HEALING TRIBAL ECONOMIES

FINAL UPDATED PROGNOSIS FOR ECONOMIC RECOVERY FROM COVID-19 IN INDIAN COUNTRY

FEBRUARY 2021

Klas Robinson QED

INTEGRITY ∴ ACCURACY ∴ RESPECT

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To our clients and friends in Indian Country and all working to improve the economic future for Native American people:

KlasRobinson Q.E.D. is pleased to present the accompanying update of our June white paper and September update entitled: “Healing Tribal Economies – Updated Prognosis for Economic Recovery from COVID-19 in Indian Country." With the passage of eight months since our original report and a full year since the pandemic first hit the U.S., we have much more information on the behavior of the disease itself and of the government officials, business leaders and general population in response. The pandemic is not over. In fact, it may yet spike again due to mutations in the virus and the time necessary to vaccinate a sufficient number of people to finally constrain it. The toll had been horrific and the time to fully recover economically and psychologically will be significant. Nevertheless, a practical end to the crisis atmosphere and worst restrictions is in sight. As a result, we expect this to be the last update of our prognosis and prescriptions to be required.

Our hope continues to be that this work will provide tribes with more than simply another set of predictions, but also the analytical discussion to be able to draw their own conclusions in developing plans for their people and adjust those plans over time as new data becomes available. To do this, we have taken our more than 30 years of experience forecasting future outcomes for more than 250 tribes and applied it to this very troubling situation to give our best estimates and recommendations for tribal economic recovery from COVID-19. One thing we still know for sure: as bad as this is, tribal leaders have weathered far more severe storms throughout history and will survive the current crisis to continue to protect their cultures and their people. Indeed, their efforts thus far have been both heroic and effective.

KlasRobinson Q.E.D.

James M. Klas
Founder & Principal

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INTRODUCTION

In June of last year, faced with a global health and economic crisis unseen in generations, we felt the need to take the time to research and analyze the potential patterns and impacts of the pandemic and associated mitigation efforts on tribal economies, for our own knowledge and benefit and for our clients and Indian country as a whole. That the extraordinary crisis was occurring in the midst of an election year and the greatest surge in racial and social unrest in decades only added to the uncertainty. It was both predictable and already evident that the pandemic and accompanying economic upheaval would affect Native Americans disproportionately. The questions were: how badly, how long, and how to recover?

Based upon the information available at the time and assumptions regarding the course of the virus and efforts to contain it, KlasRobinson Q.E.D.* extrapolated the available information, combined with evidence from the history of other pandemics and other economic crises, to issue an initial prognosis for tribal economies and prescriptions for actions tribes could take to reduce negative impacts and speed recovery. In September, armed with three months of additional data, but before any vaccine, before the election and before the worst of the daily caseloads and deaths, we updated our prognosis to reflect certain patterns already emerging.

By that time, the concept of stay-at-home orders had effectively been abandoned and business shut downs and other restrictions had been reduced despite significant increases in caseloads and continued increases in deaths. While the even more severe spike in cases and deaths in the fall and early winter led to a partial resumption of more stringent restrictions on business, travel and personal activity, they were more narrowly targeted geographically and by type. The primary tool for pandemic control became mask wearing, which had problems with popularity and compliance in itself. The limits of that tool as the primary public health response in the absence of other controls on human interaction have been clearly seen, primarily due to predictable compliance issues. However, the collective revulsion at the severity of the economic effects of more severe restrictions and a restiveness at all levels over the length of time they were imposed has severely limited any other pandemic control options.

As already seen in September of last year and tragically even more obvious subsequently, the results from a public health perspective have been an undeniable failure by any objective standard. From an economic perspective, the results have been mixed, but better overall than originally feared. While the economy has been severely affected by the pandemic even where public health measures were minimal, there has been definite evidence of resiliency in the economy and a continued strong desire on the part of business, consumers and government to resume as much economic activity as possible as soon as possible.

***KlasRobinson Q.E.D. has considerable experience in analyzing tribal economic development. For a profile of the company, please see our website at www.klasrobinsonqed.com**

We are now a full year since the pandemic began in the U.S. and more than eight months since our original report. Vaccines are now being distributed and the case and death rates have fallen significantly since the overwhelming peaks in December and January. The election has occurred and a new administration is in place, allowing for greater certainty in governmental actions going forward. Year-end figures for key economic measures are now available, although many more detailed statistics will not be released for weeks or months. A smaller relief measure was passed late last year and a second one is likely to pass in some form within the next 60 days. There is a collective and reasonable sense that an end, if still several months away, is visible on the horizon.

This does not mean that either the pandemic or the economic crisis have come to an end as yet. Mutated versions of the virus that are more easily transmissible are becoming dominant. Despite the urgency, vaccinations will inevitably take more time, measured in months, not days or weeks. There is a race between vaccinations and the disease mutations that we may not win. There is also some question as to whether any of the mutations may reduce or circumvent the effectiveness of the vaccines currently being used. From an economic perspective, new patterns of work, shopping and life in general have taken hold and may produce permanent changes in business patterns even after the pandemic is brought to heel. The multiple relief and stimulus efforts that have been undeniably necessary and effective must come to an end eventually. When they do, and when governments and businesses reckon with the hidden costs and return to regular practices, areas of weakness in the economy, hidden or softened so far, will become painfully obvious and require redress. Even with better than expected, or at least feared, economic results to date, potential recessionary and inflationary pressures in the future cannot be completely dismissed.

While plenty of unknowns remain, the true crisis phase will indeed come to an end within the next few months. Indian country, along with the rest of the country, will be able to breathe a sigh of relief and then move ahead with the hard work of recovery and new growth. With the end of the pandemic and the movement to long-term recovery and growth, the need for this specific type of crisis analysis will subside. This will be the last update of our pandemic analysis. We look forward with all of Indian country to shifting our efforts to regaining lost ground and advancing to a brighter future.

EXECUTIVE SUMMARY

GENERAL

This section describes, in brief, the findings and conclusions derived from our updated analysis of the effects of the COVID-19 pandemic and associated mitigation efforts on tribal economies. This overview includes our updated assumptions for the course of the pandemic and our updated forecasts for tribal economic damage and recovery. However, the estimates presented, along with the information in this section as a whole, are meant as a summary of, not a substitute for, the body of the report, which contains additional information and detail critical to a full understanding of the bases for the estimates made and the context within which they were formed.

PROGNOSIS

As of February 3, 2021, the United States accounted for 25.4 percent of all COVID-19 cases worldwide, 146 percent higher than the next closest country, and 19.9 percent of all deaths worldwide, more than 98 percent higher than the next closest country, according to data from the Johns Hopkins Coronavirus Resource Center. The U.S. ranks 77th out of 173 countries listed in terms of the case fatality rate, recorded deaths to recorded cases, meaning 76 countries have a lower rate. The U.S. ranks 164th out of 173 countries in deaths per capita, meaning only nine countries have had more deaths per capita. Many of the countries included in the Johns Hopkins figures have had very few cases. While no country can compare to the number of U.S. cases, it is reasonable to narrow the comparative analysis to countries with significant caseloads. There were 33 countries that had experienced at least 500,000 cases as of February 3rd. Of those 33 countries, the U.S. is tied for sixth best in terms of its case fatality rate but fifth worst in terms of deaths per capita.

The toll in Indian country has been particularly severe. According to IHS data, a total of 1,951,037 people had been tested at IHS facilities as of February 2nd. The tests resulted in 179,279 positive confirmed cases of the virus with a positivity rate of 9.9 percent, over two percentage points higher than the U.S. average. According to the CDC, American Indian and Alaska Native populations are 1.8 times more likely than non-Hispanic Whites to get COVID-19, 4.0 times more likely to be hospitalized and 2.6 times more likely to die from the disease.

The concept of large-scale shutdowns of all but essential activities has been abandoned, even in the areas taking the most aggressive public health mitigation steps. Mask usage has become the primary means of combating public spread, despite acknowledged weaknesses in its effectiveness. While more narrowly targeted restrictions on personal and business activities remain in use, the clear trend is to minimize such restrictions, even in the face of caseloads that surpass the levels of last spring.

Government, business leaders and individuals are consistently looking for reasons not to extend or enhance protective measures rather than reasons to leave them in place. While there are clear and sharp political and social divides over specific practices, these trends are neither isolated nor unclear. Political and social differences are variations on the same theme, rather than truly divergent approaches.

Overall, the economic impact of the pandemic and associated mitigation efforts was generally less severe in 2020 than first feared but heavy nevertheless. GDP was down 3.5 percent for 2020. The unemployment rate for 2020 averaged 8.1 percent. The consumer price index (CPI-U) for 2020 increased 1.4 percent. The clear policy decision to emphasize economic recovery as much as possible, even in the face of greater case loads and death tolls, resulted in less severe economic impacts in the third and fourth quarters.

There are also signs of greater resilience in business and consumer attitudes and behavior than originally expected, suggesting faster recovery once the pandemic is finally tamed, which we now assume to occur by the end of June. Substantial, but by no means full, recovery across most sectors is expected for this year. By the end of 2022, most sectors are expected to have reached full recovery. However, certain sectors are still not forecast to reach full recovery until 2023.

With the pandemic and the economy moving from the acute crisis phase to the transitional phase, this will be our last update. We have taken the opportunity for this final update to use year-end data and more in-depth analysis to generate estimates of the actual loss of government revenue to Indian tribes. Federal support has helped mitigate that decline to a degree, with $8.0 billion set aside in the original CARES act for tribal governments. However, the CARES act included significant restrictions on the uses of that funding that have reduced its benefits to Indian country. Based upon our analysis, we estimate that the negative budgetary impact on tribal governments in 2020, after accounting for federal relief/stimulus efforts to date, equaled between $9.0 billion and $12.0 billion. For 2021, we forecast an additional negative budgetary impact on tribal governments of $1.9 to $3.0 billion, for a cumulative shortfall of between $10.9 billion and $15.0 billion. This information is presented in the table below:

Estimated Loss of Tribal Government Funding
(net of CARES act and other stimulus payments to date)

2020 (estimated)	**-$9.0-$12.0 billion**
2021 (forecast)	**-$1.9-$3.0 billion**
Cumulative Loss (net of stimulus to date):	**-$10.9-$15.0 billion**

Source: KlasRobinson Q.E.D.

The table on the following page presents a listing of our updated forecasts for various sectors of tribal economies across the country compared to those in our September update. The experience of individual tribes will vary depending upon local circumstances and actions that their leaders and the leaders in their surrounding counties and states take. The discussion of the reasoning behind the new forecasts in the body of this update should be consulted for any forecast of particular interest to any reader to ensure a thorough understanding of the significance and reliability of the figures presented in the table. The original report should also be consulted for a more detailed discussion of critical factors and reasoning.

UPDATED TRIBAL ECONOMIC PROGNOSIS SUMMARY 02/04/21

YEAR:	2020(ACTUAL/*ESTIMATED*)	2021	2022
U.S. GDP:			
YEAR-TO-YEAR CHANGE	-3.5%	5.4%	2.5%
PERCENT OF 2019 TOTAL	96.5%	101.7%	104.3%
U.S. UNEMPLOYMENT RATE	8.1%	6.7%	5.9%
U.S. INFLATION RATE	1.4%	2.5%	3.2%
TRIBAL ECONOMIC OUTPUT BY SECTOR:			
INDIAN GAMING:			
YEAR-TO-YEAR CHANGE	*-27.7%*	32.3%	8.1%
PERCENT OF 2019 TOTAL	*72.3%*	94.3%	101.9%
OTHER TRIBAL TOURISM & LEISURE:			
YEAR-TO-YEAR CHANGE	*-31.4%*	31.6%	14.1%
PERCENT OF 2019 TOTAL	*68.6%*	90.3%	103.1%
AGRICULTURE:			
YEAR-TO-YEAR CHANGE	*-6.9%*	5.4%	2.9%
PERCENT OF 2019 TOTAL	*93.1%*	98.1%	101.0%
MINING:			
YEAR-TO-YEAR CHANGE	*-25.9%*	13.8%	13.0%
PERCENT OF 2019 TOTAL	*74.1%*	84.4%	95.3%
CONSTRUCTION:			
YEAR-TO-YEAR CHANGE	*-0.5%*	-1.7%	1.4%
PERCENT OF 2019 TOTAL	*99.5%*	97.8%	99.2%
MANUFACTURING:			
YEAR-TO-YEAR CHANGE	*-10.8%*	9.9%	1.7%
PERCENT OF 2019 TOTAL	*89.2%*	98.0%	99.7%
WHOLESALE TRADE:			
YEAR-TO-YEAR CHANGE	*-12.5%*	10.7%	7.0%
PERCENT OF 2019 TOTAL	*87.5%*	96.8%	103.6%
RETAIL TRADE:			
YEAR-TO-YEAR CHANGE	*-10.9%*	6.5%	5.0%
PERCENT OF 2019 TOTAL	*89.1%*	94.9%	99.6%
TRANSPORTATION & WAREHOUSING:			
YEAR-TO-YEAR CHANGE	*-4.7%*	6.5%	4.1%
PERCENT OF 2019 TOTAL	*95.3%*	101.5%	105.7%
OTHER ECONOMIC SECTORS:			
YEAR-TO-YEAR CHANGE	*-8.3%*	5.6%	4.6%
PERCENT OF 2019 TOTAL	*91.7%*	96.8%	101.2%

PREVIOUS TRIBAL ECONOMIC PROGNOSIS SUMMARY 9/30/20

YEAR:	2020	2021	2022
U.S. GDP:			
YEAR-TO-YEAR CHANGE	-12.9%	10.5%	4.4%
PERCENT OF 2019 TOTAL	87.1%	96.3%	100.5%
U.S. UNEMPLOYMENT RATE	8.8%	7.7%	6.3%
U.S. INFLATION RATE	1.8%	2.7%	3.4%
TRIBAL ECONOMIC OUTPUT BY SECTOR:			
INDIAN GAMING:			
YEAR-TO-YEAR CHANGE	-31.2%	30.3%	11.5%
PERCENT OF 2019 TOTAL	68.8%	89.6%	99.9%
OTHER TRIBAL TOURISM & LEISURE:			
YEAR-TO-YEAR CHANGE	-40.2%	44.7%	12.9%
PERCENT OF 2019 TOTAL	59.8%	86.5%	97.7%
AGRICULTURE:			
YEAR-TO-YEAR CHANGE	-20.2%	20.7%	4.9%
PERCENT OF 2019 TOTAL	79.8%	96.3%	101.0%
MINING:			
YEAR-TO-YEAR CHANGE	-26.7%	19.3%	8.0%
PERCENT OF 2019 TOTAL	73.3%	87.4%	94.4%
CONSTRUCTION:			
YEAR-TO-YEAR CHANGE	-7.6%	-1.5%	1.0%
PERCENT OF 2019 TOTAL	92.4%	91.0%	91.9%
MANUFACTURING:			
YEAR-TO-YEAR CHANGE	-13.7%	13.6%	4.4%
PERCENT OF 2019 TOTAL	86.3%	98.0%	102.3%
WHOLESALE TRADE:			
YEAR-TO-YEAR CHANGE	-19.3%	12.7%	7.0%
PERCENT OF 2019 TOTAL	80.7%	91.0%	97.4%
RETAIL TRADE:			
YEAR-TO-YEAR CHANGE	-23.1%	11.6%	6.4%
PERCENT OF 2019 TOTAL	76.9%	85.8%	91.3%
TRANSPORTATION & WAREHOUSING:			
YEAR-TO-YEAR CHANGE	-4.7%	12.7%	2.1%
PERCENT OF 2019 TOTAL	95.3%	107.5%	109.7%
OTHER ECONOMIC SECTORS:			
YEAR-TO-YEAR CHANGE	-9.6%	9.1%	3.0%
PERCENT OF 2019 TOTAL	90.4%	98.6%	101.6%

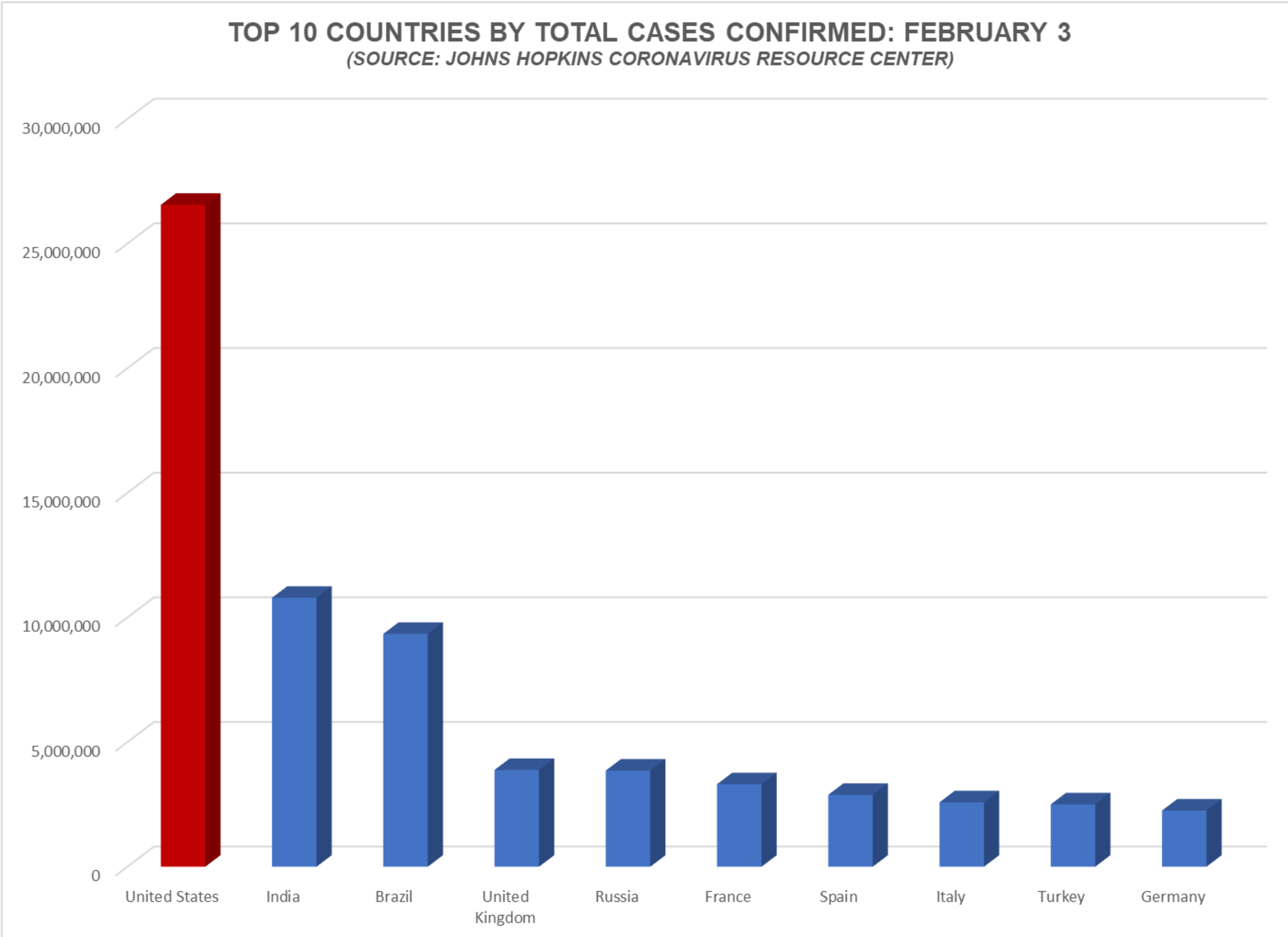
SOURCE: KlasRobinson Q.E.D.

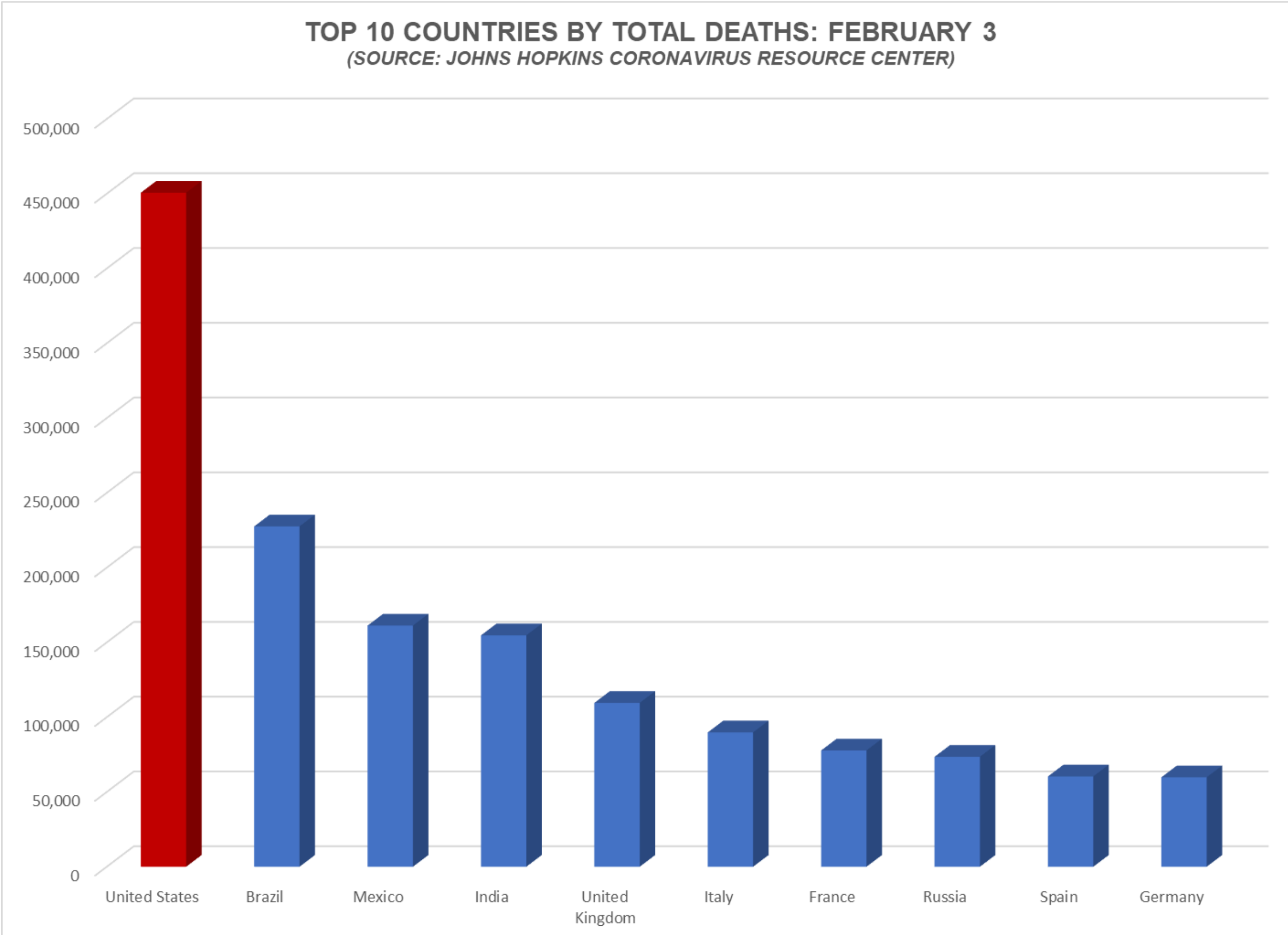
COVID-19 AND CIVIC RESPONSE

As of February 3, 2021, the United States accounted for 25.4 percent of all COVID-19 cases worldwide, 146 percent higher than the next closest country, and 19.9 percent of all deaths worldwide, more than 98 percent higher than the next closest country, according to data from the Johns Hopkins Coronavirus Resource Center. The U.S. ranks 77th out of 173 countries listed in terms of the case fatality rate, recorded deaths to recorded cases, meaning 76 countries have a lower rate. The U.S. ranks 164th out of 173 countries in deaths per capita, meaning only nine countries have had more deaths per capita. Many of the countries included in the Johns Hopkins figures have had very few cases. While no country can compare to the number of U.S. cases, it is reasonable to narrow the comparative analysis to countries with significant caseloads. There were 33 countries that had experienced at least 500,000 cases as of February 3rd. Of those 33 countries, the U.S. is tied for sixth best in terms of its case fatality rate but fifth worst in terms of deaths per capita. These figures are presented in graphs on the following pages.

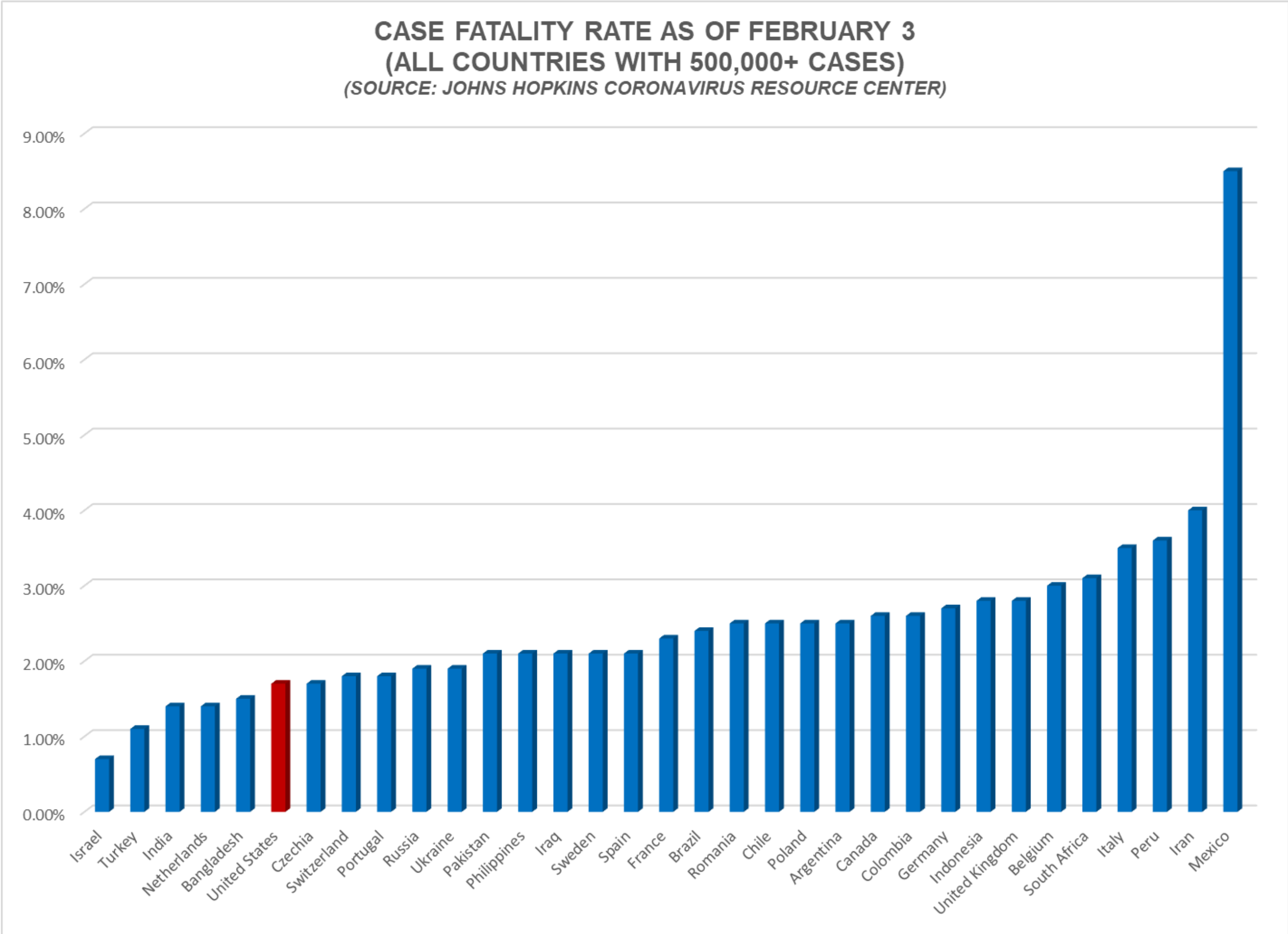
As testing programs ramped up in the U.S. and around the world, the per capita number of tests and the positivity rate (percent testing positive for the virus) have become measures of interest. After an abortive start, the U.S. greatly increased the number of tests it performs to track the spread of the virus. While the U.S. has now tested more total people than any other nation, it does not lead the world in per capita testing and still suffers positivity rates much higher than considered desirable by health experts. The graph on page 15 shows the total number of tests per 100,000 residents completed as of February 3rd for the 15 jurisdictions that have been the most aggressive in testing. The U.S. has the 14th highest per capita testing rate, slipping from fifth last September, and the third highest rate of positive tests of the 15 countries shown. Only Portugal and Israel have higher rates of positive tests. Spain has tested five times as many residents per capita as the U.S. but has a positivity rate that is nearly six percentage points lower. The U.K., which is still in the midst of a reinstituted shutdown due to a spike in cases, has a per capita testing rate over 75 percent higher than the U.S. but a positivity rate less than half as high.

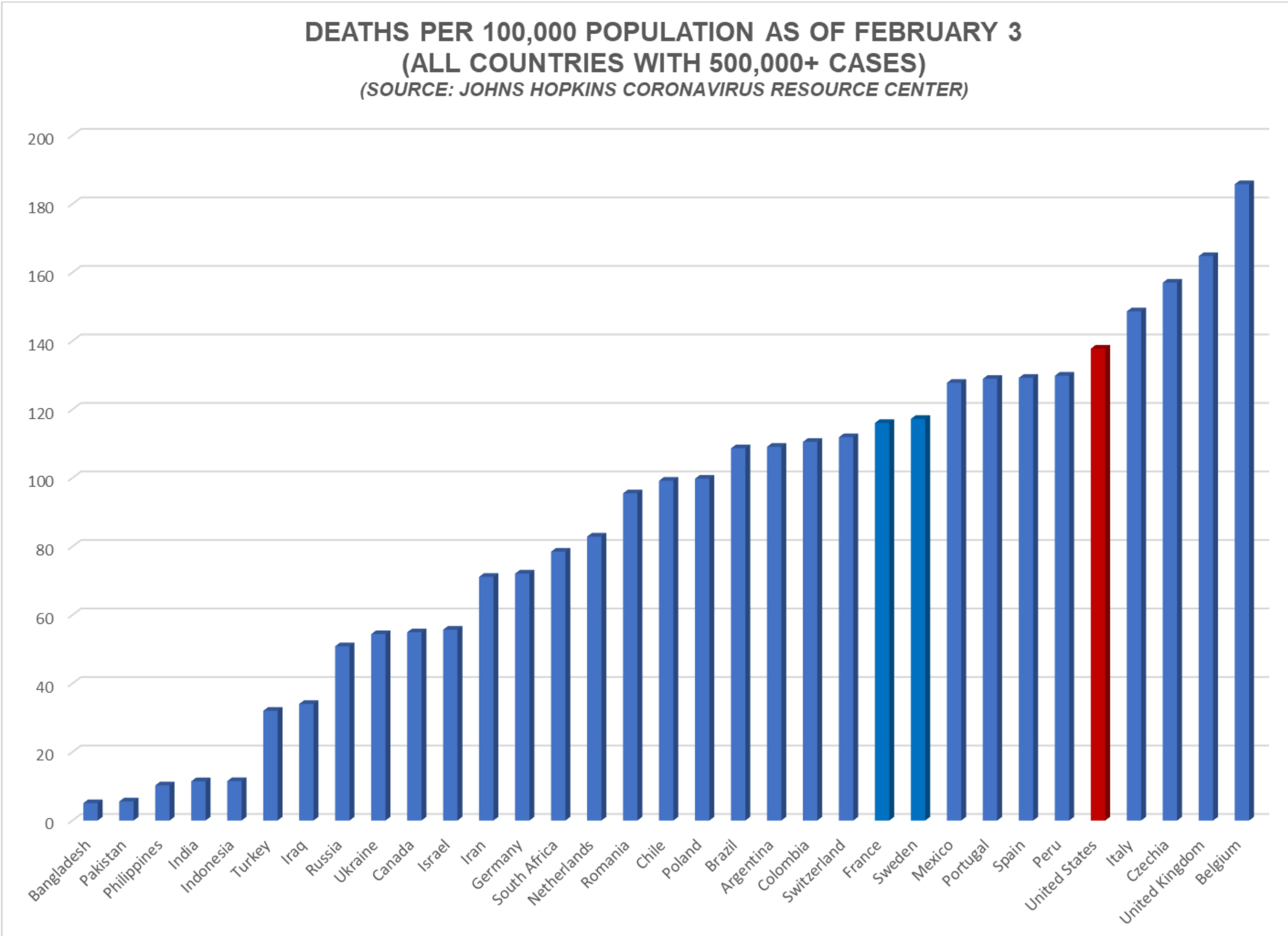
We noted in our September update that the concept of large-scale shutdowns of all but essential activities had been effectively abandoned, even in the areas taking the most aggressive public health mitigation steps. Mask usage has become the primary means of combating public spread, despite acknowledged weaknesses in its effectiveness.

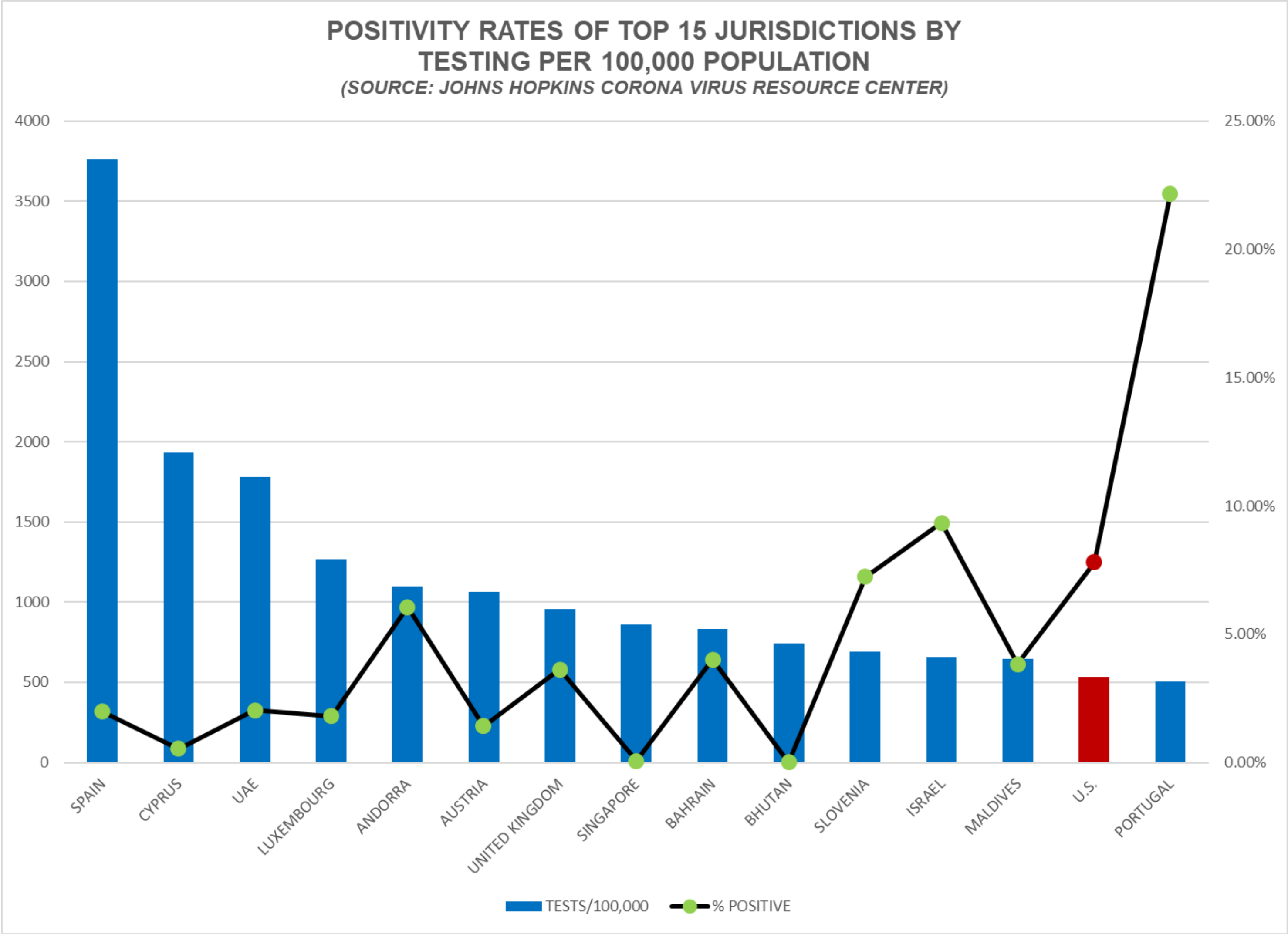

TOP 10 COUNTRIES BY TOTAL CASES CONFIRMED: FEBRUARY 3
(SOURCE: JOHNS HOPKINS CORONAVIRUS RESOURCE CENTER)
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
United States
India
Brazil
United Kingdom
Russia
France
Spain
Italy
Turkey
Germany



TOP 10 COUNTRIES BY TOTAL DEATHS: FEBRUARY 3
(SOURCE: JOHNS HOPKINS CORONAVIRUS RESOURCE CENTER)
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
United States
Brazil
Mexico
India
United Kingdom
Italy
France
Russia
Spain
Germany


CASE FATALITY RATE AS OF FEBRUARY 3
(ALL COUNTRIES WITH 500,000+ CASES)
(SOURCE: JOHNS HOPKINS CORONAVIRUS RESOURCE CENTER)
9.00%
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
Israel
Turkey
India
Netherlands
Bangladesh
United States
Czechia
Switzerland
Portugal
Russia
Ukraine
Pakistan
Philippines
Iraq
Sweden
Spain
France
Brazil
Romania
Chile
Poland
Argentina
Canada
Colombia
Germany
Indonesia
United Kingdom
Belgium
South Africa
Italy
Peru
Iran
Mexico


DEATHS PER 100,000 POPULATION AS OF FEBRUARY 3
(ALL COUNTRIES WITH 500,000+ CASES)
(SOURCE: JOHNS HOPKINS CORONAVIRUS RESOURCE CENTER)
200
180
160
140
120
100
80
60
40
20
0
Bangladesh
Pakistan
Philippines
India
Indonesia
Turkey
Iraq
Russia
Ukraine
Canada
Israel
Iran
Germany
South Africa
Netherlands
Romania
Chile
Poland
Brazil
Argentina
Colombia
Switzerland
France
Sweden
Mexico
Portugal
Spain
Peru
United States
Italy
Czechia
United Kingdom
Belgium


POSITIVITY RATES OF TOP 15 JURISDICTIONS BY TESTING PER 100,000 POPULATION
(SOURCE: JOHNS HOPKINS CORONA VIRUS RESOURCE CENTER)
4000
3500
3000
2500
2000
1500
1000
500
0
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
SPAIN
CYPRUS
UAE
LUXEMBOURG
ANDORRA
AUSTRIA
UNITED KINGDOM
SINGAPORE
BAHRAIN
BHUTAN
SLOVENIA
ISRAEL
MALDIVES
U.S.
PORTUGAL
TESTS/100,000
% POSITIVE

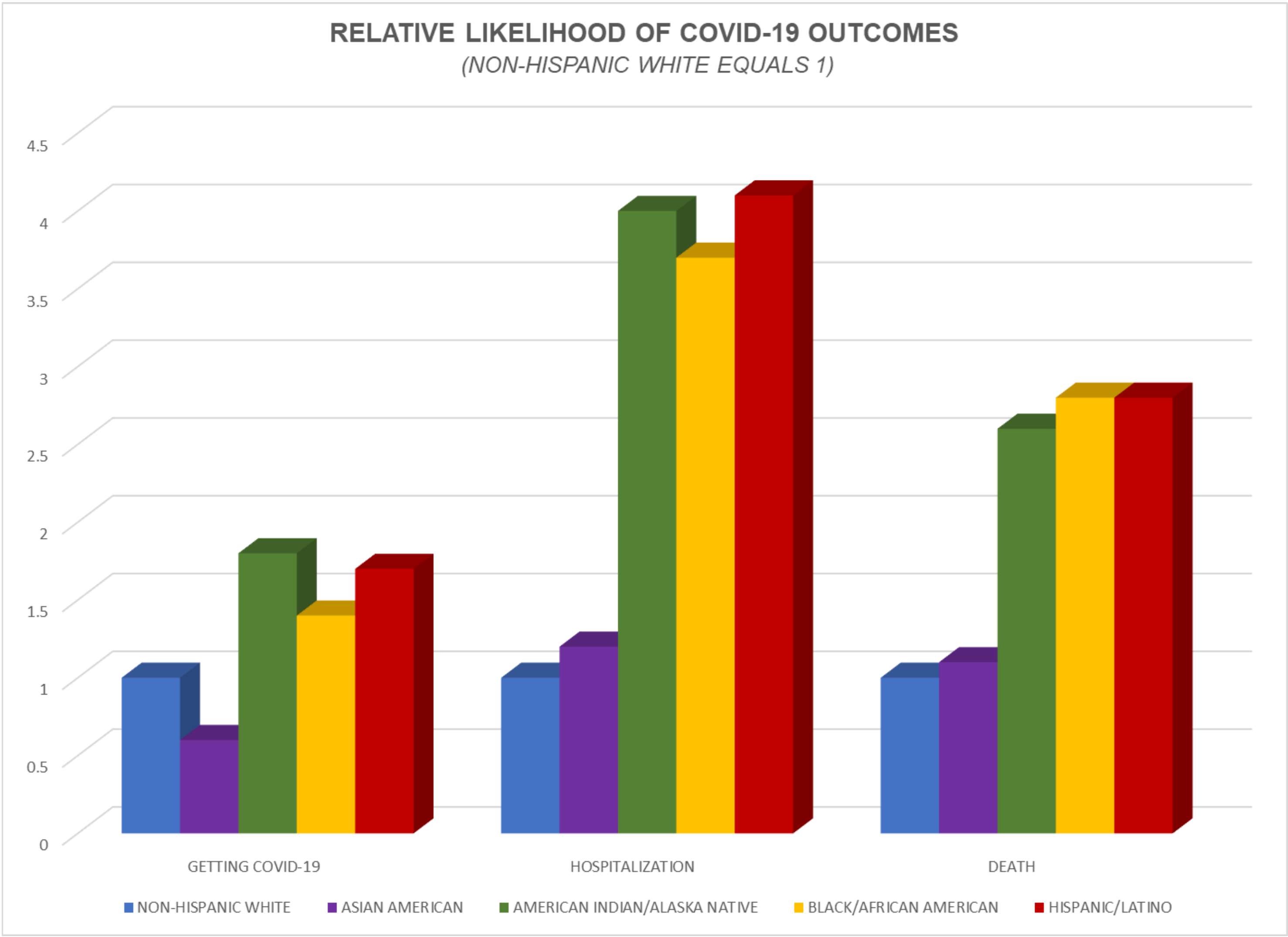
While more narrowly targeted restrictions on personal and business activities remain in use, the clear trend remains to minimize such restrictions, even in the face of caseloads that surpass the levels of last spring and summer. Government, business leaders and individuals are consistently looking for reasons not to extend or enhance protective measures rather than reasons to leave them in place. While clear and sharp political and social divides remain, they are variations on the same theme, rather than truly divergent approaches.

The trends have been driven largely by the recognition of how costly the economic effects of more stringent measures have proven to be in the short-term. They have also been supported by accumulating fatigue at all levels at having to restrict our activities due to the health crisis. As a result, the numbers of cases and deaths in the U.S. have stubbornly exceeded all but the most pessimistic predictions and long surpassed our own prior expectations.

The toll in Indian country has been particularly severe. According to IHS data, a total of 1,951,037 people had been tested at IHS facilities as of February 2nd. The tests resulted in 179,279 positive confirmed cases of the virus with a positivity rate of 9.9 percent, over two percentage points higher than the U.S. average. The figures are also intended to include health facilities run directly by tribes and urban Indian clinics. However, two-thirds of tribally-run facilities and 56 percent of urban Indian clinics have not reported their testing results, so the figures are clearly undercounted. The Navajo Nation alone has experienced nearly 29,000 cases and over 1,000 deaths according to their own COVID-19 dashboard.

According to the CDC, American Indian and Alaska Native populations are 1.8 times more likely than Non-Hispanic Whites to get COVID-19, 4.0 times more likely to be hospitalized and 2.6 times more likely to die from the disease. Native Americans are the most likely of the racial/ethnic groups measured to get the disease. They are a close second to Hispanic and Latino populations in likelihood of hospitalization and a close third behind a tie of both Hispanic/Latino and Black/African Americans in likelihood of death. This information is presented in the graph on the following page. Category names are those used by the CDC.

Given the current state of vaccinations, we now anticipate that the pandemic will substantially be under control, although by no means fully eradicated, by the end of June this year. Following that time, we assume that COVID-19 will cease to be a major determining factor in the economy, although the effects of its ravages and of the responses needed to control it will extend far beyond that date, as will be discussed. However, the ongoing caseload and death rate of the virus beyond that time is no longer assumed to be an imminent driver of the economy.


RELATIVE LIKELIHOOD OF COVID-19 OUTCOMES
(NON-HISPANIC WHITE EQUALS 1)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
GETTING COVID-19
HOSPITALIZATION
DEATH
NON-HISPANIC WHITE
ASIAN AMERICAN
AMERICAN INDIAN/ALASKA NATIVE
BLACK/AFRICAN AMERICAN
HISPANIC/LATINO

Source: CDC

GENERAL ECONOMIC CONDITIONS

Gross economic output data by industry is now available through the third quarter of 2020. Value added and intermediate input data by industry are also available through the third quarter. Although the underlying fourth quarter data is not yet published, the Bureau of Economic Analysis has published an “advance estimate” of GDP for the fourth quarter and the year in total. While the estimate is subject to revision and even previous quarterly data can be revised in the future, the year-end GDP data is the first full accounting of the economic effects of the pandemic and associated mitigation efforts for the year as a whole. Unemployment rate information and inflation rate information are also now available for 2020 as a whole.

According to the advance estimate, GDP was down 3.5 percent for 2020, a much smaller drop than we anticipated and many feared. The decline in the first quarter of 2020 of 5.0 percent and the precipitous drop of 31.7 percent in the second quarter were quickly reversed in the third quarter by a remarkable 33.4 percent increase, followed by an estimated 4.0 percent increase in the fourth quarter. The extraordinary plummet and equally sudden snap back in the third and fourth quarters are clear indicators of the direct effects of changes in economic activity not driven primarily by changes in underlying conditions but by extraneous limits on business operations due to public health measures and their subsequent lifting. While this was always expected, the exact magnitude of forced closures and the exact speed of reopenings was harder to predict. The continued growth that apparently occurred in the fourth quarter is further evidence of the signs of resilience we noted in September and the strong desire across all sectors to resume something approximating normal as much and as quickly as possible. This bodes well for the future, especially with the further relief and stimulus packages being enacted at the federal level.

There were a variety of factors associated with the more rapid recovery in the third and fourth quarters than was previously expected. Increases in exports, business equipment purchases, manufacturing and wholesale trade were larger and more rapid than forecast, as the economy prepared for greater anticipated recovery in 2021. Increases in spending on the purchase of new homes and/or the repair, renovation or expansion of existing homes was already occurring and continued as people suddenly had more time to focus on their living space and less restrictions on its location due to remote working. One small example is a sudden explosion of above ground pool installations for families with children deprived of their normal summer activity outlets. The shift from eating out to dining at home resulted in a jump in retail purchases of foodstuffs and of related kitchen tools and equipment. Similarly, money previously spent on airfare and hotel stays suddenly shifted to RV and cabin/second home purchases. Personal savings rates also declined, pumping or leaving more dollars in the current economy. Despite that shift (and likely one of its causes), disposable personal income continued to fall, down a combined total of over $1 trillion in the final two quarters of 2020.

The unemployment rate increase was even more strongly mitigated by the CARES act relief package and subsequent PPP loan extensions. This appears likely to continue with the relief package passed late last year and the additional relief currently under consideration. While the public health closures and lingering but more targeted operating restrictions first resulted in an unemployment spike of historic proportions to 14.7 percent in March that remained in double digits through July, employment rapidly recovered some of the lost ground in the second half of the year. That recovery was somewhat distorted by a decline in labor force participation that obscured the full magnitude of the employment toll. Year-end employment impacts from renewed closures and restrictions in some parts of the country due to the largest spike in cases and deaths to date reversed positive trends. Nevertheless, the unemployment rate for the year equaled 8.1 percent, somewhat better than our September forecast, if still a shocking shift from the past decade of declining unemployment.

Even with the CARES act, Federal Reserve actions and other governmental support efforts at the federal, state and local levels, inflation rose by somewhat less than we anticipated in September. There is no question that government support prevented what could easily have otherwise been actual deflation. Deflation on at least a temporary basis has actually occurred in certain of the hardest hit sectors. That too may have held down the overall inflation figure. For the year, the CPI rose 1.4 percent.

As we noted in September, constraints remain at many businesses, work-from-home arrangements for office staff remain common, travel remains severely depressed and high-attendance sporting and entertainment events remain virtually non-existent. Where mandated restrictions have been removed or significantly reduced, health driven disruptions continue to appear due to repeated instances of viral outbreaks in a variety of locations and circumstances where many people have gathered, including bars and restaurants, social gatherings, certain work places and schools. Mask wearing has taken the place of more significant capacity restrictions. While it is fairly clear that it has had a positive effect in reducing transmission in association with other restrictions and when consistently obeyed, it is equally clear that masks alone do not prevent spread in large gatherings where social distancing is not observed and where usage is not consistent.

The arrival of the two currently approved vaccines (soon to be three barring health safety surprises for the Johnson & Johnson version) has provided by far the greatest psychological lift to the nation since the pandemic began. Even with well documented stumbles in the vaccine rollout, the daily increase in people vaccinated is a welcome counterpoint to what had been a continuous litany of more cases and deaths. While the threat of a lack of acceptance has not completely vanished, there also appears to be fairly strong cooperation at the individual level with receiving vaccinations as they become available. It is still too early to be seeing actual public health impacts from the vaccines at the national level, although some local impacts may be appearing already in congregate living locations where vaccines have been administered. Greater positive impacts from the vaccines should begin to appear by mid to late-spring.

There is a race, however, between the vaccine rollout and the spread of new and more contagious mutations of the virus. These present the very real possibility of yet another spike before vaccine impacts can take hold. Even more concerning, there is already at least some evidence that the new mutations may be less affected by the vaccines currently in use. If public health restrictions to slow the spread of the pandemic are lifted too quickly or simply ignored by a tired and restless populace once they have received their vaccines, new spikes could occur even amongst vaccinated populations before drug makers have the opportunity to revise their vaccine formulations or develop necessary boosters to combat mutated forms.

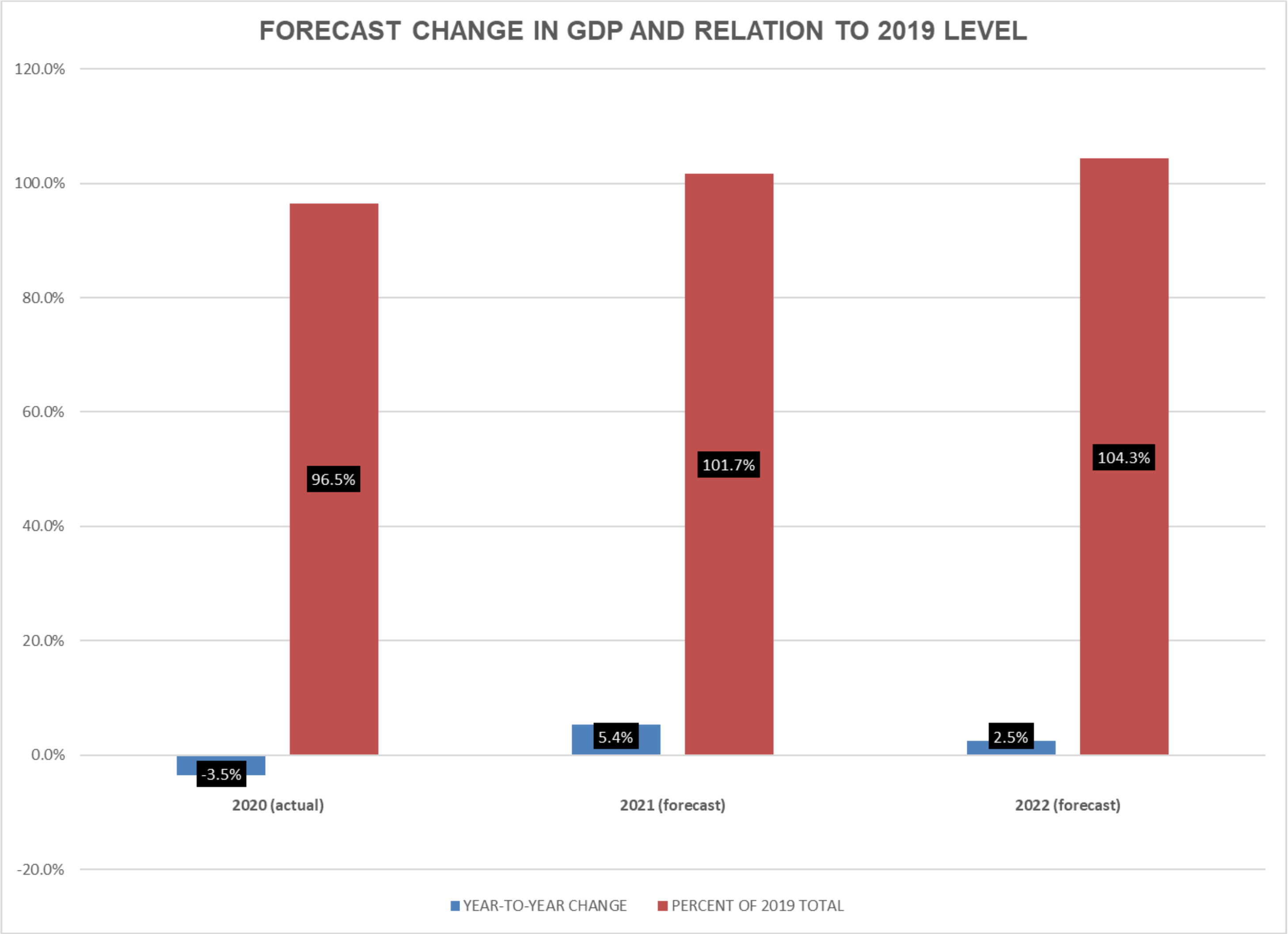
Aside from the vaccine race, there remain real potential threats that could easily reverse the tentative early indicators of recovery. Eventual termination of eviction restrictions, likely continued need for additional airline and other travel industry support, serious governmental and educational budgetary shortfalls at state and local levels, reductions and eventual termination of unemployment benefits, and continued depression of foodservice and event businesses all still represent real threats to any nascent recovery.

Based upon the assumptions about the course of the pandemic described previously and our analysis of economic factors, prior business cycle patterns in periods of crisis, and the likely impacts of changes in operations and customer behavior, we now forecast an increase in U.S. GDP for 2021 of approximately 5.4 percent as there will be less ground to makeup from the smaller 2020 decline than we originally expected. Even with that growth, the economy as a whole will already have moved beyond its 2019 level by the end of 2021, an amazing recovery, not just better than we once thought, but better than we could have hoped. GDP is forecast to grow by 2.5 percent in 2022 over 2021 as it settles into its new post-pandemic patterns but still deals with long-term adjustments to new working and living environments and with residual soft spots. This information is presented in the graph on the following page.

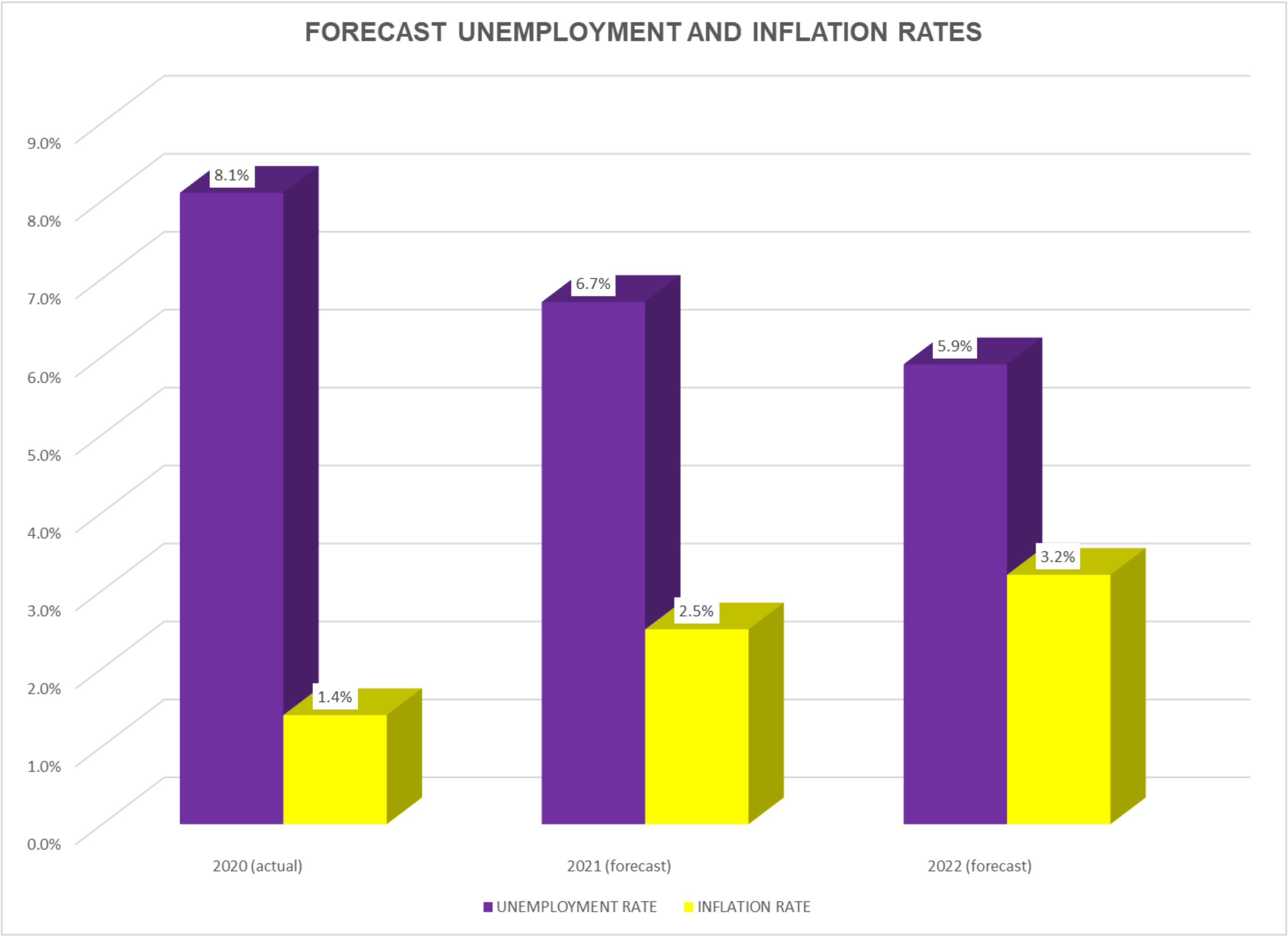
As we have noted all along, unemployment tends to lag GDP and other economic indicators as an economy recovers. As a result, we still do not expect employment to recover as quickly after the pandemic. We now forecast an annual average unemployment rate for the U.S. as a whole of 6.7 percent for 2021 and 5.9 percent for 2022.

We continue to expect an uptick in inflation in the next two years due to the Federal Reserve's stated comfort level with rates above 2.0 percent on at least a temporary basis and the continued ripple effects of fiscal stimulus efforts and increased employment costs. We now forecast an annual inflation rate for the U.S. economy of 2.5 percent in 2021 and 3.2 percent in 2022.

The forecasted unemployment and inflation rates described are shown in the graph on page 23.



Sources: Bureau of Economic Analysis and KlasRobinson Q.E.D.



Sources: Bureau of Labor Statistics and KlasRobinson Q.E.D.

TRIBAL GOVERNMENT GAMING

The NIGC has finally released 2019 figures. The following table shows gaming revenue at Indian casinos from 2009 through 2019 from NIGC data compared with gaming win at commercial casinos for the same years.

HISTORIC GAMING REVENUE COMPARISON – 2009 to 2019

(dollars in $billions)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Commercial Casinos*	$34.30	$34.60	$35.60	$37.30	$37.80	$37.90	$38.30	$38.70	$39.90	$41.70	$43.60
Percent Growth	-5.20%	0.90%	2.90%	4.80%	1.30%	0.30%	1.10%	1.04%	3.10%	4.51%	4.56%
Indian Casinos (Class II & Class III)	$26.50	$26.50	$27.20	$27.90	$28.00	$28.50	$29.90	$31.20	$32.40	$33.70	$34.60
Percent Growth	-0.70%	0.00%	2.60%	2.60%	0.40%	1.80%	4.90%	4.30%	3.85%	4.01%	2.67%
Ratio - Indian/Commercial	0.77	0.77	0.76	0.75	0.74	0.75	0.78	0.81	0.81	0.81	0.79

* Commercial casinos include private sector (i.e. non-governmental), land-based, dockside riverboats and racinos

Source: American Gaming Association, National Indian Gaming Commission and KlasRobinson Q.E.D.

The National Indian Gaming Commission also tracks Indian gaming revenues by region through its seven regional offices. The following table presents a summary of Indian gaming revenues by region. This information is also presented in the map on the following page.

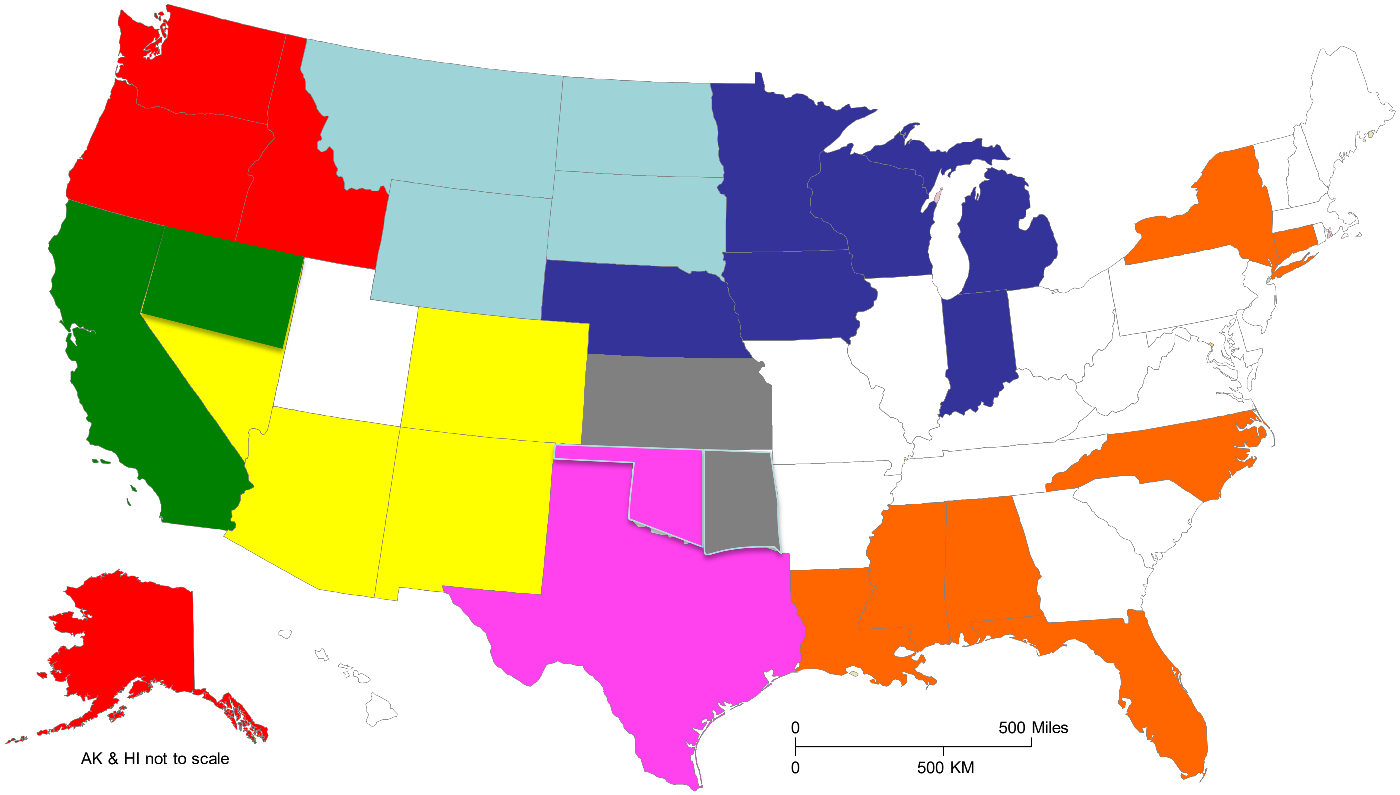
FY 2019 Indian Gaming Revenue Distribution by Region

Region / Office Location (States within Region)	Gaming Revenues	Gaming Operations	Revenue Per Operation
Region I - Portland Office (AK, ID, OR, WA)	$3,811,461,000	57	$66,868,000
Region II - Sacramento Office (CA, Northern NV)	$9,680,300,000	76	$127,372,000
Region III - Phoenix Office (AZ, CO, NM, Southern NV)	$3,275,522,000	57	$57,465,000
Region IV - Saint Paul Office (IN, IA, MI, MN, NE, WI)	$4,922,394,000	100	$49,224,000
Region V - Rapid City Office (ND, SD, MT, WY)	$376,487,000	42	$8,964,000
Region VI - Tulsa Office (KS, Eastern OK)	$2,468,144,000	75	$32,909,000
Region VII - Oklahoma City Office (Western OK, TX)	$2,669,839,000	73	$36,573,000
Region VIII - Washington D.C. Office (AL, CT, FL, LA, MS, NC, NY)	$7,374,396,000	42	$175,581,000
Total	**34,578,542,000**	**522**	**$66,242,000**

does not sum due to rounding

Source: National Indian Gaming Commission and KlasRobinson Q.E.D.

FY 2019 Indian Gaming Revenue Distribution by Region



Portland (57)	$3,811,461,000	Phoenix (57)	$3,275,522,000	Rapid City (42)	$376,487,000	Oklahoma City (73)	$2,669,839,000
Sacramento (76)	$9,680,300,000	St. Paul (100)	$4,922,394,000	Tulsa (75)	$2,468,144,000	Washington D.C. (42)	$7,374,396,000

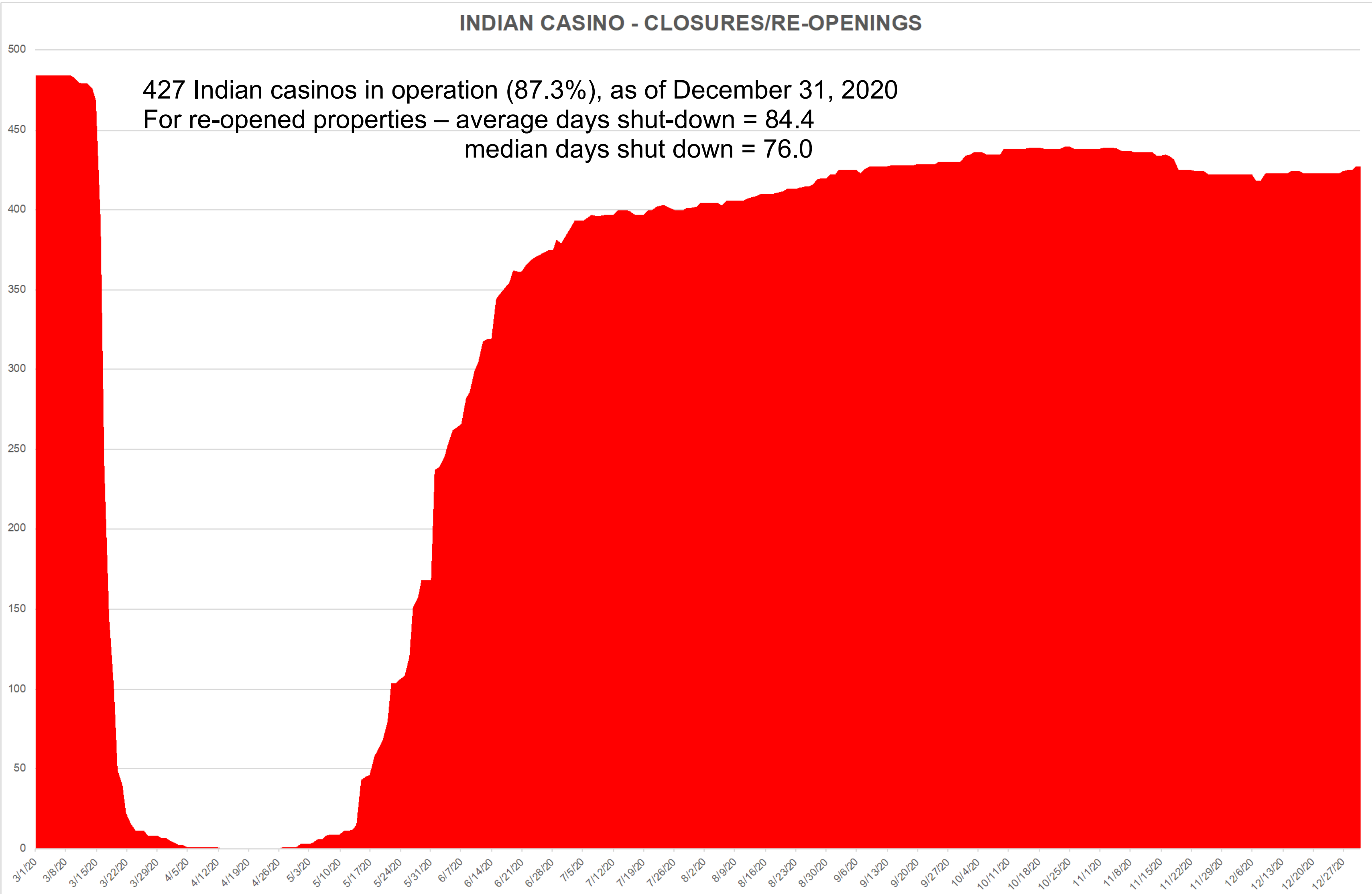
Source: National Indian Gaming Commission/KlasRobinson Q.E.D.

Gaming revenue growth from 2018 to 2019 was somewhat lower than we had previously estimated, although still healthy at over 2.5 percent. Lower growth was primarily due to a lack of increase for casinos in the Tulsa office region and to an actual decline for casinos in the eastern (Washington D.C.) region caused by a combination of weather impacts and increased commercial competition. Growth was much stronger for the Oklahoma City office region and for the regions west of the Rockies. Of course, growth of any kind was upended by the arrival of the pandemic early last year.

As shown in the graph on the following page, there was a period of time this past spring when there were no Indian casinos open to the public anywhere in the country. By the beginning of July, nearly 82 percent of all Indian casinos had reopened to some degree. Unfortunately, the pace of reopenings slowed thereafter and several casinos that had reopened were forced to close again for two weeks or more due to new outbreaks. The outbreaks typically occurred in the surrounding communities rather than in the casinos themselves, but resulted in infections amongst casino staff that forced new temporary closures for second and even third times. At year-end in 2020, 427 of the nation's 489 Indian casinos were open, a ratio of 87.3 percent. For casinos that had closed one or more times but were open at year-end, the average length of time closed was 84.4 days or 23 percent of the year. The median number of days closed was somewhat lower at 76.0 days. These counts do not include casinos that have remained closed throughout 2020 since their initial closures last year and have yet to reopen.

For the casinos that have been able to reopen, capacity constraints remain in place virtually across the board and the methods of achieving those constraints have become more flexible and more customer friendly. Mask requirements and plexiglass between seats at tables games or between machines are being used to increase physical gaming capacity. Rather than turning off machines, the number of chairs on the gaming floor is being reduced to give the customer the ability to still gravitate toward favorite games. Many operations have reduced or even eliminated smoking areas to reduce reasons for customers to remove their masks.

Even with the evolution of mitigation efforts within the casino, overall capacity and customer convenience remains reduced. Exterior access points have been reduced, in many cases to a single entrance, often with temperature and mask checks. Food and beverage service remain very limited and large entertainment or other group events have yet to be reinstated. For some facilities, capacity constraints still include temporarily preventing outside access at peak times until customer loads decrease.

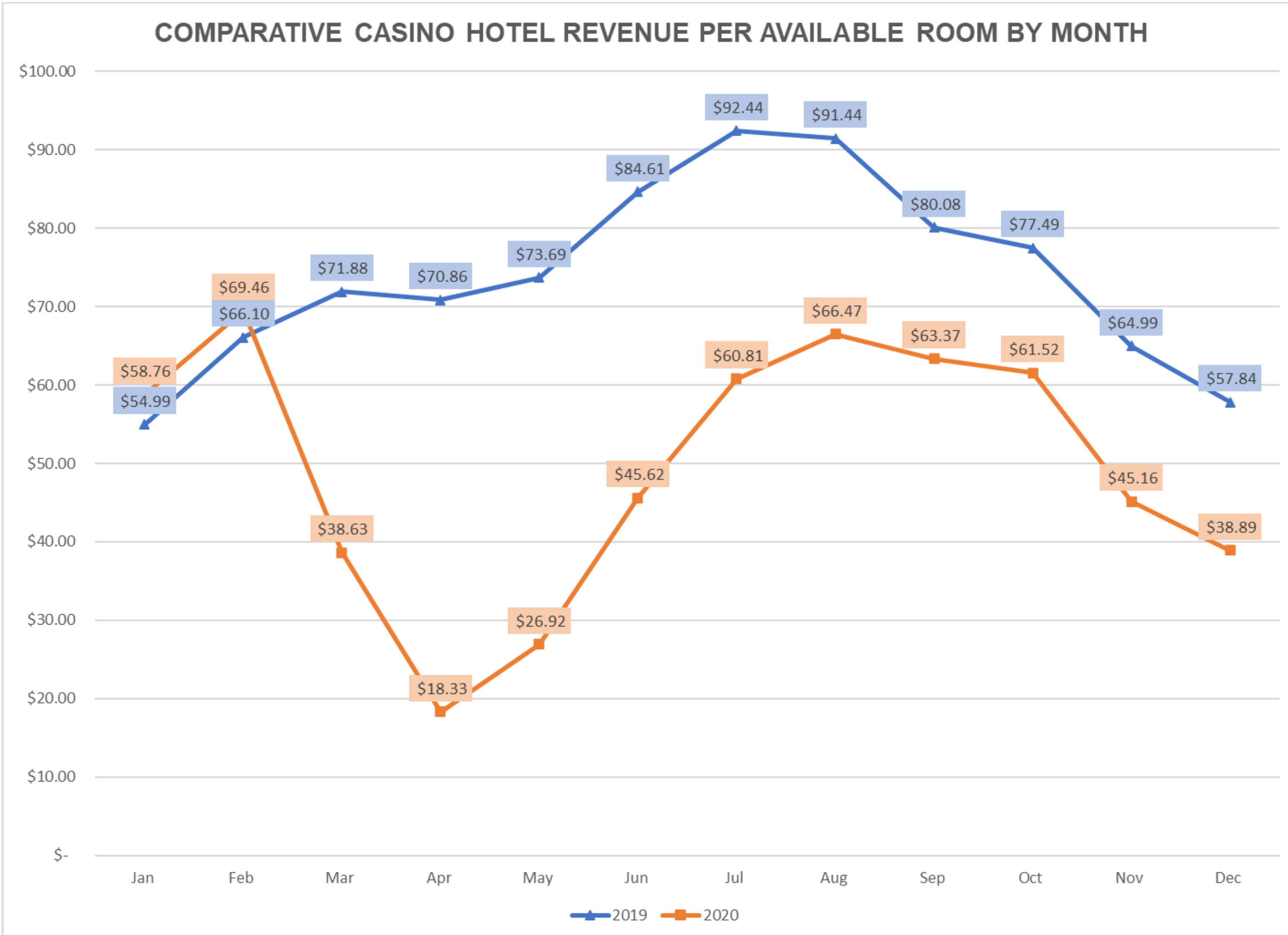

INDIAN CASINO - CLOSURES/RE-OPENINGS
427 Indian casinos in operation (87.3%), as of December 31, 2020
For re-opened properties – average days shut-down = 84.4
median days shut down = 76.0
500
450
400
350
300
250
200
150
100
50
0
3/1/20
3/8/20
3/15/20
3/22/20
3/29/20
4/5/20
4/12/20
4/19/20
4/26/20
5/3/20
5/10/20
5/17/20
5/24/20
5/31/20
6/7/20
6/14/20
6/21/20
6/28/20
7/5/20
7/12/20
7/19/20
7/26/20
8/2/20
8/9/20
8/16/20
8/23/20
8/30/20
9/6/20
9/13/20
9/20/20
9/27/20
10/4/20
10/11/20
10/18/20
10/25/20
11/1/20
11/8/20
11/15/20
11/22/20
11/29/20
12/6/20
12/13/20
12/20/20
12/27/20

Actual data on 2020 performance for Indian casinos continues to be limited due to reporting lags and timing differences. Many states report on state fiscal year calendars, typically July to June, meaning the 2020 fiscal year covers only through June of last year. Even the federal fiscal calendar leaves the period from October to year-end for 2020 excluded. Some information is available on a monthly or annual basis through the actual end of calendar-year 2020, but it is limited. Reporting lags further complicate the process. Even though Arizona's fiscal year reporting covers the period through June of last year, lags in the timing of revenue reports meant that the effects of spring closures of Arizona Indian casinos will not actually be reported until fiscal 2021 data is released.

The data that is available shows a range of impacts from the pandemic that, while all negative, vary considerably in intensity. According to Connecticut data, Foxwoods Casino had machine win for calendar-year 2020 that was down 36.8 percent from 2019. Mohegan Sun had machine win in 2020 that was down 30.2 percent from 2019. Net win for New Mexico casinos reported by the state for the first nine months of 2020 was down 57.5 percent from the first nine months of 2019. For the period from April through June of 2020, New Mexico Indian casino net win was down 93.5 percent. Published data for Michigan Indian casinos is incomplete, only reported through mid-August of last year. However, calendar year data for Detroit's three commercial casinos shows a revenue decline of 57.3 percent. Oklahoma's fiscal 2020 (June 2020) report showed a 16.5 percent decline in tribal exclusivity fees. While not a clean indicator of Indian gaming revenue, the receipts of the California Revenue Sharing Trust Fund in fiscal 2020 (June 2020) were down 16.3 percent from the prior fiscal year.

At the end of 2019, prior to the start for the pandemic, 213 Indian casinos had one or more connected or directly associated hotels comprising a total of 55,266 rooms. As already mentioned, the pandemic and associated mitigation efforts have had an even more severe effect on ancillary facilities at Indian casinos than on the gaming floor. Smith Travel Research, the preeminent source of lodging industry performance data, maintains a survey of hotels across the U.S. that includes roughly 12 percent of those hotel rooms. While the sample size is too small and non-random to qualify as a statistically reliable performance measure, it is at least indicative of the size of the impact on Indian casinos hotels from the pandemic. According to the Smith Travel survey, annual occupancy for the Indian casino hotels participating was down 17.3 percentage points in 2020 from 64.1 percent in 2019 to 46.8 percent in 2020. Average room rates were also down, from $115.34 in 2019 to $107.21 in 2020. The net result was a 32.1 percent decline in total room revenue for the year. Of course, lower occupancy in their associated hotels not only means a loss of ancillary revenue for Indian casinos, it means a loss of gaming revenue as well.

The graph on the following page compares monthly revenue per available room for the participating casino hotels for 2019 and 2020.

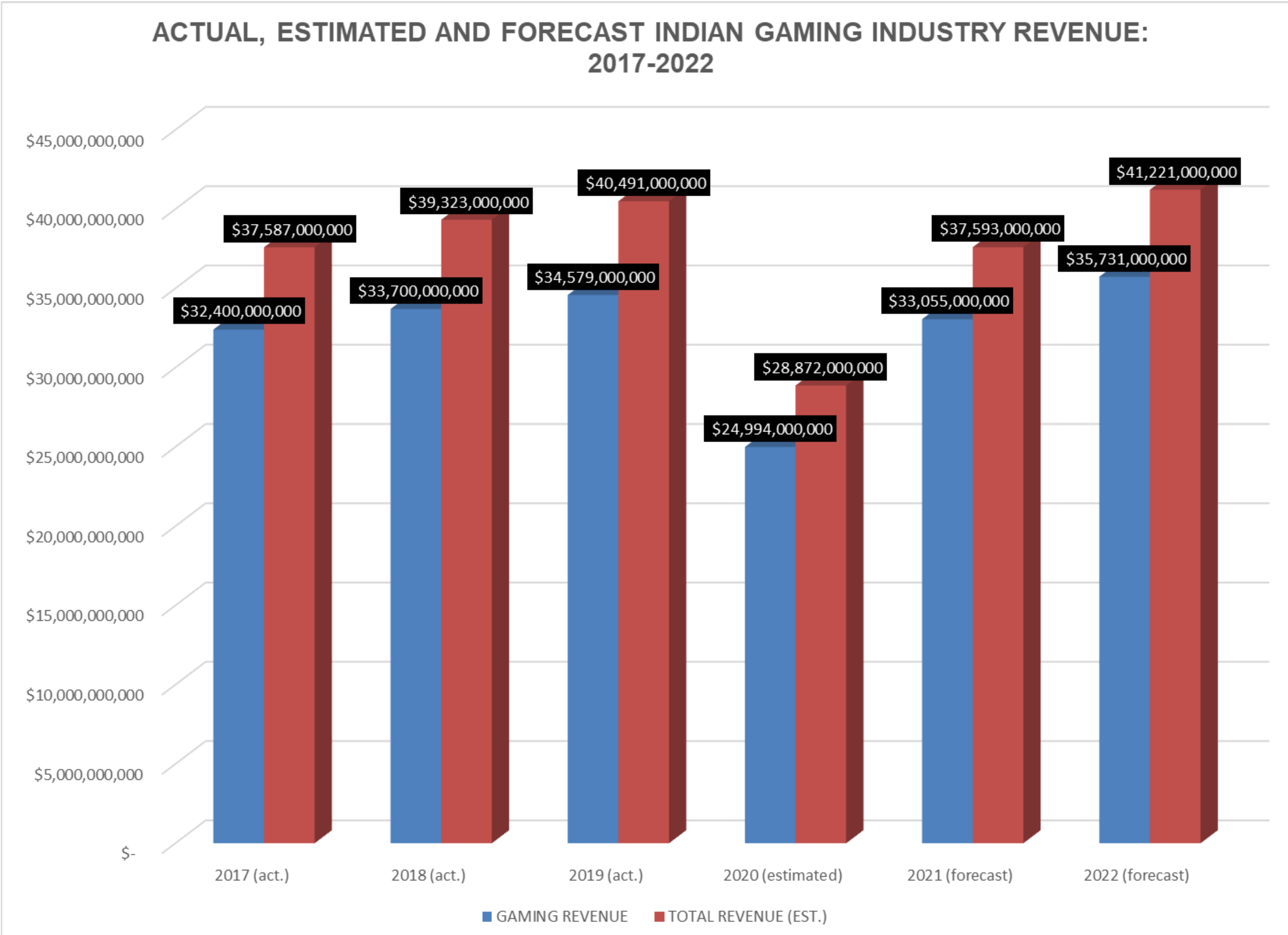


Source: Smith Travel Research

Our own experience in dealing with various casinos during the current pandemic mirrors the general direction but varied intensity of downward pressure on gaming revenues suggested by the limited published data. Some casinos we have seen have experienced drops of 25 to 30 percent in gaming revenue or more, while others have seen declines closer to the 10 to 15 percent range. Ancillary revenue declines have been consistently greater. Of course, casinos that have remained closed throughout the pandemic have lost all revenue for many months.

As noted in our original report, the standard deviation for revenue per customer per visit for gaming is quite large, unlike nearly all other businesses dependent upon direct customer interaction in large numbers. A small number of key customers, sometimes referred to as “whales” in the old casino vernacular, generate a disproportionately large amount of gaming revenue. As a result, a reduction in capacity by 50 percent does not have to automatically mean a reduction in revenue by 50 percent. In addition, casinos capture a large percentage of their total revenue in certain short periods of time, generally weekend and holiday evenings. For much of the week and the vast majority of the hours they are open, they are nowhere near 50 percent capacity, much less full. Both of these characteristics mitigate to a degree the impact of reduced capacity on the gaming floor. However, as also noted in our original report, those characteristics cannot protect revenue from ancillary facilities at Indian casinos to the same degree. This too has been validated, at least anecdotally, by performance levels since Indian casinos reopened.

Based upon the information available on Indian casino performance in 2020, we now estimate that gaming revenue declined 27.7 percent in 2020 and ancillary revenue at Indian casinos declined 34.4 percent, for an overall decline in total revenue at Indian casinos for 2020 of approximately 28.7 percent. For 2021, we forecast an increase in gaming revenue of 32.3 percent and an increase in total revenue of 30.2 percent as recovery begins, still leaving the industry approximately seven percent below estimated 2019 levels. In 2022, substantial recovery is forecast to continue, with gaming revenue up 8.1 percent and total revenue up nearly 9.7 percent from 2021. By the end of 2022, the Indian gaming industry will have surpassed 2019 levels and already be showing new growth. This information is presented in the graph on the following page. Gaming revenue data for 2017, 2018 and 2019 are taken from NIGC statistics. All other figures are estimates and forecasts by KlasRobinson.


ACTUAL, ESTIMATED AND FORECAST INDIAN GAMING INDUSTRY REVENUE: 2017-2022
$45,000,000,000
$40,000,000,000
$35,000,000,000
$30,000,000,000
$25,000,000,000
$20,000,000,000
$15,000,000,000
$10,000,000,000
$5,000,000,000
$-
$32,400,000,000
$37,587,000,000
$33,700,000,000
$39,323,000,000
$34,579,000,000
$40,491,000,000
$24,994,000,000
$28,872,000,000
$33,055,000,000
$37,593,000,000
$35,731,000,000
$41,221,000,000
2017 (act.)
2018 (act.)
2019 (act.)
2020 (estimated)
2021 (forecast)
2022 (forecast)
GAMING REVENUE
TOTAL REVENUE (EST.)

OTHER INDUSTRY SECTORS

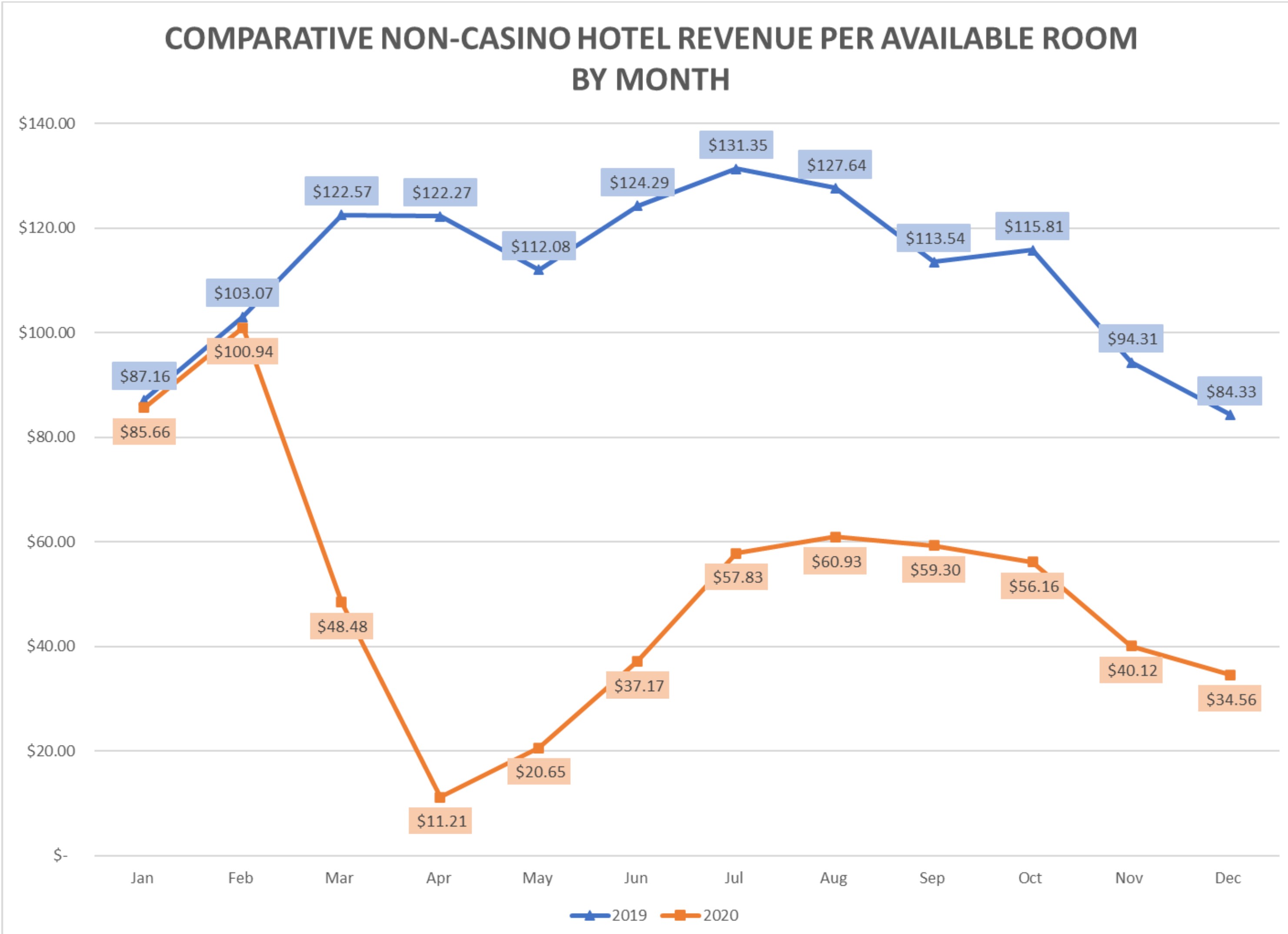
Tourism, Lodging & Other Leisure Industries

The non-gaming tourism sector in Indian country has been hit even harder by the pandemic and associated mitigation efforts than Indian casinos, as was expected. Other tourism and leisure industries do not have the same ability as casinos to make up lost capacity through increased spending per customer. Closures and other capacity restrictions have hit harder and lasted longer for many businesses in this sector, including restaurants, bars, movie theaters, bowling alleys, and other arts and entertainment venues. In some instances, operations that reopened have had to endure a second round of closures as cases have spiked with specific ties to bars or large social gatherings. The widespread and ferocious wildfire season in the west further reduced tourism potential for large segments of Indian country.

There are 46 hotels comprising 7,000 rooms across the United States that are owned by Indian tribes but not directly affiliated with a casino (in some cases they are not even on a reservation). Smith Travel Research's survey of hotels across the U.S. includes nearly 74 percent of those hotel rooms, enough to be a statistically valid indicator of performance. The impact of the pandemic and associated mitigation efforts on these properties was even more severe than on the Indian casino hotels previously discussed. According to the Smith Travel survey, annual occupancy for the non-casino hotels owned by Indian tribes was down 32.2 percentage points in 2020 from 67.4 percent in 2019 to only 35.2 percent in 2020. Average room rates were also down, from $165.62 in 2019 to $146.17 in 2020. The net result was a devastating 53.8 percent decline in total room revenue for the year. The graph on the following page compares monthly revenue per available room for the participating non-casino hotels for 2019 and 2020.

Other data further underlines tourism and leisure industry impacts. A working paper just published this month by the USDA Economic Research Service [ERS] references a nationwide decline in consumer expenditures for food away from home (spending in restaurants, bars and related venues) of 23.3 percent. National gross output data from the Bureau of Economic Analysis through the third quarter of 2020 suggest the overall decline for the year for arts and entertainment businesses will be at least 28.8 percent, perhaps worse.

However, there are also signs of hope for the future for non-gaming tourism and leisure activities. With outdoors activities proving to be relatively safer than indoor activities in terms of viral spread, outdoor recreation, RV camping, golf, hiking and other such leisure options have actually seen spikes in interest higher than in prior years. Purchases of associated equipment to enable such activities have also increased. Some of these spikes are expected to endure beyond the current crisis as people continue to make use of newly purchased equipment and rediscover the joys of the outdoors.



Source: Smith Travel Research

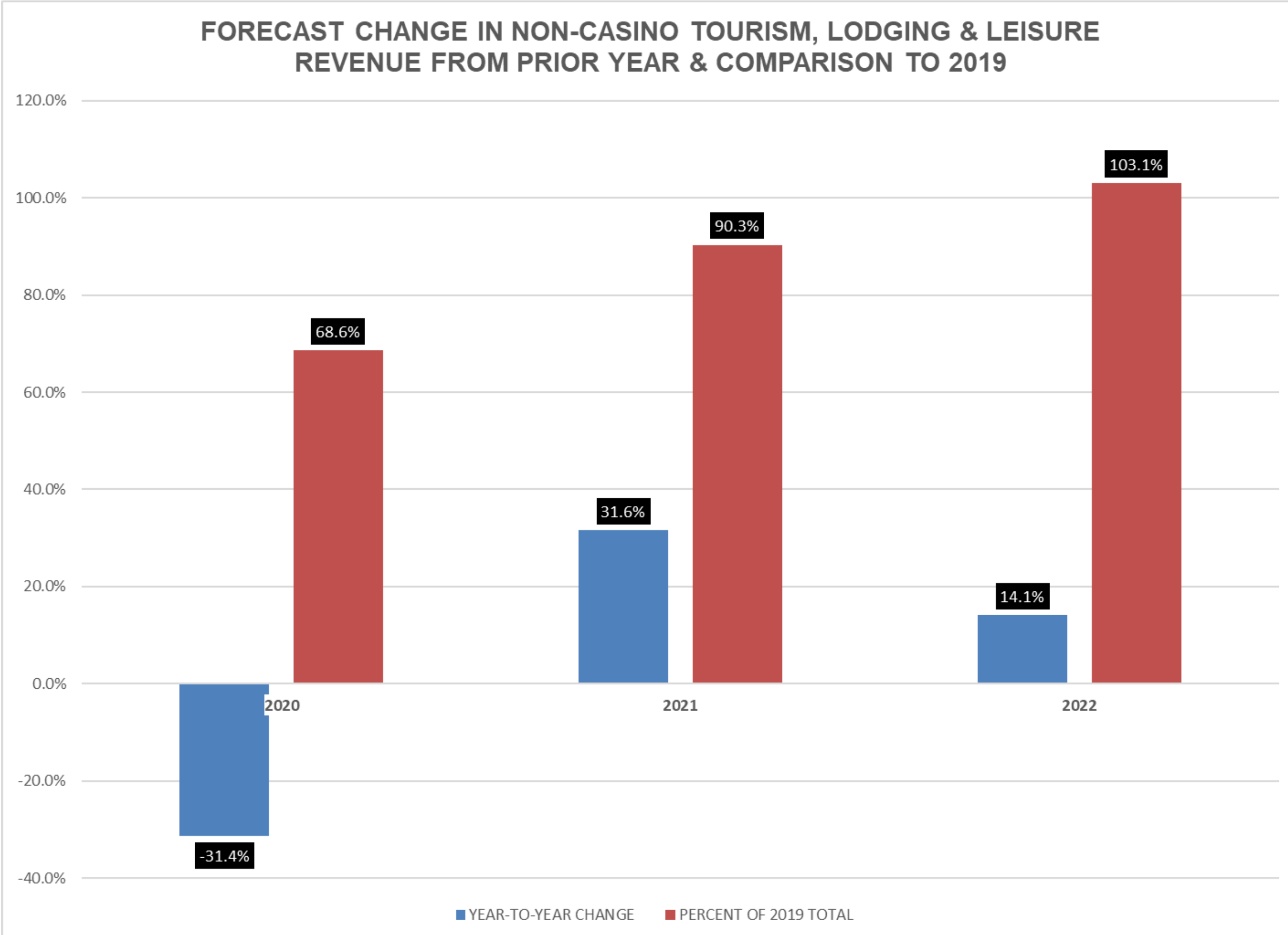
Lodging facilities in rural areas are experiencing a much lower hit from the crisis than their urban counterparts. Businesses dependent upon groups and large-scale events are still suffering regardless of location. But those that derive the majority of their revenue from individual, couple or family involvement are finding business volumes close to or perhaps even better than pre-pandemic levels.

The same recently published working paper from the USDA Economic Research Service that referenced 2020 declines in food away from home spending found that economic recessionary effects caused only approximately one percent of the decline. The remaining over 22 percent decline was primarily the result of forced closures and capacity restrictions. That is strongly positive news for future post-pandemic recovery prospects, since easing of constraints should quickly result in a reversal of negative spending trends. Indeed, small-scale versions of that pattern have already been observed when heavier restrictions have been lifted at the local or even state level as case and mortality counts decline from alarming peaks.

Based upon the assumptions about the course of the pandemic described previously and our analysis of newly available data, we estimate that the decline in non-casino tribal tourism, lodging and leisure revenue equaled 31.4 percent in 2020. For 2021 we now forecast an increase in tribal tourism and leisure revenue other than from casinos of 31.6 percent from 2020 levels as a rapid recovery begins, particularly in the third and fourth quarters, still leaving the industry 9.7 percent below estimated 2019 levels. In 2022, full recovery and new growth is forecast to occur, with revenue up 14.1 percent from 2021 leading to the surpassing of 2019 revenue by over three percentage points. This information is presented in the graph on the following page.

Agriculture/Forestry/Fishing/Hunting

The effects of government relief/stimulus efforts were particularly evident and important for the agriculture industry. According to the USDA Economic Research Service, cash farm incomes were actually up in 2020. However, the increase was almost entirely due to government subsidies. Direct farm payments from federal government programs more than doubled in 2020 compared to 2019. When compared to 2018, payments were up over three times and compared to 2015 payments were up over four times. The initial increases prior to last year were primarily due to subsidies paid to compensate farmers for devastating losses due to trade wars with China and other countries. However, the doubling in 2020 was directly related to mitigation efforts from the pandemic.


FORECAST CHANGE IN NON-CASINO TOURISM, LODGING & LEISURE REVENUE FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
-40.0%
68.6%
-31.4%
31.6%
90.3%
14.1%
103.1%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

Cash income from animals and products fell 5.4 percent in 2020, due to the impact of more at home than away from home dining, which typically involves less beef consumptions and meat consumption in general. Cash income from crops was up 5.5 percent, although crop figures also include CCC loans that may have distorted the year-to-year change. Some of the increase was definitely a real impact from the same shift to dining at home, which boosted food purchases for at home consumption. The February working paper from the USDA ERS that has already been referenced also found a 3.5 percent increase in consumer expenditures for food at home purchases. Other farm-related cash income was down 1.6 percent from 2019. According to gross output data from the Bureau of Economic Analysis through the third quarter of last year, the agriculture sector as a whole was on pace to end the year down less than one percent, depending upon fourth quarter outcomes.

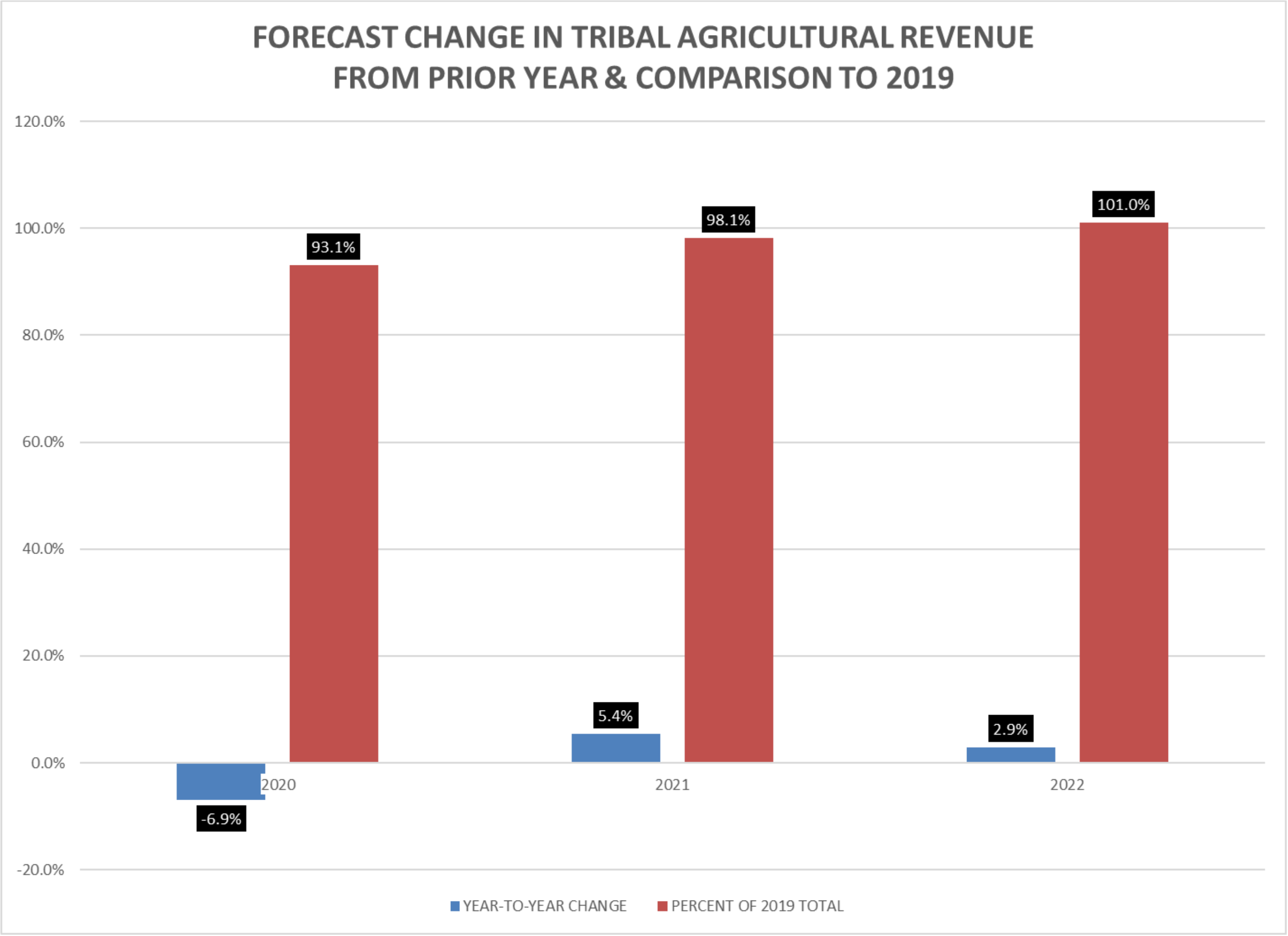
Indian agriculture does not appear to have been as fortunate. According to a survey conducted by the Intertribal Agriculture Council, 86 percent of respondents said they had been negatively affected by the pandemic. Cost increases averaging 32 percent had affected 50 percent of survey respondents. International sales decreases averaging 57 percent had affected 93 percent of respondents. Additional negative impacts by percent of respondents included loss of future sales (37 percent), supply chain disruption (35 percent) and loss of cash flow reserves (35 percent) amongst others.

As previously noted, outdoor activities, including hunting and fishing, have enjoyed a new spike in interest due to the greater perceived safety of being outdoors and the lack of many indoor recreation options. That spike has not been enough, however, to compensate for the difficulties in the agriculture sector and the loss of interstate and international travel, both of which provide important hunting and fishing demand.

Based upon the assumptions about the course of the pandemic described previously and our analysis of updated information, we have estimated that tribal agriculture, forestry, fishing and hunting revenue declined 6.9 percent in 2020. For 2021, we now forecast an increase in tribal agricultural revenue of 5.4 percent from 2020 levels as recovery begins, still leaving the sector 1.9 percent below estimated 2019 levels. In 2022, full recovery and actual new growth is forecast to occur, with revenue up 2.9 percent from 2021. Total tribal agricultural revenue in 2022 is forecast to exceed 2019 levels by one percent. This information is presented in the graph on the following page.

Mining & Extraction

This sector reeled from the double impact of pandemic driven reductions in demand and a price war between major producers late last spring. While the price war ended, the drop in demand has continued and is one change that is likely to extend even beyond the conclusion of the pandemic.


FORECAST CHANGE IN TRIBAL AGRICULTURAL REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
93.1%
98.1%
101.0%
5.4%
2.9%
-6.9%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

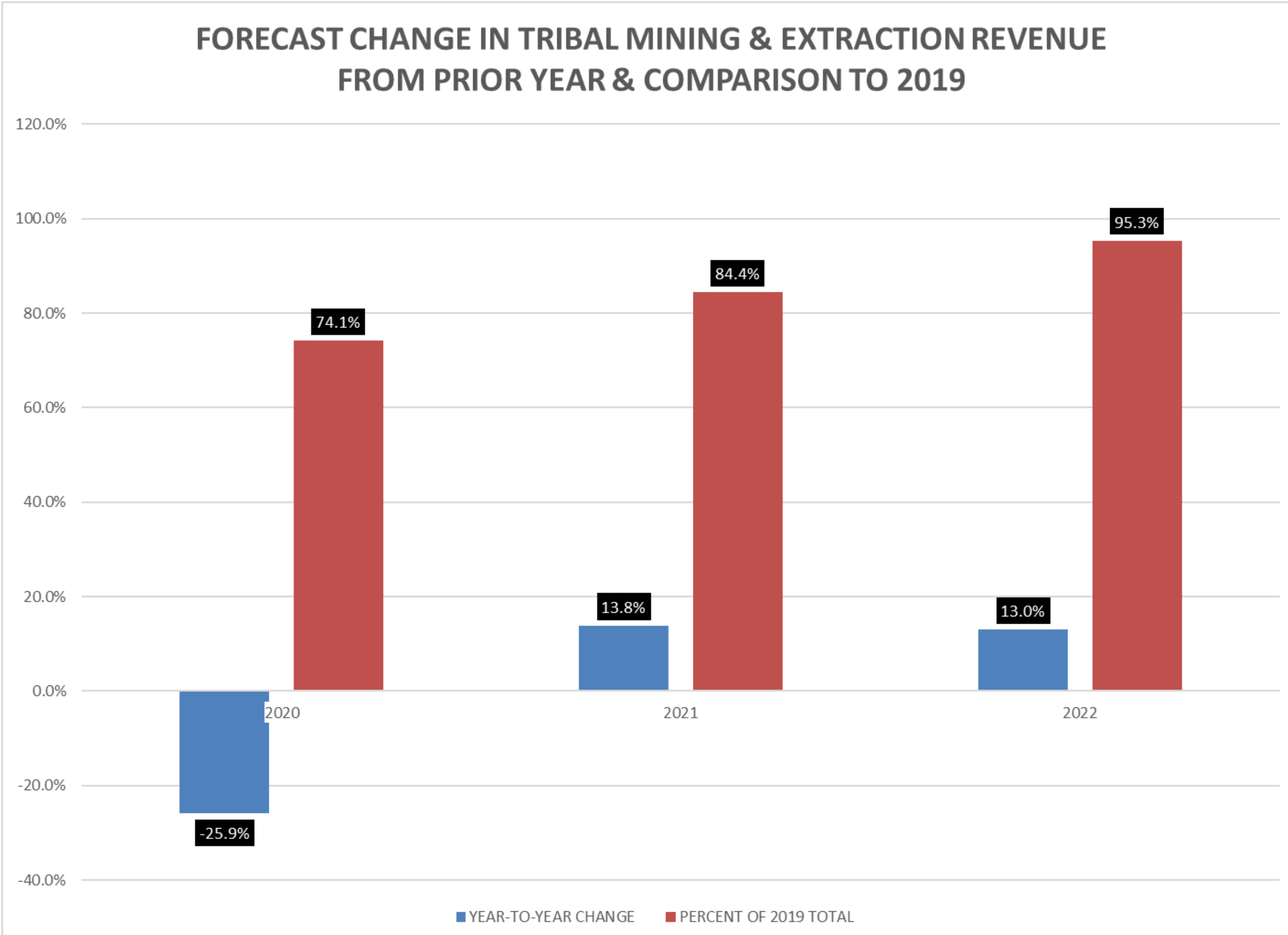
According to the Annual Energy Outlook just published by the Energy Information Administration on February 3rd, total delivered energy in the U.S. for all uses and in all forms combined, as measured in British Thermal Units, will not return to pre-pandemic levels until at least 2024 and perhaps not until 2029 or later. While refinery utilization and petroleum exports are expected to recover somewhat more rapidly, domestic gasoline and ethanol consumption are not expected to reach pre-pandemic levels for even longer, if ever. Retail prices for gasoline and diesel are projected to take several years to return to 2019 levels.

As noted in our original white paper, the importance of the mining and extraction sector is not spread evenly across Indian country. For some tribes it is a critical component of their economies, whether directly or indirectly. For others, it is all but irrelevant. For tribes that are more dependent on the mining and extraction sector, their own economies will continue to suffer doubly, both from the direct loss of business and from the impact of lost demand for other sectors due to lost employment and earnings in their area. According to data from the Department of Interior Office Natural Resources Revenue, payments for mining and extraction on Native American lands dropped 13.9 percent in 2020 from 2019, a loss of over $157 million.

Based upon the assumptions about the course of the pandemic described previously and our analysis of information currently available, we estimate that tribal revenue from the mining and extraction sector fell 25.9 percent in 2020. For 2021, we now forecast an increase in tribal mining and extraction revenue of 13.8 percent from 2020 levels as a slow recovery begins, still leaving the industry 15.6 percent below estimated 2019 levels. In 2022, recovery is forecast to continue, with revenue up 13.0 percent from 2021. This still leaves industry revenue 4.7 percent below estimated 2019 levels. We still believe that revenue in 2023 will approximate pre-pandemic levels and surpass them on a month-to-month comparison basis by the end of the year. This information is presented in the graph on the following page.

<u>Construction</u>

As we have discussed in prior editions of this white paper, construction typically lags other sectors in both decline and recovery due to the advance planning and inertia associated with large-scale development projects. The current crisis shows the same general pattern, but with the effects exaggerated by public health restrictions on one side unevenly counter balanced by government relief/stimulus spending on the other. Some projects already in process that would normally have been completed, even in a recession, have been suspended in mid-stream. At the same time, as government stimulus efforts and surprising resiliency in consumer and business behavior have been observed, a surge in spending in the second half of 2020 was observed in residential construction and renovation, along with CARES act spurred non-residential building. The net effect now appears to be a similar pattern to what was previously expected, but with a faster resumption affecting 2020 numbers.


FORECAST CHANGE IN TRIBAL MINING & EXTRACTION REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
-40.0%
74.1%
84.4%
95.3%
13.8%
13.0%
-25.9%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

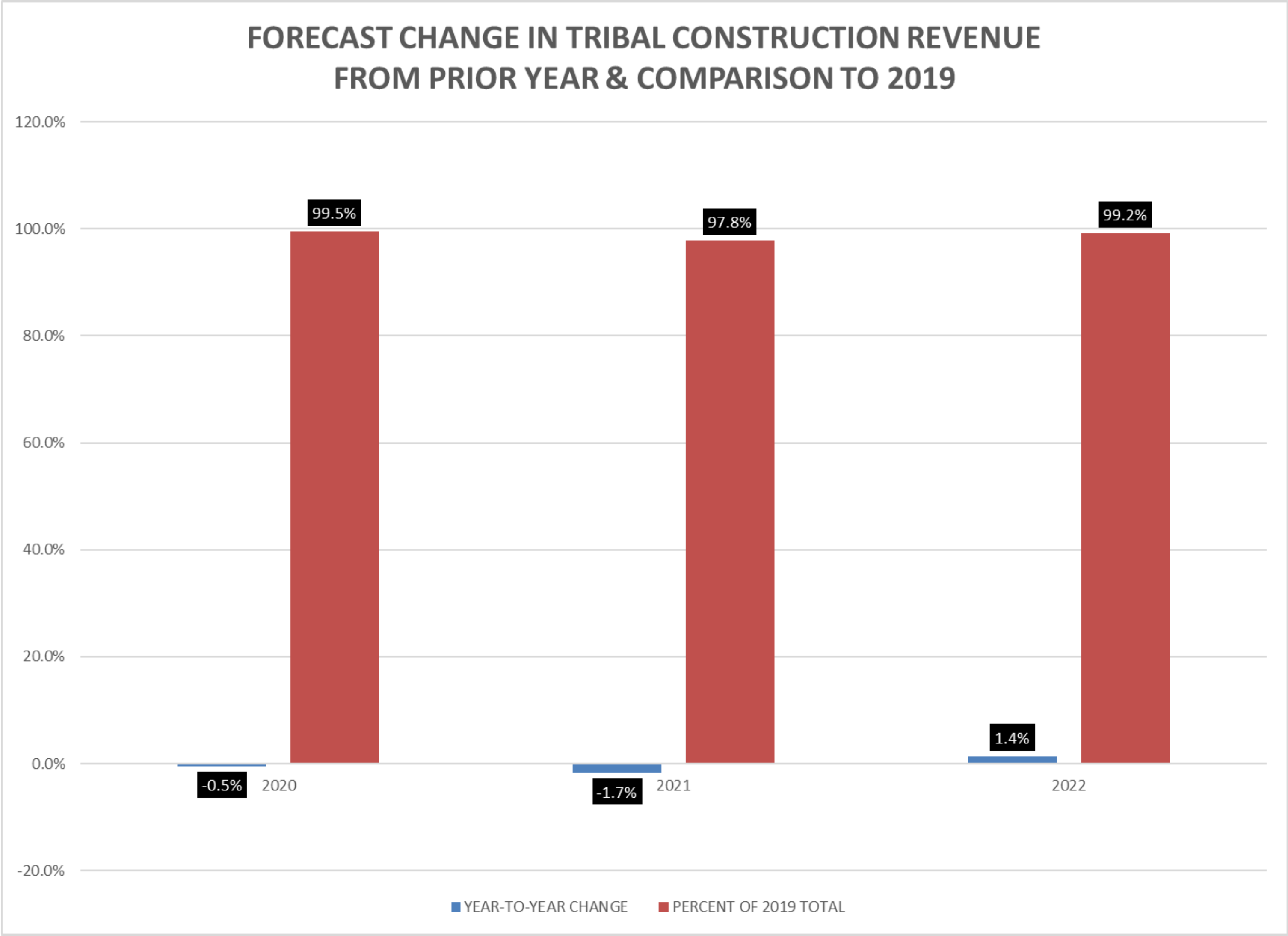
A key factor in the degree to which the sector experiences a decline in 2021 as we still expect or avoids such an outcome will be whether or not the federal government can pass a major infrastructure investment bill. Promised through the past three administrations, but never fully materializing, the need for major infrastructure investment has been recognized by both parties, but is bedeviled by disagreements on allocations of resources and the funding sources and magnitude of money to be spent. While we continue to be hopeful that an agreement can be reached, we are, for now, assuming that any such bill will not be enacted in time to change the direction of 2021 business patterns in the sector.

Based upon the assumptions about the course of the pandemic described previously and our analysis of current data, we estimate that the tribal construction sector experienced a decline of only 0.5 percent in 2020. For 2021, we still forecast a further decrease in tribal construction revenue from 2020 equal to 1.7 percent, as the lagged effects continue to build, leaving the industry 2.2 percent below estimated 2019 levels. In 2022, recovery is forecast to begin, with revenue up 1.4 percent from 2021. This will leave the sector only 0.8 percent below its 2019 level. Full recovery and new growth are expected to occur in 2023. This information is presented in the graph on the following page.

Manufacturing

The initial effects of the pandemic comprised shut downs in businesses representing end-point and intermediate-point demand for the manufacturing sector, particularly retail goods. Later and continuing negative effects have also been driven by viral outbreaks in various manufacturing businesses and by subsequent direct restrictions on employee spacing and operating procedures to reduce transmission. However, end user constraints continue to play the primary role, despite government attempts to stimulate production. The jobs-driven focus of much of the economic stimulus efforts preserved employment in manufacturing, but did much less to generate demand or maintain productive output. Application of the Defense Production Act to food processors and massive advance spending on vaccine production even before the vaccines had been approved partially mitigated other declines. A fourth quarter increase in exports and an increase in equipment purchases in the sector are positive signs.

Aggressive credit boosting efforts and other monetary initiatives by the Federal Reserve and demonstrated resilience in the attitudes and spending of consumers and business leaders support continued expectation of recovery in 2021 and 2022. The potential for a shift in trade policy away from tariffs and trade wars, while yet to be proven, provides additional reason for optimism. However, potential inflationary pressure continues to threaten long-term recovery.


FORECAST CHANGE IN TRIBAL CONSTRUCTION REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
99.5%
97.8%
99.2%
-0.5%
-1.7%
1.4%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

Based upon the assumptions about the course of the pandemic described previously and our analysis of spending and production data over the first three quarters, we estimate that the decline in tribal manufacturing revenue for 2020 equaled approximately 10.8 percent. For 2021, we now forecast an increase in tribal manufacturing revenue of 9.9 percent from 2020 levels as recovery begins, still leaving the industry 2.0 percent below estimated 2019 levels. In 2022, near full recovery is forecast to occur, with revenue up 1.7 percent from 2021. Tribal manufacturing revenue should surpass 2019 levels on a month-to-month basis by late 2022 or early 2023. This information is presented in the graph on the following page.

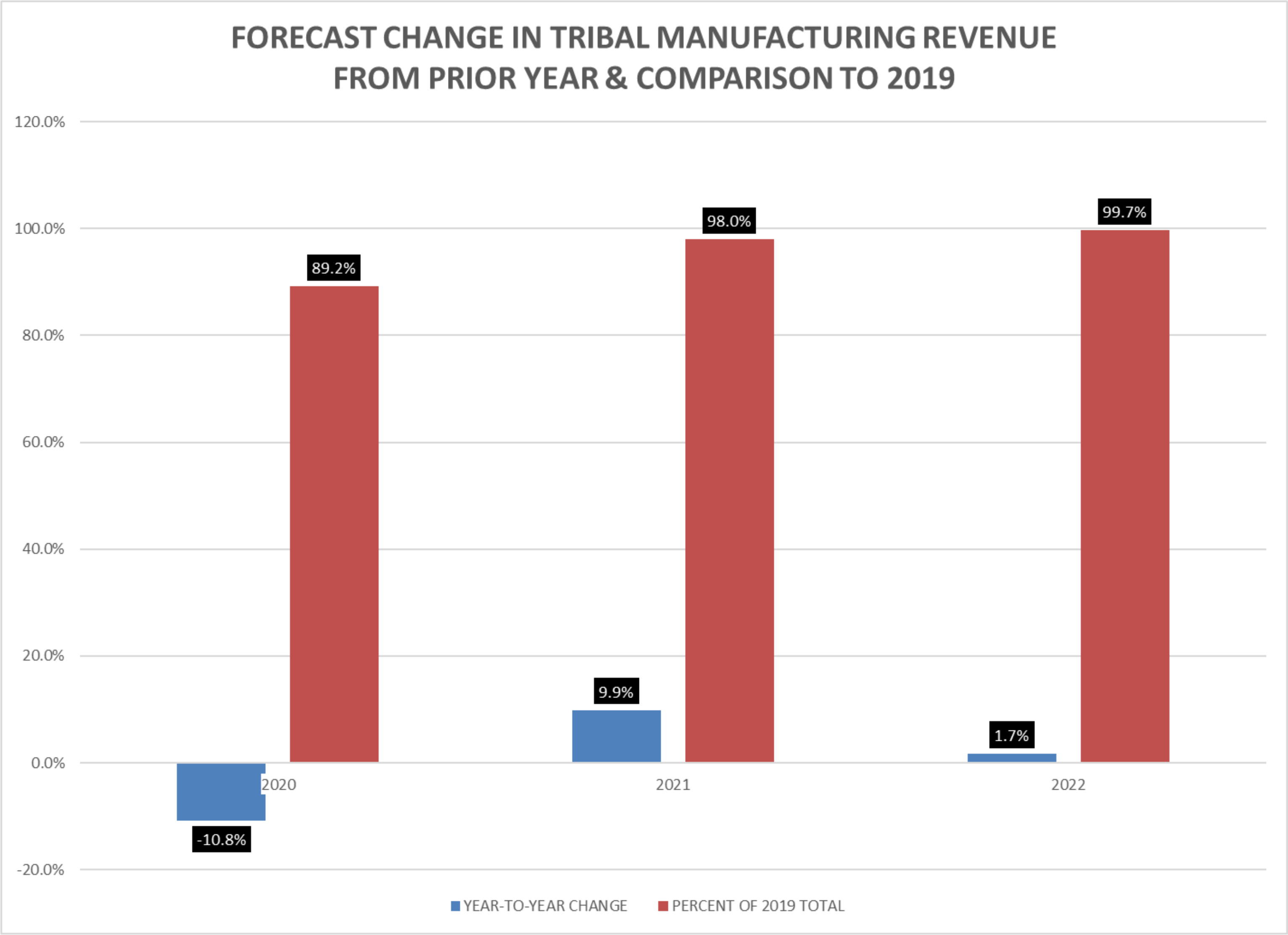
Wholesale Trade

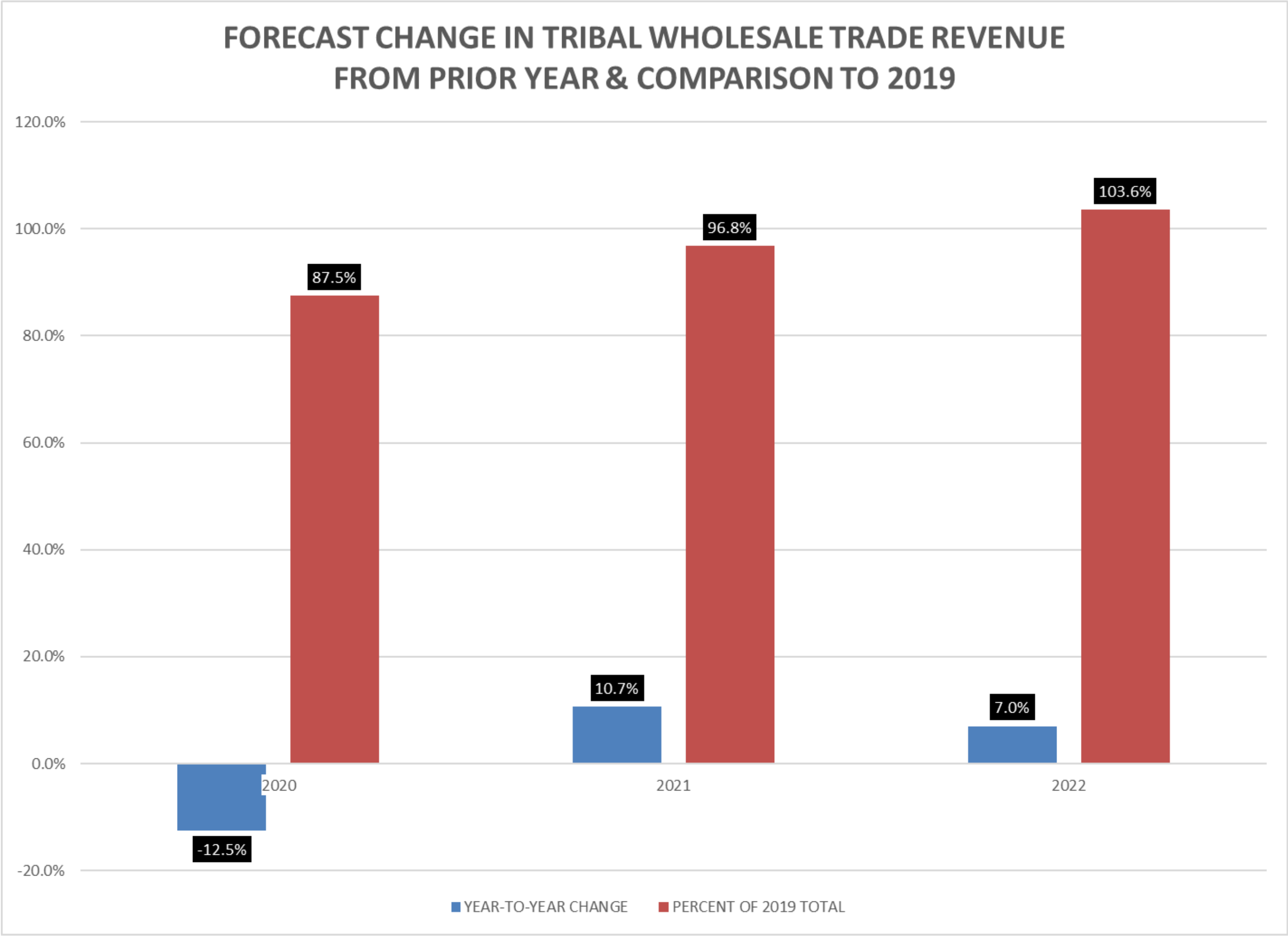
Tied as it is to, or caught between, the manufacturing and retail sectors, wholesale trade has demonstrated a similar pattern to the other two, with a late surge in revenue mitigating but not eliminating sharp declines earlier in the year. All three sectors have benefitted greatly from the already established online ordering and shipping infrastructure. While the early supply chain disruptions were serious, all three sectors, manufacturing, wholesale trade and retail trade have been able to rapidly adjust the flow of goods to take advantage of dramatic increases in online ordering to mitigate the effects of the current crisis and position for recovery. The surge in the second half of 2020, despite the late-fall spike in COVID-19 cases, indicates the potential for a faster recovery than previously expected.

Based upon the assumptions about the course of the pandemic described previously and our analysis of updated information, we estimate that tribal wholesale trade revenue declined 12.5 percent in 2020. For 2021, we now forecast an increase in tribal wholesale trade revenue of 10.7 percent from 2020 levels as recovery begins, still leaving the industry 3.2 percent below estimated 2019 levels. In 2022, full recovery and new growth is now forecast to occur, with revenue up 7.0 percent from 2021. At that level, wholesale revenue in Indian country will surpass 2019 levels by 3.6 percent in 2020. This information is presented in the graph on page 46.

Retail Trade

The second-half surge in the wholesale sector, referenced above, was driven by a surge in retail spending that was not yet visible at the time of our update last September due to time lags in data reporting. Some of the surge was actually a transfer of spending from other sectors amongst the service industries, such as food at home instead of dining out, and purchases of RV and camping equipment instead of staying hotels. As previously noted, a working paper by the Economic Research Service of the USDA published this month found a 3.5 percent increase in food at home spending last year. The surge was also supported by the massive income supports provided by PPP loans and direct payments of various types under the CARES act.


FORECAST CHANGE IN TRIBAL MANUFACTURING REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
89.2%
98.0%
99.7%
-10.8%
9.9%
1.7%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL


FORECAST CHANGE IN TRIBAL WHOLESALE TRADE REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
87.5%
96.8%
103.6%
-12.5%
10.7%
7.0%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

The preexisting shift toward online shopping was greatly accelerated, further mitigating declines of in-store sales. While online orders could not fully compensate for losses in brick-and-mortar stores at first, the pace has accelerated so much that major retailers with robust online presence are now catching up.

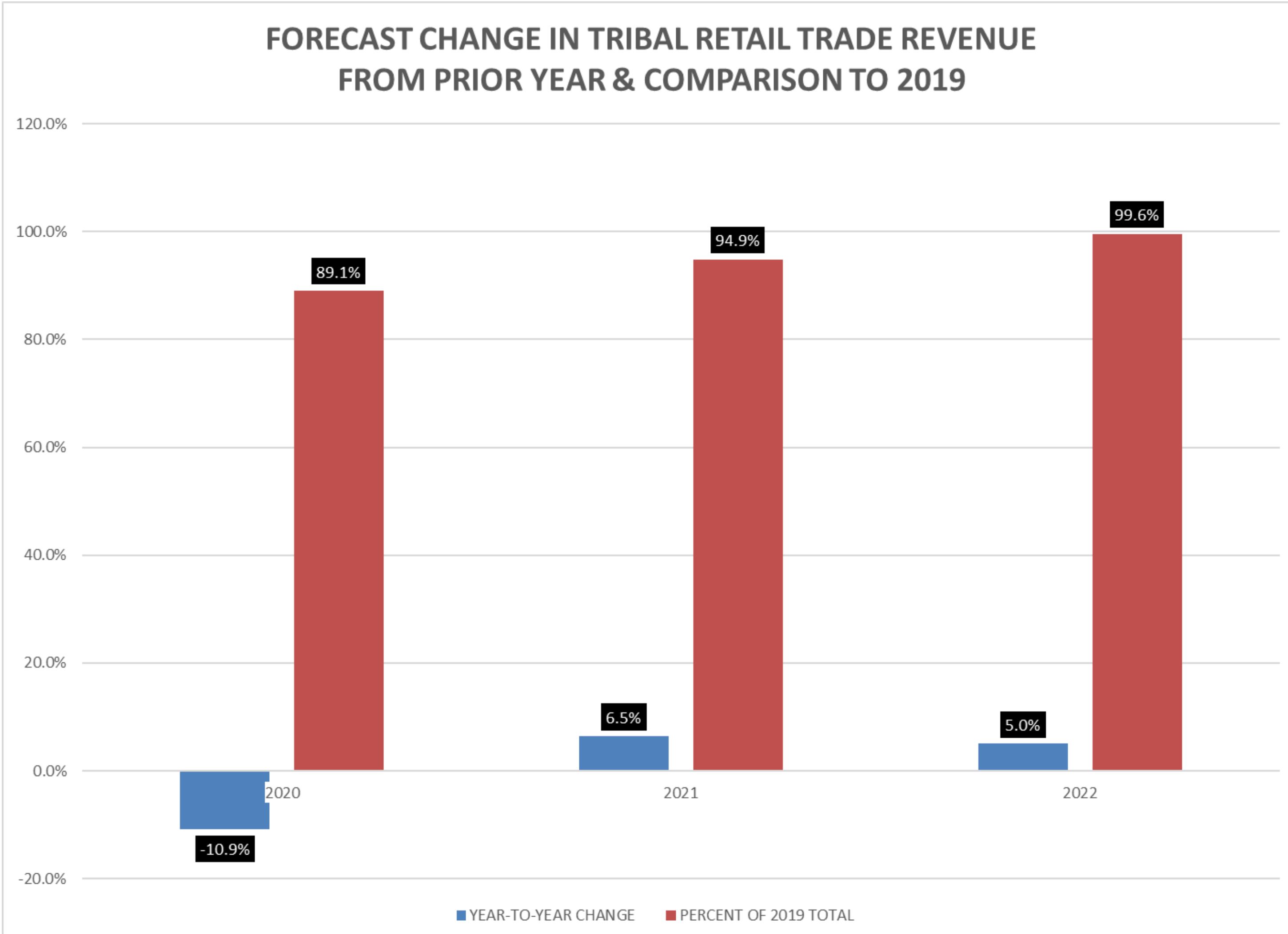
For tribal retail, which has a much lower internet presence, the online ordering shift has been of less help. The depressed tourist segment of demand has been a particular burden for tribal retail. However, the surge in interest in drive-to rural and outdoor locations for people desperate for some form of vacation has helped tribal retailers recover at least a portion of what has been lost. That surge also bodes well for the coming year, as considerations of pandemic safety will continue to encourage driving vacations to rural areas with outdoor recreation options, a pattern that favors much of the tribal retail sector.

Based upon the assumptions about the course of the pandemic described previously and our updated analysis of future trends, we estimate that tribal retail revenue for 2020 fell 10.9 percent, much better than previously expected but devastating nevertheless. For tribes, declines in retail sales also mean declines in one of their few sources of tax revenue – sales and use taxes, making the impact even more severe. For 2021, we forecast an increase in tribal retail trade revenue of 6.5 percent from 2020 levels as recovery begins on a limited basis, still leaving the industry 5.1 percent below estimated 2019 levels. In 2022, recovery is now forecast to be nearly complete, with revenue up 5.0 percent from 2021. This will place the sector only 0.4 percent below its 2019 level. Full recovery is likely to occur late in 2022 or in the first half of 2023. This information is presented in the graph on the following page.

Transportation & Warehousing

The passenger transportation side of the sector continues to be severely depressed. Despite some upticks in travel during the holidays, accompanied by upticks in COVID-19 case counts two to three weeks later, the industry continues to be hamstrung by the lack of business travel. That problem looks to extend at least through the first quarter and possibly the first half of this year. The airlines received additional federal help with the secondary relief package passed in late December. However, no amount of relief can fully replace actual normal business volumes.

The other, and much larger and more relevant subsector to Indian country, freight, continues to show much greater strength due to the massive uptick in online shopping and greater stability in the wholesale supply chain. While a continued severe decline in passenger airline volume would have an impact on freight too (passenger planes carry more freight than widely known), the freight subsector is on track to not only recover quickly but grow in the next two years.


FORECAST CHANGE IN TRIBAL RETAIL TRADE REVENUE
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
89.1%
94.9%
99.6%
6.5%
5.0%
-10.9%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

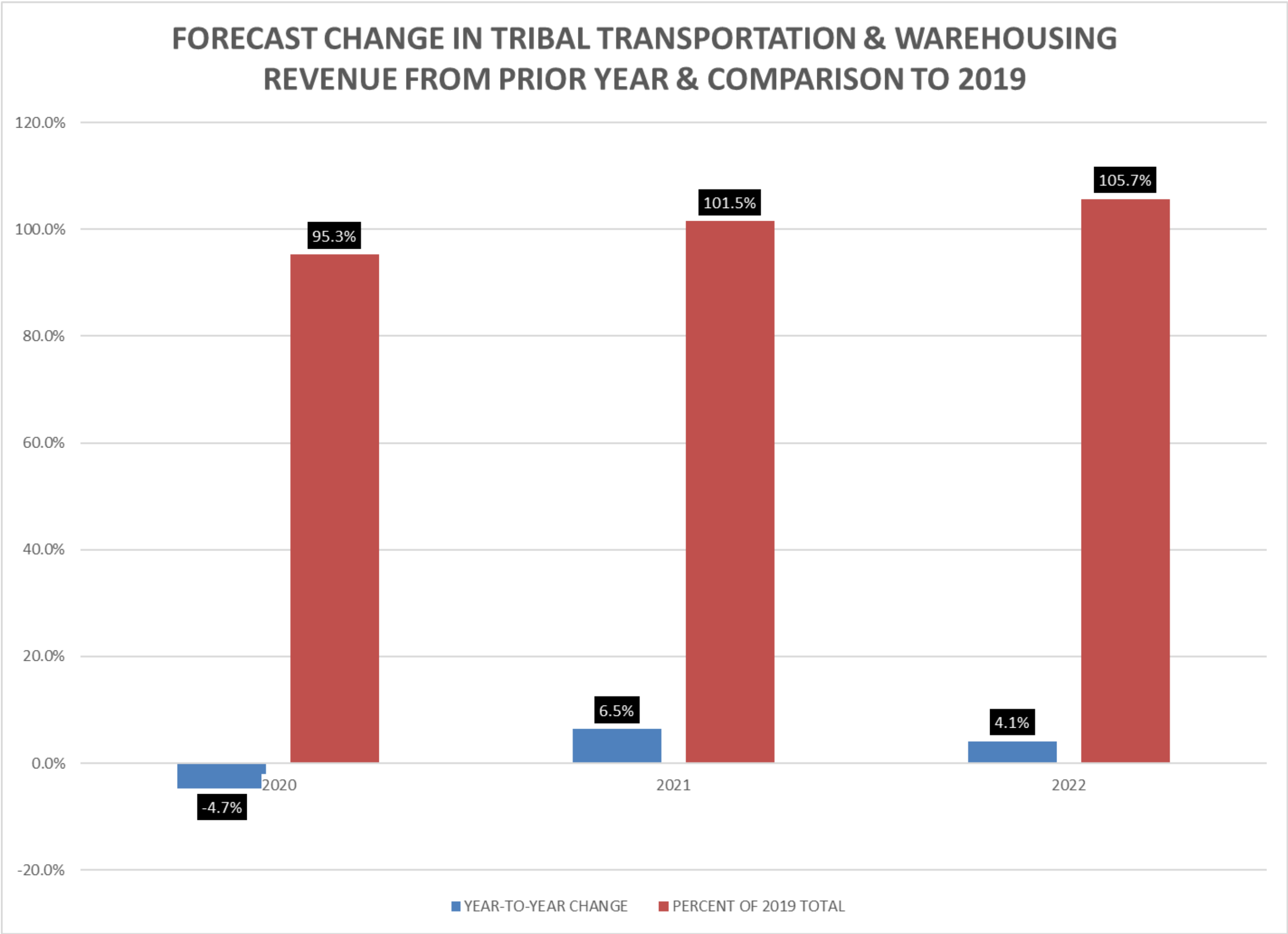
Based upon the assumptions about the course of the pandemic described previously and updated information on sector trends during the initial stages of the pandemic, we estimate the decline in tribal transportation and warehousing revenue equaled 4.7 percent for 2020. However, for 2021, we now forecast an increase in tribal transportation and warehousing revenue of 6.5 percent from 2020 levels, pushing the sector past estimated 2019 levels by 1.5 percent. In 2022, growth is forecast to continue at a slower pace, with revenue up 4.1 percent from 2021, resulting in total revenue up 5.7 percent from estimated 2019 levels. This information is presented in the graph on the following page.

Other Industry Sectors

Other sectors include utilities, the majority of the service sector group other than tourist and leisure-related services, and government. Most industries in these categories are expected to see patterns similar to those already discussed, although generally not as severe. While some service businesses, particularly personal services such as beauty salons and fitness centers, have been hit every bit as severely as food service and retail and will continue to suffer in much the same way, the bulk of services are not as consumer driven and less susceptible to pandemic driven restrictions. Two service sectors worthy of note are education and health services.

Education has continued to struggle into the fall as a once hoped for resumption of normal activity level with the new school year fell prey to the realities of the ongoing pandemic. Nevertheless, there is a clear effort at all levels to return to as close to normal activity as quickly as possible, with some hopeful signs in the mostly successful resumption of professional sports and moderate success for college sports, with the money they generate. The late-December supplemental relief bill included $82 billion for education, boosting the sector. However, constant start-stop in-person/remote learning shifts are proving costly. Transportation of students, long the bugbear of education officials, has been complicated by reduced capacity levels and driver illnesses.

While the healthcare sector suffered ironic declines in the midst of a health crisis due to reductions in elective surgeries and visits for anything other than COVID-19, there appears to be some positive movement back toward a more normal demand pattern, albeit with continued pandemic-driven operating changes to reduce spread. We do anticipate that trend to continue and intensify in the coming year now that vaccines are available. We also expect healthcare businesses of all types to continue to improve their pandemic and post-pandemic operating models to reduce the economic strain on the sector. Government funding availability for IHS remains a question mark in the coming years, depending upon when governmental budgetary emphasis shifts from economic stimulus to deficit reduction. However, we do not expect that until 2022 at the earliest and perhaps not until 2023.

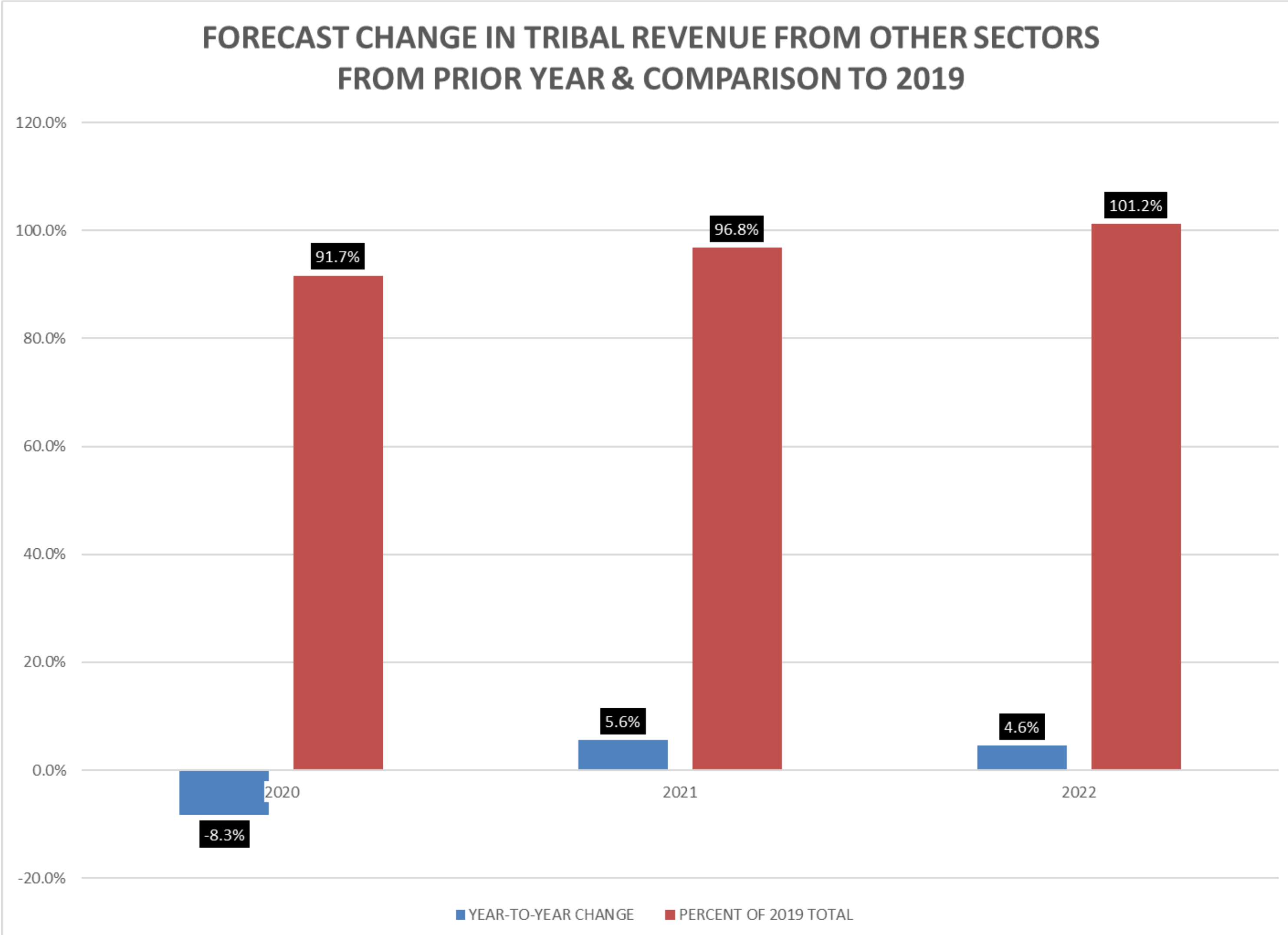

FORECAST CHANGE IN TRIBAL TRANSPORTATION & WAREHOUSING REVENUE FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
95.3%
101.5%
105.7%
-4.7%
6.5%
4.1%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

As noted in our original analysis, government as a sector is expected to undergo a pattern most similar to the construction industry, with lagged negative impacts following initial growth due to stimulus attempts. The need for stimuli remains apparent. However, the pressure on local and state finances will constrain their ability to respond and eventually even impact the federal government.

The commercial real estate sector continues to operate in a wait-and-see mode as office spaces remain empty, brick-and-mortar retail struggles and other special purpose tenants face capacity restrictions. There remains an expectation (hope?) that once the vaccine is widespread and the pandemic under control, some resumption of normal working and living patterns will return. However, the longer the pandemic has hold, the more likely it becomes that prior patterns will be permanently altered as employers, workers and consumers find themselves less physically tied to a specific location or proximity to certain supporting development. The residential real estate sector has been the beneficiary of this temporary and perhaps more permanent shift, with home sales supported by low interest rates and a reassessment of lifestyle priorities. Hanging over both sectors and the financial sector as well is the lingering problem of rent and mortgage delinquencies due to loss of employment and revenue. Support from the Federal Reserve will continue to mitigate the problem for the financial sector for the short term. However, a reckoning must ultimately be made.

The information sector has seen a significant boost in the dramatic increase in demand for remote access to many facets of life formerly obtained in person. New software, new network needs and new uses for remote technology cause the information sector to actually see increased output last year of as much as one percent or more, based on extrapolations of three quarters of data from the Bureau of Economic Analysis. The introduction of 5g technology and networks currently underway will boost the sector further. Within the broader discussion of infrastructure, high-speed internet and cellular service has been highlighted by the struggles of remote learning, shopping and medical care access in rural areas and amongst lower-income families. It appears likely that whatever infrastructure legislation eventually gets passed, if any, will include a significant focus on broadband service expansion.

Based upon the assumptions about the course of the pandemic described previously and our analysis of updated information, we estimate the decline in tribal revenue from other economic sectors equaled 8.3 percent for 2020. For 2021, we forecast an increase in tribal revenue from other sectors of 5.6 percent from 2020 levels as recovery begins, still leaving the combined sectors 3.2 percent below estimated 2019 levels. In 2022, full recovery is forecast to occur, with revenue up 4.6 percent from 2021. Total tribal revenue from other sectors in 2022 is forecast to exceed 2019 levels by 1.2 percent. This information is presented in the graph on the following page.



FORECAST CHANGE IN TRIBAL REVENUE FROM OTHER SECTORS
FROM PRIOR YEAR & COMPARISON TO 2019
120.0%
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
-20.0%
91.7%
96.8%
101.2%
-8.3%
5.6%
4.6%
2020
2021
2022
YEAR-TO-YEAR CHANGE
PERCENT OF 2019 TOTAL

Tribal Government Budgetary Impact

Up until now, the direct impact of all of the economic upheaval on the operating budgets of tribal governments has been mostly implied from the effects on various tribal economic sectors. However, we have taken the opportunity for this final update to use year-end data and more in-depth analysis to generate estimates of the actual loss of government revenue to Indian tribes. The analysis is complicated by the fact that there are no published sources detailing the exact operating budgets of individual tribes or the combined spending by tribal governments on a cumulative basis. However, inferences can be drawn from changes in federal government spending and from the likely bottom-line impacts of revenue losses by sector discussed in this report.

Tribal governments do not have access to the tax revenue sources from which state governments derive their funding, such as personal or corporate income taxes and property taxes. Traditionally, the federal government has been a major source of funding for tribes due to treaty obligations and the trust limitations imposed on Indian country. Federal support, though substantial, has never been sufficient in scale or reliability to meet all of the needs of Native Americans. Tribes have made various efforts throughout their history to boost their government revenue base through tourism, mining, extraction, agriculture and other tribally-owned and operated ventures, the very sectors discussed in this white paper update. For the past 35 years or so, gaming has provided a new and extraordinarily successful addition to that mix of businesses that has provided many tribes with new sources of government program support and new access to development capital for other economic initiatives.

The one tax source that tribes do have available that is common amongst non-tribal governments is some form of sales and use tax. Development of this revenue source was historically constrained by the limited amount of sales and uses and the fact that the tax was applied to ventures owned primarily by the tribes, not by private operators. In more recent years, as tribes have diversified their economies using gaming profits and other capital access, the ability to generate meaningful revenue from sales and use taxes in various forms has become an important addition to the funding of many tribal governments.

The economic crisis spawned by the pandemic has hit tribes twice over, by reducing the profits of their business ventures and by reducing any sales and use tax revenue they generate. Federal support has helped mitigate that decline to a degree, with $8.0 billion set aside in the original CARES act for tribal governments. However, the CARES act included significant restrictions on the uses of that funding that have reduced its benefits to Indian country. Amongst other restrictions published in the Federal Register, the CARES act required that funds for tribal governments be used only for:

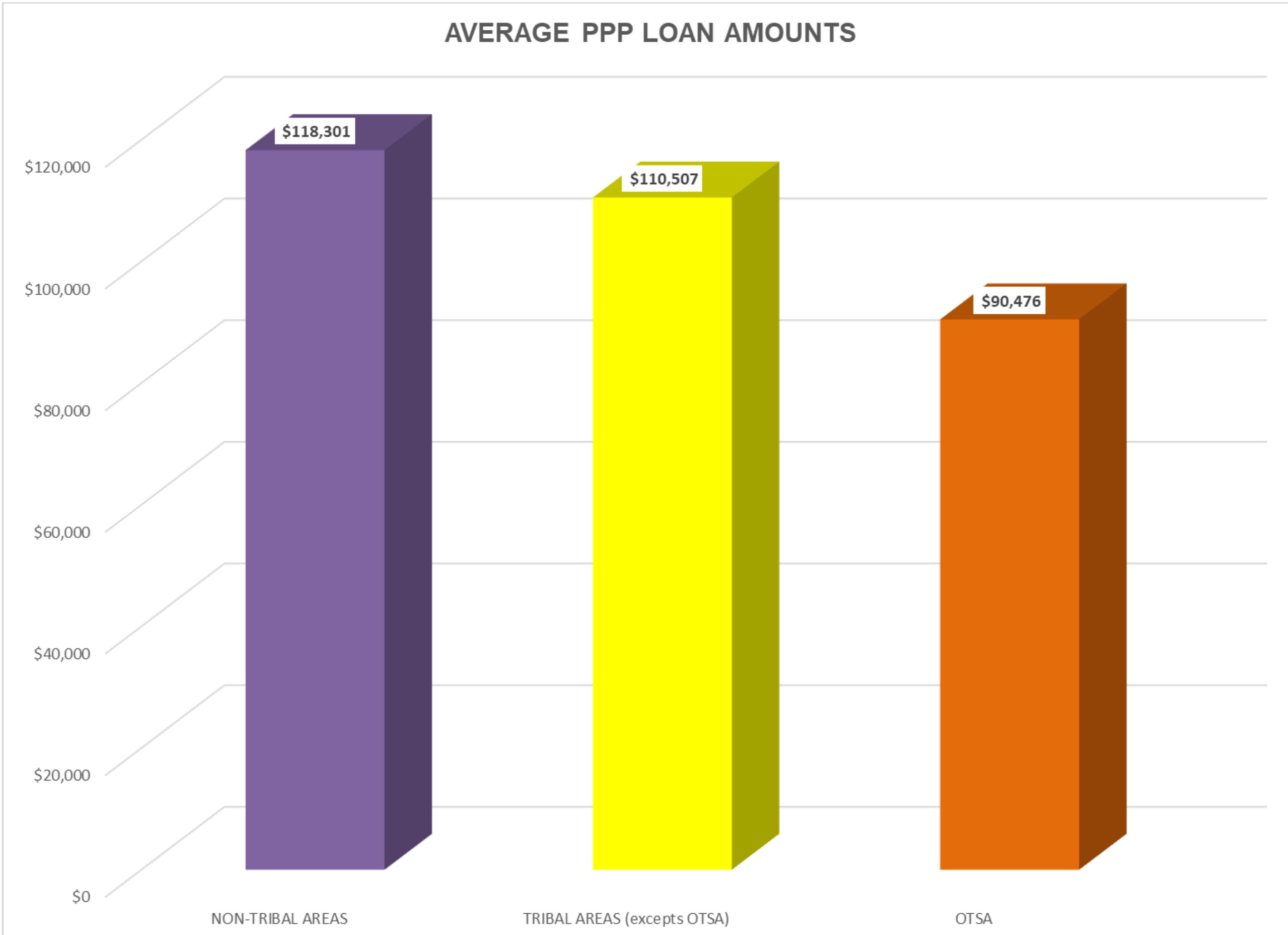
1. *Necessary expenditures due to the public health emergency…*
2. *[Expenditures] not accounted for in the budget most recently approved as of March 27, 2020…*
3. *[Expenditures] incurred during the period that begins March 1, 2020 and ends December 31, 2021.*

The guidance adds that: *“Although a broad range of uses is allowed, revenue replacement is not a permissible use of Fund payments.”* Due to the unique structure of tribal government funding sources, these and related restrictions affected tribes more heavily than other governmental entities subject to similar requirements. This is not intended as a criticism of the CARES act, but simply as a point of information regarding the degree to which the impact of the pandemic and associated mitigation efforts on tribal government funding far exceeded the additional support the CARES act provided.

When a business closes or its revenue is severely reduced, expenses are cut as well. However, many expenses cannot be completely eliminated. In addition, many, if not most, tribes have made valiant attempts to maintain health insurance and other benefits for furloughed employees and even maintained their regular wages to at least some degree for considerable periods of times out of good will and a desire to have those employees available to be reinstated as soon as operations became possible again. As a result, the reduction in costs was much less than would normally occur and the negative effects of closures and restrictions on tribal government income was a much greater proportion of the full revenue losses at the businesses than would normally be true.

The vaunted and effective, if uneven, PPP loan program was shown to be less effective in Indian country than in the rest of the United States in a working paper released by the Federal Reserve Bank of Minneapolis’s Center for Indian Country Development in November of last year. In the paper, the authors found that only approximately 19.7 percent of businesses in tribal areas and Oklahoma Tribal Statistical Areas [OTSA] received PPP loans, versus 21 percent of businesses in the rest of the country. The average loan size in tribal areas other than OTSA was 6.6 percent lower. The average loan size in OTSA was 23.5 percent lower. This information is shown in the graph on the following page.

The cumulative impacts of major losses in key economic sectors, losses in sales and use tax revenue, attempts to retain employees or mitigate the effects of furloughs and the increased needs for health and social service supports for tribal members have far outstripped the support that tribes received from federal government relief/stimulus packages thus far. In order to estimate the full dollar impact on tribal budgets, the estimates of percentage losses in various sectors were combined with assumptions of cost savings, tribal government funding by source, known dollar volumes in key segments and our experience in working with over 250 tribes across the U.S. and Canada over the past 30 plus years.



Source: Federal Reserve Bank of Minneapolis – Center for Indian Country Development

Based upon our analysis, we estimate that the negative budgetary impact on tribal governments in 2020 after accounting for federal relief/stimulus efforts to date equaled between $9.0 billion and $12.0 billion. For 2021, we forecast an additional negative budgetary impact on tribal governments of $1.9 to $3.0 billion, for a cumulative shortfall of between $10.9 billion and $15.0 billion. This information is presented in the table below:

Estimated Loss of Tribal Government Funding
(net of CARES act and other stimulus payments to date)

2020 (estimated)	**-$9.0-$12.0 billion**
2021 (forecast)	**-$1.9-$3.0 billion**
Cumulative Loss (net of stimulus to date):	**-$10.9-$15.0 billion**

Source: KlasRobinson Q.E.D.

PRESCRIPTION SUMMARY

We have again not found a need to alter or update the range of prescriptions to speed recovery and boost new growth potential for tribal economies that we offered in our original report in June, other than to recognize that some of the items addressing the acute phase of the crisis are no longer necessary as that phase has passed. The basic concepts and specific actions are already being undertaken by many tribes recognizing the same issues and taking the same logical steps. The brief summary of prescriptions that we included in the Executive Summary section of our original report is repeated below with minor adjustments. For more detailed discussion, please consult the body of the original report.

RECOVERY PHASES

We are now squarely in the transitional phase of the crisis as originally discussed in our first report in June of last year. Facets for this and for the upcoming recovery phase are repeated below:

Transitional Phase (October 2020 to September 2021)

- Continuing to watch for promising adjustments and approaches taken by others and applying them to your own environment.
- Using operating results, customer and employee feedback and revised government directives to inform easing or adjusting of rules.
- Taking initial steps to make temporary structural changes permanent as needed.
- Experimenting with internal design and materials to improve the comfort, efficiency and appearance of barriers and spacing requirements.
- Planning in advance for long-term adjustments in space, product lines, pricing, staffing and business models to reflect the clearer picture of the evolving "new normal."
- Publicizing and celebrating successes, enhancements and easing of restrictions.
- Personalizing the evolving long-term operating patterns to your particular business and customer base.

Recovery Phase (September 2021 to Early 2023)

- Resumption of traditional rather than emergency strategic planning to maximize market position and profitability.
- Continued communication with customers, employees and civic leaders.
- More significant capital expenditures to maximize the efficiency, customer appeal and profitability of operations.
- A resumption of traditional government advocacy to refine, improve, add or remove post-pandemic regulations.

- Exploration of new business lines, cross-fertilization, vertical and/or horizontal integration and other opportunities in the new economic environment given your own internal strengths and weaknesses.
- Document all actions taken during crisis and recovery, including what worked and what did not to provide a guide for future crises.

INTER-TRIBAL COOPERATION & COORDINATION

Association/Organization to Association/Organization

- Formal coordination through regular meetings of key staff in major national and regional organizations (e.g., NIGA, NCAI, NCAIED, American Indian Chamber of Commerce, NAFOA and many others, including their regional counterparts) to set agendas, monitor progress and share ideas and areas of emphasis.
- Development amongst the organizations of standardized messaging, phrasing and key words applicable to area of common interest as well as to areas of individual emphasis (e.g., the word "sovereignty" which has become an extremely effective rallying cry across numerous issues).
- Continued and enhanced joint appearances before government agencies and elected officials and invitations to such to appear at joint gatherings.
- Coordinated public relations efforts in the media and at state and local levels in addition to the federal government to highlight the areas of common concern and ingrain the standardized phrasing and key words into the public lexicon.
- Regular reports back to their own individual memberships regarding their coordination efforts to boost enthusiasm and support at the tribal leader and tribal member level.
- Leverage associate member knowledge and resources to boost impact.

Tribe to Tribe

- Development of consortiums between land-rich, labor-rich, resource-rich and financially successful tribes to develop new business ventures capitalizing on shifting trade and supply chain patterns, with development located to maximize needed employment or market/resource access with investment from tribes lacking such needs or opportunities but having cash available for investment.
- Continued and expanded lending and investment tribe-to-tribe for renovation and expansion of existing facilities to meet new operating requirements as recovery takes hold.
- Continued joint efforts to support needy Native Americans not living on their home reservations.

- Continued, renewed or expanded support by individual tribes for the multi-tribal organizations and associations previously referenced.
- Increased efforts to make inter-tribal purchases, whether tax-advantaged or not, and support Indian-owned businesses.

SUPPLY CHAIN DIVERSIFICATION

- Continued review of all vendor sourcing across all tribal businesses to identify and develop additional reliable and high-quality sources.
- Encouragement of, investment in and directed purchasing from existing and new AIAN-owned suppliers.
- Reevaluation of customers and product/service lines to identify opportunities for additional direct or spinoff/leveraged markets, including increased tribe-to-tribe selling.
- Lobbying and pursuit of government grants, loan programs and other incentive programs to support new, expanded or diversified production and distribution.
- Active discussions at the association level and tribe-to-tribe of networks and consortiums to aid supply chain diversification.
- Strategic planning and investment with a focus on longer return cycle development to allow new diversifying business ventures time to establish their markets.
- Further exploration of tax advantages and other regulatory benefits of tribal development and tribe-to-tribe transactions, as well as tribe to non-tribal sources, to market and support new diversification efforts.

FINANCING & WORKOUTS

- Continuation of business level and tribal level strategic planning for recovery and future long-term operating models.
- On-going communication with existing and past lenders to establish dialogue about needs, limitations, expectations and opportunities.
- Project, loan or venture specific evaluation of pre-pandemic, pandemic and likely post-pandemic operating results given available information and current plans, including range and alternative estimates.
- Active discussions at the association level and tribe-to-tribe of alternative capital sources, workout strategies and best practices.
- Continued lobbying of government support for reparative, restorative and generative initiatives.

INSURANCE & LEGAL

- On-going discussions with internal and external counsel, as well as relevant industry associations and government representatives to determine the extent and character of liability for Indian tribes and AIAN-owned businesses across all sectors.
- Negotiations with insurance providers regarding policy coverage and disbursement procedures to identify areas of disagreement and begin the claims filing process.
- Documentation of all necessary actions taken, operating or practical results, government guidance, communications and publicity efforts to create a paper trail in the event of litigation.
- Continued review and enhancement of publication and communication of all relevant policies, regulations and declared liability limits to customers, employees, vendors and tribal members.

SANITATION, PPE AND OTHER HEALTH PROTECTIONS

- Active pursuit of diversified supply lines for all sanitation, PPE and other health protection supplies, including development of tribal production for internal use and external sale where feasible.
- Study and monitoring of enhancements to improve the comfort of PPE for employees and customers without losing effectiveness.
- Review of changes to date and continued analysis of interior design standards to make distancing and barriers for customers and staff, both front-of-house and back-of-house, more attractive, less intrusive and more convenient/efficient.
- Segmentation of customer and work groups into smaller clusters where possible to reduce potential spread, either through space designation, activity/process segregation or scheduling.
- Identification of key customer groups for special attention that can be attracted by providing added protection versus the general population.
- Active discussion at the association and tribe-to-tribe level of innovations, best practices and supply sources.
- Frequent reevaluation of the placement and types of sanitizing equipment to ease and enhance customer and employee usage and decrease the cost and time needed to refill, replace and dispose of spent materials.
- Customization of PPE with logos, names and other marketing material for sale or free distribution as appropriate to staff and customers.
- Active training of staff on engagement with customers and each other to encourage cooperation in policies and procedures in a non-confrontational manner with clear chains of command for reporting or enlisting aid in situations of non-compliance.

- Pursuit of opportunities to provide sanitation and PPE supplies with logos on a charitable basis to people or institutions in need.
- Automation of dispensing, tracking, and resupplying of sanitation and PPE wherever possible.

AUTOMATION

- Conversion where possible to touch-free processes, particularly in restrooms, entrances and other places where motion sensing is practical.
- Conversion where practical to automated dispensing from supplies, to products, to currency/change, to PPE, to liquids, to raw materials and to any other potential machine dispensable item or service.
- Training for staff on the proper use and maintenance of automated equipment and dispensers.
- Education and promotion for customers on the use and benefits of automated equipment.
- Inclusion of added automation in any redesign, renovation, expansion or new development to the extent allowed by space, capital and market position.

INDIVIDUAL SECTOR PRESCRIPTIONS

Gaming

Space Use and Needs

- Planning and design efforts to create permanent distancing and barriers that are attractive to the customer, durable and easy for staff to work with and maintain.
- Evaluation of the cost/benefit of additional space for gaming and of reallocation of space from areas no longer utilized to the same degree.
- Evaluation of the most efficient and cost-effective manner to increase back-of-house space to meet employee and inventory needs.
- Creative engagement with machine and table game vendors to develop new gaming stations that compensate for space requirements by reducing the need for customers to leave their gaming position.
- Creative engagement with regulators to develop new MICS and testing to adapt to new gaming station models.
- Reevaluation of the balance between various casino resort components to ensure that each component is properly scaled to meet the needs of the new operating environment, including greater design flexibility to quickly adapt space use in the future.

- Consideration of shifts to electronic and/or stadium gaming for table games.

High Value Customers

- Configuring of private gaming salons for exclusive use by high-value gamers or for rental by groups. Salons would have dedicated servers and premium food and beverage offerings. With advance reservations, specific games could be moved in and out until such time as multi-game stations are developed.
- Reconfiguration of players' club benefits to focus even more intensively on higher-value gamers and reduce incentives to bottom level gamers.
- Creation of "gaming concierge" staff for top tier customers to ensure that they have the games they want when they want them, guide them to the right locations personally when they arrive and cater to such other needs as they may have.
- Adjustments to table minimums, and machine minimums to emphasize higher wagering levels per customer, even at the cost of some lower value patrons.
- Creative engagement with regulators to develop/adjust regulations as needed to accomplish above goals.

Food and Beverage Service

- Design and operational planning for increased food and beverage service on the gaming floor, including necessary regulatory changes, ordering equipment, space to set food and drinks and shifts in staffing.
- Reconfiguration of buffets and other underutilized restaurants and bars to food court or food hall concepts or other space needs.
- Shifting of menu mixes to ease the transition to on-floor consumption but maintain quality and freshness.
- Increases in outdoor dining and drinking areas where space and climate permit, including increased climate buffering efforts such as awnings, heaters, coolers/misters and windscreens.
- Adjustments to marketing efforts and players' club rewards away from discounted food and beverage.
- Premium food and beverage service for high-value customers and private gaming areas.
- Enhanced room service for casinos with hotels and increased packaged food vending and microwavable or kitchenette-preparable food.

Other Gaming Prescriptions

- Increases in the non-smoking space in casinos or transition to smoke-free to reduce the need for customers to remove their masks.
- Increased active pursuit of on-line gaming options and non-wagering game apps associated with individual casinos for play both on and off property to ensure that Indian gaming maintains parity with opportunities available to commercial casinos and state-sponsored gaming.
- Reevaluation of the cost/benefit of large-scale entertainment and sporting events on site to reflect new distancing requirements and new gaming capacities.
- Proactive review of all gaming regulations, both internally and with state and federal agencies, to ensure that any unnecessary barriers to the evolution of the gaming experience in the post-pandemic environment are removed or mitigated.
- Exploration of air handling and air filtering enhancements that can be marketed as increasing employee and customer health safety.
- Review and alteration as needed of customer and employee access points to aid in capacity control and public health monitoring.

Tourism, Lodging & Other Leisure Industries

- Exploring options to expand RV and other camping sites, cabins, casitas, glamping or any other lodging options that stand independently or semi-independently.
- Evaluation of renovation options to include kitchenettes or less extensive enhancements of in-room food preparation and consumption.
- Enhanced room service and increased packaged food vending and microwavable or kitchenette-preparable food.
- A shift in focus for lodging development toward lower price-point/lower service-point options such as economy extended stay.
- Increases in outdoor dining and drinking areas where space and climate permit, including increased climate buffering efforts such as awnings, heaters, coolers/misters and windscreens.
- Exploration of mixed/vertically integrated foodservice and retail models to provide more flexibility in the revenue stream.
- Evaluation of the potential for increased outdoor or convertible indoor/outdoor activities and attractions.
- Revision of staffing models through increased automation.
- Where capacity cannot be maintained but demand is present, a shift upward in pricing to maximize revenue per patron, combined with increased amenities and upselling options.
- Increased emphasis on reserved group bookings to allow for better staffing control and customer separation.

Agriculture/Forestry/Fishing/Hunting

- Diversification of production through rotation or planting/grazing of a wider variety of products, particularly specialty products with Native connections, organics and other high perceived-value elements.
- Diversification of sales outlets, including multiple processors, direct retail and online sales.
- Development of processing, packaging and distribution capabilities to produce value-added and vertically integrated agricultural ventures.
- Microlending, guaranteed purchasing and other small-scale support for the efforts of individual members to diversify or add value to their own production.
- Negotiation of tribal agricultural consortiums and tribe-to-tribe purchasing agreements to help seed new development initiatives.
- Increased mandates to purchase from within tribes or tribe-to-tribe for foodservice supply and tribal grocery retail.
- Exploration of recyclable paper and carboard packaging opportunities for tribal timber production where suitable.
- Expansion of hunting and fishing activities for both tourists and tribal members to the extent supportable by the eco-system. This can be coupled with the increased RV camping and glamping initiatives already described.

Mining & Extraction

There remains little to be done to mitigate the effects beyond what is traditionally done in the sector: layoffs, temporary shuttering of facilities, production cuts and patience. One aspect worthy of more intensive focus is the same concept of tribal consortiums and tribe-to-tribe purchasing mentioned previously. The concepts are already in place for oil and gas, but only in their infancy. Expanded efforts to develop tribal networks for oil and gas and for other mined and extracted products should be among the major foci of the cooperative meetings between various tribal associations and tribes themselves advocated in this report. Given the change in climate and energy focus at the federal level, exploration of renewable energy business, development and purchasing potential is also warranted.

Construction

- Active lobbying and pursuit of grants and low-interest loan programs for infrastructure and other construction projects from non-tribal sources by tribal associations and individual tribes alone or in consortiums.
- Identification of any repair or renovation projects for existing tribal businesses and infrastructure to maintain minimal operating levels for construction teams.

- Active pursuit of larger-scale renovation and expansion projects for Indian casinos as previously discussed.
- Increased tribe-to-tribe and AIAN-owned construction sourcing for any projects available.
- Documentation of potential construction labor and other economic benefits from new manufacturing or other projects to support loan and grant applications.

Manufacturing

- Strategic planning and analysis of tribal legal, land, labor and capital advantages to inform and justify new manufacturing initiatives and lobbying efforts at the association, inter-tribal and individual tribal levels.
- Coordination of lobbying and public messaging between tribal associations with a focus on tribal manufacturing development.
- Active lobbying and pursuit of grants and low-interest loan programs for the diversification of supply and repatriation of manufacturing capacity through multi-tribe and tribal/non-tribal consortiums that marry land and labor with capital and expertise.
- Further strengthening of inter-tribal purchasing to support increased manufacturing production.
- Exploration of vertical integration and value-added manufacturing opportunities by agricultural tribes, either alone or in partnership.
- Active diversification of supply and sales outlets by existing tribal manufacturing ventures to protect against future disruptions with a particular focus on other tribal sources and outlets.
- Increased automation of tribal manufacturing, particularly of new ventures, to protect output capacity in case of new public health or other emergencies.
- Research into product improvement for PPE and other new or existing supply needs for Indian gaming to increase the proportion supplied by tribal vendors.

Wholesale Trade

- Active diversification of supply chain and sales outlets to mitigate current and future risk of disruptions to key vendors or buyers.
- Exploration of horizontal integration and product diversification to cater to increased demand for multiple vendors and multiple products lines as the recovery takes hold.
- Increased and sustained communication with tribal leadership and other tribal entities to explore supply or sales opportunities and ensure awareness of product lines available.

- Participation in planning and lobbying initiatives with tribal manufacturers to expand products manufactured and sold from tribal lands.
- Exploration of automation opportunities to protect output capacity in the event of public health disruptions.
- Further development of online ordering and shipping capabilities to expand the pool of sales outlets.
- Monitoring of internal costs in relation to market pricing to maximize margins across product lines.

Retail Trade

- Aggressive efforts to increase online presence and ordering and shipping/delivery capabilities.
- Diversification of retail mix where demand and space allow to include "essential" products.
- Diversification of suppliers and increased inventory space to protect against product shortages.
- Analysis of product pricing taking into consideration market trends, the characteristics of your demand base and the increased operating costs of the post-pandemic environment.
- Increased automation in cashiering, customer service and other areas where possible to help control labor costs with lower volumes.
- Reevaluation of space needs and associated costs for front-of-house versus back-of-house in light of new spacing requirements and inventory needs.

Transportation & Warehousing

The primary impact of this sector will be the potential for increased freight and warehousing demand for tribal operators involved in those businesses. Between increases in online shopping, diversification of the supply chain and increased inventory space needs, demand for freight transport and warehousing is forecast to grow. As with manufacturing, some tribes are strategically located and can offer ample land and potentially lower taxes to warehouse and freight operators or develop them in their own right. To the extent that the same tribes do not have capital to develop or expand such ventures, working with other tribes to obtain financing or joint venture could solve the problem. Any tribe already active in warehousing and freight transport or actively pursuing increased manufacturing opportunities as described earlier should also be looking to expand their network of shippers and delivery destinations over the next two years to boost their presence in the sector for the long haul.

Other Industry Sectors

The needs and opportunities of the various other industry sectors not profiled independently in this analysis are too great for a comprehensive discussion or listing of recommendations for recovery and renewed growth. However, a few prescriptions that we consider useful are presented below:

- Discussions with utility companies to explore additional, environmentally friendly generation and transmission on and through tribal lands to boost local capabilities and generate new construction demand.
- Active pursuit of enhanced internet and cellular connectivity for tribal government, residents and businesses.
- Direct negotiations with lenders and financial institutions to adjust payment terms and increase lines of credit to support ongoing operations during the crisis and new growth and recovery efforts afterwards.
- Exploration of funds availability for single and multi-family housing development for tribal members to support construction businesses and improve tribal living conditions.
- Exploration of funds availability for educational repair and renovation to support construction businesses and improve tribal living conditions.
- Analysis of in-home impediments to telehealth and other remote health initiatives and rectification of the impediments, including lobbying for and pursuing grants and loans to improve health care effectiveness for remote and elderly tribal members.
- Evaluation of other cost savings and possible wage cuts to preserve tribal government jobs rather than resorting to layoffs during the crisis.
- Pursuit of multiple tribal member focus groups during and after the crisis to explore ideas for dealing with the downturn and increasing opportunities during and after recovery.

MONITORING FUTURE HEALTH

GENERAL

As with the prescriptions we originally offered, we have not found a need at this time to update our list of critical factors to monitor to determine whether trends at the national or local level are proceeding along the path we anticipated, other than adjustments for the movement of the crisis from the acute to the transitional phase. The adjusted summary of indicators to watch for deviating trends is presented below. For more detailed discussion, please consult the body of the original report.

COVID-19 AND CIVIC RESPONSE

- National daily and cumulative infection totals and deaths.
- State/county daily and cumulative infection totals and deaths.
- Monitoring of areas with greater and lesser restrictions to evaluate the impact of potential changes in your area.
- Monitoring of information on vaccination progress.
- Monitoring of any new significant outbreak clusters for indications of mutated virus strains that are more transmissible and/or more resistant to current vaccines.
- Careful monitoring as much as possible of your own employees and customers.

GENERAL ECONOMIC CONDITIONS

- Whether or not an additional stimulus package is passed by Congress and signed by the President in the first quarter and the magnitude and characteristics of the package.
- The status of any changes to international trade agreements and temporary international pandemic-related restrictions.
- Discipline amongst oil producing nations in controlling output to support costs.
- The degree to which the financial community responds to increased risk and decreased debt repayment issues by tightening qualifications for lending.
- The speed and proportion of rehiring by employers as business restrictions are eased.
- The degree to which lawsuits over infections, employee safety and insurance distribution spread and become publicized or are preempted.
- Unemployment rates, major employer closures and local government budget cuts in your immediate area.
- Vacation travel and lodging industry performance nationally and in your area from May through October.

TRIBAL ECONOMIES

- Indian-specific elements of any new stimulus legislation.
- Funding levels for all major components of the federal budget affecting Indian country in the next three years.
- Formal actions at the federal level to encourage domestic production, repatriate manufacturing and diversify supply chains.
- Auto travel trends and local area lodging industry performance.
- Local personal and business bankruptcy rates.
- Local employment trends, including large employer closures or rehiring.
- Plans for resumption of local and regional festivals and sporting events.
- Commodity prices and volumes in agriculture and mining sectors, as well as any government support initiatives.
- Unemployment rates, major employer closures and local government budget cuts in your immediate area.
- Vacation travel and lodging industry performance nationally and in your area from May through October.
- Response to enhanced marketing initiatives by high value gamers.
- Average win per visit in casinos.
- Outbreaks of new virus mutations.
- Public comments and draft legislative initiatives at the state level to boost state tax revenue that could adversely affect tribal interests.
- Any initiatives at the national or state level pertaining to online gaming.

Tribes located in areas with hot spots, higher unemployment rates, dependency on oil and non-grain farming or ethanol, reliance on international travel or air travel, higher personal and/or business bankruptcy rates or slower resumption of major festivals and sporting events are likely to see longer and slower recovery periods than the overall averages forecast in this report. The converse is also true. However, it will be important to distinguish between the noise of short-term fluctuations and the presence of actual, substantial and sustained variation from predicted results.

ADDENDUM:

PROFILE OF

Klas Robinson QED
HOSPITALITY CONSULTING

OUR COMPANY

KlasRobinson Q.E.D. provides market research, financial feasibility analysis, economic impact analysis, litigation support and other development consulting to such diverse types of industries and businesses as:

- **Casinos, Bingo Halls and Racetracks**
- **Hotels and Resorts**
- **Convention Centers and Exhibit Halls**
- **RV Parks and Campgrounds**
- **Clinics and Wellness Centers**
- **Value–Added Agriculture and Agri-Tourism**
- **Gas Stations, Truck Stops and Convenience Stores**
- **Retail & Mixed-Use Developments**
- **Golf Courses**
- **Bowling Alleys**
- **Theaters and Attractions**
- **Housing & Assisted Living**

KlasRobinson Q.E.D. specializes in analyzing the financial feasibility of unique real estate projects and business ventures that by location, concept or market position do not conform to standard and easily classified development categories. Our comprehensive approach ensures accountability through the direct, absolute and exclusive involvement of the principals in each project, including meetings, market research, analysis, report writing and presentation. KlasRobinson Q.E.D. has a unique specialty in Indian gaming and economic development on tribal lands. The principals of KlasRobinson Q.E.D. have worked with 250 tribes throughout the United States and Canada.

We perform comprehensive market research as a foundation for all of our feasibility studies, focusing on key demographic characteristics, tourism patterns, transportation infrastructure and other elements affecting the ability of a project to attract demand. We work in concert with the project team to develop facility recommendations that match the identified needs of the market and the goals of the project developers.

Due to our extensive experience with a broad array of projects and industries, we need not rely solely on published information in projecting future financial performance. Our projections are based upon years of experience working with a wide variety of projects that has given us access to operating and market data not available to the general public. Our analyses of direct, indirect and induced economic impact provide not merely facts and figures, but the context necessary to make them real and understandable to the reader.

Feasibility studies, business plans and other expert counseling provided by the principals of KlasRobinson Q.E.D. have been used to successfully attract $20.0 billion in financing and investment from bank financing, capital leases, private placements, registered securities and IPO's.