifications on the behavior of households and businesses, with short- and long-term consequences.

MINIMUM WAGE

Minimum wage hikes have long been implemented on a state-by-state basis, with the federal government providing a floor. In his presidential platform, Biden is seeking to lift the federal minimum wage rate substantially, more than doubling the current rate of $7.25 to $15 an hour and pegging future increases to changes in median workers' pay.[32] While it is estimated that raising the minimum wage by such a large amount would create substantial costs for businesses and reduce overall income, these costs would not be borne by the federal government, and as such are not included in the quantitative impact analysis presented for each state in this report.

The conversation around increasing the minimum wage has shifted recently as the pandemic has brought essential workers, who are loosely defined as workers who could not stay home during the nationwide quarantine measures in March and April due to the physical nature of their work, to the forefront. According to the Brookings Institute, essential workers accounted for 48 million workers, or around 42 percent of the U.S. employed population, and earn relatively low wages, with 57.1 percent of essential front-line workers earning less than $20 per hour compared to only 32.5 percent of non-essential workers.[33] Additionally, essential workers are twice as likely to have a high school education or less compared to other workers, and are more likely to be Black (16 percent) or Hispanic (21 percent) compared to the rest of the workforce (10 percent and 15 percent, respectively).

When times are good, the minimum wage is not a large concern. In economic parlance, the equilibrium price for unskilled labor is above the price floor set by the minimum wage. When the economy turns south however, a high minimum wage is often above the market-clearing wage for unskilled labor, meaning there is a surplus of labor, which shows up as higher unemployment among the least qualified workers.

An increase in the minimum wage, particularly at a time when the economy is on the precipice of a depression, will ultimately price people out of the job market, particularly those people who have no ability to defend themselves. The people who need entry-level jobs in order to gain the requisite skills to earn above the minimum wage will be precluded from ever getting jobs in the first place if the minimum wage is too high.[34]

Per a report published by the Congressional Budget Office (CBO) in 2019, a $15 federal minimum wage would increase pay for 27 million U.S. workers, but at the expense of 1.3 million in lost jobs.[35] It should be noted that this estimate was calculated prior to the COVID-19 pandemic—therefore, the estimated loss in jobs is likely much higher given the current economic environment. In light of the current labor market, in which low-wage jobs remain 16 percent below February 2020 levels, raising the minimum wage would further amplify the difficulty in finding a job that the most vulnerable Americans currently face.[36]

According to the CBO's report on minimum wages, the $15 increase is expected to reduce after-tax incomes for the entire nation as well. As businesses adjust to an increase in operating costs, the loss in profit will eventually shift to consumers through a subsequent increase in the prices of goods and services, thereby lowering families' real income. For small businesses, which operate in highly competitive environments with small margins, it will be more difficult to pass the increase in costs to consumers, driving many out of business in the process.

EDUCATION

Biden has announced a higher education plan that not only calls for "College for All," but would also increase teacher pay; significantly cut, and in some cases eliminate, student loan obligations; triple funding for Title I; and increase direct federal spending to universities. According to an analysis by Forbes, although earlier cost estimates published by the campaign claim that Biden's education plan would cost $750 billion to implement, the Biden campaign appears to have removed this claim from its website as of early September 2020.[37] By comparing archived versions of Biden's campaign website, Forbes was able to identify that the change in policy that drove the campaign to remove its estimate was its policy guaranteeing tuition-free public college and universities to all families with incomes below $125,000, which was incorporated from Senator Bernie Sanders' "College for All Act" of 2017.

For the purposes of this analysis, the initial cost estimate published by the Biden campaign of $750 billion is used given that the Biden campaign has not provided sufficient details for other institutions to conduct a comparable cost-scoring analysis. However, it should be noted that the actual cost of Biden's plan is likely to be considerably higher. An analysis by the Student Loan Planner

estimates the cost to be closer to $2.9 trillion, or four times higher than what the campaign originally estimated, but this estimate only includes "College for All" and student loan forgiveness and excludes federal spending measures outlined on the campaign's website.[38]

Unlike mortgage loans, which are backed by a house that can be sold to pay for the associated debt, there is no corresponding asset that backs a student loan. And therein lies the problem with making college "free." The fact that a student must repay a college loan gives him or her tremendous incentive to at least consider what jobs could be obtained with the college education that he or she must pay for. As such, a student who is uninformed regarding the cost of their education loses a crucial component of deciding whether to go to college. Colleges, similarly, are incentivized to compete for student enrollment through course enrollment options, majors, and career prospects. Removing the ability of students to judge the cost of their education also removes the ability of colleges to compete for students and be rewarded for superior performance. Simply put, government interference obscures the feedback mechanism inherent to market transparency and should be removed where possible, not given more control.

TRADE

"The trade deficit is the most wonderful thing in the world. It's foreign capital coming in which is used to employ Americans. A trade deficit is when one country imports net more goods than it exports. The silliest thing I can think of is to try to get rid of the trade deficit."

-Arthur B. Laffer[39]

Among economists, the effects of recent tariffs between the U.S. and China were expected—it is basic supply and demand. The tariffs imposed on Chinese and American goods made them more expensive, increasing prices for consumers in both countries. Consequently, when importers are faced with the higher prices of Chinese and American goods, they will look for substitutes, creating an opportunity for developing countries to step in and increase their exports to these markets. The result is not a zero-sum game, as depicted by President Trump; on the contrary, free trade benefits all trading partners.

As many had predicted, the U.S. trade deficit, which depends more on fiscal than trade policy, was larger, even pre-COVID, than when President Trump took office. This is because, on a global level, the tariffs between the U.S. and China are not reducing imports; tariffs are shifting the source of imports to other countries, such as Vietnam, and subsequently increasing the cost of goods for U.S. consumers. According to a working paper released in early 2019 by then Chief World Bank Economist Pinelopi Goldberg, the trade war has weighed heavily on U.S. consumers, who faced "significantly higher prices as a result of the tariffs," and U.S. producers, who suffered through lost foreign sales as demand for the goods subjected to tariffs declined.[40] Thus, rather than favor U.S. firms, Trump's trade policy has placed most at a disadvantage as the costs of imported inputs has increased while competitors have not faced the same cost increases. Exports from other developing countries have been able to substitute lost sales from the U.S. and China in each other's markets.

In the long run, the uncertainty surrounding an escalating trade war results in spillovers to the entire world. Prior to the outbreak of COVID-19, the World Bank was forecasting modest economic growth in 2020 as it trimmed back its outlook in the face of a possibly heightened trade war between the United States and China following already subdued growth in 2019.[41]

> In light of the current labor market, in which low-wage jobs remain 16 percent below February 2020 levels, raising the minimum wage would further amplify the difficulty in finding a job that the most vulnerable Americans currently face.

Many Americans have hoped that President Trump's protectionist approach and policies would encourage trading partners to reduce subsidies, protect intellectual property and eliminate trade and investment barriers. In China especially, these are big issues that must be addressed. According to Arthur Laffer, who was on President Nixon and Reagan's economic teams, Trump's protectionist rhetoric is being used exactly for this purpose and, at his core, Trump is a "free trader" who seeks to mimic the pro-growth policies enacted under President Reagan.

Significant stress has been placed on global value chains throughout the COVID-19 pandemic as countries around the world rushed to secure healthcare supplies and household necessities. These disruptions caused runs on grocery stores in the U.S., resulting in shortages in household items such as toilet paper, hand sanitizer, and even talks of meat shortages. As such, the pandemic has caused a resurgence in protectionist rhetoric and a reframing of global value chains as vulnerabilities rather than sources of economic growth and diversification.

The Democratic Party has joined along in this protectionist rhetoric, with Biden importing almost all the party's views on trade into his campaign proposals. Biden's trade plan includes several provisions, and explicitly dedicates $700 billion in spending to enforce protectionist "Buy American" requirements, to alter procurement processes, and to introduce targeted investments in certain sectors. In fact, according to a Biden campaign adviser, "It is unlikely that Joe Biden is going to walk in and be thinking, 'How do I reduce trade barriers to generate more growth?'" Unfortu-

nately, such an approach seeks to mimic Nixon-era policies and, likely, would result in Nixon-era economic growth.

Deglobalization is the equivalent of declaring "going backwards and becoming poorer."[42] Free trade allows each country to export those products and services for which domestic costs of production are relatively low and import products and services for which domestic production costs are relatively high. The result is that countries and consumers around the world can experience shared prosperity through lower-cost goods that are produced with greater efficiency.

In 1930, the U.S. imposed a huge set of tariffs on imported goods collectively known as the Smoot-Hawley tariffs. What followed this massive intervention against free trade was the biggest stock-market crash in history, a period of unimaginable economic contraction, and ubiquitous misery called the Great Depression. Biden's trade policy threatens to emulate periods of slow growth and, especially in the context of COVID-19, could set off a global depression.

DEFICIT

Government expenditures directly impact the overall economic growth environment. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

Throughout the Bush and Obama Administrations, government spending and transfer payments skyrocketed. As a result, although President Trump inherited a moderately growing economy, the U.S. was facing an increasingly sizeable budget deficit. Trump and Congress then made projected future budget deficits even larger by enacting tax cuts paired with immense spending increases in late 2017 and early 2018. When Trump took office in January 2017, the cumulative national debt was $19.9 trillion.

In light of COVID-19, the Congressional Budget Office (CBO) projected in April that the deficit for the 2020 fiscal year (ending June 30, 2020) would come in at $3.7 trillion, or 17.9 percent of GDP, making it the largest shortfall since 1945.

Continued annual budget deficits compound the U.S.'s steadily increasing national debt, which as of July 31 was estimated to have surpassed $26.5 trillion according to the Treasury Department.[43] In the U.S., debt accounted for 64 percent of GDP in 2006—in 2012, debt to GDP surpassed 100 percent, eventually reaching 104 percent in 2018. The recently enacted $2 trillion relief plan will push up this number even further, especially as GDP shrinks.[44] It is estimated that under current policies, the ratio will balloon to almost 180 percent of GDP by 2050.

Over time, steadily rising debt will make it harder to grow the U.S. economy; respond to wars, recessions, and social needs; and maintain our role as a global leader.[45] This is because, eventually, the U.S. will have to spend more and more of its budget on interest payments for debt issued when the government faced a similar scenario as it does today in which spending greatly surpassed revenues. As a result, servicing the debt will "crowd out" funds for other programs and priorities. Additional concerns raised by the CBO include depressed economic output; more interest payments flowing out of the U.S. to foreign debtholders; and increased risk of a fiscal crisis, in which investors lose confidence in the federal government's financial health and abruptly raise the interest rates they demand to fund the debt.[46]

Economic Implications

U.S. economic performance during the first three years of the first term of Obama-Biden and a similar period under Trump-Pence is highlighted in Table 9.

Differences in policy agendas resulted in significantly greater employment growth during the Trump-Pence period. During the 2010-2012 period the average annual employment growth was 0.73 percent. During the first three years of the Trump-Pence Administration 2017-2019, the average annual employment growth was 1.5 percent, approximately 0.8 percent higher, based on the number of individuals employed nationally in 2019. This difference translates to an additional 1,208,000 jobs being created each year during the Trump-Pence Administration and can be used to gauge the potential economic impacts of the candidates' differing policy agendas. To estimate the impacts on the major states in the study, this difference was proportionally incorporated relative to the economic size and trends in each of these states.

This difference in job creation serves as the basis for estimating the economic impacts associated with the candidates' agendas. These differences will result in expenditure patterns that will create a broad range of economic impacts throughout the economy.

At the national level, these variances would result in a total economic impact differential of over $425 billion and over 2.6 million

Table 9: U.S. Economic Indicators During the Obama & Trump Administrations

U.S. ECONOMIC INDICATORS	OBAMA-BIDEN (D) 2010	2011	2012	TRUMP-PENCE (R) 2017	2018	2019
	% Change from preceding year			% Change from preceding year		
Real GDP (Chained 2012 dollars)	2.6	1.6	2.2	2.3	3.0	2.2
Real Personal Income (Chained 2012 dollars)	2.3	3.6	3.2	3.0	3.1	3.6
Non-Farm Payroll Employment	-0.7	1.2	1.7	1.6	1.6	1.4
Unemployment Rate (%) of which,	9.6	8.9	8.1	4.4	3.9	3.7
White	8.7	7.9	7.2	3.8	3.5	3.3
Black of African American	16.0	15.8	13.8	7.5	6.5	6.1
Hispanic or Latino Ethnicity	12.5	11.5	10.3	5.1	4.7	4.3
Population	0.8	0.7	0.7	0.6	0.5	0.5

Sources: Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA), U.S. Census, American Community Survey (ACS) and Federal Reserve Economic Data (FRED) Federal Reserve Bank of St. Louis.

jobs. The following section assesses the economic impacts of these differing policy agendas quantifying the estimated impacts of the Biden-Harris agenda relative to Trump-Pence.

The differing policy agendas generate economic impacts that extend beyond those directly related to the specific policy initiatives. These "spillover" or multiplier impacts are the result of each business activity's supply relationships with other firms operating within the nation, the proportion of business value added that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within the community.

These expenditures have the potential to generate significant economic impact differentials throughout the nation. These impacts include the generation of Jobs, Household income and Total Economic Impact (Output) presented in Table 10.

Table 10: Summary of Projected National Economic Impact Differentials

IMPACT ON:	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs – Millions)	1.208	1.444	2.652
Household Income ($ Billions)	$69	$86	$155
Gross Domestic Product (Value Added $ Billions)	$92	$145	$237
Total Economic Impact ($ Billions)	$159	$266	$425

Source: The Washington Economics Group, Inc. (WEG)

EMPLOYMENT

There would be a projected 2.6 million job differential under the Biden-Harris Administration agenda relative to Trump-Pence. These findings are summarized in Table 11. These policy differences have the potential to *directly* impact 1,208,000 jobs. The *indirect* and *induced* job creation process will reach deeply into all sectors of the national economy. An additional 549,727 jobs are impacted via *indirect* economic effects. Lastly 894,713 jobs are affected from *induced* spending effects. Therefore, the total number of jobs, *directly*, *indirectly* and *induced*, impacted by these differing policy agendas is projected at 2,652,440. The largest impacts would occur in the Knowledge Based Services and Government & Other sectors, followed by the Visitor industry.

Table 11: Projected National Employment Impact Differentials

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	1,373,237
Government & Other	301,678
Visitor Industry	262,270
Retail Trade	246,392
Wholesale Trade & Transportation Services	209,451
Manufacturing	186,938
Construction	72,473
Total All Industries	**2,652,440**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

HOUSEHOLD INCOME:

In total, there would be a projected $155 billion differential in household income annually. The effect of the policy agendas of the Democratic and Republican candidates on household income for American workers is quantified in Table 12. The policy agendas would have a *direct* differential impact of $69 billion of household income. *Indirect* and *Induced* impacts will have an additional differential of $85.8 billion. The Knowledge-Based Services Sector will have the greatest exposure at $82 billion, or 53 percent of the total, followed by the Government & Other sector at $25.5 billion or 17 percent, and the Wholesale Trade and Transportation Services sector at $13.2 billion, or nine percent of the total.

Table 12: Projected National Household Income Impact Differential ($Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$82,121,304
Government & Other	$25,572,935
Wholesale Trade & Transportation Services	$13,277,402
Manufacturing	$12,373,557
Visitor Industry	$9,279,659
Retail Trade	$7,642,467
Construction	$4,658,456
Total All Industries	**$154,925,780**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

GROSS DOMESTIC PRODUCT (GDP)

The projected GDP differential is approximately $237 billion annually. In essence, economic growth is negatively impacted by the implementation of the Biden-Harris economic policies relative to Trump-Pence. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principle source of income to American households and a key measure of how these policy differences have the potential to affect the national economy. Table 13 highlights these exposures. The greatest differentials would occur in the Knowledge-Based Services Sector with $132 billion, or 56 percent of the total. This is followed by the Government and Other Sector which generates $32 billion, or 14 percent. Other sectors such as Wholesale Trade and Transportation Services, and Retail Trade could have smaller impacts.

Table 13: Projected GDP (Value-Added) Differential Impact ($Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$131,693,882
Government & Other	$32,075,052
Wholesale Trade & Transportation Services	$23,882,795
Manufacturing	$19,550,010
Visitor Industry	$15,330,686
Retail Trade	$10,969,640
Construction	$3,352,722
Total All Industries	**$236,854,787**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

TOTAL ECONOMIC IMPACT

The total differential economic impacts are projected at $425 billion. Table 14 illustrates the sector breakdown of the total. A substantial portion of the impact would occur in Knowledge-Based Services, a sector that pays above average wages. This is followed by Manufacturing with an additional 14 percent, and Wholesale Trade and Transportation Services with 10 percent. The remaining 11 percent is spread across other sectors of the country's economy.

Table 14: Projected Economic (Output) Impact Differential ($Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$218,665,386
Government & Other	$57,634,821
Manufacturing	$57,592,604
Wholesale Trade & Transportation Services	$41,677,810
Visitor Industry	$24,430,313
Retail Trade	$17,578,224
Construction	$7,541,442
Total All Industries	**$425,120,600**

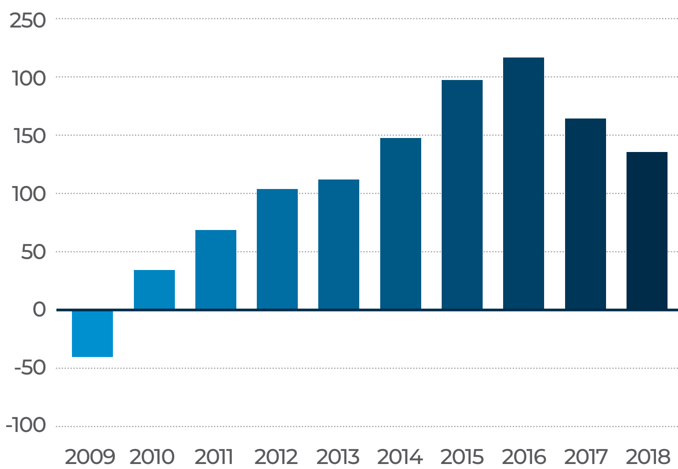
Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Florida

BASIC DEMOGRAPHICS

After surpassing New York to become the third most populous state in the U.S. (behind California and Texas) in 2014, Florida has continued to enjoy strong population growth. In 2019, total population increased by 1.8 percent, or close to 370,000, marking the state's largest increase since 2006 and the largest annual increase among all 50 states and DC in 2019. The state is likely to gain two Congressional seats following the 2020 Census.[47] The state's population growth has largely stemmed from a net influx of migration from other states (Figure 15).

Figure 15: Florida Net Domestic Migration
Thousands; through 2018



Source: Rich States, Poor States 2020

Since the Great Recession in 2009, Florida's population has diversified, with the percentage of the population that identifies their race as "Non-white" increasing by 1.5 percentage points as of 2018. Additionally, it is estimated that the percentage of the population that identifies as Hispanic will increase by 4.3 percentage points to 26.8 percent from 2010 to 2020. This percentage is expected to continue rising over the next decade, reaching 30 percent by 2030.

The median age of Florida residents in 2018 was estimated to be 41.7 years. In the coming years, this median is expected to increase as a larger portion of the Baby Boomer generation becomes eligible for retirement. As of 2019, Florida's Office of Economic and Demographic Research (ODR) estimates that 44 percent of Baby Boomers will have entered retirement, with the remaining 56 percent expected to enter retirement gradually over the next nine years until 2029.[48] As a result, Florida's prime working age population (ages 25-54), which currently represents 37.2 percent of Florida's population, is expected to continue declining as a share of the state's total population. This shrinking ratio could be a potential drag on economic growth if the state is unable to draw enough younger workers to meet growing economic opportunities.[49]

CURRENT ECONOMIC CLIMATE

Prior to the COVID-19 outbreak, Florida's economy was experiencing strong growth in job creation and business investment because of its growing population. Average real GDP growth for the last three years, 2016-2019, was the 10th highest in the U.S. at 3.1 percent, outperforming overall U.S. GDP growth at 2.5 percent.

According to the ALEC-Laffer State Economic Outlook Rankings, which were published for 2020 after the COVID-19 outbreak and therefore provide insight into expected performance outside of the pandemic's impact, Florida was ranked 7th in regards to its economic outlook based off of a compilation of pro-growth economic indicators (Table 16):

Table 16: Rich States, Poor States, 2020[50]

Overall Economic Outlook	7th Best	
Top Marginal Personal Income Tax Rate	1st	0.00%
Top Marginal Corporate Income Tax Rate	8th	4.46%
Recently Legislated Tax Changes*	5th	-$0.94
Property Tax Burden*	23rd	$28.71
Sales Tax Burden*	39th	$28.57
Debt Service as a Share of Tax Revenue	26th	6.30%

*per $1,000 of personal income

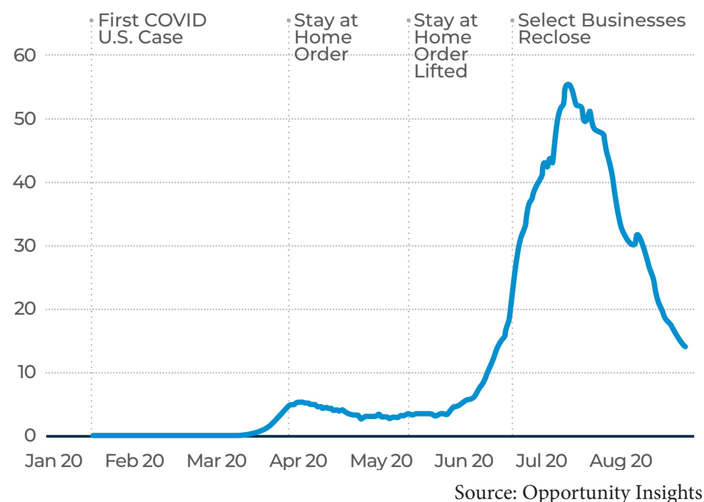
As the COVID-19 pandemic has spread, the economic fallout has been severe, particularly for those states that rely heavily on travel and tourism which have a higher concentration of vulnerable jobs compared to other sectors. According to McKinsey, a "vulnerable" job is defined as one that (1) pays low wages (less than the median wage, adjusted for location), and (2) is not covered by employer-sponsored healthcare benefits.[51]

Compared to the overall U.S. economy, Florida's economy is 1.5 times more specialized in accommodation and food service.[52] As such, the state has suffered substantially as a result of COVID-19--in April 2020, Florida's unemployment rate more than tripled to 13.8 percent.

In early June, Florida made the decision to be among the first U.S. states to reopen its economy, allowing its constituents and businesses to resume relatively normal activity alongside a voluntary mask order in place. The move sparked an initial uptick in COVID-19 cases in Florida, peaking at close to 14,000 new cases per day in mid-July. However, new cases have continued to decline through August, reaching just under 2,000 cases as of August 31 (Figure 17).

Figure 17: New COVID-19 Cases

Cases per 100,000 people; through August 23, 2020

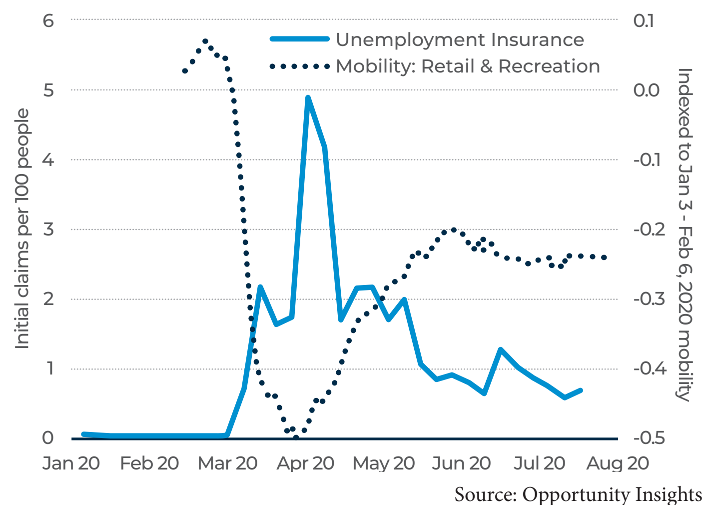


Source: Opportunity Insights

Following the reopening of its economy, Florida has experienced a considerable improvement in its economic outlook. The resumption of activity has helped to keep open small businesses who were on the verge of closing, helping to not only preserve thousands of dollars in valuable fixed capital investment that would have otherwise vanished if businesses had not been allowed to reopen, but also allowing furloughed or laid off workers to rejoin the workforce, thereby staving off more severe economic scenarios.

Figure 18: Unemployment insurance (UI) vs. Mobility

UI: Weekly data through August 15, 2020; Mobility: Daily data through August 25, 2020

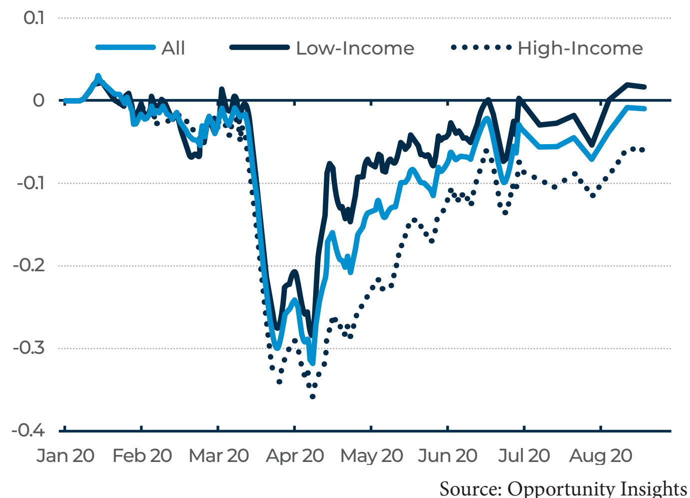


Source: Opportunity Insights

As a result, total consumer spending has bounced back after plummeting to 32 percent below baseline in early April, registering only one percent below a baseline calculated off of January 2020 activity according to data published by Opportunity Insight using consumer credit and debit card spending.[53]

Figure 19: Consumer spending

Seasonally adjusted credit/debit spending relative to January 4-31, 2020; 7-day moving average; through August 23, 2020



Source: Opportunity Insights

As states navigate local challenges to combat COVID-19, they must also consider what national policies will help to support state and local economies during the worst economic downturn since the Great Depression. The 2020 presidential platforms offer dramatically varied alternatives for states to consider and, as such, will have unique impacts on the ability of states to generate growth and prosperity in the wake of the pandemic-induced recession.

AGENDA ANALYSIS

Fiscal Implications

The extent to which U.S. states will be able to reignite growth in their cities and towns amid the COVID-19 crisis will be determined by the policies enacted at both the state and federal level. Traditionally, the federal government has provided aid to U.S. states, allowing each constituency to prioritize where funding should be focused. Instead of allowing U.S. states to individually determine the best course forward, the solution proposed in Biden's presidential platform is to significantly increase the size of the federal government and take over the administration of basic and essential services in a uniform, aggregated manner.

This increase in federal oversight and responsibilities would be matched with equally large increases in federal taxes and spending according to Candidate Joe Biden's presidential platform. For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as

well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 20).

Table 20: Cost of Biden Proposals

PROPOSAL	PLAN A (INCL. MEDICARE FOR MORE) — TRILLIONS OF US$, 10-YEAR PERIOD	PLAN B (INCL. MEDICARE FOR ALL) — TRILLIONS OF US$, 10-YEAR PERIOD
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[54]	$3.65	$3.65
Total	**$5.95**	**$36.4**

Biden's platform is bifurcated in this way because his presidential campaign has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[55] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[56] Therefore, in light of the ongoing debate in the Democratic Party regarding its ideal plan for healthcare, this report will present two options for Biden's presidential platform based on the two options currently being considered: the "Medicare for More" proposal currently included on the "Biden for President" campaign site, which seeks to include a government-sponsored healthcare plan on the exchanges established by the Affordable Care Act (ACA); and a "Medicare for All" proposal that has been put forward by Senator Bernie Sanders and pushed for by an increasingly large faction of the Democratic Party, which would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

Candidate Joe Biden has claimed that his tax plan will largely offset the majority of his spending initiatives by increasing the tax burden of corporations and individuals earning more than $400,000, thereby scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion.

According to Plan A, which includes "Medicare for More" as Biden's healthcare plan in addition to all other spending initiatives, federal spending increases would cost an average of $1,600 in increased federal taxes per year for every Floridian, or $6,400 for a family of four. If Biden were to implement Plan B, which includes a "Medicare for All" healthcare plan in addition to all other spending initiatives, Floridians would experience a six-fold increase in their federal tax obligation, with the cost per taxpayer jumping to $9,389, or $37,556 for a family of four.

Table 21: Florida Fiscal Impacts

		IMPACT PER YEAR
PLAN A	Cost per taxpayer	$1,600
	Cost per family of 4	$6,401
	Budget impact (US$, billions)	$0.0
PLAN B*	Cost per taxpayer	$9,389
	Cost per family of 4	$37,556
	Budget impact (US$, billions)	$7.9

*States will presumably continue paying their share of Medicaid costs for long-term care

In regard to the budgetary impacts, Plan A would not have a budgetary impact as a result of Biden's tax plan, and Plan B would result in $7.9 billion in additional revenue, calculated using the decrease in spending from the federal government assuming most of the state's Medicaid spending.[57] It should be noted that under Plan B, states would continue to pay for long-term care under Medicaid, which is all but assured to increase substantially in the coming years as the population of Florida, and of the entire U.S., begins to age.

It is worth digging deeper into the state-level impact of Biden's tax plan, as it is one of the key features of Biden's presidential platform and is an area that the Democratic Party has been unified in supporting, indicating a high likelihood of being implemented if Biden is elected. Biden's tax plan would revert many of the base-broadening provisions introduced in the Tax Cuts and Jobs Act (TCJA). The tax base is considered "broader" when a greater portion of income is subject to taxation.

When the federal government implements changes to the federal tax code, states also have the option to incorporate these changes, meaning that any federal tax reform has implications for state revenues collections in addition to the broader economic effects of tax reform. This is because, while each state has its own set of tax laws based on its own set of priorities and agendas for its constituents, many invariably rely upon the federal tax code. Some states adopt the federal tax code fully, thereby reducing the burden for taxpayers in that state of having to decipher another set of tax laws and in effect entrusting the federal government to enforce and manage taxation matters. For other states that use the federal tax code as a starting point, they must use their own resources and

agencies to determine if their tax code accomplishes its desired effect and if taxpayers are paying enough according to the minutiae of state tax statutes.

Under the TCJA, the repeal of the personal exemption broadened the federal tax base by subjecting a greater portion of individual income to taxation. Those states that adopted, or conformed, to the federal government's definition of personal exemption also saw their tax bases broadened and as a result saw an increase in tax revenue. Overall, the base-broadening provisions of the TCJA flowed through to some states due to tax conformity measures in place, while the corresponding rate reductions did not, resulting in state revenue increases.[58]

In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Florida's fiscal shock would jump to over $10 billion, or close to a 30 percent budget shortfall.

For Florida, changes to individual income taxes in the TCJA were not passed through to the state level, yielding no quantitative impact on state revenue collections. However, the boost in economic output as a result of the pro-growth provisions of TCJA, and the corresponding increase in revenues as a result, should not be overlooked.

Biden's tax plan, which will reverse many provisions in TCJA, threatens to reduce state revenues when considering the dynamic impact of this plan. The Tax Foundation estimates that Biden's tax proposal would reduce long-run U.S. economic growth by 1.51 percent and reduce after-tax income for filers across the income spectrum by reducing the incentive to work and invest in the U.S.[59] This reduction would come at a time when states are already struggling to balance budgets in the wake of COVID-19.

Florida, in particular, will enter the 2020 election from a precarious fiscal perspective. With a large portion of its economy reliant on industries now classified as vulnerable to pandemic shutdowns, i.e. tourism and accommodation and food service sectors, the state's revenue collections have incurred a substantial hit. As a result of the pandemic-induced contraction, tourism receipts declined 37.1 percent from baseline for the final quarter of the fiscal year, causing general revenue collections for the 2019-2020 fiscal year to decline 5.7 percent, or $1.9 billion, below baseline estimates established in January 2020. Of the $1.9 billion loss, 84.7 percent was due to a drop in sales tax revenues, which were down 6.1 percent from baseline for the year.[60] Following Florida's decision to reopen its economy in June, however, revenue collections have started to show a marked improvement, with general revenue collections finally moving into positive territory in July, posting a small gain of $2.5 million.[61]

In April 2020, Moody's Analytics completed stress testing of all 50 states, evaluating the current level of rainy-day funds, as well as the expected fiscal shock to each state as a result of two COVID-19 impact scenarios.[62] In its baseline scenario, Moody's assumes that quarantine restrictions would be lifted towards the end of the second quarter and, in its more severe "S3" scenario, the quarantine restrictions are assumed to remain in place well into the third quarter.

Results from Moody's stress testing estimate that Florida's fiscal shock in its baseline scenario will amount to over $8 billion over the 2020 and 2021 fiscal years as a result of its considerable loss of tax revenues and increased Medicaid spending costs, an amount that far exceeds the state's budget reserves. In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Florida's fiscal shock would jump to over $10 billion, or close to a 30 percent budget shortfall.

Recently, Biden has also indicated that he would issue a nationwide shutdown mandate in response to a possible COVID-19 second wave if he deemed necessary.[63] As demonstrated in the estimates published by Moody's, it is clear that the unprecedented disruption caused by the COVID-19 pandemic and subsequent shutdowns will amount to historic levels of stress for U.S. state budgets. Should Biden choose to issue such a mandate, the fiscal shock is not only expected to exceed the $10 billion fiscal shock estimated in Moody's S3 scenario but would also result in direct harm to the state's economy.

Overall, a Biden presidency would amplify U.S. states' fiscal concerns. The higher proposed taxes under Biden's plan would not only narrow the tax base, thereby decreasing potential revenue for states, but would also weigh on economic outlook by discouraging private activity and investment. The potential impact worsens when considering the market structure impact from the substantial increase in proposed federal government spending. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

The resulting damage would be considerable: a smaller capital stock, lower labor productivity, lower wages, and, ultimately, lower national and state output. A free-market approach that encourages innovation at this time of crisis is crucial to ensuring that states can regain the growth and prosperity enjoyed following the TCJA.

Economic Implications

The differences in policies and in economic performance at the state level previously presented serve as the basis for estimating the economic impacts associated with the candidates' agendas. These differences will result in expenditure patterns that will create a broad range of economic impacts throughout each state's economy.

For the State of Florida, the resulting differential economic impact is approximately $19.3 billion in GDP annually and 144,000 jobs in the State. Table 22 highlights the expected economic impacts on Florida.

Table 22: Summary of Differential Economic Impacts

IMPACT ON:	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs)	78,520	65,265	143,785
Household Income ($ Billions)	$3.8	$3.2	$7.0
Gross Domestic Product (Value Added $ Billions)	$5.2	$5.4	$10.6
Total Economic Impact ($ Billions)	$9.4	$9.9	$19.3

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Employment:

A total of 143,785 Florida jobs will be impacted negatively by the Biden-Harris policy agenda. Table 23 illustrates a differential of 78,520 jobs in the Government & Other, Healthcare, and Retail trade sectors, along with a range of other industries important to the State's economy. The indirect and induced job creation process reaches deeply into all corners of the Florida economy. An additional 29,807 jobs would be impacted via indirect economic effects. Lastly 35,458 jobs are impacted due to induced spending effects. Consequently, the total differential of jobs (directly, indirectly and induced) potentially impacted by these differing policy agendas is estimated at a significant 143,785. The largest differential occurs in the Knowledge-Based Services.

Table 23: Estimated Florida Employment Impacts

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	75,294
Government & Other	16,909
Retail Trade	14,182
Visitor Industry	13,920
Wholesale Trade & Transportation Services	11,131
Manufacturing	7,821
Construction	4,528
Total All Industries	143,785

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Household Income:

In total, there would be a differential impact of almost $7 billion in Florida household income annually, presented in Table 24. The differences in policy emphasis would impact $3.8 billion of household Income directly. Indirect and induced impacts would affect another $3.2 billion of Florida household income, or 45 percent of the total. The Knowledge-Based Services Sector would have the greatest differential at $3.7 billion, or 53 percent of the total, followed by the Government & Other Sector at $1.1 billion or 16 percent, and the Wholesale Trade and Transportation Services sector at $0.6 billion, or eight percent of the total.

Table 24: Estimated Florida Household Income Differentials ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$3,739,398
Government & Other	$1,141,166
Wholesale Trade & Transportation Services	$584,766
Visitor Industry	$470,373
Manufacturing	$408,308
Retail Trade	$400,043
Construction	$243,501
Total All Industries	$6,987,555

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Gross Domestic Product (GDP):

The differential in Gross Domestic Product is estimated at approximately $10.6 annually for Florida. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principle source of income to households and a key measure of how these policy differences have the potential to affect the state economy. Table 25 quantifies these impacts. The greatest impacts are in the Knowledge-Based Services Sector with $5.6 billion, or 53 percent, of the total. This is followed by the Government and Other Sector, with $1.7 billion, or 16 percent and Wholesale Trade and Transportation Services at $1.1 billion.

Table 25: Estimated Florida GDP (Value-Added) Differential Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$5,580,540
Government & Other	$1,714,028
Wholesale Trade & Transportation Services	$1,163,140
Visitor Industry	$845,487
Retail Trade	$582,469
Manufacturing	$485,848
Construction	$214,709
Total All Industries	**$10,586,221**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Total Economic Impact (Output):

The projected total differential economic impact in Florida is estimated at $19.4 billion annually. Table 26 illustrates the sector breakdown. Knowledge-Based Services and Government & Other sectors represent 53 percent and 15 percent of the total impact, respectively. This is followed by Wholesale Trade and Transportation Services with 11 percent and Manufacturing with an additional seven percent. The remaining 14 percent is spread across other sectors of the state's economy.

Table 26: Estimated Florida Differential Economic Impact ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$10,295,892
Government & Other	$2,844,280
Wholesale Trade & Transportation Services	$2,076,817
Manufacturing	$1,387,608
Visitor Industry	$1,336,985
Retail Trade	$943,879
Construction	$465,769
Total All Industries	**$19,351,230**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

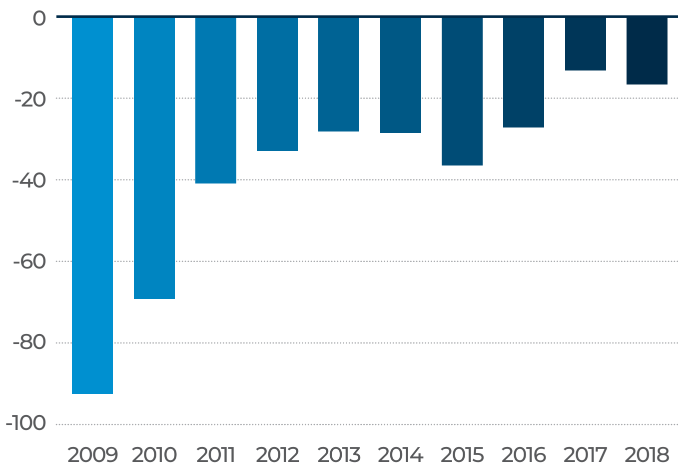
Michigan

BASIC DEMOGRAPHICS

Following the Great Recession, Michigan's population growth has lagged that of the U.S. In 2018, the state's population was estimated to be just under 10 million people, or 1.2 percent more than the state's population level in 2010, while the U.S. population grew 5.8 percent over the same period.[64] The state is likely to lose a congressional seat following the 2020 Census as a result.[65]

Although the state continues to experience net domestic outmigration, the trend has improved as Michigan has attracted new business sectors over recent years (Figure 27):

Figure 27: Michigan Net Domestic Migration
Thousands; through 2018



Source: Rich States, Poor States 2020

However, the structural shift of Michigan's economy from goods-producing to information-based has been particularly difficult for the state given the lack of skill development and retraining programs. As a result, previously employed manufacturing workers, who largely have low educational attainment, have struggled to adapt, with more than 40 percent of Michigan households in 2017 classified as impoverished or struggling to afford basic needs.[66]

Like the rest of the nation, Michigan's population has aged since 2010 as Baby Boomers reach retirement age. Michigan's 65 and older population now constitutes 17.2 percent of the state's population compared to 12.8 percent in 2010. Michigan's population has also grown more diverse, and its immigrant population has increased 18 percent since 2010. The five top countries of origin for Michigan's foreign-born residents were Mexico, India, Iraq, China, and Canada.

CURRENT ECONOMIC CLIMATE

Following the Great Recession, Michigan witnessed one of the highest jumps in unemployment, peaking at 14.6 percent of the state's labor force during the recession's trough in June 2009. As a result of severe population outmigration—between 2000-2013, almost a million jobs left the state. In response to its overexposure to the auto industry, Michigan worked diligently to diversify its economy and implement pro-growth policies. Since enacting right-to-work policies in 2013, Michigan has seen faster job and income growth, with recent investments from Amazon, Facebook, and LG helping to transform the state into a technology hotspot.

However, in recent years, trade disputes and tariff wars under President Trump have inhibited Michigan's progress as growing uncertainty has halted capital expenditures and hindered global value chains. The uncertainty, combined with the sheer magnitude of the structural shift, has translated into a recovery that has lagged behind the rest of the nation.

The growing pains have been felt particularly in Michigan's labor force. Despite an unemployment rate of 3.6 percent in February 2020, Michigan's jobless rate, when including workers who looked for a job in the last year and workers employed part-time who cannot find a full-time opportunity, remained around the U.S. average of 7.5 percent in 2019. The result has translated into a declining trajectory of GDP growth, with 2019 real GDP registering as the third worst in the nation at 0.71 percent.

Despite recent hurdles, because of the improvement in trade relations between the U.S. and China and recent population trends that favor lower tax and lower cost states and cities, Michigan's outlook for 2020 before the COVID-19 outbreak proved promising. According to the ALEC-Laffer State Economic Outlook Rankings, which were published for 2020 after the COVID-19 outbreak and therefore provide insight into expected performance outside of the pandemic's impact, Michigan was ranked 14th in regard to its economic outlook based off of a compilation of pro-growth economic indicators:

Table 28: Rich States, Poor States, 2020[67]

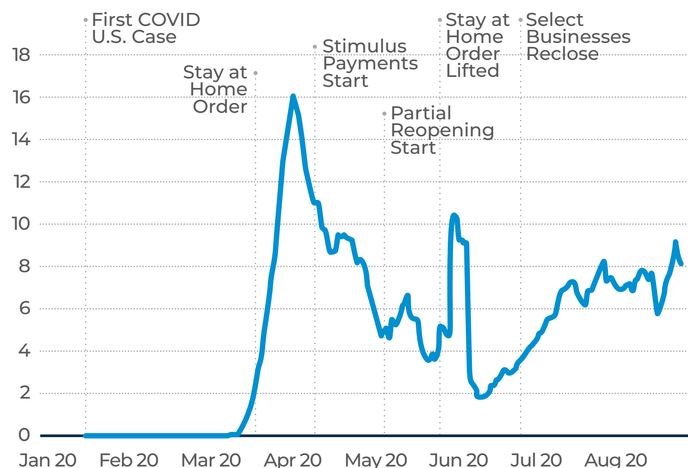
OVERALL ECONOMIC OUTLOOK	14TH BEST	
Top Marginal Personal Income Tax Rate	31st	6.65%
Top Marginal Corporate Income Tax Rate	36th	8.00%
Recently Legislated Tax Changes*	8th	-$0.66
Property Tax Burden*	30th	$31.11
Sales Tax Burden*	20th	$20.32
Debt Service as a Share of Tax Revenue	32nd	7.00%

*per $1,000 of personal income

As the COVID-19 pandemic spread, the spike in cases in Michigan were among the worst in the country, registering more than 40,000 total cases at the end of April despite implementing a Stay at Home order in late March. As the rate of new cases fell, the state's Stay at Home Order was lifted June 1, but was quickly followed with a reinstatement of business closures after another spike in cases. As the rate of new COVID cases has leveled, Michigan Governor Gretchen Whitmer announced her decision to reopen gyms and pools on September 2, but paired it with an announcement a day later that extends Michigan's state of emergency to October 1 (Figure 29).

Figure 29: New COVID-19 Cases

Cases per 100,000 people; through August 23, 2020



Source: Opportunity Insights

The economic fallout from COVID-19 has been severe, particularly for Michigan, which relies heavily on the interconnected global supply and distribution chains. The highly cyclical nature of Michigan's economy transformed into a sudden drop-off in employment, with one million jobs vanishing between March and April, causing the state's unemployment rate to surge to 21.3 percent in May 2020. The disruption caused by COVID-19 has all but halted Michigan's progress and efforts to diversify and draw new talent to the state, threatening to undo years of investment and policy initiatives.

As states navigate local challenges to combat COVID-19, they must also consider what national policies will help to support state and local economies during the worst economic downturn since the Great Depression. The 2020 presidential platforms offer dramatically varied alternatives for states to consider and, as such, will have dramatically different impacts on states' ability to generate growth and prosperity in the wake of COVID-19.

AGENDA ANALYSIS

Fiscal Implications

The extent to which U.S. states will be able to reignite growth in their cities and towns amid the COVID-19 crisis will be determined by the policies enacted at both the state and federal level. Traditionally, the federal government has provided aid to U.S. states, allowing each constituency to prioritize where funding should be focused. Instead of allowing U.S. states to individually determine the best course forward, the solution proposed in Biden's presidential platform is to significantly increase the size of the federal government and take over the administration of basic and essential services in a uniform, aggregated manner.

This increase in federal oversight and responsibilities would be matched with equally large increases in federal taxes and spending according to Candidate Joe Biden's presidential platform. For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 30).

Table 30: Cost of Biden Proposals

	TRILLIONS OF US$, 10-YEAR PERIOD	
PROPOSAL	PLAN A (INCL. MEDICARE FOR MORE)	PLAN B (INCL. MEDICARE FOR ALL)
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[68]	$3.65	$3.65
Total	$5.95	$36.4

Biden's platform is bifurcated in this way because his presidential campaign has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[69] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[70] Therefore, in light of the ongoing debate in the Democratic Party regarding its ideal plan for healthcare, this report will present two options for Biden's presidential platform based on the two options currently being considered: the "Medicare for

More" proposal currently included on the "Biden for President" campaign site, which seeks to include a government-sponsored healthcare plan on the exchanges established by the Affordable Care Act (ACA); and a "Medicare for All" proposal that has been put forward by Senator Bernie Sanders and pushed for by an increasingly large faction of the Democratic Party, which would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

Candidate Joe Biden has claimed that his tax plan will largely offset the majority of his spending initiatives by increasing the tax burden of corporations and individuals earning more than $400,000, thereby scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion.

According to Plan A, which includes "Medicare for More" as Biden's healthcare plan in addition to all other spending initiatives, federal spending increases would cost an average of $1,421 in increased federal taxes per year for every Michigan taxpayer, or $5,680 for a family of four. If Biden were to implement Plan B, which includes a "Medicare for All" healthcare plan in addition to all other spending initiatives, Michigan taxpayers would experience an even starker increase in their federal tax obligation, with the cost per taxpayer jumping to $8,142, or $32,568 for a family of four (Table 31).

Table 31: Michigan Fiscal Impacts

		IMPACT PER YEAR
PLAN A	Cost per taxpayer	$1,421
	Cost per family of 4	$5,684
	Budget impact (US$, billions)	$(1.7)
PLAN B*	Cost per taxpayer	$8,142
	Cost per family of 4	$32,568
	Budget impact (US$, billions)	$3.2

*States will presumably continue paying their share of Medicaid costs for long-term care

In regard to the budgetary impacts, Plan A would result in -$1.7 billion less revenue as a result of Biden's tax plan, and Plan B would result in $3.2 billion in additional revenue, calculated by netting the loss in revenue from Biden's tax plan (-$1.7 billion) against the decrease in spending from the federal government assuming most of the state's Medicaid spending ($4.9 trillion).[71] It should be noted that under Plan B, states would continue to pay for long-term care under Medicaid, which is all but assured to increase substantially in the coming years as the population of Michigan, and of the entire U.S., begins to age.

It is worth digging deeper into the state-level impact of Biden's tax plan, as it is one of the key features of Biden's presidential platform and is an area that the Democratic Party has been unified in supporting, indicating a high likelihood of being implemented if Biden is elected. Biden's tax plan would revert many of the base-broadening provisions introduced in the Tax Cuts and Jobs Act (TCJA). The tax base is considered "broader" when a greater portion of income is subject to taxation.

States are able to conform to the federal tax code by choosing to adopt certain elements of it into their own tax filing rules. Thus, when the federal government implements changes to the federal tax code, states also have the option to incorporate these changes, meaning that any federal tax reform has implications for state revenue collections in addition to the broader economic effects of tax reform. Under the TCJA, the repeal of the personal exemption broadened the federal tax base by subjecting a greater portion of individual income to taxation. Those states that adopted, or conformed, to the federal government's definition of personal exemption also saw their tax bases broadened and as a result saw an increase in tax revenue. Overall, the base-broadening provisions of the TCJA flowed through to states due to tax conformity measures in place, while the corresponding rate reductions did not, resulting in state revenue increases.[72]

In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Michigan's fiscal shock would jump to close to $3.5 billion, or close to a 34 percent budget shortfall.

Michigan enjoyed an outsized benefit from the TCJA through its conformity to the federal tax code. For Michigan, TCJA translated into an increase in the state's budget revenue by $1.7 billion in additional tax collections. If Biden is elected this November, and the tax cut reversal proposed in his presidential platform were to be implemented, any state budget that has benefited from this additional revenue conversely stands to lose that revenue, suggesting that Michigan would experience a direct reduction of $1.7 billion to its budget.

To provide a comparison of how large of a shock Biden's tax plan would have on Michigan's state revenue, we need look no further than the recent stress testing performed by Moody's Analytics in April 2020. As part of its analysis, the rating agency completed stress testing of all 50 states, evaluating the current level of rainy-day funds, as well as the expected fiscal shock to each state as a result of two COVID-19 impact scenarios.[73] In its baseline scenario, Moody's assumes that quarantine restrictions would be lift-

ed towards the end of the second quarter and, in its more severe "S3" scenario, the quarantine restrictions are assumed to remain in place well into the third quarter.

Results from Moody's stress testing estimate that Michigan's fiscal shock in its baseline scenario will amount to $2.8 billion over the 2020 and 2021 fiscal years as a result of its considerable loss of tax revenues and increased Medicaid spending costs--an amount that far exceeds the state's budget reserves. In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Michigan's fiscal shock would jump to close to $3.5 billion, or close to a 34 percent budget shortfall. Consequently, the impact of Biden's tax plan would be 60 percent of the budget shock that Michigan will experience as a result of COVID-19, and almost 50 percent when taking into account the more severe scenario.

Recently, Biden has also indicated that he would issue a nationwide shutdown mandate in response to a possible COVID-19 second wave if he deemed necessary.[74] As demonstrated in the estimates published by Moody's, it is clear that the unprecedented disruption caused by the COVID-19 pandemic and subsequent shutdowns will amount to historic levels of stress for U.S. state budgets. Should Biden choose to issue such a mandate, the fiscal shock is not only expected to exceed the $3.5 billion fiscal shock estimated in Moody's S3 scenario but would also result in direct harm to the state's economy.

Overall, a Biden presidency would amplify U.S. states' fiscal concerns. The higher proposed taxes under Biden's plan would not only narrow the tax base, thereby decreasing potential revenue for states, but would also weigh on economic outlook by discouraging private activity and investment. The potential impact worsens when considering the market structure impact from the substantial increase in proposed federal government spending. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

The resulting damage would be considerable: a smaller capital stock, lower labor productivity, lower wages, and, ultimately, lower national and state output. A free-market approach that encourages innovation at this time of crisis is crucial to ensuring that states can regain the growth and prosperity enjoyed following the TCJA.

Economic Implications

The total differential economic impact in Michigan is estimated at almost $10.1 billion each year, impacting almost 73,000 jobs throughout the state. As previously discussed, the loss of economic dynamism from the policies proposed by Biden-Harris vs. Trump-Pence would impact the generation of Jobs, Household Income, Gross Domestic Product (GDP) and Total Economic Impact (Output). This is presented in Table 32.

Table 32: Summary of Michigan Economic Impact Differentials

IMPACT ON	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs)	36,965	35,705	72,670
Household Income ($ Billions)	$2.1	$1.9	$4.0
Gross Domestic Product (Value Added $ Billions)	$1.8	$3.0	$4.8
Total Economic Impact ($ Billions)	$4.6	$5.5	$10.1

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Employment Impacts:

The employment differential is estimated to be 72,670 annually for the state of Michigan. These findings are summarized in Table 33. This includes a direct impact of almost 40,000 jobs in the Government & Other sector, Healthcare, Retail trade, and a range of other industries important to the State's economy. The impacts on these industries will result in impacts in many other areas of the Michigan economy. The indirect and induced job creation process reaches deeply into all sectors of the economy. An additional 16,826 jobs would be impacted indirectly. Lastly 18,878 jobs would be impacted via induced spending effects. Therefore, the total number of jobs, directly, indirectly and induced, potentially impacted is projected at 72,670. The largest impact occurs in the Knowledge-Based Services.

Table 33: Estimated Michigan Employment Impact Differential

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	39,621
Government & Other	8,185
Visitor Industry	6,940
Retail Trade	6,861
Wholesale Trade & Transportation Services	5,072
Manufacturing	3,845
Construction	2,144
Total All Industries	**72,668**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Household Income:

There would be a projected differential impact of $4 billion in Michigan household income annually. The breakdown is quantified in Table 34. This includes a direct differential of $2.1 billion with an additional $1.9 billion in indirect and induced impact. The Knowledge-Based Services Sector will have the greatest impact at $2 billion, or 52 percent of the total. This is followed by the Government & Other Sector at $0.8 billion, and the Wholesale Trade and Transportation Services sector at $0.3 billion, or seven percent of the total.

Table 34: Estimated Michigan Household Income ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$2,039,660
Government & Other	$819,434
Wholesale Trade & Transportation Services	$295,689
Manufacturing	$266,065
Visitor Industry	$216,086
Retail Trade	$188,087
Construction	$131,132
Total All Industries	**$3,956,153**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Gross Domestic Product (GDP):

The differential GDP impact will be $4.8 billion annually. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principle source of income to households and a key measure of how these policy differences have the potential to affect the state economy. Table 35 highlights these exposures. The greatest impacts are in the Knowledge-Based Services Sector, comprising $3 billion, or 62 percent, of the total. This is followed by the Wholesale Trade and Transportation Services Sector, with $0.5 billion, or 11 percent, then by other sectors such as the Visitor Industry and Manufacturing.

Table 35: Estimated Michigan GDP (Value-Added) Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$2,955,883
Wholesale Trade & Transportation Services	$514,879
Visitor Industry	$402,623
Manufacturing	$314,585
Retail Trade	$266,005
Government & Other	$233,243
Construction	$103,010
Total All Industries	**$4,790,228**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Total Economic Impact (Output):

The Total differential economic impact in Michigan is estimated at $10 billion annually. Table 36 illustrates the sector breakdown. A substantial portion of the Total Economic Impact occurs in Knowledge-Based Services and Government & Other sectors, which represent 53 percent and 17 percent of the total impact, respectively. This is followed by Wholesale Trade and Transportation Services with nine percent and Manufacturing with eight percent. The remaining 13 percent is spread across other sectors of the state's economy.

Table 36: Differential Michigan Economic Impact (Output) Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$5,383,816
Government & Other	$1,666,811
Wholesale Trade & Transportation Services	$931,845
Manufacturing	$802,550
Visitor Industry	$643,280
Retail Trade	$442,233
Construction	$222,654
Total All Industries	**$10,093,189**

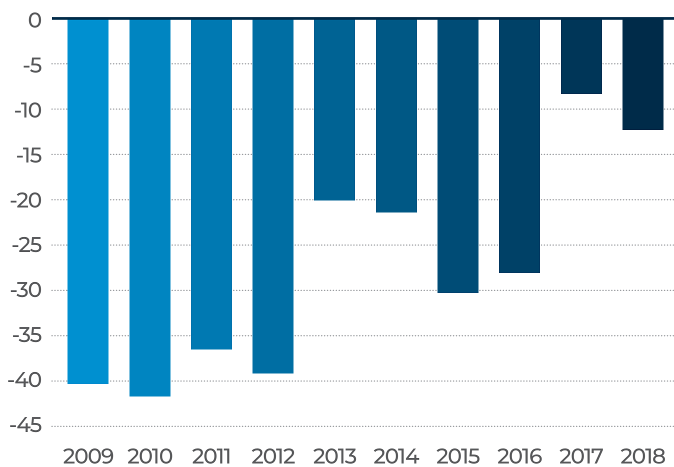
Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Ohio

BASIC DEMOGRAPHICS

Currently the 7th most populous state in the U.S., Ohio has an estimated population of almost 11.7 million, accounting for 3.6 percent of the U.S. population.[75] Over the years, Ohio's population growth has lagged behind the rest of the nation, growing 3 percent since 2000 while the U.S. population has increased by 16.3 percent, which can be explained in part by the state's consistent net outmigration (Figure 37):

Figure 37: Ohio Net Domestic Migration
Thousands; through 2018



Source: Rich States, Poor States 2020

Ohio's minority population has increased since 2000, growing 38 percent compared to a decrease of four percent for Ohio's white, non-Hispanic population. A large portion of this increase in minority populations is attributed to growth in Ohio's Hispanic and Asian populations, which grew 110 percent and 105 percent, respectively, since 2000 as a result of a 63 percent increase in immigrants into Ohio over the same period. [76]

Table 38: Ethnic characteristics of Ohio's population, in 2018

RACE/ETHNICITY	PERCENT OF POPULATION
White	79%
African American	12%
Hispanic	4%
Other	3%
Asian	2%

The median age of Ohio's residents has increased steadily since 2000 by 3.2 years, and is currently estimated to be 39.4 years, or 1.5 years older than the U.S.'s median age of 38.2 years.[77] Similar to the rest of the country, this median is expected to increase in the medium term as a larger portion of the Baby Boomer generation ages and becomes eligible for retirement. Ohio's aging population could be a potential drag on economic growth if the state is unable to draw enough younger workers to meet growing economic opportunities.

CURRENT ECONOMIC CLIMATE

Prior to the COVID-19 pandemic, Ohio enjoyed improving economic growth as pro-growth policies lured high-tech jobs and considerable venture-capital (VC) funding to the state. In particular, the Columbus, Ohio, metropolitan area has been able to leverage its advantages of being home to a large research university, Ohio State University, and the headquarters of several large retail brands to attract entrepreneurs and venture capital, with venture-capital funding growing from $35 million in 2009 to $578 million in 2019.[78] Additionally, JobsOhio, a nonprofit economic development corporation, has helped to inject funding and fortify public-private-partnerships throughout the state by pairing state economic development initiatives with private business needs. In 2019, Ohio's per capita income was $50,546, ranking 31st among U.S. states and just below both the national average of $56,663 and the Great Lakes regional average of $52,870.[79]

According to the ALEC-Laffer State Economic Outlook Rankings, which were published for 2020 after the COVID-19 outbreak and therefore provide insight into expected performance outside of the pandemic's impact, Ohio was ranked 29th in regards to its economic outlook based off of a compilation of pro-growth economic indicators:

Table 39: Rich States, Poor States, 2020[80]

OVERALL ECONOMIC OUTLOOK	29TH BEST	
Top Marginal Personal Income Tax Rate	40th	7.30%
Top Marginal Corporate Income Tax Rate	6th	3.71%
Recently Legislated Tax Changes*	35th	$0.76
Property Tax Burden*	24th	$28.78
Sales Tax Burden*	34th	$25.83
Debt Service as a Share of Tax Revenue	20th	5.70%

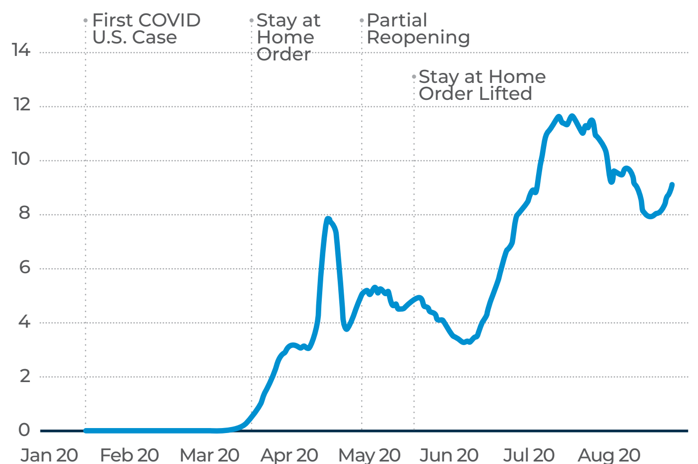
*per $1,000 of personal income

As the COVID-19 pandemic spread, Ohio joined other states in issuing Stay at Home orders in March. The sudden economic shutdown pushed Ohio unemployment to 16.8 percent in April 2020, its highest level in 44 years and significantly higher than the national rate of 14.7 percent.[81] Additionally, GDP growth in the first quarter of 2020 registered -0.29 percent year-over-year, the 13th worst in the U.S.

After reopening its economy in June, Ohio has continued to experience upticks in new COVID cases, raising questions as to whether the state should maintain business as usual, or whether the state should attempt to shut back down in an effort to curb the "second wave" of the COVID-19 pandemic.

Figure 40: New COVID-19 Cases

Cases per 100,000 people; through August 23, 2020



Source: Opportunity Insights

In response to COVID-19, private partners in Ohio have mobilized to create innovative solutions to the crisis. In addition to forming a Workforce Retention Loan program, JobsOhio modified its recently announced $50 million innovation fund to address near-term needs stemming from COVID-19 by providing bridge-loan financing to promising start-up companies.[82]

After declining in July, Ohio's labor force participation rate increased by one percent to 62.2 percent in August, surpassing the national average of 61.7 percent. However, the state's unemployment rate remained flat, dropping by only 0.1 percentage point to 8.9 percent in August, emphasizing the fragility of the recovery underway.

AGENDA ANALYSIS

Fiscal Implications

The extent to which U.S. states will be able to reignite growth in their cities and towns amid the COVID-19 crisis will be determined by the policies enacted at both the state and federal level. Traditionally, the federal government has provided aid to U.S. states, allowing each constituency to prioritize where funding should be focused. Instead of allowing U.S. states to individually determine the best course forward, the solution proposed in Biden's presidential platform is to significantly increase the size of the federal government and take over the administration of basic and essential services in a uniform, aggregated manner.

This increase in federal oversight and responsibilities would be matched with equally large increases in federal taxes and spending according to Candidate Joe Biden's presidential platform. For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 41).

Table 41: Cost of Biden Proposals

	TRILLIONS OF US$, 10-YEAR PERIOD	
PROPOSAL	**PLAN A (INCL. MEDICARE FOR MORE)**	**PLAN B (INCL. MEDICARE FOR ALL)**
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[83]	$3.65	$3.65
Total	**$5.95**	**$36.4**

Biden's platform is bifurcated in this way because his presidential campaign has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[84] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[85] Therefore, in light of the ongoing debate in the Democratic Party regarding its ideal plan for healthcare, this report will present two options for Biden's presidential platform based on the two options currently being considered: the "Medicare for More" proposal currently included on the "Biden for President" campaign site, which seeks to include a government-sponsored healthcare plan on the exchanges established by the Affordable Care Act (ACA); and a "Medicare for All" proposal that has been put forward by Senator Bernie Sanders and pushed for by an increasingly large faction of the Democratic Party, which would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

Candidate Joe Biden has claimed that his tax plan will largely offset the majority of his spending initiatives by increasing the tax burden of corporations and individuals earning more than $400,000, thereby scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even

after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion.

According to Plan A, which includes "Medicare for More" as Biden's healthcare plan in addition to all other spending initiatives, federal spending increases would cost an average of $2,100 in increased federal taxes per year for every Ohio taxpayer, or $8,400 for a family of four. If Biden were to implement Plan B, which includes "Medicare for All" as Biden's healthcare plan in addition to all other spending initiatives, Ohioans would experience an average increase in their federal tax obligation to $12,299, or $49,197 for a family of four (Table 42).

Table 42: Ohio Fiscal Impacts

		IMPACT PER YEAR
PLAN A	Cost per taxpayer	$2,100
	Cost per family of 4	$8,400
	Budget impact (US$, billions)	$0.0
PLAN B*	Cost per taxpayer	$12,299
	Cost per family of 4	$49,197
	Budget impact (US$, billions)	$5.8

* States will presumably continue paying their share of Medicaid costs for long-term care

In regard to the budgetary impacts, Plan A would not have a budgetary impact as a result of Biden's tax plan, and Plan B would result in $5.8 billion in additional revenue, calculated using the decrease in spending from the federal government assuming most of the state's Medicaid spending.[86] It should be noted that under Plan B, states would continue to pay for long-term care under Medicaid, which is all but assured to increase substantially in the coming years as the population of Ohio, and of the entire U.S., begins to age.

It is worth digging deeper into the state-level impact of Biden's tax plan, as it is one of the key features of Biden's presidential platform and is an area that the Democratic Party has been unified in supporting, indicating a high likelihood of being implemented if Biden is elected. Biden's tax plan would revert many of the base-broadening provisions introduced in the Tax Cuts and Jobs Act (TCJA). The tax base is considered "broader" when a greater portion of income is subject to taxation.

When the federal government implements changes to the federal tax code, states also have the option to incorporate these changes, meaning that any federal tax reform has implications for state revenue collections in addition to the broader economic effects of tax reform. This is because, while each state has its own set of tax laws based on its own set of priorities and agendas for its constituents, many invariably rely upon the federal tax code. Some states adopt the federal tax code fully, thereby reducing the burden for taxpayers in that state of having to decipher another set of tax law and in effect entrusting the federal government to enforce and manage taxation matters. For other states that use the federal tax code as a starting point, they must use their own resources and agencies to determine if their tax code accomplishes its desired effect and if taxpayers are paying enough according to the minutiae of state tax statutes.

Under the TCJA, the repeal of the personal exemption broadened the federal tax base by subjecting a greater portion of individual income to taxation. Those states that adopted, or conformed, to the federal government's definition of personal exemption also saw their tax bases broadened and as a result saw an increase in tax revenue. Overall, the base-broadening provisions of the TCJA flowed through to some states due to tax conformity measures in place, while the corresponding rate reductions did not, resulting in state revenue increases.[87]

In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Ohio's fiscal shock would jump to over $6.8 billion, or more than a 20 percent budget shortfall.

For Ohio, changes to individual income taxes in the TCJA were not passed through to the state level, yielding no quantitative impact on state revenue collections. However, the boost in economic output as a result of the pro-growth provisions of TCJA, and the corresponding increase in revenues as a result, should not be overlooked.

Biden's tax plan, which will reverse many provisions in TCJA, threatens to reduce state revenues when considering the dynamic impact of this plan. The Tax Foundation estimates that Biden's tax proposal would reduce long-run U.S. economic growth by 1.51 percent and reduce after-tax income for filers across the income spectrum by reducing the incentive to work and invest in the U.S.[88] This reduction would come at a time when states are already struggling to balance budgets in the wake of COVID-19. In April 2020, Moody's Analytics completed stress testing of all 50 states, evaluating the current level of rainy-day funds, as well as the expected fiscal shock to each state as a result of two COVID-19 impact scenarios.[89] In its baseline scenario, Moody's assumes that quarantine restrictions would be lifted towards the end of the second quarter and, in its more severe "S3" scenario, quarantine restrictions are assumed to remain in place well into the third quarter.

Results from Moody's stress testing estimate that Ohio's fiscal shock in its baseline scenario will amount to over $5.1 billion over the 2020 and 2021 fiscal years as a result of its considerable loss of

tax revenues and increased Medicaid spending costs, an amount that far exceeds the state's budget reserves. In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Ohio's fiscal shock would jump to over $6.8 billion, or more than a 20 percent budget shortfall.

Recently, Biden has also indicated that he would issue a nationwide shutdown mandate in response to a possible COVID-19 second wave if he deemed necessary.[90] As demonstrated in the estimates published by Moody's, it is clear that the unprecedented disruption caused by the COVID-19 pandemic and subsequent shutdowns will amount to historic levels of stress for U.S. state budgets. Should Biden choose to issue such a mandate, the fiscal shock is not only expected to exceed the $6.8 billion fiscal shock estimated in Moody's S3 scenario but would also result in direct harm to the state's economy.

Overall, a Biden presidency would amplify U.S. states' fiscal concerns. The higher proposed taxes under Biden's plan would not only narrow the tax base, thereby decreasing potential revenue for states, but would also weigh on economic outlook by discouraging private activity and investment. The potential impact worsens when considering the market structure impact from the substantial increase in proposed federal government spending. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

The resulting damage would be considerable: a smaller capital stock, lower labor productivity, lower wages, and, ultimately, lower national and state output. A free-market approach that encourages innovation at this time of crisis is crucial to ensuring that states can regain the growth and prosperity enjoyed following the TCJA.

Economic Implications

The differential in job creation at the state level serves as the basis for estimating the economic impacts associated with the candidates' agendas. These differences result in divergent expenditure patterns that create a broad range of economic impacts throughout the economy.

For the state of Ohio, Table 43 illustrates a Total Economic Impact differential of almost $11 billion annually and 79,000 Jobs throughout the state.

Table 43: Summary of Ohio Economic Impact Differentials

IMPACT ON:	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs)	43,129	36,306	79,435
Household Income ($ Billions)	$2.4	$1.8	$4.2
Gross Domestic Product (Value Added $ Billions)	$2.5	$3.2	$5.7
Total Economic Impact ($ Billions)	$5.3	$5.7	$11.0

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Employment Impacts:

Comparing the agendas results in an employment differential of 79,435 Ohio jobs. These findings are summarized in Table 44. The breakdown shows a differential of 43,129 jobs in the Government & Other sector, Healthcare, Retail trade, and a range of other industries important to Ohio's economy. The impacts on these industries will affect several other areas of the state economy. The indirect and induced job creation process reaches deeply into all parts of the Ohio economy. There would be an additional 15,920 job differential via indirect economic effects. Lastly there would be a projected 20,386 job differential from induced spending effects. The largest impacts occur in the Knowledge-Based Services, and Government & Other sectors followed by the Visitor Industry.

Table 44: Differential Ohio Employment Impacts

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	41,796
Government & Other	9,293
Visitor Industry	7,776
Retail Trade	7,682
Wholesale Trade & Transportation Services	6,017
Manufacturing	4,414
Construction	2,458
Total All Industries	**79,436**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Household Income

In total, the differential in household income for Ohio is over $4.2 billion per year, quantified in Table 45. This includes $2.4 billion direct and $1.9 billion indirect impact. The broad Knowledge-Based Services Sector would have the greatest impact at $2 billion, or 52 percent of the total, followed by the Government & Other sector at $0.8 billion or 21 percent, and the Wholesale Trade & Transportation Services sector at $0.3 billion, or seven percent of the total.

Table 45: Estimated Ohio Household Income Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$2,116,900
Government & Other	$860,131
Wholesale Trade & Transportation Services	$356,476
Manufacturing	$315,403
Visitor Industry	$233,268
Retail Trade	$202,198
Construction	$154,384
Total All Industries	$4,238,760

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Gross Domestic Product (GDP):

The differential GDP impact would be approximately $5.7 billion annually for Ohio. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principle source of income to households and a key measure of how these policy differences have the potential to affect the state economy. Table 46 highlights these exposures. The greatest impacts are in the Knowledge-Based Services Sector with $3.7 billion, or 64 percent, of the total. This is followed by the Wholesale Trade & Transportation Services Sector with $0.6 billion, or 11 percent, and by other sectors such as Manufacturing and the Visitor Industry.

Table 46: Estimated Ohio GDP (Value-Added) Impact Differential ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$3,673,454
Wholesale Trade & Transportation Services	$630,435
Manufacturing	$381,882
Visitor Industry	$374,858
Retail Trade	$309,384
Government & Other	$254,337
Construction	$98,088
Total All Industries	$5,722,438

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Total Economic Impact (Output):

The total economic impact differential in Ohio is projected at $11 billion annually. Table 47 illustrates the sector breakdown. A significant portion is contained in the Knowledge-Based Services and Government & Other sectors, which represent 57 percent and 12 percent of the total impact, respectively. This is followed by Wholesale Trade & Transportation Services with 10 percent of the total and Manufacturing with an additional nine percent. The remaining 12 percent is spread across other sectors of the state's economy.

Table 47: Estimated Ohio Total Economic Impact (Output) ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$6,198,303
Government & Other	$1,295,317
Wholesale Trade & Transportation Services	$1,127,434
Manufacturing	$963,477
Visitor Industry	$647,304
Retail Trade	$505,547
Construction	$232,640
Total All Industries	$10,970,022

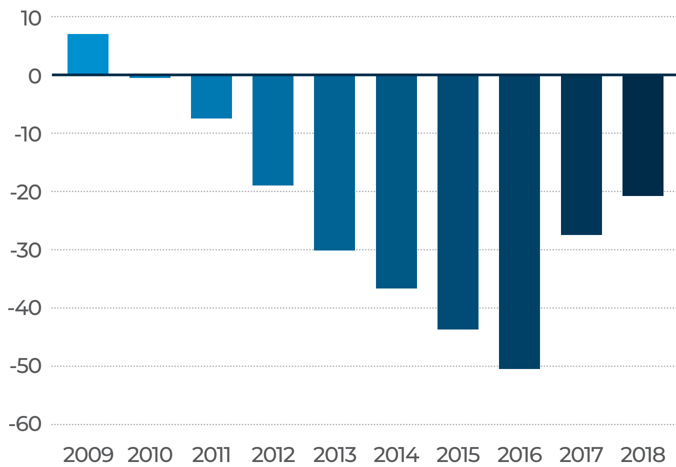
Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Pennsylvania

BASIC DEMOGRAPHICS

Although Pennsylvania remains the fifth most populous state in the U.S., with an estimated 12.8 million people as of 2018, the state's population has grown only 0.8 percent since 2010, making it the 6th slowest growing state since the Great Recession.[91] The state has experienced consistent net domestic outmigration over the same period, contributing to its tepid population growth (Figure 48). The slowing trend is likely to result in Pennsylvania losing a Congressional seat following the 2020 Census this year.[92]

Figure 48: Pennsylvania Net Domestic Migration
Thousands; through 2018



Source: Rich States, Poor States 2020

While on net declining, Pennsylvania's population trajectory shows a much more mixed picture when evaluated on a county-by-county basis. The state's southeast quadrant, which includes Philadelphia, has experienced consistent population growth as the region has attracted new jobs, gaining 200,000 residents from 2010 to 2017, while the rest of the state has experienced widespread decline.[93]

Similar to the rest of the U.S., Pennsylvania has aged as more and more Baby Boomers have reached retirement age. In 2000, the old-age dependency ratio—the ratio of over-65 population to potential workforce population—was below 25 percent in 23 counties. By 2016, only seven counties had dependency ratios below 25 percent.[94]

Pennsylvania's population has diversified since the Great Recession, with the percentage of its population identifying as White decreasing by three percent from 2010 to 2018, while its racial minority population increased 14 percent over the same period.

Table 49: Race/Ethnicity of Pennsylvania's population

RACE/ETHNICITY	2018	2010
White	80.1%	82.6%
Black or African American	11.2%	10.8%
Asian	3.6%	2.8%
American Indian and Alaska Native	0.2%	0.2%
Native Hawaiian or Pacific Islander	0.0%	0.0%
Other	2.4%	1.8%
Two or more races	2.6%	1.9%

CURRENT ECONOMIC CLIMATE

With a longtime foundation in manufacturing, Pennsylvania has faced economic volatility as the U.S. has undergone a structural shift towards a service-based economy, exporting many of its manufacturing-based industries and jobs abroad. In the aftermath of the Great Recession, the U.S. shale gas boom helped to cushion Pennsylvania and surrounding states. Drilling in the Marcellus Shale brought billions of dollars in investment by energy companies into the region, lifting Pennsylvania from the 10th largest state by oil and natural gas employment in 2007 to the sixth largest in 2012.[95] To give an idea of the cushion created by the fracking industry, employment in oil and natural gas increased by almost 260 percent between 2007 and 2012, while total nonfarm employment declined by -1.3 percent over the same period.[96]

Since 2014, total nonfarm employment increased 5.1 percent through February 2020. In 2019, wages grew by an estimated 4.5 percent, the fastest rate of increase in two decades. Growth in professional, scientific, and technical services paired with the presence of extensive higher education networks have helped Philadelphia and Pittsburgh transition into new knowledge and innovation-based economies. In 2019, Pennsylvania was named the most diverse state economy in the nation following Bloomberg's release of its "Economic Diversity Index".[97] However, the ability of the state to diversify its economy has been nuanced, with wide variation in the performance of local, county-level economies.

The southeast region has continued to build upon its foothold in healthcare and research, drawing high-paying jobs to the region that have fueled an increase in per capita income. Pennsylvania's per capita income was $58,775 in 2019, ranking 15th among U.S. states, coming out clearly above the national average of $56,663, but below the Mideast regional average of $67,172.[98] Despite having a high-ranking per capita income, Pennsylvania is comprised of diverse localities. For example, last year, the median household income of Reading, previously a bustling industrial hub and home to one of the largest Railroad Companies in the U.S., was $30,087 with a poverty rate of 35.4 percent; the median household income

of Bethel Park, a suburb outside of Pittsburgh, was $75,636 with a poverty rate of 5.2 percent.[99]

Prior to the COVID-19 pandemic, the Federal Reserve Bank of Philadelphia indicated that in 2020 Pennsylvania was forecast to undergo its sharpest decline in economic output since May 2009. While economists disagreed on the likelihood of the Fed's forecast manifesting, several emphasized improving the state's higher tax burden and cumbersome regulatory environment as areas of improvement to counter downside risks.

According to the ALEC-Laffer State Economic Outlook Rankings, which were published for 2020 after the COVID-19 outbreak and therefore provide insight into expected performance outside of the pandemic's impact, Pennsylvania was ranked 38th in regard to its economic outlook based off of a compilation of pro-growth economic indicators:

Table 50: Rich States, Poor States, 2020[100]

OVERALL ECONOMIC OUTLOOK	38TH BEST	
Top Marginal Personal Income Tax Rate	35th	6.94%
Top Marginal Corporate Income Tax Rate	49th	16.9%
Recently Legislated Tax Changes*	21st	$0.09
Property Tax Burden*	26th	$29.24
Sales Tax Burden*	12th	$17.10
Debt Service as a Share of Tax Revenue	28th	6.80%

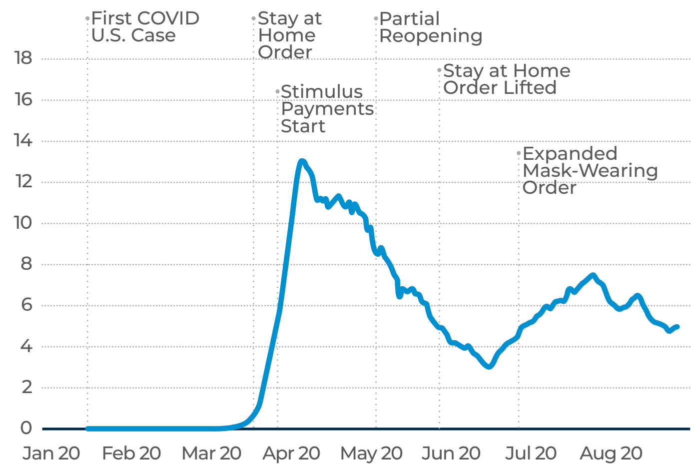
*per $1,000 of personal income

Following the onset of COVID-19, Pennsylvania quickly issued a Stay at Home order and directed non-essential businesses to close. The economic impact of the lockdown measures resulted in employers shedding over 1.1 million jobs between March and April, causing the state's unemployment rate to jump more than 10 percentage points to 16.1 percent over the same period, higher than the U.S. rate of 14.7 percent.

As the number of new infections tapered off, the state allowed a partial reopening before lifting its Stay at Home order completely in early June (Figure 51).

Figure 51: New COVID-19 Cases

Cases per 100,000 people; through August 23, 2020



Source: Opportunity Insights

The reopening of its economy has allowed Pennsylvania to recoup some of the employment lost during the COVID-19 shutdown, posting strong job gains in July of close to 100,000 jobs. However, the state's unemployment remains considerably elevated at 12.5 percent, the fifth highest in the country. The pandemic-induced disruption to Pennsylvania's economy is likely to persist for some time as two of the state's largest industries—higher education and energy—struggle to determine a path forward. For energy, in particular, the corresponding drop-off in global energy demand and a persistent glut of supply in natural gas have weighed on energy commodity prices. As a result, many of the energy companies that helped to cushion the state following the Great Recession have announced sharp cutbacks to capital spending plans. In its place, the state's burgeoning tech industry is expected to help lead economic recovery efforts, with all of the Big 5 tech giants (Apple, Amazon, Facebook, Google, and Microsoft) now operating in Pittsburgh, in addition to Uber, Honeywell, and Argo AI.[101]

AGENDA ANALYSIS

Fiscal Implications

The extent to which U.S. states will be able to reignite growth in their cities and towns amid the COVID-19 crisis will be determined by the policies enacted at both the state and federal level. Traditionally, the federal government has provided aid to U.S. states, allowing each constituency to prioritize where funding should be focused. Instead of allowing U.S. states to individually determine the best course forward, the solution proposed in Biden's presidential platform is to significantly increase the size of the federal government and take over the administration of basic and essential services in a uniform, aggregated manner.

This increase in federal oversight and responsibilities would be matched with equally large increases in federal taxes and spending according to Candidate Joe Biden's presidential platform. For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 52).

Table 52: Cost of Biden Proposals

	TRILLIONS OF US$, 10-YEAR PERIOD	
PROPOSAL	PLAN A (INCL. MEDICARE FOR MORE)	PLAN B (INCL. MEDICARE FOR ALL)
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[102]	$3.65	$3.65
Total	**$5.95**	**$36.4**

Biden's platform is bifurcated in this way because his presidential campaign has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[103] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[104] Therefore, in light of the ongoing debate in the Democratic Party regarding its ideal plan for healthcare, this report will present two options for Biden's presidential platform based on the two options currently being considered: the "Medicare for More" proposal currently included on the "Biden for President" campaign site, which seeks to include a government-sponsored healthcare plan on the exchanges established by the Affordable Care Act (ACA); and a "Medicare for All" proposal that has been put forward by Senator Bernie Sanders and pushed for by an increasingly large faction of the Democratic Party, which would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

Candidate Joe Biden has claimed that his tax plan will largely offset the majority his spending initiatives by increasing the tax burden of corporations and individuals earning more than $400,000, thereby scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion.

According to Plan A, which includes "Medicare for More" as Biden's healthcare plan in addition to all other campaign spending initiatives, federal spending increases would cost an average of $1,867 in increased federal taxes per year for every Pennsylvania taxpayer, or $7,469 for a family of four. If Biden were to implement Plan B, which includes a "Medicare for All" healthcare plan in addition to all other campaign spending initiatives, Pennsylvanians would experience a six-fold increase in their federal tax obligation, with the cost per taxpayer jumping to $10,605, or $42,419 for a family of four (Table 53).

Table 53: Pennsylvania Fiscal Impacts

		IMPACT PER YEAR
PLAN A	Cost per taxpayer	$1,867
	Cost per family of 4	$7,469
	Budget impact (US$, billions)	$(0.3)
PLAN B*	Cost per taxpayer	$10,605
	Cost per family of 4	$42,419
	Budget impact (US$, billions)	$9.1

* States will presumably continue paying their share of Medicaid costs for long-term care

In regard to the budgetary impacts, Plan A would result in -$0.3 billion less revenue as a result of Biden's tax plan, and Plan B would result in $9.1 billion in additional revenue, calculated by netting the loss in revenue from Biden's tax plan (-$0.3 billion) against the decrease in spending from the federal government assuming most of the state's Medicaid spending ($9.4 billion).[105] It should be noted that under Plan B, states would continue to pay for long-term care under Medicaid, which is all but assured to increase substantially in the coming years as the population of Pennsylvania, and of the entire U.S., begins to age.

It is worth digging deeper into the state-level impact of Biden's tax plan, as it is one of the key features of Biden's presidential platform and is an area that the Democratic Party has been unified in supporting, indicating a high likelihood of being implemented if Biden is elected. Biden's tax plan would revert many of the base-broadening provisions introduced in the Tax Cuts and Jobs Act (TCJA). The tax base is considered "broader" when a greater portion of income is subject to taxation.

States are able to conform to the federal tax code by choosing to adopt certain elements of it into their own tax filing rules. Thus, when the federal government implements changes to the federal

tax code, states also have the option to incorporate these changes, meaning that any federal tax reform has implications for state revenue collections in addition to the broader economic effects of tax reform. Under the TCJA, the repeal of the personal exemption broadened the federal tax base by subjecting a greater portion of individual income to taxation. Those states that adopted, or conformed, to the federal government's definition of personal exemption also saw their tax bases broadened and as a result saw an increase in tax revenue. Overall, the base-broadening provisions of the TCJA flowed through to states due to tax conformity measures in place, while the corresponding rate reductions did not, resulting in state revenue increases.[106]

In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Pennsylvania's fiscal shock would jump to over $4.4 billion, or close to a 13 percent budget shortfall.

Pennsylvania enjoyed a tax revenue benefit from the TCJA through its conformity to the federal tax code. For Pennsylvania, TCJA translated into an increase in the state's budget revenue by $340 million in additional tax collections. If Biden is elected this November, and the tax cut reversal proposed in his presidential platform were to be implemented, any state budget that has benefited from this additional revenue conversely stands to lose that revenue. This would mean that Pennsylvania would experience a direct reduction of $340 million to its budget.

To provide a comparison of how large of a shock Biden's tax plan would have on Pennsylvania's state revenue, we need look no further than the recent stress testing performed by Moody's Analytics in April 2020. As part of its analysis, the rating agency completed stress testing of all 50 states, evaluating the current level of rainy-day funds, as well as the expected fiscal shock to each state as a result of two COVID-19 impact scenarios.[107] In its baseline scenario, Moody's assumes that quarantine restrictions would be lifted towards the end of the second quarter and, in its more severe "S3" scenario, the quarantine restrictions are assumed to remain in place well into the third quarter.

Results from Moody's stress testing estimate that Pennsylvania's fiscal shock in its baseline scenario will amount to more than $3.3 billion over the 2020 and 2021 fiscal years as a result of its considerable loss of tax revenues and increased Medicaid spending costs, an amount that far exceeds the state's budget reserves. In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Pennsylvania's fiscal shock would jump to over $4.4 billion, or close to a 13 percent budget shortfall. Consequently, the impact of Biden's tax plan would be 10 percent of the budget shock that Pennsylvania will experience as a result of COVID-19, and almost eight percent when taking into account the more severe scenario.

Recently, Biden has also indicated that he would issue a nationwide shutdown mandate in response to a possible COVID-19 second wave if he deemed necessary.[108] As demonstrated in the estimates published by Moody's, it is clear that the unprecedented disruption caused by the COVID-19 pandemic and subsequent shutdowns will amount to historic levels of stress for U.S. state budgets. Should Biden choose to issue such a mandate, the fiscal shock is not only assured to exceed the $4.4 billion fiscal shock estimated in Moody's S3 scenario but would also result in direct harm to the state's economy.

Overall, a Biden presidency would amplify U.S. states' fiscal concerns. The higher proposed taxes under Biden's plan would not only narrow the tax base, thereby decreasing potential revenue for states, but would also weigh on economic outlook by discouraging private activity and investment. The potential impact worsens when considering the market structure impact from the substantial increase in proposed federal government spending. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

The resulting damage would be considerable: a smaller capital stock, lower labor productivity, lower wages, and, ultimately, lower national and state output. A free-market approach that encourages innovation at this time of crisis is crucial to ensuring that states can regain the growth and prosperity enjoyed following the TCJA.

Economic Implications

For the state of Pennsylvania, the total differential impact would be approximately $11.4 Billion annually, and 82,000 jobs throughout the state.

The differing policy agendas generate economic impacts that extend beyond those directly related to the specific policy initiatives. These "spillover" or multiplier impacts are the result of each business activity's supply relationships with other firms operating within the state, the proportion of business value added that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within the community. These expenditures would generate significant economic impacts throughout the state. The differentials on Jobs, Household Income, Gross Domestic Product and Total Economic Impact (Output) are summarized in Table 54.

Table 54: Summary of Projected Pennsylvania Differential Economic Impact

IMPACT ON:	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs)	47,354	34,514	81,868
Household Income ($ Billions)	$2.7	$2.0	$4.7
Gross Domestic Product (Value Added $ Billions)	$3.3	$3.2	$6.5
Total Economic Impact ($ Billions)	$5.8	$5.6	$11.4

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Employment Impacts:

There is a differential impact of almost 82,000 Pennsylvania jobs, summarized in Table 55. The breakdown includes an impact of 47,354 jobs in the Government & Other sector, Healthcare, Retail trade, and a range of other industries important to Pennsylvania's economy. The impacts on these sectors will result in effects in many other areas of the state economy. The indirect and induced job creation process reaches deeply into all sectors of the State economy. An additional 13,786 jobs are supported via indirect economic effects. Lastly, 20,728 jobs are generated from induced spending effects. Consequently, the total number of jobs, directly, indirectly and induced, potentially impacted by these differing policy agendas is estimated at a significant 81,868. The largest impacts occur in the Knowledge-Based Services, Government & Other sectors, followed by Retail Trade.

Table 55: Estimated Pennsylvania Employment Differential

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	42,083
Government & Other	10,035
Retail Trade	8,236
Visitor Industry	7,958
Wholesale Trade & Transportation Services	6,192
Manufacturing	4,701
Construction	2,663
Total All Industries	81,868

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Household Income:

There would be a $4.7 billion differential in Pennsylvania Household Income each year, summarized in Table 56. This differential includes $2.7 billion of direct impact and an additional $2.0 billion induced. The Knowledge-Based Services Sector will have the greatest impact at $2.5 billion, followed by the Government & Other Sector at $0.9 billion, and the Wholesale Trade and Transportation Services sector at $0.4 billion.

Table 56: Estimated Pennsylvania Household Income Differential ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$2,502,657
Government & Other	$938,747
Wholesale Trade & Transportation Services	$352,634
Visitor Industry	$284,064
Manufacturing	$253,689
Retail Trade	$225,895
Construction	$182,945
Total All Industries	$4,740,631

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Gross Domestic Product (GDP):

The GDP differential for Pennsylvania would be $6.5 billion annually. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principal source of income to households and a key measure of how these policy differences have the potential to affect the state economy. Table 57 highlights these exposures. The greatest differential is in the Knowledge-Based Services Sector with $3.5 billion, or 55 percent, of the total. This is followed by the Government & Other Sector with $1.1 billion, or 17 percent, and by other sectors such as Wholesale Trade & Transportation Services and the Visitor Industry.

Table 57: Estimated Pennsylvania GDP (Value-Added) Differential ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$3,530,046
Government & Other	$1,079,961
Wholesale Trade & Transportation Services	$684,653
Visitor Industry	$423,138
Manufacturing	$325,820
Retail Trade	$289,499
Construction	$128,137
Total All Industries	**$6,461,254**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Total Economic Impact (Output):

The projected total economic impact differential in Pennsylvania is estimated at $11.4 billion annually. Table 58 illustrates the sector breakdown. The most significant impact occurs in Knowledge-Based Services and Government & Other sectors, which represent 54 percent and 16 percent of the total, respectively. This is followed by Wholesale Trade & Transportation Services with 10 percent of the total, and Manufacturing with an additional eight percent. The remaining 12 percent is spread across other sectors of the state's economy.

Table 58: Estimated Pennsylvania Total Economic Impact (Output) ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$6,031,250
Government & Other	$1,769,270
Wholesale Trade & Transportation Services	$1,173,854
Manufacturing	$919,656
Visitor Industry	$702,853
Retail Trade	$498,056
Construction	$271,754
Total All Industries	**$11,366,693**

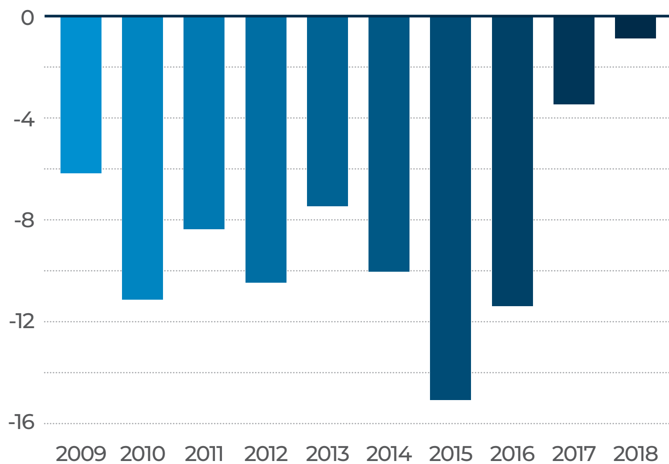
Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Wisconsin

BASIC DEMOGRAPHICS

In 2018, Wisconsin's population was estimated to be 5.8 million, up eight percent from 2000 but only 2.7 percent since 2010. Domestic net outmigration since the Great Recession in 2009 has underpinned the state's declining population growth, although in recent years outmigration from the state has declined significantly (Figure 59).

Figure 59: Wisconsin Net Domestic Migration
Thousands; through 2018



Source: Rich States, Poor States 2020

Like the rest of the U.S., Wisconsin also faces an aging population as Baby Boomers have begun to reach retirement age, although a larger percentage of Wisconsin's population is older than that of the U.S. as a whole. The rapid growth in Wisconsin's senior population in conjunction with a flat working-age population will continue to weigh on the state's labor force, which contracted 0.2 percent in 2018 and has not surpassed two percent in growth since the mid-1990's.[109] A strong influx of immigrants has helped to fill in Wisconsin's gap in its labor force, making up 7.2 percent of Wisconsin business owners.[110]

Wisconsin is less diverse than the United States as a whole. According to U.S. Census data from the 2018 American Community Survey, people who are "white alone" make up about 72 percent of the national population and 82.7 percent of Wisconsin's. However, Wisconsin's racial minority population has continued to increase since the Great Recession, with Hispanic Americans currently the fastest-growing minority group in the state.[111]

Table 60: Race/Ethnicity of Wisconsin's population

RACE/ETHNICITY	2018	2010
White	85.3%	87.0%
Black or African American	6.4%	6.2%
Asian	2.8%	2.3%
American Indian and Alaska Native	0.9%	0.8%
Native Hawaiian or Pacific Islander	0.0%	0.0%
Other	2.1%	1.6%
Two or more races	2.5%	2.1%
Not Hispanic	93.1%	94.1%
Hispanic	6.9%	5.9%

CURRENT ECONOMIC CLIMATE

Wisconsin is one of only five states that derive more than a fifth of their economic output from farms and factories.[112] Manufacturing accounts for 16 percent of employment across Wisconsin, well above the average of 12 percent. Additionally, the state leads the nation in dairy farms, but also in farm bankruptcies—years of low dairy prices, partly a result of greater efficiency yielding more supply, have led to the closure of 40 percent of Wisconsin dairy farms over the past decade.[113]

Wisconsin's dependence on manufacturing and agriculture has rendered it susceptible to cyclical slowdowns, which have recently been exacerbated by Trump's ongoing trade dispute with China. The dairy sector, which was already struggling due to oversupply, became a central target in retaliatory tariffs by U.S. trade partners. The increased costs and uncertainties associated with U.S. trade confrontations also pushed manufacturing businesses to halt investment, employment, and production, causing factory payrolls to drop off.

According to the ALEC-Laffer State Economic Outlook Rankings, which were published for 2020 after the COVID-19 outbreak and therefore provide insight into expected performance outside of the pandemic's impact, Wisconsin was ranked 12th in regard to its economic outlook based off of a compilation of pro-growth economic indicators:

Table 61: Rich States, Poor States, 2020[114]

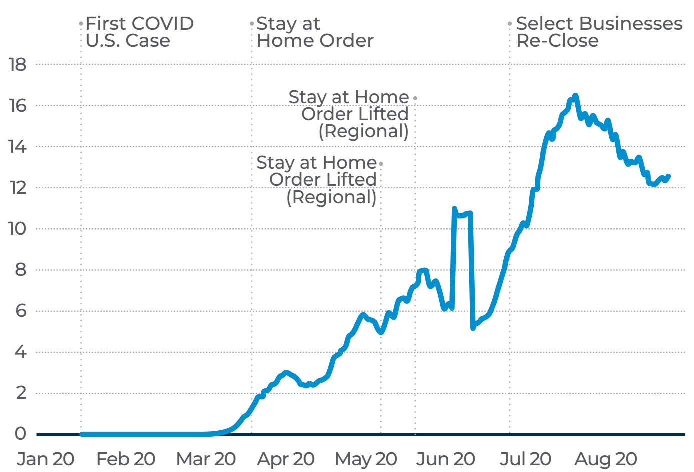
OVERALL ECONOMIC OUTLOOK	12TH BEST	
Top Marginal Personal Income Tax Rate	41st	7.65%
Top Marginal Corporate Income Tax Rate	35th	7.90%
Recently Legislated Tax Changes*	3rd	-$1.18
Property Tax Burden*	35th	$34.31
Sales Tax Burden*	17th	$20.08
Debt Service as a Share of Tax Revenue	13th	5.00%

*per $1,000 of personal income

Wisconsin's experience with the COVID-19 outbreak is unique compared to other U.S. states. After Wisconsin Governor Tony Evers announced a Stay at Home order on March 23, the state Supreme Court overruled the order on May 13, paving the way for the economy to reopen earlier than most other states and for localities and citizens to decide upon the best approach to protecting themselves. The resulting rebound was substantial, with the state's unemployment rate falling to seven percent in July—under the U.S.'s rate of 8.4 percent—after initially jumping to 13.6 percent in April. Additionally, from a revenue standpoint, Wisconsin entered the COVID-19-induced recession with a sizable buffer as it originally expected to run a budget surplus for the 2020 and 2021 fiscal years, and also managed to collect 1.1 percent more state tax revenue for the 2019-20 fiscal year than last year despite the COVID-19 shutdown.

However, as new COVID cases resumed their upward trajectory, nearly tripling in July, there has been a stagnation in economic activity as some localities choose to reissue restrictions and universities in the state begin to move all classes online and enforce mandatory quarantines, or consider closing entirely and sending students home (Figure 62).

Figure 62: New COVID-19 Cases
Cases per 100,000 people; through August 23, 2020



Source: Opportunity Insights

AGENDA ANALYSIS

Fiscal Implications

The extent to which U.S. states will be able to reignite growth in their cities and towns amid the COVID-19 crisis will be determined by the policies enacted at both the state and federal level. Traditionally, the federal government has provided aid to U.S. states, allowing each constituency to prioritize where funding should be focused. Instead of allowing U.S. states to individually determine the best course forward, the solution proposed in Biden's presidential platform is to significantly increase the size of the federal government and take over the administration of basic and essential services in a uniform, aggregated manner.

This increase in federal oversight and responsibilities would be matched with equally large increases in federal taxes and spending according to Candidate Joe Biden's presidential platform. For the purposes of this analysis, Biden's platform is differentiated between two options: Plan A, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for More"; and Plan B, which includes all other spending areas as well as a healthcare plan that would implement "Medicare for All," also known as M4A (Table 63).

Table 63: Cost of Biden Proposals

	TRILLIONS OF US$, 10-YEAR PERIOD	
PROPOSAL	PLAN A (INCL. MEDICARE FOR MORE)	PLAN B (INCL. MEDICARE FOR ALL)
Healthcare	$2.15	$32.6
Climate | Green New Deal	$2.00	$2.00
Taxes	-$3.80	-$3.80
Minimum Wage Hike	-	-
Education	$1.25	$1.25
Trade	$0.70	$0.70
Additional Spending[115]	$3.65	$3.65
Total	$5.95	$36.4

Biden's platform is bifurcated in this way because his presidential campaign has largely sought to aggregate ideas put forth by other Democratic party leaders, most recently incorporating the recommendations of the "Biden-Sanders Unity Task Force."[116] For many of the policy areas under consideration in this report, the task force recommendations present a united agreement, with the exception of healthcare, which continues to remain open-ended for voters.[117] Therefore, in light of the ongoing debate in the Democratic Party regarding its ideal plan for healthcare, this report will present two options for Biden's presidential platform based on the two options currently being considered: the "Medicare for

More" proposal currently included on the "Biden for President" campaign site, which seeks to include a government-sponsored healthcare plan on the exchanges established by the Affordable Care Act (ACA); and a "Medicare for All" proposal that has been put forward by Senator Bernie Sanders and pushed for by an increasingly large faction of the Democratic Party, which would replace most current public and private health insurance with a new federal program that would guarantee health coverage for nearly all U.S. residents.

Candidate Joe Biden has claimed that his tax plan will largely offset the majority of his spending initiatives by increasing the tax burden of corporations and individuals earning more than $400,000, thereby scaling back the tax rate cuts that were put into place by the 2017 Tax Cuts and Jobs Act (TCJA). However, even after incorporating the $3.8 trillion in estimated static revenue of Biden's tax increases, Plan A would cost American taxpayers close to $6 trillion, while Plan B would cost American taxpayers six times the cost incurred by Plan A, totaling more than $36 trillion.

According to Plan A, which includes "Medicare for More" as Biden's healthcare plan in addition to all other campaign spending initiatives, federal spending would increase by close to $6 trillion and would cost an average of $1,560 in increased federal taxes per year for every Wisconsin taxpayer, or $6,240 for a family of four. If Biden were to implement Plan B, which includes Medicare for All as his healthcare plan in addition to all other campaign spending initiatives, Wisconsin taxpayers would experience a six-fold increase in their federal tax obligation, with the cost per taxpayer jumping to $9,020, or $36,078 for a family of four (Table 64).

Table 64: Wisconsin Fiscal Impacts

		IMPACT PER YEAR
PLAN A	Cost per taxpayer	$1,560
	Cost per family of 4	$6,240
	Budget impact (US$, billions)	$0.0
PLAN B*	Cost per taxpayer	$9,020
	Cost per family of 4	$36,078
	Budget impact (US$, billions)	$2.8

* States will presumably continue paying their share of Medicaid costs for long-term care

In regard to the budgetary impacts, Plan A would not have a budgetary impact as a result of Biden's tax plan, and Plan B would result in $2.8 billion in additional revenue, calculated using the decrease in spending from the federal government assuming most of the state's Medicaid spending.[118] It should be noted that under Plan B, states would continue to pay for long-term care under Medicaid, which is all but assured to increase substantially in the coming years as the population of Wisconsin, and of the entire U.S., begins to age.

It is worth digging deeper into the state-level impact of Biden's tax plan, as it is one of the key features of Biden's presidential platform and is an area that the Democratic Party has been unified in supporting, indicating a high likelihood of being implemented if Biden is elected. Biden's tax plan would revert many of the base-broadening provisions introduced in the Tax Cuts and Jobs Act (TCJA). The tax base is considered "broader" when a greater portion of income is subject to taxation.

When the federal government implements changes to the federal tax code, states also have the option to incorporate these changes, meaning that any federal tax reform has implications for state revenue collections in addition to the broader economic effects of tax reform. This is because, while each state has its own set of tax laws based on its own set of priorities and agendas for its constituents, many invariably rely upon the federal tax code. Some states adopt the federal tax code fully, thereby reducing the burden for taxpayers in that state of having to decipher another set of tax law and in effect entrusting the federal government to enforce and manage taxation matters. For other states that use the federal tax code as a starting point, they must use their own resources and agencies to determine if their tax code accomplishes its desired effect and if taxpayers are paying enough according to the minutiae of state tax statutes.

In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Wisconsin's fiscal shock would jump to almost $3 billion, or a 17 percent budget shortfall.

Under the TCJA, the repeal of the personal exemption broadened the federal tax base by subjecting a greater portion of individual income to taxation. Those states that adopted, or conformed, to the federal government's definition of personal exemption also saw their tax bases broadened and as a result saw an increase in tax revenue. Overall, the base-broadening provisions of the TCJA flowed through to some states due to tax conformity measures in place, while the corresponding rate reductions did not, resulting in state revenue increases.[119]

For Wisconsin, changes to individual income taxes in the TCJA were not passed through to the state level, yielding no quantitative impact on state revenue collections. However, the boost in economic output as a result of the pro-growth provisions of TCJA, and the corresponding increase in revenues as a result, should not be overlooked.

Biden's tax plan, which will reverse many provisions in TCJA,

threatens to reduce state revenues when considering the dynamic impact of this plan. The Tax Foundation estimates that Biden's tax proposal would reduce long-run U.S. economic growth by 1.51 percent and reduce after-tax income for filers across the income spectrum by reducing the incentive to work and invest in the U.S.[120] This reduction would come at a time when states are already struggling to balance budgets in the wake of COVID-19. In April 2020, Moody's Analytics completed stress testing of all 50 states, evaluating the current level of rainy-day funds, as well as the expected fiscal shock to each state as a result of two COVID-19 impact scenarios.[121] In its baseline scenario, Moody's assumes that quarantine restrictions would be lifted towards the end of the second quarter and, in its more severe "S3" scenario, quarantine restrictions are assumed to remain in place well into the third quarter.

Results from Moody's stress testing estimate that Wisconsin's fiscal shock in its baseline scenario will amount to over $2.3 billion over the 2020 and 2021 fiscal years as a result of its considerable loss of tax revenues and increased Medicaid spending costs, an amount that far exceeds the state's budget reserves. In the more severe scenario, in which lockdown measures were extended into the third quarter of 2020, Wisconsin's fiscal shock would jump to almost $3 billion, or a 17 percent budget shortfall.

Recently, Biden has also indicated that he would issue a nationwide shutdown mandate in response to a possible COVID-19 second wave if he deemed necessary.[122] As demonstrated in the estimates published by Moody's, it is clear that the unprecedented disruption caused by the COVID-19 pandemic and subsequent shutdowns will amount to historic levels of stress for U.S. state budgets. Should Biden choose to issue such a mandate, the fiscal shock is not only assured to exceed the $3 billion fiscal shock estimated in Moody's S3 scenario but would also result in direct harm to the state's economy.

Overall, a Biden presidency would amplify U.S. states' fiscal concerns. The higher proposed taxes under Biden's plan would not only narrow the tax base, thereby decreasing potential revenue for states, but would also weigh on economic outlook by discouraging private activity and investment. The potential impact worsens when considering the market structure impact from the substantial increase in proposed federal government spending. In order to spend money, the government must first take it from the private sector – either through taxes or borrowing. Depending upon how these revenues are spent, the contribution of the government expenditures to the economy may be less than the value of the money to the economy prior to its removal from the private sector. When this is the case, government expenditures create additional negative impacts on economic growth and development beyond the tax impacts already considered.

The resulting damage would be considerable: a smaller capital stock, lower labor productivity, lower wages, and, ultimately, lower national and state output. A free-market approach that encourages innovation at this time of crisis is crucial to ensuring that states can regain the growth and prosperity enjoyed following the TCJA.

Economic Implications

The difference in job creation at the state level serves as the basis for estimating the economic impacts associated with each candidate's agendas. These differences could result in expenditure patterns that will create a broad range of economic impacts throughout Wisconsin. These activities generate significant and quantifiable economic impacts that will flow throughout the state economy.

The result is a differential in total economic impact of almost $5.1 billion and 40,000 jobs annually. Different policy agendas generate economic impacts that extend beyond those directly related to the specific policy initiatives. These "spillover" or multiplier impacts are the result of each business activity's supply relationships with other firms operating within the state, the proportion of business value added that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within the community. These expenditures will generate significant and potentially positive economic impacts throughout the state. These impacts include the generation of Jobs, Household Income, Total Economic Impact (Output) and are illustrated in Table 65.

Table 65: Summary of Wisconsin Economic Impact Differentials

IMPACT ON:	DIRECT	INDIRECT & INDUCED	TOTAL IMPACT
Employment (Jobs)	21,502	18,518	40,020
Household Income ($ Billions)	$1.1	$0.9	$2.0
Gross Domestic Product (Value Added $ Billions)	$0.7	$1.5	$2.2
Total Economic Impact ($ Billions)	$2.3	$2.7	$5.1

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Employment Impacts:

There would be a differential of 40,020 Wisconsin jobs annually, summarized in Table 66. This includes 21,502 jobs in the Government & Other sector, Healthcare, Retail trade, and a range of other industries important to the Wisconsin economy. The impacts on these sectors will result in effects in many other areas of the state economy. An additional 9,094 jobs would be impacted via indirect economic effects. Lastly 9,424 jobs are generated from induced spending effects.

Table 66: Estimated Wisconsin Employment Impact Differential

INDUSTRY	JOBS SUPPORTED
Knowledge-Based Services	21,110
Government & Other	4,633
Visitor Industry	3,935
Retail Trade	3,892
Wholesale Trade & Transportation Services	2,960
Manufacturing	2,264
Construction	1,225
Total All Industries	**40,019**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Household Income:

Policy agendas would result in a differential impact over $2.0 billion in Wisconsin household income annually, illustrated in Table 67. This would include $1.1 billion in direct impact and an additional $0.9 billion of indirect and induced income. The Knowledge-Based Services Sector will have the greatest exposure at $1.0 billion, or 50 percent of the total, followed by the Government & Other Sector at $0.4 billion or 21 percent, and the Wholesale Trade & Transportation Services sector at $0.2 billion, or nine percent of the total.

Table 67: Estimated Wisconsin Household Income Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$1,024,384
Government & Other	$427,575
Wholesale Trade & Transportation Services	$173,051
Manufacturing	$128,769
Visitor Industry	$106,925
Retail Trade	$93,490
Construction	$78,177
Total All Industries	**$2,032,371**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Gross Domestic Product (GDP):

The differential in Gross Domestic Product output would be over $2.2 billion annually. Gross Domestic Product is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes. It is the principle source of income to households and a key measure of how these policy differences have the potential to affect the state economy. Table 68 highlights these exposures. The greatest exposures are in the Knowledge-Based Services sector with $1.5 billion, or 70 percent, of the total. This is followed by the Wholesale Trade & Transportation Services Sector with $0.3 billion, or 15 percent, then by other sectors such as the Visitor Industry and Manufacturing.

Table 68: Estimated Wisconsin GDP (Value-Added) Impacts ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$1,545,599
Wholesale Trade & Transportation Services	$319,280
Visitor Industry	$168,462
Manufacturing	$159,025
Retail Trade	$129,165
Construction	$51,436
Government & Other	-$187,711
Total All Industries	**$2,185,256**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Total Economic Impact (Output):

The total differential economic impact in Wisconsin is estimated at $5.1 billion annually. Table 69 illustrates the sector breakdown of the total economic impacts. The most substantial portion is in the Knowledge-Based Services and Government & Other sectors, which represent 56 percent and 12 percent of the total impact, respectively. This is followed by the Wholesale Trade & Transportation Services sector with 11 percent of the total and Manufacturing with an additional eight percent. The remaining 13 percent is spread across other sectors of the state's economy.

Table 69: Estimated Wisconsin Total Economic Impact (Output) ($ Thousands)

INDUSTRY	TOTAL IMPACT
Knowledge-Based Services	$2,839,629
Government & Other	$612,733
Wholesale Trade & Transportation Services	$561,280
Manufacturing	$435,108
Visitor Industry	$304,396
Retail Trade	$229,453
Construction	$118,478
Total All Industries	**$5,101,077**

Note: Total may not equal of all due to rounding.
Source: The Washington Economics Group, Inc. (WEG)

Endnotes

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