

Idaho Economic Forecast

Brad Little, Governor
Alex J. Adams, Administrator

DIVISION OF FINANCIAL MANAGEMENT
Executive Office of the Governor

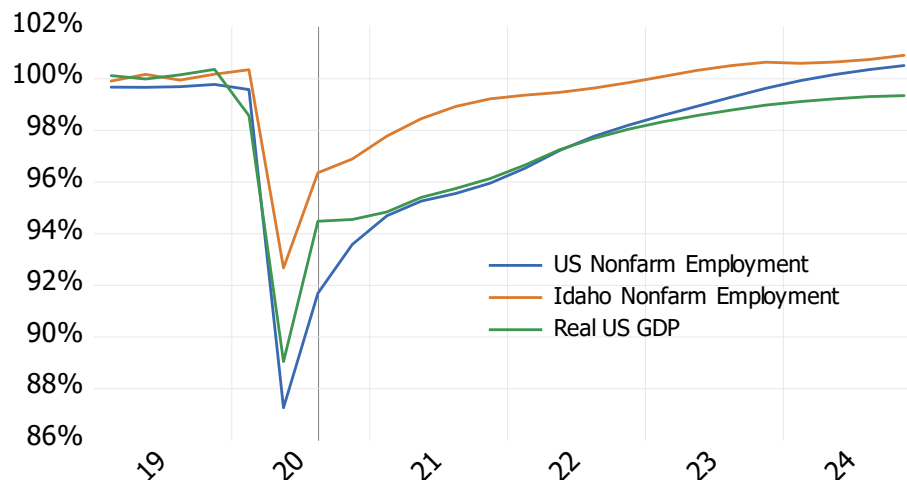
October 2020

VOLUME XLII NO. 4

ISSN 8756-1840

- Forecast 2020–2024
- “Adjusting the Unemployment Thermometer”
- Alternative Forecasts

**Ratios of October 2020 Forecast Variables with
January 2020 Forecast Variables**



**IDAHO
ECONOMIC
FORECAST
2020–2024**

State of Idaho
BRAD LITTLE
Governor

*Costs associated with this publication are available
from the Idaho Division of Financial Management
in accordance with Section 60-202, Idaho Code.*

10-2020/010200-180-4001

TABLE OF CONTENTS

Introduction.....	2
Executive Summary	5
Idaho and US Forecast Summary Tables.....	6
Forecast Description:	
National.....	8
Idaho	16
Forecast Comparison	22
Alternative Forecasts	26
Feature Article	
“Adjusting the Unemployment Thermometer”	30
Forecast Detail	35
Annual Forecast	36
Quarterly Forecast	50
Appendix.....	65
IHS Markit US Macroeconomic Model	66
Idaho Economic Model: Equations	68
Identities	70
Exogenous Variables	76
Endogenous Variables	78

INTRODUCTION

The primary national forecast in this publication is the October 2020 IHS Markit (IHS) baseline forecast of the US economy. The prior *Idaho Economic Forecast* used the July 2020 IHS baseline national forecast.

COVER

There remains significant uncertainty over economic measures this year. Part of the difficulty is that this year has brought some of the swiftest swings in important measures. Graphs of the associated series jump, and forecasters have difficulty estimating the magnitude of the jumps even if there is agreement as to the likely direction. Even statistical agencies tasked with measuring past performance are issuing new guidance to interpret their usually staid reports. An example is the Bureau of Labor Statistics, which reports the monthly unemployment figures. The feature article in this edition of the *Idaho Economic Forecast* addresses that issue.

Though the third quarter of 2020 is now history, the first measure of GDP for that quarter will only be released in the final week of October. IHS, the source of our national economic forecast, includes three scenarios and the difference in GDP growth rates for that quarter are around seven percentage points just from the baseline to one alternative. The baseline is weighted as 50% likely. The two alternatives hold the remaining weight. The cover graph illustrates that forecasting the near term is particularly difficult during the pandemic, but that peering further into the future seems more reliable. Underlying that feeling is the expectation that a vaccine will become available by mid-2021. IHS makes the same fiscal assumptions and health assumptions in each scenario, but allows consumer responses to those assumptions to vary, for instance in the savings rate response to fiscal stimulus.

The cover presents three series of ratios between the current forecast and the past January's forecast. Each shows quarterly figures for this forecast divided by the corresponding quarterly figures from that January forecast. The three series are: nominal US GDP, total nonfarm jobs in the US, and total nonfarm jobs in Idaho. Note that beyond mid-2021, the relative trajectories are much more stable.

FEATURE

The monthly series of unemployment measurements by the Bureau of Labor Statistics (BLS) has experienced swings in short duration which were well out of bounds prior to the pandemic and economic shutdown to fight it. Those countermeasures introduced complications into the measurement process that the US had not previously encountered. This prompted the BLS to issue statements with its monthly reports commenting upon likely measurement errors as a result. The swing from 3.5% nationwide unemployment to 14.7% unemployment in a couple of months, then back down to 7.9% unemployment in the latest reading half of a year after the peak are dramatic, but are they indicating an underestimate of the performance or an overestimate for the reopening of the US economy? In "Adjusting for the Unemployment Thermometer," Regis Barnicho and Winnie Yee of the Federal Reserve Bank of San Francisco develop a series which may counteract the measurement errors of which the BLS is aware, and this series give us another way to assess to how the past half-year has resurrected the US economy.

FORECAST

Alternative assumptions concerning future movements of key economic variables can lead to major variations in national and/or regional outlooks. IHS examines the effects of different economic scenarios,

including the potential impacts of global economic conditions, higher inflation, and future Federal Reserve Board decisions. Alternative Idaho economic forecasts were developed under different policy and growth scenarios at the national level. Three of these forecasts are included in this report.

Historical and forecast data for Idaho and the United States are presented in the tables in the middle section of this report. Details are provided for every year from 2007 through 2024 and for every quarter from 2019 through 2024. The solution of the Idaho Economic Model (IEM) for this forecast begins with the second quarter of 2020.

CHANGES

The Idaho Department of Labor provides monthly historical employment data that are seasonally adjusted and converted to quarterly frequencies by the Idaho Division of Financial Management. The historical data through the months of the second quarter of 2020 have been provided by the Idaho Department of Labor.

The most current personal income estimates were released by the BEA on September 24, 2020 and are included in this report. BEA included revisions since 2013 as well as new data for the second quarter of 2020 for the quarterly data this report uses. The BEA also released revisions to farm income data going back to 1969. These are the most current data available, and they are incorporated in this report.

Descriptions of IHS's US Macroeconomic Model and the IEM are provided in the appendix. Equations of the IEM and variable definitions are listed in the last pages of this publication.

Readers with any questions should contact Greg Piepmeyer at (208) 334-3900 or at greg.piepmeyer@dfm.idaho.gov.

Idaho Division of Financial Management

304 N. 8th St.
P.O. Box 83720
Boise, ID 83720-0032

Economic Analysis Bureau

Derek Santos, Chief Economist
Greg Piepmeyer, Economist
(208) 334-3900

This page is left blank intentionally.

EXECUTIVE SUMMARY

Idaho has half of a year's experience in the pandemic. The April edition of this report indicated a sharp decline in economic forecast for the US and Idaho's economies. The July report showed some economic repair. This report rests on evidence that the second quarter was the economic turning point for the state. The prior report had penciled in the turning point as straddling the second and third quarters. The annualized figures for US real GDP change this year have been -5.0%, -31.4%, and +33.1%.¹ The latter was released October 29 and is a first reading for the third quarter; the other readings are the final ones. Fourth quarter growth is forecast to be 2.5% (annualized). IHS forecasts 2021 real growth at 3.5%.

National unemployment is expected to average 8.4% in 2020, then 6.4% in 2021 and 5.0% in 2022. Participation in the labor force is expected have fallen from 63.1% in 2019 to 61.8% across 2020, with a further expansion to 62.2% in 2022, and then stability near 62.5–62.6% across the remainder of the forecast. Demographic trends, particularly the reaching of the final part of the baby-boom generation into their 60s, is part of the lower value seen going forward.

The current IHS forecast includes all fiscal stimulus passed prior to July 1. It includes the redirection of \$42 billion of FEMA monies towards supplementary unemployment benefits (\$300/week, which was estimated to cover five weeks in the third quarter). This redirection was part of an executive order, not legislation. However, the October IHS forecast also includes further, yet to be enacted, stimulus. The basic outlines of that presumption are for an additional round of stimulus checks to qualifying individuals similar in magnitude to those cut this spring as well as resumption of additional \$300/week federal benefits for unemployment payments.

Idaho housing starts began 2019 at the 14,500 annualized rate in the first quarter, then accelerated through 16,800, 17,300, and 18,700 annualized rates the remaining three quarters. The first quarter of 2020 saw starts reach a 20,500 annualized rate. That was the last available data before July's report. June was a very wet month in much of Idaho's housing market. Starts fell to the 15,400 annualized rate. Consequently, the outlook for this October report shows a comparative loss for housing starts with the July report. Still, by comparison with recent years, housing starts are expected to be strong, at the 17,900-units level. Housing starts are expected to dwindle after this year through the end of the forecast, both at the national and Idaho levels. Starts in 2024 are expected at the 16,300-unit level.

The return of nonfarm jobs in Idaho is ahead of the return of nonfarm jobs for the nation across the forecast. See the cover graph for an illustration of this.

For personal income, the federal transfer payments within the IHS model add to the wage earnings that Idaho's rebounding labor market generate. This pushes the personal income estimate for 2020 up to \$89.9 billion. The measured figure for 2019 was \$82.1 billion. Without stimulus forecast for 2021, personal income declines by \$314 million in 2021 in Idaho, but it returns to growth of 4.9–5.3% to finish the forecast.

¹ https://www.bea.gov/sites/default/files/2020-10/gdp3q20_adv.pdf

IDAHO ECONOMIC FORECAST
EXECUTIVE SUMMARY
OCTOBER 2020

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
U.S. GDP (BILLIONS)											
Current \$	17,527	18,238	18,745	19,543	20,612	21,433	20,782	21,803	22,959	24,028	25,114
% Ch	4.4%	4.1%	2.8%	4.3%	5.5%	4.0%	-3.0%	4.9%	5.3%	4.7%	4.5%
2012 Chain-Weighted	16,912	17,432	17,731	18,144	18,688	19,092	18,321	18,960	19,643	20,195	20,702
% Ch	2.5%	3.1%	1.7%	2.3%	3.0%	2.2%	-4.0%	3.5%	3.6%	2.8%	2.5%
PERSONAL INCOME - CURR \$											
Idaho (Millions)	61,827	65,683	68,248	72,605	77,993	82,148	89,897	89,583	94,043	98,993	103,823
% Ch	6.0%	6.2%	3.9%	6.4%	7.4%	5.3%	9.4%	-0.4%	5.0%	5.3%	4.9%
Idaho Nonfarm (Millions)	59,457	63,434	66,244	71,024	76,116	79,884	87,904	87,551	91,862	96,655	101,413
% Ch	6.1%	6.7%	4.4%	7.2%	7.2%	5.0%	10.0%	-0.4%	4.9%	5.2%	4.9%
U.S. (Billions)	14,992	15,724	16,161	16,949	17,852	18,552	19,822	19,274	20,159	21,053	21,939
% Ch	5.7%	4.9%	2.8%	4.9%	5.3%	3.9%	6.9%	-2.8%	4.6%	4.4%	4.2%
PERSONAL INCOME - 2012 \$											
Idaho (Millions)	60,124	63,743	65,545	68,501	72,053	74,778	80,956	79,191	81,608	84,484	87,076
% Ch	4.5%	6.0%	2.8%	4.5%	5.2%	3.8%	8.3%	-2.2%	3.1%	3.5%	3.1%
Idaho Nonfarm (Millions)	57,819	61,559	63,619	67,009	70,318	72,718	79,161	77,395	79,715	82,489	85,056
% Ch	4.5%	6.5%	3.3%	5.3%	4.9%	3.4%	8.9%	-2.2%	3.0%	3.5%	3.1%
U.S. (Billions)	14,579	15,260	15,521	15,991	16,492	16,888	17,852	17,039	17,494	17,968	18,401
% Ch	4.2%	4.7%	1.7%	3.0%	3.1%	2.4%	5.7%	-4.6%	2.7%	2.7%	2.4%
HOUSING STARTS											
Idaho	9,803	10,267	12,394	14,004	16,131	16,836	17,923	17,863	17,314	16,464	16,307
% Ch	8.3%	4.7%	20.7%	13.0%	15.2%	4.4%	6.5%	-0.3%	-3.1%	-4.9%	-1.0%
U.S. (Millions)	1,000	1,107	1,177	1,207	1,248	1,295	1,328	1,307	1,290	1,279	1,271
% Ch	7.8%	10.6%	6.3%	2.6%	3.4%	3.8%	2.5%	-1.6%	-1.3%	-0.8%	-0.6%
TOTAL NONFARM EMPLOYMENT											
Idaho	653,298	671,404	693,917	715,190	738,670	760,443	752,824	784,644	809,075	831,293	851,838
% Ch	2.6%	2.8%	3.4%	3.1%	3.3%	2.9%	-1.0%	4.2%	3.1%	2.7%	2.5%
U.S. (Thousands)	138,922	141,804	144,329	146,589	148,891	150,935	142,554	147,281	151,066	153,780	155,885
% Ch	1.9%	2.1%	1.8%	1.6%	1.6%	1.4%	-5.6%	3.3%	2.6%	1.8%	1.4%
SELECTED INTEREST RATES											
Federal Funds	0.1%	0.1%	0.4%	1.0%	1.8%	2.2%	0.4%	0.1%	0.1%	0.1%	0.1%
Bank Prime	3.3%	3.3%	3.5%	4.1%	4.9%	5.3%	3.5%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	4.3%	4.0%	3.9%	4.2%	4.7%	4.1%	3.4%	3.3%	3.4%	3.4%	3.5%
INFLATION											
GDP Price Deflator	1.8%	1.0%	1.0%	1.9%	2.4%	1.8%	1.0%	1.4%	1.6%	1.8%	2.0%
Personal Cons Deflator	1.5%	0.2%	1.0%	1.8%	2.1%	1.5%	1.1%	1.9%	1.9%	1.7%	1.8%
Consumer Price Index	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%	1.2%	2.5%	2.3%	1.9%	2.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

IDAHO ECONOMIC FORECAST
EXECUTIVE SUMMARY
OCTOBER 2020

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GDP (BILLIONS)												
Current \$	21,115	21,330	21,540	21,747	21,561	19,487	20,947	21,136	21,385	21,681	21,937	22,211
% Ch	4.0%	4.1%	4.0%	3.9%	-3.4%	-33.3%	33.5%	3.7%	4.8%	5.6%	4.8%	5.1%
2012 Chain-Weighted	18,950	19,021	19,142	19,254	19,011	17,282	18,439	18,553	18,702	18,898	19,041	19,197
% Ch	2.9%	1.5%	2.6%	2.4%	-5.0%	-31.7%	29.6%	2.5%	3.3%	4.3%	3.1%	3.3%
PERSONAL INCOME - CURR \$												
Idaho (Millions)	80,663	81,675	82,660	83,595	84,918	91,288	88,914	94,470	87,637	89,025	90,230	91,438
% Ch	5.6%	5.1%	4.9%	4.6%	6.5%	33.6%	-10.0%	27.4%	-25.9%	6.5%	5.5%	5.5%
Idaho Nonfarm (Millions)	78,513	79,484	80,305	81,236	82,666	89,495	86,942	92,515	85,651	87,011	88,184	89,357
% Ch	4.1%	5.0%	4.2%	4.7%	7.2%	37.4%	-10.9%	28.2%	-26.5%	6.5%	5.5%	5.4%
U.S. (Billions)	18,367	18,481	18,598	18,761	18,951	20,402	19,520	20,417	18,963	19,202	19,384	19,548
% Ch	5.3%	2.5%	2.6%	3.6%	4.1%	34.3%	-16.2%	19.7%	-25.6%	5.1%	3.8%	3.4%
PERSONAL INCOME - 2012 \$												
Idaho (Millions)	73,974	74,435	75,072	75,632	76,584	82,698	79,891	84,649	78,099	78,914	79,550	80,198
% Ch	5.0%	2.5%	3.5%	3.0%	5.1%	36.0%	-12.9%	26.0%	-27.5%	4.2%	3.3%	3.3%
Idaho Nonfarm (Millions)	72,002	72,438	72,933	73,497	74,553	81,074	78,119	82,898	76,330	77,129	77,746	78,373
% Ch	3.5%	2.4%	2.8%	3.1%	5.9%	39.9%	-13.8%	26.8%	-28.1%	4.3%	3.2%	3.3%
U.S. (Billions)	16,844	16,843	16,890	16,974	17,091	18,482	17,540	18,294	16,900	17,021	17,090	17,145
% Ch	4.7%	0.0%	1.1%	2.0%	2.8%	36.7%	-18.9%	18.4%	-27.2%	2.9%	1.6%	1.3%
HOUSING STARTS												
Idaho	14,532	16,770	17,341	18,700	20,455	15,398	17,831	18,009	17,664	18,024	17,940	17,823
% Ch	-36.6%	77.4%	14.3%	35.2%	43.2%	-67.9%	79.8%	4.0%	-7.4%	8.4%	-1.9%	-2.6%
U.S. (Millions)	1.204	1.257	1.288	1.433	1.484	1.064	1.419	1.345	1.316	1.313	1.302	1.297
% Ch	9.9%	18.7%	10.2%	53.2%	15.2%	-73.6%	216.4%	-19.3%	-8.4%	-0.9%	-3.2%	-1.8%
TOTAL NONFARM EMPLOYMENT												
Idaho	752,103	758,097	762,238	769,336	776,338	722,355	752,655	759,948	771,084	780,834	789,657	797,000
% Ch	2.7%	3.2%	2.2%	3.8%	3.7%	-25.0%	17.9%	3.9%	6.0%	5.2%	4.6%	3.8%
U.S. (Thousands)	150,184	150,609	151,160	151,788	151,922	133,717	140,716	143,863	145,872	147,034	147,718	148,500
% Ch	1.3%	1.1%	1.5%	1.7%	0.4%	-40.0%	22.6%	9.2%	5.7%	3.2%	1.9%	2.1%
SELECTED INTEREST RATES												
Federal Funds	2.4%	2.4%	2.2%	1.6%	1.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Bank Prime	5.5%	5.5%	5.3%	4.8%	4.4%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	4.6%	4.2%	3.9%	3.9%	3.6%	3.3%	3.2%	3.3%	3.3%	3.3%	3.3%	3.3%
INFLATION												
GDP Price Deflator	1.2%	2.5%	1.5%	1.4%	1.4%	-2.0%	2.8%	1.1%	1.5%	1.3%	1.7%	1.7%
Personal Cons Deflator	0.6%	2.5%	1.4%	1.5%	1.3%	-1.8%	3.3%	1.1%	2.2%	2.2%	2.2%	2.1%
Consumer Price Index	0.9%	3.0%	1.8%	2.4%	1.2%	-3.5%	4.9%	1.7%	2.9%	2.7%	2.8%	2.7%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

NATIONAL FORECAST DESCRIPTION

The Forecast Period is the third Quarter of 2020 through the Fourth Quarter of 2024

In the estimation of IHS, the bulk of the repair to the US economy has already been achieved for this year. Studying the graphics within the IHS report it becomes apparent that, for the forecasters at that firm, the view of the economy is easier to discern once mid-2021 occurs. Underlying that timeline is a belief that an effective treatment for SARS-Covid 2, which could be a vaccine, would be available by then, and that the logistics of providing that treatment would be becoming effective at reaching a large portion of the population. Looking at the discussion of the alternative forecasts by the firm, it becomes evident that there is some uneasiness at the firm as to the measure of where we stand currently. Certainly US statistical agencies have had difficulties in providing their measures, partly because the respondents to their queries have had questions as to what hitherto easy-to-answer questions mean at a time when many characteristics of the economy are irregular. The unemployment rate is one such example, and this is discussed in the feature article of this report.

The reactions to elevated coronavirus caseloads in the US remains unclear, partly as it is a localized set of decisions. The stiffer actions in France and Spain at the resurgence of Covid's spread in those countries is one possible guide for US (national or local) actions in the near term. India could provide another, where a secondary lockdown appears unlikely, though India is second behind the US in case counts and third in total mortality. Another near-term uncertainty in the US forecast is the outcome of November's election, which could have ramifications as to our responses (both nationally and locally) to the epidemic. IHS has built into its forecast further fiscal stimulus, covering October through December. Delivery of further stimulus may depend upon the outcome of the elections as well.

IHS has remarked that some of the shifts in consumer behavior so visible during the pandemic are accelerations of trends already underway. More purchases being made online is the basic example. More telecommuting follows that. Less demand for petroleum in motor transportation has been a shift underway since at least 2005.¹ For aviation, the trend originated in the 80s.² Other developments have reversed recent trends. The resurgent appeal of living in suburbia rather than the urban core is a prime example. Shifting consumer behavior, changes in the energy sector, and shifting the housing market would each be a major economic adjustment in a normal year.

The interventions—fiscal stimulus from the federal government and monetary policy easing by the US Federal Reserve—have mitigated much of the economic damage of the first months of the pandemic. The actions were aggressive, and they used new options in the policy playbook. The payment protection plan was an idea the US had not pursued in prior recessions. The stimulus checks were larger than previous attempts at direct payments. The worldwide push for therapeutics and for vaccines is well funded by the US government as well as others. So far, these efforts have reversed the jump from a 3.5% unemployment rate to a 14.7% unemployment rate back down to a 7.9% unemployment rate. IHS

¹ <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=A103600001&f=M>

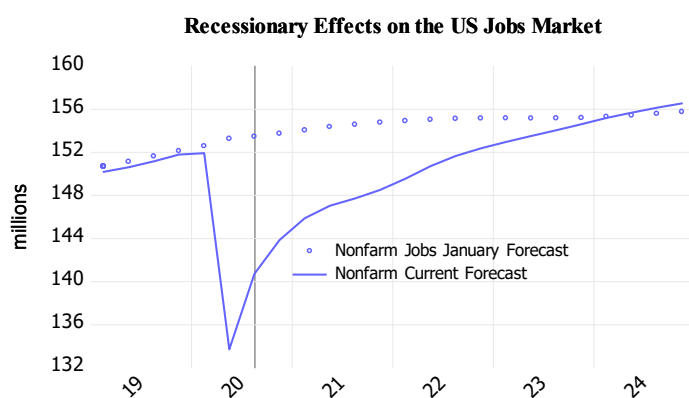
² <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=A403600001&f=M>

sees that rate falling to 6.9% by December. This is the easiest measure by which to see that the bulk of the improvement in the US economy has already occurred in this year, and that further results wait for next year when effective vaccines and therapy regimes are anticipated to be available.

Employment: The labor market has witnessed a robust recovery through June. IHS sees the slowing trend evident across July through September as persisting through December. Unemployment is expected to fall from the 7.9% September reading to 6.9% in December. However, full employment is expected to return only by mid-2023.

Some of the rapid improvement already seen in the unemployment rate is due to a lower labor force participation rate. That rate, which measures those either employed or looking for work in comparison with the population of eligible work age, had been 63.4% in January and February, prior to the declaration of the pandemic. The last four months have shown a participation rate near 61.4%. This lower rate reflects a removal of potential workers from the labor force, thereby lowering the number of jobs needed to be filled in order to sustain a given unemployment rate. Thus, though the unemployment rate has improved from 14.7% at its peak, the jobs recovery still has total US employment at 10.7 million fewer jobs than the February peak.

Two industries which suffered severe employment disruption during the lockdown have also had significant reversals in employment. Leisure and hospitality have recovered over 55% of the job loss suffered. It had lost 2 of 5 jobs by the second quarter of 2020 in comparison with the close of 2019. Retail employment has rebounded 80% of its fall. Retail had lost 1 in 8 jobs by the second quarter of 2020 in comparison with the close of 2019. Industries where the employment disruption was initially less severe have turned less dramatically once their expansions began. Nationally, business services have reversed 40% of the decline, and a similarly diminished bounce is being observed in the financial services sector across the nation.



It appears that some of the sectoral differences in reversals reflect differences in the mix of temporary layoffs verses permanent jobs losses, as well as differences in the onset of the jobs' losses. Permanent jobs losses are increasing through September and have reached 3.8 million jobs, or about 55% of the peak value reached during the previous recession. Temporary layoffs are falling in numbers, down to 4.6 million jobs in September from a high of 18

million jobs in April. While the recession was declared to have begun in March, its end remains (yet) undetermined. Recessionary features may persist long after the end of the initial lockdown (which many cities and states had largely lifted by mid-summer).

IHS predicts that unemployment will decline to 6.0% by the end of 2021, with the participation rate at 62.3%. By the close of 2022, these rates are expected to be 4.6% and 62.5%, and at the end of 2024, they would be 3.6% and 62.6%.

Business: The European Union Aviation Safety Agency (EASA) began test flights for Boeing's 737-Max in September. Canada has been reported as the first international regulator to have finished testing the airplane. The head of the US Federal Aviation Administration (FAA) has flown the 737-Max in recent weeks and has indicated that the agency continues technical and flight data reviews. There are some indications that the FAA and EASA could recertify the plane by November. The 737-Max has been grounded worldwide for eighteen months since early 2019 following two crashes linked to a flight control system. In that year, Boeing had over 4,900 orders for future delivery. As of mid-2020, that order backlog stood just above 4,100 planes.³ The regulatory and safety uncertainty as well as Covid have contributed to the loss in demand for Boeing's planes.

In August, the Energy Information Administration (EIA) discussed production and demand for petroleum products during the shutdown. May's gasoline demand was 24% lower than the demand during that month in 2019.⁴ Jet fuel demand was the lowest since 1968. It was down 67% from a year ago. At the global level, the EIA forecast that demand for petroleum has fallen from 100.7 million barrels per day (b/d) for the first half of 2019 to 90.0 million b/d for the first half of 2020.⁵ On an annual average basis, EIA expects U.S. crude oil production to fall from an average of 12.2 million b/d in 2019 to 11.4 million b/d in 2020 and 11.1 million b/d in 2021. The EIA bases its macroeconomic outlook on the forecast by IHS.⁶

Other aspects of the energy outlook include 40 gigawatts of new wind or solar generation in the US. It also sees a shift towards residential consumption of electricity. Growth there is predicted at 3.5%, with contractions of 6% for industrial consumption and 6.4% for commercial consumption. All told, this represents 2.4% less electricity demand in 2020 than 2019. The outlook for 2021 is like that for 2020.

The farm sector is expected to receive over \$37 billion in transfer payments from the US federal government this year. Nine billion is tied to coronavirus relief efforts. There are also ongoing payments due to the US-China trade war. The Economic Research Service of the US Department of Agriculture (USDA) sees farm income rising 22% this year over last, partly due to these transfer payments.

Monetary Policy and Inflation: Within the broad measures of overall inflation are indications of the economic tumult still underway. Airfares are down a 2% in September and motor vehicle insurance is down 3.5%, both in accord with statistics on usage.⁷ Rents have declined in some locales, particularly in the expensive and large rental markets such as the core of New York City and San Francisco, leading to

³ https://en.wikipedia.org/wiki/Boeing_737_MAX#cite_note-Boeing737_O_D-175

⁴ <https://www.eia.gov/todayinenergy/detail.php?id=44736>

⁵ <https://www.eia.gov/todayinenergy/detail.php?id=45216>

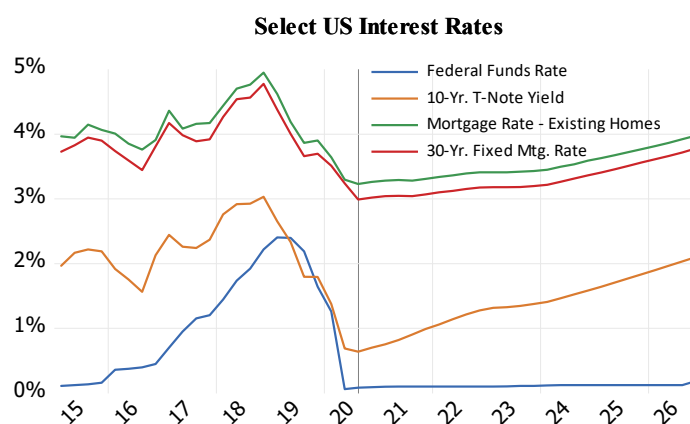
⁶ <https://www.eia.gov/outlooks/steo/>

⁷ <https://www.tsa.gov/coronavirus/passenger-throughput> as well as <https://advisory.kpmg.us/content/dam/advisory/en/pdfs/2020/automotives-new-reality.pdf>

a moderation in the national inflation contribution from housing rents. In the other direction, measures for used-car prices indicate inflation running as high as 15% there.

Despite the volatility of the contributing measures, the overall picture of inflation remains calm within IHS's forecast. The consumer price index (CPI) rose 1.8% in 2019, and it is expected show a 1.2% rise across 2020, with a 2.5% rise in 2021. Thereafter, measurement in the 1.9–2.3% range are forecast for each subsequent year. The personal consumption expenditures measurement of inflation (PCE inflation is the preferred gauge of the US Federal Reserve) is expected to register 1.1% in 2020, 1.9% in 2021, and 1.7–1.9% each of the three years thereafter.

The US Federal Reserve's Open Market Committee (FOMC) has indicated it does not expect to lift the overnight lending rate,⁸ the short-term interest rate it targets, until PCE inflation has meaningfully moved above 2%. This development was announced this summer, and it is a departure from previous guidance on raising rates in the face of mounting inflationary pressures. In effect, the Federal Reserve wants not just to see rising pressures, but to see rising inflation before it acts. Consequently, short-term interest rates are expected to be at the effective lower bound, which is between 0% and 0.25% where they currently sit, throughout the remainder of the forecast. Indeed, liftoff from that low level is not forecast before the close of 2026 by IHS.



Longer-term interest rates are only indirectly controlled by Federal Reserve actions. Consequently, though short-term rates are expected to be pinned to near zero, yields for longer duration securities are not as constrained in the forecast. Yields for the 30-year treasury are expected to climb towards 2% from roughly 1.4% by 2022. 10-year yields, which are more closely tied with the 30-year (fixed, or non-adjustable) mortgage rate, are expected to climb as well, but the 10-year T-bill is not expected to breach 2% before the close of 2024. Mortgage rates are expected to climb as well, but not as steeply as the 10-year yield, due to a compression in the spread these notes require over the treasury bill. This reflects an expected decline in the risk premium needed for mortgages over the risk-free treasury note.

Wealth: IHS indicates that \$598 billion more was transferred from the US government to individuals in the second quarter than in the first quarter of 2020. In effect, the government borrowed on behalf of current US residents. The personal savings rate jumped under that influence, having been comfortably under 10% for several years to well above 20%, with the full-year figure expected to be 17.2% across all of 2020. Many households saved all or part of the stimulus money they received, or else used that to pay down long-term debt. IHS believes that US household net wealth grew by 7.6% from the third quarter of 2019 through the third quarter of 2020. This includes the effects of transfer payments, real

⁸ also known as the federal funds rate

estate appreciation, and stock market gains. Household net worth is expected to grow by 5.7% in 2021 and by 4.3% in 2020.

Rises both in equity valuations and home prices come partly because of the shifts in monetary policy. As is common, IHS models equity valuations using a factor tied to the treasury yield curve. That curve has considerably lowered during 2020, and the inversion of the yield curve seen in 2019 has been reversed to the typical upwards-tilting yield curve. Lowered treasury yields correspond to higher equity prices in the model, and an upwards-tilting yield curve indicates a lowered risk-premia, which also works in the same direction towards higher equity values. Lowered interest rates also allow buyers to offer higher values on homes without incurring greater consequence in monthly mortgage payments. The fall from 3.7% rates (say from August 2019) for a 30-year mortgage to 2.8% rates (now) allows buyers to offer 12% more without a larger payment to cover the loan. House prices have risen at a double-digit rate according to recent sales. Even for households which do not sell, the implied value of their homes rises, creating greater home equity value. Refinancing is one route to access that equity, and refinancing activity has been robust.

IHS indicates that rising wealth will be a positive for consumer spending once the pandemic passes. It is possible that some of that effect is already being felt in some pockets of the US economy.

Consumers: Inflation-adjusted consumer activity is expected to regain its pre-pandemic peak (which was during the quarter closing 2019) by the close of 2021. IHS estimates that the third quarter saw a substantial bounce in that direction, but the firm notes that most of the high-frequency data indicate that much less elevation will be gained in the fourth quarter of this year. Some of this the firm attributes to rising coronavirus caseloads as well as less personal income support from the federal government. At the same time, it is important to indicate that IHS presumes a resumption of supplements to weekly unemployment insurance checks this year (during the fourth quarter). This assumption is for \$300 per week. Also assumed are checks similar to those cut during the spring (\$1,200 per qualifying adult, \$500 per qualifying child). As of mid-October, the validity of that assumption is questionable.

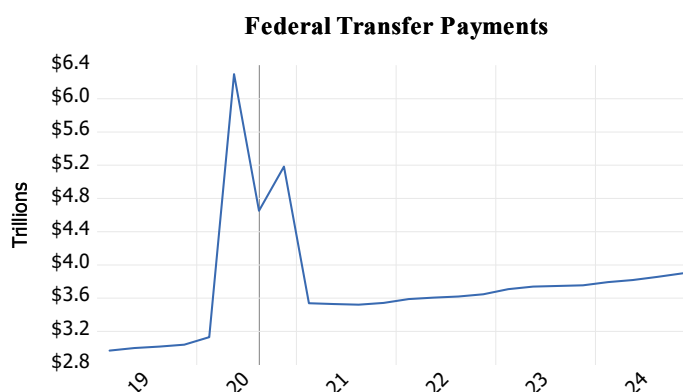
The propensity of consumers to spend is also dependent upon consumer sentiment. The University of Michigan Consumer Sentiment index declined from February through April. It has recovered about one-third of that decline as measured by the September value. This indicates that the economy has substantial improvement still to achieve before consumers want to resume their pre-Covid shopping habits. Along the same lines, local governments are expected to favor caution in further reopening steps, particularly as Covid cases remain elevated. Limits to businesses, for example indoor restaurant capacity limits, coupled with the more cautious consumer sentiment are expected to keep real personal consumption expenditures (real PCE) growth at a sluggish pace.

The fiscal tightening expected by January when the (IHS) posited enhanced unemployment benefits are expected to expire in this forecast, coupled with an expected exhaustion of pent-up demand for certain durable goods, is expected to be noticeable, particularly in the automotive sector. IHS sees a decline in auto sales just a bit more than 5%.

Government and Fiscal Policy: Interventions

by the Federal Reserve and federal government into the US economy this year have been substantial. Monetary policy changes are expected to have a modest effect on GDP this year, amounting to less than a gain of 0.5%. Fiscal effects are more substantial, boosting real output nearly 2.5%. For 2021, monetary effects are greater, and fiscal effects are similar, creating a combined additional effect of over 5%

of GDP. While the balance continues to shift towards monetary effects, the overall effect remains above 5% in 2022 and it is still near 5% in 2023. It is worth emphasizing that these effects are above and beyond the usual contribution that federal government spending makes towards GDP (such things include spending on roads, on Medicare, and on military).



As discussed in the consumer section, the baseline and alternative scenarios all include the same fiscal stimulus assumptions, including a resumption of extra federally funded unemployment checks, at a rate of \$300 per week for the weeks of October through December. This is above and beyond the executive order which redirected Federal Emergency Management Agency (FEMA) monies (\$42 billion) towards expanded unemployment checks related to that status in August. IHS estimates that those checks were paid in September. Additionally, IHS is assuming stimulus checks mailed directly to Americans similar in magnitude to those mailed in the spring (\$1,200 per qualifying adult, and \$500 per qualifying child). These new stimulus checks are expected to send \$270 billion into the economy before the end of the calendar year. However, Congress has not passed any new stimulus plans as of mid-October.

The Bureau of Economic Analysis (BEA) indicated that the second quarter of 2020 saw just over \$150 billion in payment protection funds disbursed, with a bit over one eighth of that total directed to each of professional (i.e., business) services and construction. Manufacturing and healthcare each received about one ninth of the total.

One fact which helped elevate employment figures during 2020 was the occurrence of the decennial census that was completed in mid-October. The US Census employs many field workers for non-response follow-up. This is the program in which a Census worker knocks on a front door to enumerate a household. While the US Census employs tens of thousands of such enumerators each time the census occurs, this was the first US census which relied heavily upon online response. Uptake of that method of response, together with greater use of logistics computation, seems to have reduced the need for as many field workers as past US censuses, despite the US population having expanded since the previous count. Still, there is a noticeable spike in federal employment in 2020, which reverses by 2021.

Housing: Many jurisdictions exempted construction from lockdowns, which limited the impacts to the housing sector. Residential construction was running at the \$855.3 billion rate during the first quarter of 2020, dropped to a \$766.5 billion rate during the second quarter, and is expected to have reached back to

\$880.6 billion in the third quarter before continuing to grow to the \$920.3 billion rate to close the year. For comparison, the whole of 2019 recorded \$793.9 billion in activity, and 2020 is expected to record \$855.6 billion. Each year forward is expected above \$900 billion, with the cross above \$950 billion expected to occur in 2024. Investment figures can reflect changes in labor force costs as well as changes in prices or product quality, contexts we address next for US housing.

Wood products employment was 51,000 jobs nationally in 2019. It is expected to register 53,000 jobs this year, and to grow to 59,000 by 2022, where it is expected to remain during the near future. IHS makes no assumption in its forecast for tariff changes. Currently the US imposes 20% tariffs on imports from Canadian mills. Builders estimate these tariffs have contributed \$10–20 thousand dollars in extra cost per house. Employment in construction closed 2019 at 7.5 million jobs, and it is expected to hold 7.1–7.3 million jobs across 2020–2023 before reaching 7.4 million jobs in 2024. Real estate services employed 2.3 million workers in 2019 and is expected to be near there this year, eventually growing to 2.5 million jobs in 2022 where it is expected to hold. While residential investment is expected to rise 12% from 2019 levels by 2021, directly implicated labor sectors are not expected to expand in like manner. Thus, pricing is the recipient of some of the rise in investment spending. Median prices have advanced at double-digit rates this past year. IHS is predicting home price appreciation to continue through the medium term, with sales prices rising nationally at the 2.8–3.0% rate. IHS has noted that elevated transaction volume of high-end homes has driven up median sales prices of existing homes. Transition to a gentler rise in median sales prices of homes, as in the IHS forecast, can be accomplished by a greater volume of transactions for mid-to-lower-end homes.

IHS had revised its housing model this year, and the firm continues to review its outlook. In this edition of its forecast, housing starts were lifted in the near-term. IHS notes that housing starts in the medium-to-longer-term are tied to demographic forces, and that IHS has not seen evidence to alter the underlying demographic assumptions in its model.

International: IHS forecasts world real economic output growth to be 4.4% in 2021 after a contraction of 4.8% in 2020. This leaves the world output 0.6% below 2019 levels as it closes 2021. The International Monetary Fund, in its October update to its *World Economic Outlook*, sees the same magnitude of effect when comparing 2021 to 2019, but instead of a contraction, sees a modest expansion. For comparison, 2019 growth over 2018 was 2.6% by IHS accounting, and 2.8% by IMF accounting. Thus, the pandemic's recession is likely to set the world back 1.5–2.5 years of growth.

Forecasts by IHS show most major economies in contraction in 2020. The main exception is China, which emerged first, and thus far without a large resurgence of the disease within its borders, from the lockdown it imposed to suppress Covid numbers. IHS sees growth there averaging 1.7% in 2020. Growth for recent years had been reported near 6%. The IMF reports broader detail (via showing the outcome for more countries) of its international forecast, and it too shows China as the main economy which is not expected to contract in 2020. Growth there is forecast at 1.9%. There is variation between the IHS and IMF international (baseline) forecasts. However, in comparison with the variation between the baseline and alternative forecasts by IHS of the US economy, the lack of differences in world outlooks is remarkable.

This page is left blank intentionally.

IDAHO FORECAST DESCRIPTION

The Forecast Period is the Third Quarter of 2020 through the Fourth Quarter of 2024

In July it seemed that the peak in the unemployment rate both in Idaho and the US had occurred in April. Idaho's number rose from 2.5% in March to 11.8% in April. The measurements since then had dropped quickly for the state. The decline in local unemployment persisted until September, when the first increase in state unemployment was read since the dramatic spike going into April. Indeed, August saw 4.2% unemployment in Idaho, and September saw 6.1% unemployment. Headline unemployment, though, is only one view of the labor market. Idaho's unemployment rate increased in September in large part due to a quick expansion by over 22,000 (re)entrants into the state's labor market. National measures of the labor market show participation about 1.5 percentage points below levels typical in 2019, with the latest quarter averaging 61.6%.

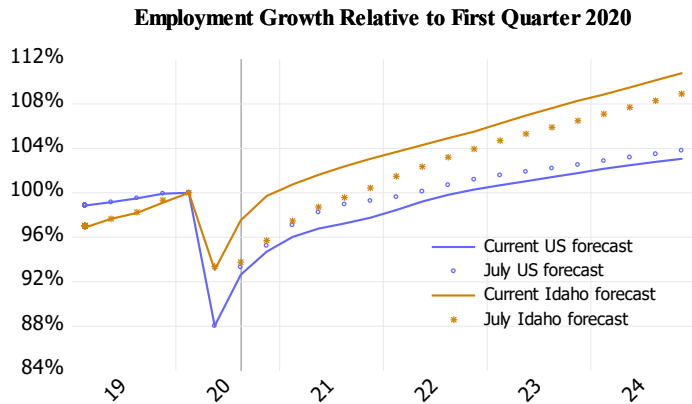
Compared with the July forecast, Idaho's health situation measured by daily Covid cases has deteriorated. Like the unemployment rate as a measure of the labor market, other measures can also be made in relation to the health situation within the state. School operations have largely resumed this fall, albeit in modified form and sometimes mixing online and in-person learning. Likewise, elective healthcare procedures have resumed. Depending upon the severity of the local Covid outbreak, visits to skilled nursing care facilities to see family and friends have resumed after being curtailed this spring.

Economic disruption often sees merger and acquisition activity that alters the corporate landscape and field of competition, and that is true for Idaho companies now. Intel looks to be selling its NAND memory unit to Hynix, a rival of Micron. Albertsons is acquiring a regional chain of grocery stores in the mid-Atlantic (stretching from Connecticut to Virginia). Cradlepoint, a Boise firm in the 5G telecommunications arena, was acquired by Erickson for \$1.1 billion. Saltzer Medical Group, which is opening four new clinics this year, including one in downtown Caldwell, was sold to Intermountain Healthcare, a Utah based nonprofit.

One of the uncertainties overhanging this and the past two editions of the *Idaho Economic Forecast* is the possibility of further shutdowns. These might be in response to local Covid caseloads. Boise altered the course of the reopening for its bars. Schools have opened, re-shutdown, and reopened due to cases, including some in Kuna, Middleton, and Minidoka County. News of these changes and possibilities are monitored and incorporated into the Idaho figures herein.

Even within that context (coming from an ongoing pandemic, coupled with a wait for vaccine uptake through mid-2021 according to IHS's estimate) the outlook for Idaho employment and personal income is tilted towards the 'glass half-full' optimistic side. Personal income has been supported through transfer mechanisms from the federal government while a large swath of Idaho's workforce was unable to work. Recent employment statistics for the state indicate much of the workforce has been able to return to work, which upholds personal income outside of those transfers. Finally, the outlook for employment in the state shows growth ahead.

Employment: In Idaho second quarter employment was 93% of the first quarter's level. In July's



forecast, a relatively flat third quarter result was expected partly due to the delayed reach of the pandemic within Idaho. Now employment is expected to have been stronger in the third quarter. A comparison with the previous forecast shows the actual value for the second quarter was within 2,000 jobs of the July prediction, but the new prediction for the third quarter is 25,600 jobs higher than what was predicted in July. The reach back above 100% of the first quarter value for nonfarm jobs in Idaho is expected as soon as

the first quarter of 2021, with the fourth quarter of 2020 just 2,000 jobs behind that record.

Housing and Construction: Construction activity continued in Idaho through the lockdown. This preserved many jobs. Real estate—listing, buying, and selling homes—moved somewhat online. Housing demand seems to have returned with vigor. Housing activity persists at Avimor between Eagle and Horseshoe Bend. Similarly, the Northgate interchange area in Pocatello and Chubbuck continues to add housing. Twin Falls has already had more housing starts in 2020 than in all of 2019. Rathdrum has seen an acceleration in housing starts since this spring.

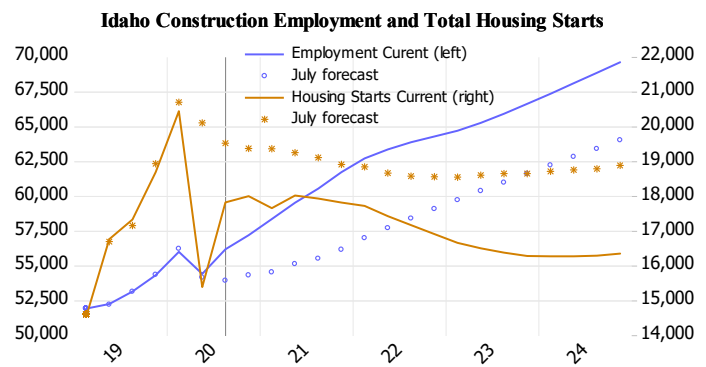
Downtown Boise is again the site of many construction cranes and extensive exterior scaffolding work. Glazing work is nearly complete on the new ten-story building at 11th and Idaho streets. The Safari Inn remodel on 11th and Main streets is juxtaposed to scaffolded brick work on One Nineteen, the building at 10th and Grove streets. Multistory building projects are occurring at Myrtle and 3rd streets, as well as just a block west and along Broad street.

The Amazon fulfillment center in Nampa has been a large commercial project. The building, an advanced warehouse, has 650,000 square feet of space. It is expected to open by the end of this year, and employment at the facility is expected to be near 2,000 people. Near Pocatello's airport, Frigitek is building a 280,000 square feet cold storage and logistics facility. It is expected to be complete in the spring of 2021. Total employment once the facility is open is expected to be around 90.

Idaho State University just recently completed a \$22 million renovation of the Eames Complex 2. Also within education and construction, Lewiston just opened a new high school and career technical center. That project brought about 200,000 square feet of new educational space to the area. Work continues on the new basketball arena at U of I.

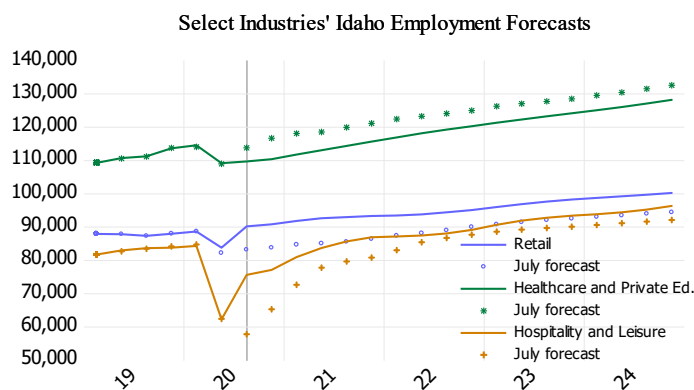
Construction activity is also occurring far afield with aims to improve Idaho's waterways and the resources therein. A joint effort by many parties, including the Shoshone-Bannock tribe, J.R. Simplot Company, and the Idaho Office of Species Conservation, has a restoration project removing old mine tailings along the Yankee Fork of the Salmon River. At Pettit Lake, the Shoshone-Bannock tribe is constructing a new

fish weir for the stream leading out of the lake using funding from the Bonneville Power Administration (BPA). Work including concrete repair is occurring on the American Falls Dam, part of an overall \$7.8 million project that will have another phase beginning this coming spring. At the Hells Canyon Dam power plant, one of three turbines is being replaced, with another scheduled to be replaced next year. Downstream work within that project includes a new fish trap (to collect migrating salmon).



Housing starts are expected to total 17,900 this year, with 13,700 single-family housing units. A similar total count is predicted in 2021, with the mix shifting further towards single-family units. In 2022, the total just reaches above 17,300 with single family units predicted to near 14,200. Construction jobs were just shy of 53,000 across 2019. This year they are expected to hit 56,000, with next year above 60,000 and the year after above 63,500.

Retail Trade: The Bureau of Labor Statistics reports monthly employment figures using a survey of about 697,000 worksites across the US. The statistical output is called the Current Employment Statistics (CES) report. Retail employment in Idaho for September according to the CES reached above 91,000 jobs. In January, the figure was just reaching above 87,000 jobs. Though just a survey, the program indicates that retail employment in Idaho is rebounding strongly from the pandemic. The survey, producing aggregate numbers, does not show churn within the retail sector. While record demand at grocery stores, drug stores, and home improvement stores has made news, some other outlet types have seen demand shrink. Apparel stores have been one type of retailer closing stores at the national level. Some chains retrenching across the nation have outlets in Idaho as well: JC Penney's, Gap Inc., American Eagle Outfitters, and the parent company of Gordman's department store.



Employment in retail trade is now predicted to show growth in Idaho across 2020, with total employment expected to average 88,200 jobs. Further growth is seen in 2021, up 5.4%, to 92,900. By the end of the forecast, employment is expected to surpass 99,500 in Idaho's retail sector.

Leisure and Hospitality: The industries most impacted by the pandemic are within this sector. Restaurant and bars are here. Hotels are as well. Arts

and entertainment venues including movie theaters and concert halls also mix with recreational enterprises such as ski resorts as part of the sector.

Aside from hotels, all these types of outlets were shut down for indoor use as part of the lockdown. Hotels, though, were effectively slowed via the drop in air travel and for a while by the drop in auto travel. Restaurants and bars have to some degree reopened, and travel has resumed, though it seems to be skewed towards regional travel via car. Arts, and entertainment, and recreational sites have had perhaps the most difficult lot. Scale has not been a refuge for these: Regal cinemas and AMC cinemas, two of the largest chains in the nation have indicated plans for shutting theaters. Movie studios are releasing titles online as audiences have been reluctant to return to enclosed venues for entertainment purposes. Musical performances have also shifted to online exhibits rather than concert hall performances. The Boise Philharmonic is presenting virtual concerts using chamber groups, which facilitates distancing between the players.

Despite the difficulties the parts of this sector are experiencing, the jobs rebound has been strong. Leisure and hospitality dropped from over 81,000 jobs in January to 46,000 jobs in April, leapt to 61,000 jobs in May, and by September reached 82,000 jobs by the survey results. Seasonality is certainly a factor for this industry, and the figures just given indicate the susceptibility of the sector to the effects of the pandemic. A cautious outlook is in the forecast. Whereas typical growth was 5.0% across the past four years, it is forecast at 3.0% across the next four. The leisure and hospitality sector is expected to average 74,900 jobs this year, which puts the level between the counts for 2016 and 2017. Last year it had 83,100 jobs. Next year the count is expected to surpass that, reaching 84,300.

Healthcare and Private Education: The durability of this sector during the Great Recession was remarkable. Employment did not falter. In contrast, this recession has seen a reduction in employment, and the return to work within it has not been as quick as may have been expected given its earlier robustness and the quick rebounds in other sectors. By the CES report, employment reached above 111,000 jobs in January. In April, employment was close to 96,000. May brought a reading above 103,000. September saw Idaho's employment back above 106,000 jobs in these industries. While the official BLS data series for this report is the Quarterly Census of Employment and Wages (QCEW), and the latest figures available via that program are second quarter, the CES data is indicating a slowing in the recovery in this large sector of Idaho's employment market. This new data is reflected in the updated forecast for the sector.

Agriculture and Food Processing: Agri Beef will open a new processing plant off Hwy 93 in Jerome. Employment is expected to be 350–400 jobs. Jerome will also get a barley processing facility which will produce feeds for aquaculture and cattle. Employment at that facility is expected to be near a dozen. Lactalis American Group is expanding its Nampa facility. The \$1.7 million effort comes with about a 10% (75 jobs) expansion of the workforce at the facility. These are among the new local announcements providing markets for Idaho agricultural products.

Currently Idaho is the top barley producing state, with about 520,000 acres of harvest, producing roughly one-third of the nation's crop. This year's crop benefitted from good growing conditions. The

new facility in Jerome may cause farmers to shift 10–12 thousand acres towards barley. Idaho is also a prominent dry bean producer, with about one-twelfth of the nation's crop. Conditions for those crops have been characterized as average this year. Idaho's wheat crop appears to have reached a record yield of 96.7 bushels per acre. Dryland farms usually yields 50–60 bushels per acre. June rains may have brought up the dryland productivity this year. While individual farms certainly experience variability in crop outcomes, agriculture appears to have had a productive year within Idaho.

United State Department of Agriculture data indicate that net farm income is expected to be up 23% this year despite a projected 3.3% drop in cash receipts. This drop reflects the swings in the farm gate prices for Idaho commodities. For example, live cattle prices fell while retail meat prices rose. However, the blow of lower cash receipts is dampened by federal direct agricultural payments that are expected to be up 66%. Idaho 2020 farm proprietors' income is expected to drop 17% from 2019. It should be noted that 2019 saw the local measure up by over half. For food processing, employment is expected to be up just slightly this year, with growth resuming in 2021. Local employment in food processing is expected to surpass 20,000 in early 2022; it crossed above 19,000 in early 2019.

Government: With students returning to schools, support staff who might not have otherwise retained jobs are again needed. Students must eat lunches and classrooms must be cleaned each day. Employees who work for contracting entities also are retaining their positions. Busses again run. While schools often use summer months to complete major maintenance operations to avoid disrupting students, for example re-roofing of buildings, other maintenance occurs due to everyday wear and tear associated with campuses being used by hundreds (or thousands, in the case of universities) of people. Though perhaps diminished due to hybrid learning modes, this need has not evaporated entirely, as it likely seemed it might this spring should the 2020–2021 school year have been entirely online.

The Shoshone-Bannock tribe was able to reopen its casino. The schedule of events in September and October indicates activity at the facility is resuming. Tribal employment is counted in the Idaho Economic Model as part of government employment in the state. The tribe is using some of its CARES money for broadband upgrades.

The Idaho Department of Commerce directed \$4.8 million to Kootenai county for broadband upgrades. Other areas set for broadband upgrades via the CARES act include Murtaugh, Burley, Rupert, Bliss, Wendell, Eden, and Hazelton, all in the Magic Valley area. Another area of disbursement of federal funds during the pandemic is to transportation infrastructure. The Idaho Transportation Department won a \$27 million grant from the Federal Transportation Administration on behalf of rural transportation in the state.

The outlook for governmental employment within Idaho is little changed in this forecast compared with July's forecast. Both this and next year, total governmental employment is predicted near 112,200 jobs, it should pass 115,000 jobs in 2023.

This page is left blank intentionally.

FORECAST COMPARISON

Changes in the projected values of statistics such as oil prices, interest rates, and national housing starts can affect Idaho's economy. This *Idaho Economic Forecast* uses the October 2020 IHS forecast of the US economy. Specific expansions or contractions in Idaho operations are also considered and incorporated.

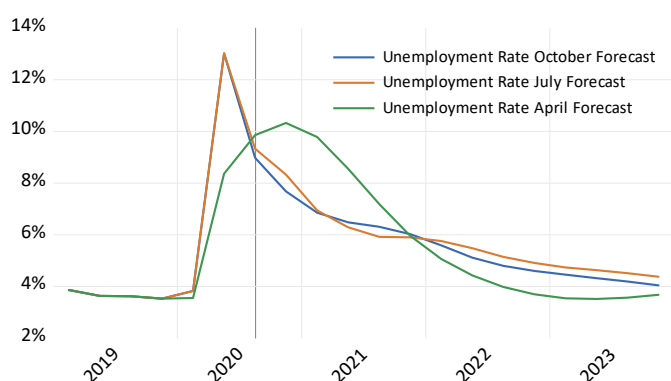
The comparison table shows how several Idaho and national economic series have changed since the July 2020 *Idaho Economic Forecast*, which was based on that month's IHS baseline US macroeconomic forecast.

Primer: The US remains within the pandemic induced recession which was declared on June 8 to have begun in March.¹ Both first and second quarter real GDP growth figures were negative (-5% and -31.4%), indicating contraction of the US economy. While the official arbiter of US recessions (both when they begin as well as when they end) is the National Bureau of Economic Research (NBER) recession committee, common discussion generally speaks of a recession as two consecutive quarters of GDP contraction. The first reading of third quarter US GDP is expected October 29.² That reading is widely expected to be quite large and positive. It is unclear what effect that measurement may have on the NBER recession dating committee. IHS still sees a 4.0% contraction in real GDP across all of 2020.

National: The July forecasts by IHS did not include further fiscal stimulus beyond the acts passed by congress and signed into law by the president this spring. This forecast presumes additional fiscal stimulus. It includes extending the extra unemployment benefits (at the same level as in) the executive order allowing an extra \$300 per week in unemployment payments (due to diversion of FEMA funds). Further, the stimulus is presumed to include a second set of direct payment checks to the majority of Americans at a level similar to the \$1,200 checks for qualifying adults this spring and \$500 per qualifying child.

The resumption of deliveries of the Boeing 737-Max has been pushed back through several IHS forecasts, and that is true for this one in comparison with the July one as well. The new resumption date

US Headline Unemployment Rate Forecasts: April, July, October



is December. There is some news reporting indicating that this date could now be correct. Boeing is among the largest exporting companies in the US economy, and there is indication that its employment level could shrink by 30,000 jobs due to both the grounding and Covid.

Housing starts have been revised upwards from the previous forecast, particularly in the near term. This year's unemployment estimates have

¹ <https://www.nber.org/news/business-cycle-dating-committee-announcement-june-8-2020>

² https://www.bea.gov/sites/default/files/2020-10/gdp3q20_adv.pdf

been revised downward to 8.3% from 8.6%, which is a combination of both a more rapidly improving labor environment as well as a diminished participation rate.

Idaho: The prior edition of this report was the first incorporating the national housing forecasts coming from a newly revised IHS housing model. While the national forecast was again raised for housing starts, the forecast for Idaho housing starts has been lowered for both multi-family and single-family units. The previous forecast was too aggressive given second quarter data, which just became available.

Idaho's labor market has been among the stronger state labor markets during the pandemic. Two sectors which are responding with greater jobs numbers than under earlier anticipation are retail as well as leisure and hospitality. Two features of these sectors stand out. The drop within the second quarter was not as steep on a quarterly average as had been expected in early summer. Secondly, the rebound has been higher and quicker than anticipated. The forecasted gain for these two sectors is 11,000 more jobs in 2021 than was previously projected.

Healthcare and private education was one of the few sectors whose rebound appears to not be as rapid as had been envisioned in July. The average markdown for the sector across 2021–2023 is 3.5%, with the majority of that due to this year showing a contraction of 0.4% rather than growth as in the previous forecast.

Idaho was one of the earliest states to reach above 99% completion of the 2020 Census. This means that field operations within the state were reduced in magnitude as those temporary federal workers were reassigned to other states. This likely means that the bump in government jobs expected through the third quarter of 2020 will be a bit slighter. Field operations for the US census finished in mid-October. Federal government employment in Idaho was marked down by 100 jobs this year.

Overall, the current forecast shows stronger nonfarm employment this year, by 10,600 jobs, and it maintains 12,300–16,500 more jobs per year across the remainder of the forecast.

The BEA annual figures for farm income and expenses were revised for the entirety of those series, going back through 1969, including state levels. In addition to those changes, this report includes the new Economic Research Services (the ERS is part of the USDA) estimates/projections for the past year and the current year figure. These ERS figures show dramatically expanded transfer payments to farmers this year. Two of the quarterly readings for Idaho transfer payments to farmers and ranchers are expected at in the \$250–300 million range, rather than the \$150–170 million range which has been typical recently. IHS does not provide forecasts at the national level for crop and livestock values. A consortium of university agricultural economics departments called the Food and Agricultural Policy Research Institute (FAPRI) is the source of those national forecasts for this report. The new ERS figures are the basis for new FAPRI figures which estimates national farm results for the future.

Total personal income figures for Idaho are expected to reach \$89.9 billion this year, where they were \$82 billion in 2019, and they are predicted for \$89.6 billion in 2021. The jump in personal income accumulation due to the federal transfers are in the \$5.5–6.5 billion range; these jumps are visible in two quarters of 2020, and they reflect already delivered stimulus as well as the anticipated second round of stimulus in the IHS model for the US economy.

**IDAHO ECONOMIC FORECAST
FORECASTS COMPARISON
DIFFERENCES BETWEEN
OCTOBER 2020 vs. JULY 2020 FORECASTS**

	2017	2018	2019	2020	2021	2022	2023	2024
U.S. GDP (BILLIONS)								
Current \$	24	32	6	433	496	562	492	455
% Difference	0.1%	0.2%	0.0%	2.1%	2.3%	2.5%	2.1%	1.8%
2012 Chain-Weighted	36	50	19	412	379	401	310	245
% Difference	0.2%	0.3%	0.1%	2.3%	2.0%	2.1%	1.6%	1.2%
PERSONAL INCOME - CURR \$								
Idaho (Millions)	250	980	476	2,965	1,495	1,761	1,903	2,196
% Difference	0.3%	1.3%	0.6%	3.4%	1.7%	1.9%	2.0%	2.2%
U.S. (Billions)	70	33	-57	619	-72	47	89	139
% Difference	0.4%	0.2%	-0.3%	3.2%	-0.4%	0.2%	0.4%	0.6%
PERSONAL INCOME - 2012 \$								
Idaho (Millions)	200	843	303	2,281	471	572	573	680
% Difference	0.3%	1.2%	0.4%	2.9%	0.6%	0.7%	0.7%	0.8%
U.S. (Billions)	58	16	-81	472	-250	-168	-151	-132
% Difference	0.4%	0.1%	-0.5%	2.7%	-1.4%	-1.0%	-0.8%	-0.7%
TOTAL NONFARM EMPLOYMENT								
Idaho	-27	-25	-22	10,621	16,517	12,319	12,436	14,369
% Difference	0.0%	0.0%	0.0%	1.4%	2.2%	1.5%	1.5%	1.7%
U.S. (Thousands)	0	0	0	-450	-2,186	-1,454	-1,227	-1,079
% Difference	0.0%	0.0%	0.0%	-0.3%	-1.5%	-1.0%	-0.8%	-0.7%
GOODS PRODUCING SECTOR								
Idaho	-8	-6	-2	-695	3,786	4,383	3,813	4,146
% Difference	0.0%	0.0%	0.0%	-0.6%	3.0%	3.3%	2.8%	2.9%
U.S. (Thousands)	0	0	0	509	879	481	302	107
% Difference	0.0%	0.0%	0.0%	2.6%	4.7%	2.5%	1.5%	0.5%
NONGOODS PRODUCING SECTOR								
Idaho	-19	-19	-20	11,316	12,731	7,936	8,623	10,223
% Difference	0.0%	0.0%	0.0%	1.8%	2.0%	1.2%	1.3%	1.5%
U.S. (Thousands)	0	0	0	-959	-3,065	-1,935	-1,529	-1,186
% Difference	0.0%	0.0%	0.0%	-0.8%	-2.3%	-1.5%	-1.1%	-0.9%
SELECTED INTEREST RATES								
Federal Funds Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bank Prime Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Existing Home Mortgage Rate	0.0%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%	0.0%
INFLATION								
GDP Price Deflator	-0.044	-0.060	-0.031	-0.183	0.322	0.485	0.617	0.774
Personal Cons Deflator	0.054	0.096	0.194	0.536	1.219	1.362	1.467	1.602
Consumer Price Index	0.000	0.000	0.000	0.008	0.025	0.026	0.030	0.033

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

This page is left blank intentionally.

ALTERNATIVE FORECASTS

IHS retains the likelihoods it had in place for the *Baseline*, *Pessimistic*, and *Optimistic Scenarios* this past summer. Those were, and remain, 50%, 30%, and 20% likelihoods, respectively.

A snapshot of the national *Baseline Scenario* using annual rates across 2020–2024 is:

- Real GDP annual change: -4.0%, +3.5%, 3.6%, 2.8%, and 2.5% across those five years.
- Nonfarm payrolls annual change: -5.6%, +3.3%, 2.6%, 1.8%, and 1.4%.
- Headline (U-3) unemployment: 8.4%, 6.4%, 5.0%, 4.3%, and 3.7%.
- CPI inflation: 1.2%, 2.5%, 2.3%, 1.9%, and 2.0%.
- Publicly held debt as a fraction of GDP: 108%, 110.4%, 110.7%, 110.7%, and 110.0%.

A snapshot of the Idaho economy under the *Baseline Scenario* is:

- Nonfarm payroll annual change: -1.0%, +4.2%, 3.1%, 2.7%, and 2.5%.
- Nominal personal income growth: +9.4%, -0.4%, +5.0%, 5.3%, and 4.9%.

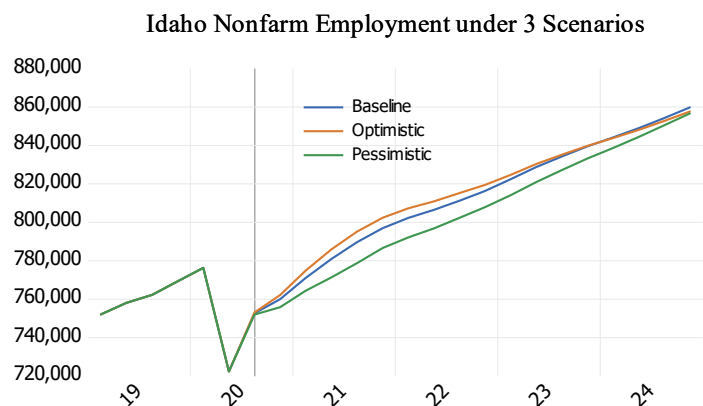
The national forecast includes two alternatives, and much like the baseline forecast by IHS, the alternatives are controlled by assumptions on the pandemic. Fiscal policy assumptions across the three scenarios are the same.

PESSIMISTIC SCENARIO

IHS finds that just two features are needed to underly this less fortunate scenario. The

reopening of the economy is less successful in this case, and consumer spending pulls back late in 2020. Both features follow from high caseloads and less effective fiscal stimulus. It is important to note that the total values assigned to fiscal spending remain the same in this scenario as in the baseline. However, the effectiveness of spending is dependent upon the distribution of that spending across sectors and segments of the economy. Fiscal spending directed towards segments of the economy relatively unaffected or artificially constrained at the time of that disbursement may temporarily save the influx rather than redeploy the money within the economy, slowing the stimulative effect. The effect shows in this scenario through consumer spending, which declines slightly in the fourth quarter of 2020.

Reading carefully through the scenario—though the third quarter of 2020 was complete upon the close of September, and this is the October forecast by IHS—there is still considerable uncertainty as to what occurred in the third quarter of 2020. This reflects the usual uncertainty of standard metrics of the economy, which are always lagging compared to the events they measure: e.g., even high-frequency measurements such as the unemployment rate are released only about one month after the effective date of the measurement due to the magnitude of data compilation needed for the statistic. It also, however, reflects the heightened uncertainty due to the great variability of all economic activity during the pandemic. For example, business fixed investment is projected to have risen by a 23.6% annualized rate



in the third quarter in the *Baseline Scenario*, but it may have risen only by 10.9% in the *Pessimistic Scenario*. Not only are double-digit expansion rates rare during normal times, a doubling of such an expansion between the two scenarios is exceedingly rare (and this is for a quarter already technically within the books).

IHS sees business fixed investment shrinking more substantially in the pessimistic case compared with the baseline: -2.6% versus -1.4% in 2020, followed by +0.6% versus 4.4% in 2021. Residential fixed investment grows a bit more initially, 7.9% versus 7.7% in the baseline for 2020, but that difference widens and reverses to 4.1% versus 7.4% in the baseline, then deepens to a contraction -2.5% versus growth 0.4% in 2022. Service employment is expected to change by -9.0% in 2020 versus -6.9% in the baseline, and a mild contraction of 0.1% would follow in 2021 versus 5.1% expansion in the baseline.

Idaho housing starts are expected to average 300 units more in this scenario than in the baseline across 2020–2024. Overall housing starts are expected to average 17,500 per year in this scenario. Total nonfarm jobs are illustrated comparing the baseline and pessimistic cases. For the service subsector, employment is expected to be 700 below the baseline in the third quarter of 2020 (but still reach above 380,000 jobs statewide). By the end of 2024, about 2,200 fewer service jobs are forecast in comparison with the baseline (and both scenarios have service sector employment above 440,000 jobs in the state).

OPTIMISTIC SCENARIO

This scenario also differs from the baseline primarily in assumptions that would follow from a differing course for the pandemic. The economic levers are a faster reopening and consumer spending resuming its pre-COVID trends. Those levers could be actuated if the magnitude of the health threat is smaller than in the baseline. In particular, the daily number of cases would be presumed to decline (faster than in the baseline). To interpret this, IHS suggests that such a scenario could come about with availability of a vaccine for frontline workers in the US before the end of the year.

As with the other scenario, the magnitudes of fiscal support are unaltered in this scenario compared to the *Baseline Scenario*. However, the distribution of support is assumed to more effectively reach corporations and households which in turn redeploy that support directly, boosting private sector demand. As goods production has largely recovered, this means that a greater re-expansion of the service economy is to be expected in the *Optimistic Scenario*.

IHS sees business fixed investment shrinking by less in this scenario compared with the baseline: -1.3% in 2020 versus -1.4% in the baseline. Residential fixed investment grows a bit more strongly here: 8% versus 7.7% in 2020, and 7.6% versus 7.4% for 2021. Service employment would change -5.9% versus -6.9% in the baseline for 2020, and then expand by 5.5% versus 5.1% in the baseline in 2021.

For Idaho, the differences in total nonfarm jobs in this versus the baseline scenario is illustrated in the accompanying graph. Service jobs are expected to be 300 higher in the third quarter of 2020 compared to the baseline, but the comparison becomes a virtual tie by mid-2023, mirroring the total nonfarm jobs in the state. By the close of 2024, service sector employment in Idaho is predicted to be 2,200 jobs

fewer than the baseline, continuing to mirror the outlook difference for total nonfarm jobs in the state between the two scenarios. Housing starts are expected to average about 100 units fewer per quarter across 2020–2024 in this scenario compared with the baseline. Overall, housing starts are expected to average around 17,100 units per year.

IDAHO ECONOMIC FORECAST
BASELINE AND ALTERNATIVE FORECASTS
OCTOBER 2020

	BASELINE					OPTIMISTIC					PESSIMISTIC				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. GDP (BILLIONS)															
Current \$	20,782	21,803	22,959	24,028	25,114	21,098	22,562	23,431	24,307	25,379	20,019	20,122	21,141	22,032	23,087
% Ch	-3.0%	4.9%	5.3%	4.7%	4.5%	-1.6%	6.9%	3.9%	3.7%	4.4%	-6.6%	0.5%	5.1%	4.2%	4.8%
2009 Chain-Weighted	18,321	18,960	19,643	20,195	20,702	18,582	19,540	19,890	20,196	20,622	17,662	17,617	18,409	19,006	19,654
% Ch	-4.0%	3.5%	3.6%	2.8%	2.5%	-2.7%	5.2%	1.8%	1.5%	2.1%	-7.5%	-0.3%	4.5%	3.2%	3.4%
PERSONAL INCOME - CURR \$															
Idaho (Millions)	89,897	89,583	94,043	98,993	103,823	90,295	90,710	94,808	99,395	104,062	89,119	86,991	91,260	95,852	100,340
% Ch	9.4%	-0.4%	5.0%	5.3%	4.9%	9.9%	0.5%	4.5%	4.8%	4.7%	8.5%	-2.4%	4.9%	5.0%	4.7%
U.S. (Billions)	19,822	19,274	20,159	21,053	21,939	20,024	19,695	20,483	21,274	22,143	19,407	18,230	19,054	19,816	20,550
% Ch	6.9%	-2.8%	4.6%	4.4%	4.2%	7.9%	-1.6%	4.0%	3.9%	4.1%	4.6%	-6.1%	4.5%	4.0%	3.7%
PERSONAL INCOME - 2012 \$															
Idaho (Millions)	80,956	79,191	81,608	84,484	87,076	81,195	79,940	81,979	84,274	86,451	80,439	77,801	80,991	84,380	87,408
% Ch	8.3%	-2.2%	3.1%	3.5%	3.1%	8.6%	-1.5%	2.6%	2.8%	2.6%	7.6%	-3.3%	4.1%	4.2%	3.6%
U.S. (Billions)	17,852	17,039	17,494	17,968	18,401	18,007	17,357	17,712	18,038	18,396	17,517	16,305	16,910	17,444	17,902
% Ch	5.7%	-4.6%	2.7%	2.7%	2.4%	6.6%	-3.6%	2.0%	1.8%	2.0%	3.7%	-6.9%	3.7%	3.2%	2.6%
TOTAL NONFARM EMPLOYMENT															
Idaho	752,824	784,644	809,075	831,293	851,838	753,480	789,595	813,201	832,540	850,625	751,620	775,245	799,781	823,893	847,588
% Ch	-1.0%	4.2%	3.1%	2.7%	2.5%	-0.9%	4.8%	3.0%	2.4%	2.2%	-1.2%	3.1%	3.2%	3.0%	2.9%
U.S. (Thousands)	142,554	147,281	151,066	153,780	155,885	143,543	149,009	152,235	154,979	156,684	139,838	138,955	144,250	149,138	154,064
% Ch	-5.6%	3.3%	2.6%	1.8%	1.4%	-4.9%	3.8%	2.2%	1.8%	1.1%	-7.4%	-0.6%	3.8%	3.4%	3.3%
GOODS-PRODUCING SECTOR															
Idaho	125,339	131,723	137,278	141,247	146,096	125,623	134,201	139,353	142,658	147,119	125,053	127,789	134,043	138,228	144,386
% Ch	-0.2%	5.1%	4.2%	2.9%	3.4%	0.0%	6.8%	3.8%	2.4%	3.1%	-0.4%	2.2%	4.9%	3.1%	4.5%
U.S. (Thousands)	20,052	19,763	20,022	20,261	20,393	20,020	20,101	20,404	20,518	20,615	19,906	18,836	19,377	19,832	20,329
% Ch	-4.8%	-1.4%	1.3%	1.2%	0.6%	-5.0%	0.4%	1.5%	0.6%	0.5%	-5.5%	-5.4%	2.9%	2.3%	2.5%
NONGOODS-PRODUCING SECTOR															
Idaho	627,485	652,921	671,797	690,046	705,742	627,857	655,394	673,848	689,881	703,506	626,567	647,456	665,738	685,665	703,202
% Ch	-1.2%	4.1%	2.9%	2.7%	2.3%	-1.1%	4.4%	2.8%	2.4%	2.0%	-1.3%	3.3%	2.8%	3.0%	2.6%
U.S. (Thousands)	122,502	127,518	131,044	133,518	135,492	123,523	128,908	131,831	134,462	136,069	119,932	120,119	124,873	129,306	133,735
% Ch	-5.7%	4.1%	2.8%	1.9%	1.5%	-4.9%	4.4%	2.3%	2.0%	1.2%	-7.7%	0.2%	4.0%	3.6%	3.4%
SELECTED INTEREST RATES															
Federal Funds	0.4%	0.1%	0.1%	0.1%	0.1%	0.4%	0.1%	0.1%	0.1%	0.4%	0.4%	0.1%	0.1%	0.1%	0.1%
Bank Prime	3.5%	3.3%	3.3%	3.3%	3.3%	3.5%	3.3%	3.3%	3.3%	3.4%	3.5%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	3.4%	3.3%	3.4%	3.4%	3.5%	3.4%	3.3%	3.5%	3.6%	3.7%	3.4%	3.2%	3.0%	2.9%	2.9%
INFLATION															
GDP Price Deflator	1.0%	1.4%	1.6%	1.8%	2.0%	1.1%	1.7%	2.0%	2.2%	2.2%	0.9%	0.8%	0.5%	0.9%	1.3%
Personal Cons Deflator	1.1%	1.9%	1.9%	1.7%	1.8%	1.2%	2.0%	1.9%	2.0%	2.1%	0.9%	0.9%	0.8%	0.8%	1.1%
Consumer Price Index	1.2%	2.5%	2.3%	1.9%	2.0%	1.4%	2.6%	2.2%	2.2%	2.3%	0.8%	1.4%	1.2%	1.2%	1.2%

Adjusting the Unemployment Thermometer

Regis Barnichon and Winnie Yee¹

As the economic fallout from the coronavirus disease 2019 (COVID-19) pandemic continues to unfold, many commentators are closely monitoring the labor market, in particular the unemployment rate, to try to gauge the severity of the economic downturn. The unemployment rate is widely used not only as an indicator of the amount of labor market slack but more broadly as a business cycle indicator, capturing how far below full capacity the economy is operating. While the record rise in new unemployment insurance claims received a lot of attention, the worsening of the official U.S. unemployment rate in the second quarter of 2020 was less severe than initially anticipated with some predicting rates as high as 30% (Faria-e-Castro 2020). Instead, the official unemployment rate climbed to 14.7% in April, then rapidly declined to 11.1% by the end of the second quarter. To put this decline into perspective, in a typical recovery, unemployment drops only about 0.05 percentage point per month (see, for example, Hall and Kudlyak 2020).

However, the official numbers have raised some doubts for two main reasons. First, stay-at-home orders and mandated business closures may severely hinder job seekers. Since people must be searching for work to be considered unemployed, the official unemployment rate may incorrectly record such individuals as outside of the labor force. Second, the Bureau of Labor Statistics (BLS) reported evidence in April and May that many workers who were not working for temporary, pandemic-related reasons were incorrectly recorded as “employed but absent from work” (BLS 2020a). Both of these issues imply that the official unemployment statistics may have severely understated the true magnitude of the increase in the unemployment rate in April and May.

In this *Economic Letter*, we propose a simple method to correct the official unemployment rate numbers for these biases. We find that the official data understated the unemployment rate in April and May by as much as 5 percentage points. However, we do not detect any substantial bias in the official numbers for June and July, which implies that the true drop in unemployment from April to June was even more dramatic than the official numbers indicated.

The definition of unemployment

To understand the possible biases in the official unemployment rate, one must consider its definition. Unemployment is defined as the share of the labor force that is without work but is both available and seeking employment. In the United States, the unemployment rate is measured by the Current Population Survey (CPS), a monthly survey of about 60,000 U.S. households conducted by the Census Bureau. In the CPS, people are classified as unemployed if they meet *all* of the following criteria:

¹This article originally appeared on September 3, 2020, in the *Economic Letter* series from the San Francisco Federal Reserve Bank (FRBSF). [Regis Barnichon](#) is a senior research advisor at the FRBSF and Winnie Yee is a graduate student at the University of Chicago and a former research associate at the FRBSF. Opinions expressed in FRBSF Economic Letter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco or of the Board of Governors of the Federal Reserve System.

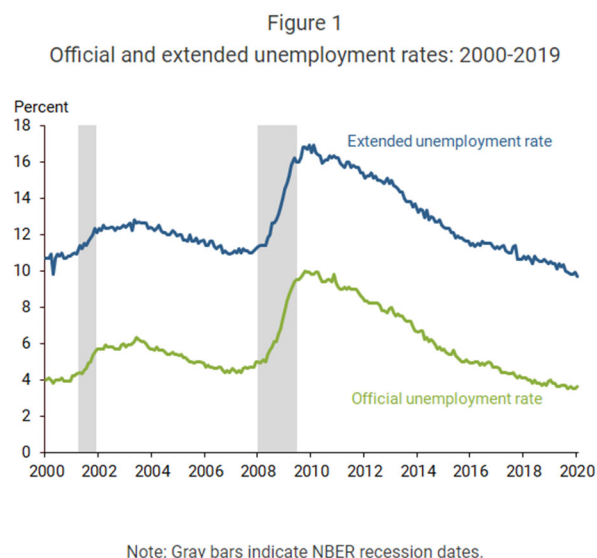
1. They were not employed during the survey reference week, typically, the week including the 12th of the month.
2. They were available for work during the survey reference week, except for temporary illness.
3. They made at least one specific active effort to find a job during the four-week period ending with the survey reference week, for instance by having a job interview, or they were temporarily laid off and are expecting to be recalled to their job.

Ambiguity in the definition of employment and unemployment

The main problem with the unemployment statistic is that the definitions of employment and unemployment become ambiguous in times of forced confinement, self-quarantining, and mandated business closures. This ambiguity can add substantial bias to the unemployment rate statistics.

One source of ambiguity stems from the job-search requirement in condition (3). If people are confined at home and not allowed to physically go to a workplace, can they be considered available for work and making active efforts to find work? The confinement may make them legally unavailable, even if they want to work. Also, active search efforts may simply not be possible when confinement disrupts the normal job interview process. The key underlying problem is that these challenges make criteria (2) and (3) ambiguous and open to interpretation. The ambiguity can create a lot of confusion for survey respondents. For instance, if some truly unemployed workers respond that they are not available for work *because* of the confinement, this would lead the BLS to underestimate the unemployment rate. A similar downward bias would result if job seekers cannot search for work because their industry is temporarily banned from operating.

Another source of ambiguity relates to the definition of employment stemming from condition (1). In its analysis of the May employment report (BLS 2020a), the BLS reported that some workers who were not at work during the entire reference week were not classified as unemployed on temporary layoff in April or May. Rather, they were classified as employed but “absent from work.” BLS’s subsequent analysis of the underlying data suggests that most of these workers were misclassified: they should have been classified as unemployed on temporary layoff. Again, ambiguity brought about by the nature of the pandemic led the official unemployment numbers to understate the true magnitude of the unemployment rate.



Removing ambiguity

To address these biases, we use a simple strategy that consists of broadening the definition of unemployment to accommodate the possible sources of ambiguity. Figure 1 displays our extended estimate alongside the official unemployment rate from 2000 to the end of 2019, each seasonally adjusted. Thus, the figure excludes the movements in the unemployment rate so far this year.

For our extended definition, we do two modifications. First, we relax conditions (2) and (3) by removing the need to be actively searching for work, as well as being available.

Instead, we use responses to the CPS question, “(Do/Does) (name/you) currently want a job, either full or part time?” Our alternative measure of unemployment classifies respondents who answer yes to this question as being unemployed. This broader definition suffers far less from the types of ambiguity discussed earlier because being prevented from leaving your house should not change your hypothetical desire to work. Second, we remove the ambiguity from the definition of unemployment in condition (1) by classifying as unemployed any worker absent from work during the reference week.

As Figure 1 shows, our extended definition results in much higher unemployment on average than the official unemployment data would suggest, as expected. To measure the strength of the relationship between the official unemployment rate and our extended rate, we estimate a standard linear regression model over 2000–2019, excluding the pandemic period. The regression R-squared—a measure of statistical fit—is 0.98, implying an extremely high correlation. This means that our broader definition is just as good as the traditional definition for tracking the labor market cycle. In fact, as Figure 2 shows, we can accurately predict the official unemployment rate from our extended unemployment rate.

This strong relationship is especially useful in the current context, because it means that we can use our extended unemployment definition to better capture the true unemployment rate *during the pandemic*. Since our broader definition of the unemployment rate does not suffer from the ambiguity issues plaguing the official unemployment rate in this unique period, our predicted unemployment rate can be considered a *corrected* official unemployment rate. It predicts how the official numbers would have come out without the measurement issues affecting the official definition of unemployment.

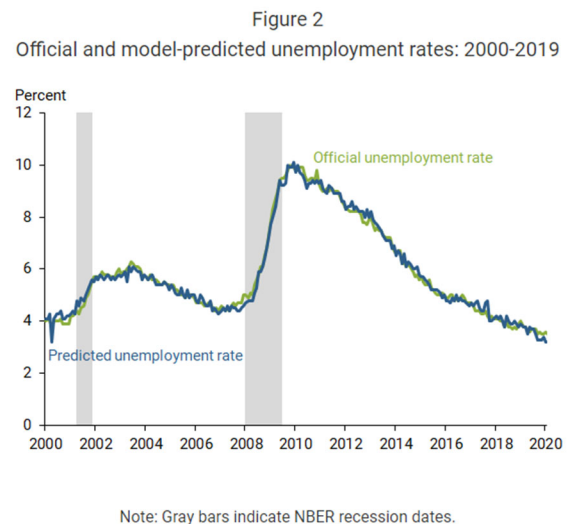


Figure 3 plots the official unemployment rate (green line) alongside our corrected rate (blue line), with the gray shading indicating a 95% range of certainty for our estimates. Our corrected unemployment rate holds two main lessons. First, the spike in unemployment was much higher than suggested by the official numbers. Consistent with the downward bias created by ambiguity in the CPS questionnaire, unemployment reached 20.5% in April instead of the official 14.7%. Interestingly, our estimate is in line with the BLS’s own corrected unemployment rate of 19.1%, which is based on a different methodology (BLS 2020a). Second, and perhaps surprisingly, our corrected rate was similar to the official unemployment rates in June and July, implying a much faster recovery than implied by the official numbers, consistent with the BLS’s own assessment that “the degree of misclassification has declined considerably in recent months” (BLS 2020b).

Figure 3
Official and model-predicted unemployment: 2020

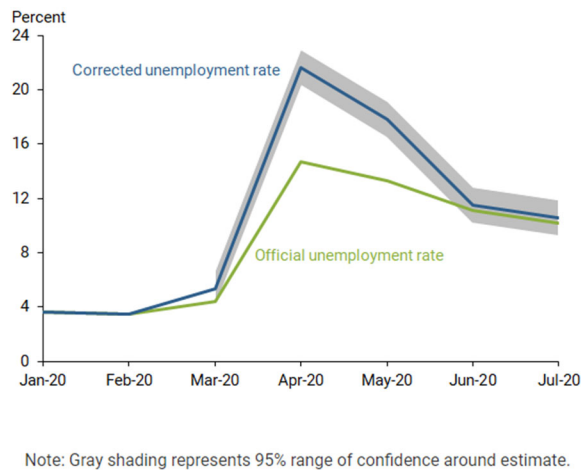


Figure 3 illustrates that, while this time has been extraordinary by historical standards, both the sudden climb in the unemployment rate from March to April and the sudden drop from April to June are actually understated in the official data. The larger rise and fall shown by our corrected series are consistent with the idea that a large part of the increase in unemployment was attributable to the mandates on mobility and business operations imposed to combat the spread of COVID-19.

The sensitivity of the true state of the labor market to these public health measures makes this a unique period. The evolution of the labor market going forward may look quite different from past recoveries from high unemployment. Its strength may well depend on the course of

the virus and resulting tightening and loosening of government restrictions. For example, Petrosky-Nadeau and Valletta (2020) demonstrate how sensitive unemployment rate projections are to different scenarios for the path of the pandemic.

Conclusion

The public health response and restrictions on businesses intended to slow the spread of COVID-19 caused a sudden spike in unemployment in the United States. The response to the pandemic created a unique set of labor market conditions, with many workers separated from their jobs either not able to actively seek work or not viewing themselves as laid off. The resulting ambiguity in the survey questions underlying the definitions of employment and unemployment created substantial measurement error that caused the official unemployment rate to significantly undercount the true number of people who were unemployed. In this *Letter*, we propose a simple method to correct the official numbers for the effects of this ambiguity. We find that the official unemployment rate was substantially underestimated in April and May. Yet, the count was about right in June and July, implying that the true recovery in unemployment from April to June was even stronger than implied by the official data.

A broad lesson from our findings is that the pandemic-related confinement policies create unique challenges for measuring labor market conditions. An important implication is that past labor market recoveries may be a poor guide for what to expect from the U.S. labor market in the months ahead.

References

- Bureau of Labor Statistics. 2020a. [“Frequently Asked Questions: The Impact of the Coronavirus \(COVID-19\) Pandemic on the Employment Situation for May 2020.”](#) June 5.
- Bureau of Labor Statistics. 2020b. [“Frequently Asked Questions: The Impact of the Coronavirus \(COVID-19\) Pandemic on the Employment Situation for July 2020.”](#) August 7.

Faria-e-Castro, Miguel. 2020. [“Back-of-the-Envelope Estimates of Next Quarter’s Unemployment Rate.”](#) FRB St. Louis, *On the Economy* Blog, March 24.

Hall, Robert E., and Marianna Kudlyak. 2020. [“Why Has the U.S. Economy Recovered So Consistently from Every Recession in the Past 70 Years?”](#) FRB San Francisco Working Paper 2020-20.

Petrosky-Nadeau, Nicolas, and Robert G. Valletta. 2020. [“An Unemployment Crisis after the Onset of COVID-19.”](#) *FRBSF Economic Letter* 2020-12 (May 18).

IDAHO ECONOMIC FORECAST

October 2020

FORECAST DETAIL

Annually 2007–2024.....	Page 36
Quarterly 2019–2024.....	Page 50

Reporting Conventions

Units of measurement are presented in the individual reports.

The percentage change numbers given in the annual reports are simple period-to-period percent changes. Since the periods are years, they are thus simple annual changes. The percentage changes given in the quarterly report are period-to-period changes at compounded annual rates, following standard practice. A large change in a given quarter can seem to be exaggerated since the calculation assumes the change is compounded over an entire year.

Data Sources

National forecast data is provided by IHS Economics, as well as the Food and Agricultural Policy Research Institute (FAPRI). Historical data for the models are obtained from the following agencies: Bureau of the Census (demographic and housing), Bureau of Economic Analysis (income), Bureau of Labor Statistics (employment), Federal Reserve Board of Governors (production), and US Department of Agriculture (farm).

Idaho historical data is obtained from the Department of Labor (employment and hourly earnings), Bureau of Vital Statistics (births and deaths), Division of Financial Management (migration), and the Bureau of Economic Analysis (income).

The Idaho average annual wage is calculated by the Division of Financial Management from Bureau of Economic Analysis and Idaho Department of Labor data. Because of the different methodology used and data available, this figure may not match those published by other sources.

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

DEMOGRAPHICS

	2007	2008	2009	2010	2011	2012	2013	2014	2015
POPULATION									
Idaho (Thousands)	1,505.1	1,534.3	1,554.4	1,570.7	1,583.9	1,595.3	1,611.2	1,631.1	1,651.1
% Ch	2.5%	1.9%	1.3%	1.0%	0.8%	0.7%	1.0%	1.2%	1.2%
National (Millions)	302.227	304.948	307.580	310.065	312.289	314.498	316.646	318.920	321.206
% Ch	1.0%	0.9%	0.9%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%
BIRTHS									
Idaho (Thousands)	25.023	25.156	23.726	23.202	22.311	22.941	22.348	22.888	22.832
% Ch	3.5%	0.5%	-5.7%	-2.2%	-3.8%	2.8%	-2.6%	2.4%	-0.2%
National (Thousands)	4,330	4,260	4,141	4,009	3,963	3,961	3,939	3,995	3,984
% Ch	1.2%	-1.6%	-2.8%	-3.2%	-1.2%	0.0%	-0.5%	1.4%	-0.3%
DEATHS									
Idaho (Thousands)	10.742	10.927	11.065	11.411	11.990	11.993	12.426	12.610	13.031
% Ch	1.8%	1.7%	1.3%	3.1%	5.1%	0.0%	3.6%	1.5%	3.3%
National (Thousands)	2,432	2,479	2,444	2,474	2,521	2,548	2,602	2,631	2,717
% Ch	-0.1%	1.9%	-1.4%	1.3%	1.9%	1.1%	2.1%	1.1%	3.3%
NET MIGRATION									
Idaho (Thousands)	22.155	14.986	7.458	4.516	2.843	0.467	5.959	9.628	10.146
HOUSING									
HOUSING STARTS									
Idaho	14,345	7,979	5,733	5,186	4,560	7,124	9,052	9,803	10,267
% Ch	-26.6%	-44.4%	-28.1%	-9.5%	-12.1%	56.2%	27.1%	8.3%	4.7%
National (Millions)	1.342	0.900	0.554	0.586	0.612	0.784	0.928	1.000	1.107
% Ch	-25.9%	-32.9%	-38.4%	5.7%	4.5%	28.1%	18.4%	7.8%	10.6%
SINGLE UNITS									
Idaho	12,014	7,132	4,951	4,647	3,956	6,021	7,716	7,329	8,233
% Ch	-31.4%	-40.6%	-30.6%	-6.1%	-14.9%	52.2%	28.2%	-5.0%	12.3%
National (Millions)	1.036	0.616	0.442	0.471	0.434	0.537	0.619	0.646	0.712
% Ch	-29.7%	-40.5%	-28.2%	6.6%	-7.9%	23.6%	15.3%	4.4%	10.2%
MULTIPLE UNITS									
Idaho	2,331	847	782	538	604	1,103	1,336	2,474	2,034
% Ch	15.9%	-63.7%	-7.6%	-31.2%	12.3%	82.5%	21.1%	85.2%	-17.8%
National (Millions)	0.306	0.284	0.112	0.114	0.178	0.247	0.309	0.354	0.395
% Ch	-9.5%	-7.3%	-60.7%	2.2%	55.7%	38.9%	25.2%	14.6%	11.4%
HOUSING STOCK									
Idaho (Thousands)	529.3	537.9	542.3	546.4	549.2	553.7	560.3	568.3	576.7
% Ch	2.8%	1.6%	0.8%	0.8%	0.5%	0.8%	1.2%	1.4%	1.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

DEMOGRAPHICS

	2016	2017	2018	2019	2020	2021	2022	2023	2024
POPULATION									
Idaho (Thousands)	1,682.4	1,717.7	1,750.5	1,787.1	1,821.3	1,851.9	1,879.5	1,908.1	1,937.3
% Ch	1.9%	2.1%	1.9%	2.1%	1.9%	1.7%	1.5%	1.5%	1.5%
National (Millions)	323.460	325.454	327.151	328.727	330.408	332.663	334.985	337.286	339.563
% Ch	0.7%	0.6%	0.5%	0.5%	0.5%	0.7%	0.7%	0.7%	0.7%
BIRTHS									
Idaho (Thousands)	22.463	22.159	21.397	22.080	22.278	22.334	22.242	22.243	22.257
% Ch	-1.6%	-1.4%	-3.4%	3.2%	0.9%	0.3%	-0.4%	0.0%	0.1%
National (Thousands)	3,951	3,859	4,066	4,076	4,084	4,097	4,108	4,117	4,123
% Ch	-0.8%	-2.3%	5.4%	0.2%	0.2%	0.3%	0.3%	0.2%	0.1%
DEATHS									
Idaho (Thousands)	13.370	14.007	14.263	14.431	14.797	15.124	15.456	15.796	16.141
% Ch	2.6%	4.8%	1.8%	1.2%	2.5%	2.2%	2.2%	2.2%	2.2%
National (Thousands)	2,748	2,816	2,690	2,711	2,734	2,762	2,791	2,824	2,858
% Ch	1.1%	2.5%	-4.5%	0.8%	0.8%	1.0%	1.1%	1.2%	1.2%
NET MIGRATION									
Idaho (Thousands)	22.228	27.183	25.687	28.880	26.778	23.382	20.749	22.217	23.090
HOUSING									
HOUSING STARTS									
Idaho	12,394	14,004	16,131	16,836	17,923	17,863	17,314	16,464	16,307
% Ch	20.7%	13.0%	15.2%	4.4%	6.5%	-0.3%	-3.1%	-4.9%	-1.0%
National (Millions)	1.177	1.207	1.248	1.295	1.328	1.307	1.290	1.279	1.271
% Ch	6.3%	2.6%	3.4%	3.8%	2.5%	-1.6%	-1.3%	-0.8%	-0.6%
SINGLE UNITS									
Idaho	10,003	11,263	13,036	13,028	13,735	14,387	14,193	13,682	13,696
% Ch	21.5%	12.6%	15.7%	-0.1%	5.4%	4.7%	-1.3%	-3.6%	0.1%
National (Millions)	0.785	0.851	0.872	0.893	0.913	0.949	0.932	0.924	0.919
% Ch	10.2%	8.5%	2.4%	2.3%	2.3%	3.9%	-1.8%	-0.9%	-0.6%
MULTIPLE UNITS									
Idaho	2,391	2,741	3,096	3,808	4,189	3,476	3,121	2,782	2,611
% Ch	17.6%	14.6%	12.9%	23.0%	10.0%	-17.0%	-10.2%	-10.9%	-6.2%
National (Millions)	0.392	0.356	0.376	0.403	0.415	0.358	0.358	0.355	0.353
% Ch	-0.7%	-9.1%	5.6%	7.1%	3.0%	-13.7%	0.0%	-0.8%	-0.6%
HOUSING STOCK									
Idaho (Thousands)	586.5	597.7	611.8	626.0	642.2	658.0	673.6	688.3	702.5
% Ch	1.7%	1.9%	2.4%	2.3%	2.6%	2.5%	2.4%	2.2%	2.1%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

OUTPUT, INCOME, & WAGES

	2007	2008	2009	2010	2011	2012	2013	2014	2015
U.S. GROSS DOM. PRODUCT (Billions)									
Current Dollars	14,452	14,713	14,449	14,992	15,543	16,197	16,785	17,527	18,238
% Ch	4.6%	1.8%	-1.8%	3.8%	3.7%	4.2%	3.6%	4.4%	4.1%
2012 Chain-Weighted	15,626	15,605	15,209	15,599	15,841	16,197	16,495	16,912	17,432
% Ch	1.9%	-0.1%	-2.5%	2.6%	1.6%	2.2%	1.8%	2.5%	3.1%
 PERSONAL INCOME - CURR \$									
Idaho (Millions)	49,123	50,205	48,477	50,197	53,083	56,140	58,338	61,827	65,683
% Ch	6.4%	2.2%	-3.4%	3.5%	5.7%	5.8%	3.9%	6.0%	6.2%
Idaho Nonfarm (Millions)	47,523	48,627	47,535	48,838	51,096	54,135	56,053	59,457	63,434
% Ch	5.4%	2.3%	-2.2%	2.7%	4.6%	5.9%	3.5%	6.1%	6.7%
National (Billions)	12,008	12,442	12,059	12,552	13,327	14,010	14,181	14,992	15,724
% Ch	5.5%	3.6%	-3.1%	4.1%	6.2%	5.1%	1.2%	5.7%	4.9%
 PERSONAL INCOME - 2012 \$									
Idaho (Millions)	53,724	53,309	51,523	52,447	54,093	56,136	57,562	60,124	63,743
% Ch	3.8%	-0.8%	-3.4%	1.8%	3.1%	3.8%	2.5%	4.5%	6.0%
Idaho Nonfarm (Millions)	51,973	51,632	50,523	51,028	52,069	54,131	55,307	57,819	61,559
% Ch	2.8%	-0.7%	-2.1%	1.0%	2.0%	4.0%	2.2%	4.5%	6.5%
National (Billions)	13,132	13,211	12,816	13,114	13,580	14,009	13,992	14,579	15,260
% Ch	2.9%	0.6%	-3.0%	2.3%	3.6%	3.2%	-0.1%	4.2%	4.7%
 PER CAPITA PERS INC - CURR \$									
Idaho	32,637	32,723	31,187	31,956	33,513	35,189	36,207	37,903	39,782
% Ch	3.8%	0.3%	-4.7%	2.5%	4.9%	5.0%	2.9%	4.7%	5.0%
National	39,730	40,801	39,206	40,479	42,674	44,547	44,785	47,006	48,953
% Ch	4.5%	2.7%	-3.9%	3.2%	5.4%	4.4%	0.5%	5.0%	4.1%
 PER CAPITA PERS INC - 2012 \$									
Idaho	35,696	34,747	33,147	33,389	34,152	35,187	35,725	36,859	38,607
% Ch	1.3%	-2.7%	-4.6%	0.7%	2.3%	3.0%	1.5%	3.2%	4.7%
National	43,451	43,324	41,669	42,295	43,487	44,545	44,189	45,711	47,507
% Ch	1.9%	-0.3%	-3.8%	1.5%	2.8%	2.4%	-0.8%	3.4%	3.9%
 AVERAGE ANNUAL WAGE									
Idaho	35,256	35,615	35,861	36,614	37,078	37,406	38,111	39,306	40,300
% Ch	2.7%	1.0%	0.7%	2.1%	1.3%	0.9%	1.9%	3.1%	2.5%
National	46,361	47,620	47,600	48,888	50,226	51,635	52,166	53,806	55,423
% Ch	4.4%	2.7%	0.0%	2.7%	2.7%	2.8%	1.0%	3.1%	3.0%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

OUTPUT, INCOME, & WAGES

	2016	2017	2018	2019	2020	2021	2022	2023	2024
U.S. GROSS DOM. PRODUCT (Billions)									
Current Dollars	18,745	19,543	20,612	21,433	20,782	21,803	22,959	24,028	25,114
% Ch	2.8%	4.3%	5.5%	4.0%	-3.0%	4.9%	5.3%	4.7%	4.5%
2012 Chain-Weighted	17,731	18,144	18,688	19,092	18,321	18,960	19,643	20,195	20,702
% Ch	1.7%	2.3%	3.0%	2.2%	-4.0%	3.5%	3.6%	2.8%	2.5%
 PERSONAL INCOME - CURR \$									
Idaho (Millions)	68,248	72,605	77,993	82,148	89,897	89,583	94,043	98,993	103,823
% Ch	3.9%	6.4%	7.4%	5.3%	9.4%	-0.4%	5.0%	5.3%	4.9%
Idaho Nonfarm (Millions)	66,244	71,024	76,116	79,884	87,904	87,551	91,862	96,655	101,413
% Ch	4.4%	7.2%	7.2%	5.0%	10.0%	-0.4%	4.9%	5.2%	4.9%
National (Billions)	16,161	16,949	17,852	18,552	19,822	19,274	20,159	21,053	21,939
% Ch	2.8%	4.9%	5.3%	3.9%	6.9%	-2.8%	4.6%	4.4%	4.2%
 PERSONAL INCOME - 2012 \$									
Idaho (Millions)	65,545	68,501	72,053	74,778	80,956	79,191	81,608	84,484	87,076
% Ch	2.8%	4.5%	5.2%	3.8%	8.3%	-2.2%	3.1%	3.5%	3.1%
Idaho Nonfarm (Millions)	63,619	67,009	70,318	72,718	79,161	77,395	79,715	82,489	85,056
% Ch	3.3%	5.3%	4.9%	3.4%	8.9%	-2.2%	3.0%	3.5%	3.1%
National (Billions)	15,521	15,991	16,492	16,888	17,852	17,039	17,494	17,968	18,401
% Ch	1.7%	3.0%	3.1%	2.4%	5.7%	-4.6%	2.7%	2.7%	2.4%
 PER CAPITA PERS INC - CURR \$									
Idaho	40,565	42,265	44,551	45,966	49,351	48,370	50,036	51,878	53,589
% Ch	2.0%	4.2%	5.4%	3.2%	7.4%	-2.0%	3.4%	3.7%	3.3%
National	49,961	52,076	54,567	56,434	59,992	57,939	60,179	62,417	64,610
% Ch	2.1%	4.2%	4.8%	3.4%	6.3%	-3.4%	3.9%	3.7%	3.5%
 PER CAPITA PERS INC - 2012 \$									
Idaho	38,960	39,877	41,159	41,844	44,443	42,760	43,420	44,275	44,946
% Ch	0.9%	2.4%	3.2%	1.7%	6.2%	-3.8%	1.5%	2.0%	1.5%
National	47,984	49,134	50,412	51,373	54,028	51,220	52,222	53,270	54,189
% Ch	1.0%	2.4%	2.6%	1.9%	5.2%	-5.2%	2.0%	2.0%	1.7%
 AVERAGE ANNUAL WAGE									
Idaho	41,084	42,700	44,344	45,761	47,383	48,541	49,966	51,639	53,240
% Ch	1.9%	3.9%	3.9%	3.2%	3.5%	2.4%	2.9%	3.3%	3.1%
National	56,045	57,788	59,735	61,677	65,155	66,745	68,683	70,562	72,739
% Ch	1.1%	3.1%	3.4%	3.3%	5.6%	2.4%	2.9%	2.7%	3.1%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

PERSONAL INCOME--CURRENT \$\$

	2007	2008	2009	2010	2011	2012	2013	2014	2015
WAGE AND SALARY PAYMENTS									
Idaho (Millions)	24,023	23,953	22,800	22,945	23,461	24,151	25,254	26,661	27,890
% Ch	5.8%	-0.3%	-4.8%	0.6%	2.2%	2.9%	4.6%	5.6%	4.6%
National (Billions)	6,397	6,534	6,249	6,372	6,626	6,927	7,113	7,475	7,859
% Ch	5.6%	2.1%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%	5.1%
FARM PROPRIETORS INCOME									
Idaho (Millions)	1,010	1,029	329	822	1,447	1,389	1,603	1,669	1,690
% Ch	78.2%	2.0%	-68.0%	149.8%	76.1%	-4.0%	15.4%	4.1%	1.3%
National (Billions)	40	40	28	39	65	61	88	70	56
% Ch	21.7%	-0.1%	-30.2%	38.8%	66.5%	-6.1%	45.0%	-20.9%	-19.5%
NONFARM PROPRIETORS INCOME									
Idaho (Millions)	3,938	3,687	4,224	4,291	4,404	4,909	5,573	6,161	6,589
% Ch	-5.0%	-6.4%	14.6%	1.6%	2.6%	11.5%	13.5%	10.5%	6.9%
National (Billions)	954	921	910	1,070	1,164	1,286	1,315	1,378	1,367
% Ch	-6.2%	-3.5%	-1.1%	17.5%	8.8%	10.5%	2.2%	4.8%	-0.8%
DIVIDENDS, RENT & INTEREST									
Idaho (Millions)	10,589	10,724	9,468	9,502	10,698	12,274	12,145	13,246	14,583
% Ch	7.5%	1.3%	-11.7%	0.4%	12.6%	14.7%	-1.1%	9.1%	10.1%
National (Billions)	2,368	2,458	2,180	2,177	2,430	2,684	2,623	2,907	3,121
% Ch	9.6%	3.8%	-11.3%	-0.1%	11.6%	10.5%	-2.2%	10.8%	7.4%
OTHER LABOR INCOME									
Idaho (Millions)	5,965	5,998	5,812	5,980	5,855	5,933	6,527	6,376	6,777
% Ch	4.9%	0.5%	-3.1%	2.9%	-2.1%	1.3%	10.0%	-2.3%	6.3%
National (Billions)	1,020	1,051	1,052	1,084	1,107	1,126	1,195	1,227	1,271
% Ch	4.6%	3.0%	0.0%	3.0%	2.2%	1.7%	6.1%	2.7%	3.5%
GOVT. TRANSFERS TO INDIV.									
Idaho (Millions)	7,282	8,477	9,324	10,249	10,294	10,430	10,774	11,338	12,004
% Ch	8.6%	16.4%	10.0%	9.9%	0.4%	1.3%	3.3%	5.2%	5.9%
National (Billions)	1,728	1,955	2,147	2,325	2,359	2,363	2,424	2,542	2,685
% Ch	7.1%	13.1%	9.8%	8.3%	1.4%	0.2%	2.6%	4.8%	5.7%
CONTRIB. FOR SOCIAL INSUR.									
Idaho (Millions)	4,194	4,225	4,135	4,317	3,945	4,045	4,668	4,856	5,073
% Ch	4.9%	0.8%	-2.2%	4.4%	-8.6%	2.5%	15.4%	4.0%	4.5%
National (Billions)	961	988	964	984	917	951	1,104	1,154	1,205
% Ch	4.2%	2.8%	-2.4%	2.0%	-6.8%	3.7%	16.2%	4.5%	4.4%
RESIDENCE ADJUSTMENT									
Idaho (Millions)	510	562	655	724	870	1,098	1,131	1,233	1,222
% Ch	4.4%	10.0%	16.6%	10.6%	20.1%	26.2%	3.0%	9.0%	-0.9%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

PERSONAL INCOME--CURRENT \$\$

	2016	2017	2018	2019	2020	2021	2022	2023	2024
WAGE AND SALARY PAYMENTS									
Idaho (Millions)	29,430	31,542	33,780	35,649	36,583	39,037	41,399	43,940	46,414
% Ch	5.5%	7.2%	7.1%	5.5%	2.6%	6.7%	6.1%	6.1%	5.6%
National (Billions)	8,089	8,471	8,894	9,309	9,280	9,831	10,376	10,851	11,339
% Ch	2.9%	4.7%	5.0%	4.7%	-0.3%	5.9%	5.5%	4.6%	4.5%
FARM PROPRIETORS INCOME									
Idaho (Millions)	1,362	851	1,145	1,725	1,431	1,482	1,604	1,730	1,774
% Ch	-19.4%	-37.5%	34.5%	50.7%	-17.0%	3.6%	8.2%	7.8%	2.6%
National (Billions)	36	42	43	50	40	33	54	67	61
% Ch	-35.9%	15.2%	3.5%	15.4%	-19.8%	-18.4%	67.4%	22.9%	-8.3%
NONFARM PROPRIETORS INCOME									
Idaho (Millions)	6,468	6,786	7,157	7,483	7,392	7,357	7,628	8,131	8,635
% Ch	-1.8%	4.9%	5.5%	4.6%	-1.2%	-0.5%	3.7%	6.6%	6.2%
National (Billions)	1,389	1,467	1,543	1,608	1,503	1,270	1,357	1,479	1,603
% Ch	1.6%	5.7%	5.1%	4.2%	-6.5%	-15.5%	6.8%	9.0%	8.4%
DIVIDENDS, RENT & INTEREST									
Idaho (Millions)	15,377	16,728	18,169	18,343	18,451	19,667	20,327	20,931	21,695
% Ch	5.4%	8.8%	8.6%	1.0%	0.6%	6.6%	3.4%	3.0%	3.6%
National (Billions)	3,234	3,460	3,706	3,755	3,705	3,746	3,813	3,914	4,028
% Ch	3.6%	7.0%	7.1%	1.3%	-1.3%	1.1%	1.8%	2.6%	2.9%
OTHER LABOR INCOME									
Idaho (Millions)	7,141	7,882	8,408	8,842	8,945	9,377	9,945	10,555	11,146
% Ch	5.4%	10.4%	6.7%	5.2%	1.2%	4.8%	6.1%	6.1%	5.6%
National (Billions)	1,294	1,346	1,431	1,474	1,458	1,545	1,631	1,706	1,783
% Ch	1.8%	4.1%	6.3%	3.0%	-1.1%	6.0%	5.6%	4.6%	4.5%
GOVT. TRANSFERS TO INDIV.									
Idaho (Millions)	12,517	13,165	13,983	14,970	22,151	17,895	18,646	19,543	20,366
% Ch	4.3%	5.2%	6.2%	7.1%	48.0%	-19.2%	4.2%	4.8%	4.2%
National (Billions)	2,777	2,855	2,970	3,125	4,605	3,649	3,770	3,917	4,046
% Ch	3.4%	2.8%	4.0%	5.2%	47.3%	-20.8%	3.3%	3.9%	3.3%
CONTRIB. FOR SOCIAL INSUR.									
Idaho (Millions)	5,328	5,684	6,027	6,366	6,590	6,918	7,343	7,795	8,244
% Ch	5.0%	6.7%	6.0%	5.6%	3.5%	5.0%	6.1%	6.2%	5.8%
National (Billions)	1,239	1,298	1,360	1,419	1,421	1,478	1,561	1,632	1,707
% Ch	2.9%	4.8%	4.8%	4.3%	0.2%	4.0%	5.6%	4.5%	4.6%
RESIDENCE ADJUSTMENT									
Idaho (Millions)	1,281	1,335	1,377	1,502	1,534	1,685	1,837	1,959	2,038
% Ch	4.8%	4.2%	3.2%	9.1%	2.1%	9.9%	9.0%	6.7%	4.1%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

EMPLOYMENT

	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOTAL NONFARM EMPLOYMENT									
Idaho	656,233	648,357	609,396	602,953	609,937	621,237	637,031	653,298	671,404
% Ch	2.7%	-1.2%	-6.0%	-1.1%	1.2%	1.9%	2.5%	2.6%	2.8%
National (Thousands)	137,978	137,225	131,289	130,337	131,922	134,157	136,356	138,922	141,804
% Ch	1.1%	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%
GOODS PRODUCING SECTOR									
Idaho	123,325	112,123	92,350	87,963	88,940	92,341	97,291	99,972	104,325
% Ch	0.9%	-9.1%	-17.6%	-4.8%	1.1%	3.8%	5.4%	2.8%	4.4%
National (Thousands)	22,229	21,331	18,559	17,752	18,045	18,420	18,739	19,226	19,608
% Ch	-1.3%	-4.0%	-13.0%	-4.3%	1.7%	2.1%	1.7%	2.6%	2.0%
MANUFACTURING									
Idaho	68,067	64,362	55,806	54,371	55,956	58,131	61,018	61,590	63,611
% Ch	0.3%	-5.4%	-13.3%	-2.6%	2.9%	3.9%	5.0%	0.9%	3.3%
National (Thousands)	13,938	13,460	11,898	11,579	11,776	11,978	12,071	12,236	12,387
% Ch	-2.0%	-3.4%	-11.6%	-2.7%	1.7%	1.7%	0.8%	1.4%	1.2%
DURABLE MANUFACTURING									
Idaho	44,206	39,779	32,172	31,111	32,592	34,113	35,762	36,059	37,489
% Ch	-0.9%	-10.0%	-19.1%	-3.3%	4.8%	4.7%	4.8%	0.8%	4.0%
National (Thousands)	8,868	8,519	7,335	7,114	7,322	7,520	7,598	7,726	7,817
% Ch	-2.0%	-3.9%	-13.9%	-3.0%	2.9%	2.7%	1.0%	1.7%	1.2%
LOGGING & WOOD PRODUCTS									
Idaho	9,589	7,975	5,867	5,732	6,120	6,408	7,034	7,048	7,331
% Ch	-4.5%	-16.8%	-26.4%	-2.3%	6.8%	4.7%	9.8%	0.2%	4.0%
National (Thousands)	577	514	411	392	386	390	405	424	435
% Ch	-7.7%	-10.9%	-20.1%	-4.6%	-1.6%	1.1%	3.9%	4.6%	2.6%
METAL FABRICATION									
Idaho	4,659	4,676	4,376	4,443	4,593	4,859	5,417	5,500	5,649
% Ch	6.5%	0.4%	-6.4%	1.5%	3.4%	5.8%	11.5%	1.5%	2.7%
National (Thousands)	1,562	1,527	1,312	1,282	1,348	1,410	1,432	1,454	1,458
% Ch	0.6%	-2.2%	-14.1%	-2.3%	5.2%	4.5%	1.6%	1.6%	0.2%
MACHINERY									
Idaho	2,992	3,133	2,717	2,501	2,567	2,717	2,935	2,993	3,034
% Ch	4.5%	4.7%	-13.3%	-8.0%	2.7%	5.9%	8.0%	2.0%	1.3%
National (Thousands)	1,187	1,187	1,029	996	1,056	1,098	1,105	1,127	1,121
% Ch	0.3%	0.0%	-13.3%	-3.2%	6.0%	4.1%	0.6%	2.1%	-0.6%
COMPUTER & ELECTRONICS									
Idaho	16,216	14,305	11,098	10,574	11,191	11,625	11,266	11,425	11,899
% Ch	-2.7%	-11.8%	-22.4%	-4.7%	5.8%	3.9%	-3.1%	1.4%	4.2%
National (Thousands)	1,272	1,244	1,137	1,094	1,103	1,089	1,066	1,049	1,053
% Ch	-2.7%	-2.2%	-8.6%	-3.7%	0.8%	-1.3%	-2.1%	-1.6%	0.4%
OTHER DURABLES									
Idaho	10,749	9,689	8,114	7,861	8,120	8,503	9,111	9,094	9,578
% Ch	0.8%	-9.9%	-16.3%	-3.1%	3.3%	4.7%	7.1%	-0.2%	5.3%
National (Thousands)	4,269	4,046	3,446	3,349	3,430	3,533	3,592	3,671	3,751
% Ch	-2.5%	-5.2%	-14.8%	-2.8%	2.4%	3.0%	1.6%	2.2%	2.2%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

EMPLOYMENT

	2016	2017	2018	2019	2020	2021	2022	2023	2024
TOTAL NONFARM EMPLOYMENT									
Idaho	693,917	715,190	738,670	760,443	752,824	784,644	809,075	831,293	851,838
% Ch	3.4%	3.1%	3.3%	2.9%	-1.0%	4.2%	3.1%	2.7%	2.5%
National (Thousands)	144,329	146,589	148,891	150,935	142,554	147,281	151,066	153,780	155,885
% Ch	1.8%	1.6%	1.6%	1.4%	-5.6%	3.3%	2.6%	1.8%	1.4%
GOODS PRODUCING SECTOR									
Idaho	109,883	114,900	121,139	125,574	125,339	131,723	137,278	141,247	146,096
% Ch	5.3%	4.6%	5.4%	3.7%	-0.2%	5.1%	4.2%	2.9%	3.4%
National (Thousands)	19,748	20,080	20,701	21,069	20,052	19,763	20,022	20,261	20,393
% Ch	0.7%	1.7%	3.1%	1.8%	-4.8%	-1.4%	1.3%	1.2%	0.6%
MANUFACTURING									
Idaho	65,778	67,686	69,679	70,331	66,869	69,153	71,384	73,369	75,371
% Ch	3.4%	2.9%	2.9%	0.9%	-4.9%	3.4%	3.2%	2.8%	2.7%
National (Thousands)	12,404	12,488	12,737	12,890	12,267	12,181	12,386	12,498	12,495
% Ch	0.1%	0.7%	2.0%	1.2%	-4.8%	-0.7%	1.7%	0.9%	0.0%
DURABLE MANUFACTURING									
Idaho	38,671	39,576	41,065	41,111	37,515	38,922	40,522	41,916	42,986
% Ch	3.2%	2.3%	3.8%	0.1%	-8.7%	3.8%	4.1%	3.4%	2.6%
National (Thousands)	7,764	7,789	7,995	8,109	7,676	7,531	7,736	7,814	7,820
% Ch	-0.7%	0.3%	2.6%	1.4%	-5.3%	-1.9%	2.7%	1.0%	0.1%
LOGGING & WOOD PRODUCTS									
Idaho	7,698	7,854	8,138	8,382	7,948	8,042	8,178	8,219	8,245
% Ch	5.0%	2.0%	3.6%	3.0%	-5.2%	1.2%	1.7%	0.5%	0.3%
National (Thousands)	444	447	456	460	447	436	450	455	456
% Ch	2.0%	0.7%	2.0%	0.9%	-2.8%	-2.5%	3.2%	1.0%	0.4%
METAL FABRICATION									
Idaho	5,896	5,940	5,901	5,742	5,746	5,947	6,110	6,314	6,511
% Ch	4.4%	0.7%	-0.7%	-2.7%	0.1%	3.5%	2.7%	3.3%	3.1%
National (Thousands)	1,421	1,425	1,469	1,491	1,408	1,407	1,490	1,533	1,561
% Ch	-2.5%	0.2%	3.1%	1.5%	-5.6%	-0.1%	5.9%	2.9%	1.8%
MACHINERY									
Idaho	3,093	3,185	3,340	3,446	3,577	3,555	3,547	3,629	3,724
% Ch	2.0%	3.0%	4.9%	3.2%	3.8%	-0.6%	-0.2%	2.3%	2.6%
National (Thousands)	1,076	1,079	1,117	1,126	1,055	1,039	1,103	1,118	1,112
% Ch	-3.9%	0.2%	3.5%	0.8%	-6.3%	-1.5%	6.1%	1.4%	-0.5%
COMPUTER & ELECTRONICS									
Idaho	12,124	12,232	12,728	12,202	11,371	11,266	11,885	12,301	12,472
% Ch	1.9%	0.9%	4.1%	-4.1%	-6.8%	-0.9%	5.5%	3.5%	1.4%
National (Thousands)	1,048	1,039	1,054	1,081	1,087	1,093	1,095	1,091	1,093
% Ch	-0.5%	-0.9%	1.5%	2.5%	0.6%	0.5%	0.2%	-0.4%	0.1%
OTHER DURABLES									
Idaho	9,864	10,370	10,963	11,340	10,285	10,112	10,803	11,453	12,034
% Ch	3.0%	5.1%	5.7%	3.4%	-9.3%	-1.7%	6.8%	6.0%	5.1%
National (Thousands)	3,775	3,800	3,899	3,951	3,678	3,556	3,598	3,617	3,597
% Ch	0.6%	0.7%	2.6%	1.3%	-6.9%	-3.3%	1.2%	0.5%	-0.6%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020

EMPLOYMENT

MANUFACTURING (continued)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015
NONDURABLE MANUFACTURING									
Idaho	23,861	24,583	23,634	23,261	23,364	24,019	25,256	25,531	26,122
% Ch	2.7%	3.0%	-3.9%	-1.6%	0.4%	2.8%	5.2%	1.1%	2.3%
National (Thousands)	5,070	4,941	4,563	4,465	4,454	4,458	4,473	4,511	4,570
% Ch	-2.0%	-2.6%	-7.6%	-2.2%	-0.2%	0.1%	0.3%	0.9%	1.3%
FOOD PROCESSING									
Idaho	15,094	15,835	15,642	15,443	15,355	15,661	16,397	16,507	16,839
% Ch	2.7%	4.9%	-1.2%	-1.3%	-0.6%	2.0%	4.7%	0.7%	2.0%
National (Thousands)	1,484	1,480	1,457	1,451	1,459	1,469	1,474	1,485	1,512
% Ch	0.3%	-0.2%	-1.6%	-0.4%	0.6%	0.7%	0.3%	0.7%	1.8%
PRINTING									
Idaho	1,891	1,807	1,433	1,283	1,233	1,209	1,217	1,175	1,124
% Ch	-0.8%	-4.4%	-20.7%	-10.5%	-3.9%	-1.9%	0.7%	-3.4%	-4.3%
National (Thousands)	622	594	522	488	472	462	452	454	450
% Ch	-1.9%	-4.5%	-12.2%	-6.5%	-3.3%	-2.1%	-2.1%	0.3%	-0.8%
CHEMICALS									
Idaho	2,267	2,367	2,275	2,200	2,375	2,541	2,599	2,533	2,550
% Ch	7.1%	4.4%	-3.9%	-3.3%	7.9%	7.0%	2.3%	-2.6%	0.7%
National (Thousands)	861	847	804	786	783	784	793	803	807
% Ch	-0.6%	-1.7%	-5.1%	-2.2%	-0.4%	0.0%	1.2%	1.2%	0.6%
OTHER NONDURABLES									
Idaho	4,610	4,573	4,284	4,336	4,402	4,609	5,043	5,316	5,608
% Ch	2.2%	-0.8%	-6.3%	1.2%	1.5%	4.7%	9.4%	5.4%	5.5%
National (Thousands)	2,104	2,020	1,781	1,740	1,739	1,743	1,754	1,770	1,801
% Ch	-4.2%	-4.0%	-11.8%	-2.3%	0.0%	0.2%	0.6%	0.9%	1.7%
MINING									
Idaho	2,666	2,751	2,139	2,294	2,623	2,779	2,629	2,519	2,451
% Ch	12.4%	3.2%	-22.2%	7.2%	14.3%	5.9%	-5.4%	-4.2%	-2.7%
National (Thousands)	663	709	643	655	739	797	811	838	760
% Ch	7.0%	6.9%	-9.3%	1.8%	12.9%	7.7%	1.8%	3.4%	-9.3%
CONSTRUCTION									
Idaho	52,591	45,011	34,404	31,297	30,361	31,431	33,644	35,862	38,264
% Ch	1.1%	-14.4%	-23.6%	-9.0%	-3.0%	3.5%	7.0%	6.6%	6.7%
National (Thousands)	7,627	7,162	6,017	5,518	5,530	5,646	5,857	6,151	6,460
% Ch	-0.8%	-6.1%	-16.0%	-8.3%	0.2%	2.1%	3.7%	5.0%	5.0%
NONGOODS PRODUCING									
Idaho	532,908	536,234	517,046	514,990	520,997	528,896	539,740	553,326	567,079
% Ch	3.2%	0.6%	-3.6%	-0.4%	1.2%	1.5%	2.1%	2.5%	2.5%
National (Thousands)	115,749	115,893	112,730	112,585	113,876	115,737	117,617	119,696	122,197
% Ch	1.6%	0.1%	-2.7%	-0.1%	1.1%	1.6%	1.6%	1.8%	2.1%
SERVICES									
Idaho	304,463	307,960	296,471	296,760	303,157	308,058	316,183	326,721	336,147
% Ch	4.0%	1.1%	-3.7%	0.1%	2.2%	1.6%	2.6%	3.3%	2.9%
National (Thousands)	72,059	72,225	70,127	70,258	71,634	73,376	75,031	76,716	78,775
% Ch	1.9%	0.2%	-2.9%	0.2%	2.0%	2.4%	2.3%	2.2%	2.7%
INFORMATION									
Idaho	10,913	11,028	10,012	9,625	9,464	9,364	9,288	9,322	9,257
% Ch	3.0%	1.1%	-9.2%	-3.9%	-1.7%	-1.1%	-0.8%	0.4%	-0.7%
National (Thousands)	3,031	2,983	2,804	2,707	2,673	2,675	2,705	2,726	2,750
% Ch	-0.2%	-1.6%	-6.0%	-3.4%	-1.3%	0.1%	1.1%	0.8%	0.9%
FINANCIAL ACTIVITIES									
Idaho	32,529	31,659	29,622	29,169	29,871	30,330	31,180	32,677	33,298
% Ch	2.5%	-2.7%	-6.4%	-1.5%	2.4%	1.5%	2.8%	4.8%	1.9%
National (Thousands)	8,348	8,205	7,838	7,695	7,696	7,783	7,886	7,976	8,123
% Ch	-0.2%	-1.7%	-4.5%	-1.8%	0.0%	1.1%	1.3%	1.1%	1.8%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

EMPLOYMENT

MANUFACTURING (continued)

	2016	2017	2018	2019	2020	2021	2022	2023	2024
NONDURABLE MANUFACTURING									
Idaho	27,107	28,110	28,613	29,220	29,355	30,231	30,862	31,453	32,385
% Ch	3.8%	3.7%	1.8%	2.1%	0.5%	3.0%	2.1%	1.9%	3.0%
National (Thousands)	4,640	4,699	4,742	4,781	4,591	4,651	4,650	4,684	4,674
% Ch	1.5%	1.3%	0.9%	0.8%	-4.0%	1.3%	0.0%	0.7%	-0.2%
FOOD PROCESSING									
Idaho	17,483	18,225	18,837	19,226	19,295	19,908	20,322	20,693	21,374
% Ch	3.8%	4.2%	3.4%	2.1%	0.4%	3.2%	2.1%	1.8%	3.3%
National (Thousands)	1,557	1,598	1,621	1,643	1,610	1,673	1,679	1,741	1,769
% Ch	3.0%	2.7%	1.4%	1.3%	-2.0%	3.9%	0.4%	3.7%	1.6%
PRINTING									
Idaho	1,230	1,299	1,251	1,319	1,243	1,328	1,392	1,390	1,403
% Ch	9.4%	5.6%	-3.7%	5.5%	-5.8%	6.8%	4.8%	-0.1%	1.0%
National (Thousands)	447	440	432	425	373	355	347	337	334
% Ch	-0.6%	-1.6%	-1.8%	-1.7%	-12.3%	-4.8%	-2.2%	-2.8%	-1.0%
CHEMICALS									
Idaho	2,711	2,943	2,990	2,913	2,873	2,911	2,928	2,983	3,042
% Ch	6.3%	8.6%	1.6%	-2.6%	-1.4%	1.3%	0.6%	1.9%	2.0%
National (Thousands)	812	824	835	850	843	865	874	867	854
% Ch	0.6%	1.5%	1.4%	1.7%	-0.8%	2.6%	1.0%	-0.8%	-1.5%
OTHER NONDURABLES									
Idaho	5,683	5,643	5,535	5,761	5,943	6,084	6,221	6,387	6,566
% Ch	1.3%	-0.7%	-1.9%	4.1%	3.2%	2.4%	2.2%	2.7%	2.8%
National (Thousands)	1,823	1,837	1,854	1,863	1,766	1,758	1,750	1,739	1,718
% Ch	1.3%	0.7%	0.9%	0.5%	-5.2%	-0.4%	-0.5%	-0.6%	-1.2%
MINING									
Idaho	2,468	2,216	2,249	2,312	2,498	2,513	2,313	2,225	2,210
% Ch	0.7%	-10.2%	1.5%	2.8%	8.0%	0.6%	-8.0%	-3.8%	-0.7%
National (Thousands)	617	626	677	685	589	523	518	533	545
% Ch	-18.8%	1.4%	8.2%	1.1%	-13.9%	-11.3%	-0.9%	2.9%	2.3%
CONSTRUCTION									
Idaho	41,638	44,999	49,211	52,931	55,972	60,057	63,581	65,653	68,514
% Ch	8.8%	8.1%	9.4%	7.6%	5.7%	7.3%	5.9%	3.3%	4.4%
National (Thousands)	6,727	6,965	7,287	7,494	7,195	7,059	7,118	7,230	7,353
% Ch	4.1%	3.5%	4.6%	2.9%	-4.0%	-1.9%	0.8%	1.6%	1.7%
NONGOODS PRODUCING									
Idaho	584,034	600,290	617,531	634,869	627,485	652,921	671,797	690,046	705,742
% Ch	3.0%	2.8%	2.9%	2.8%	-1.2%	4.1%	2.9%	2.7%	2.3%
National (Thousands)	124,582	126,510	128,190	129,867	122,502	127,518	131,044	133,518	135,492
% Ch	2.0%	1.5%	1.3%	1.3%	-5.7%	4.1%	2.8%	1.9%	1.5%
SERVICES									
Idaho	348,742	361,467	375,456	389,459	382,104	401,488	416,260	429,440	440,628
% Ch	3.7%	3.6%	3.9%	3.7%	-1.9%	5.1%	3.7%	3.2%	2.6%
National (Thousands)	80,729	82,509	84,121	85,736	79,800	83,852	87,211	89,916	91,850
% Ch	2.5%	2.2%	2.0%	1.9%	-6.9%	5.1%	4.0%	3.1%	2.2%
INFORMATION									
Idaho	9,049	9,012	8,907	8,946	7,579	7,874	8,062	8,227	8,379
% Ch	-2.2%	-0.4%	-1.2%	0.4%	-15.3%	3.9%	2.4%	2.1%	1.9%
National (Thousands)	2,793	2,812	2,837	2,859	2,667	2,823	2,890	2,820	2,847
% Ch	1.6%	0.7%	0.9%	0.8%	-6.7%	5.9%	2.4%	-2.4%	1.0%
FINANCIAL ACTIVITIES									
Idaho	33,952	35,216	36,542	36,944	37,589	38,620	39,908	41,077	41,960
% Ch	2.0%	3.7%	3.8%	1.1%	1.7%	2.7%	3.3%	2.9%	2.2%
National (Thousands)	8,285	8,449	8,589	8,746	8,720	8,483	8,883	9,082	9,194
% Ch	2.0%	2.0%	1.7%	1.8%	-0.3%	-2.7%	4.7%	2.2%	1.2%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020

EMPLOYMENT

SERVICES (Continued)	2007	2008	2009	2010	2011	2012	2013	2014	2015
TRANS., WAREHOUSING, UTILITIES									
Idaho	21,032	21,723	20,690	20,689	21,184	21,510	21,509	22,423	23,628
% Ch	3.9%	3.3%	-4.8%	0.0%	2.4%	1.5%	0.0%	4.2%	5.4%
National (Thousands)	5,083	5,055	4,785	4,733	4,844	4,956	5,038	5,198	5,412
% Ch	1.6%	-0.5%	-5.3%	-1.1%	2.4%	2.3%	1.6%	3.2%	4.1%
PROFESSIONAL & BUSINESS									
Idaho	83,193	81,908	75,880	75,146	76,391	76,745	78,760	80,793	81,885
% Ch	2.3%	-1.5%	-7.4%	-1.0%	1.7%	0.5%	2.6%	2.6%	1.4%
National (Thousands)	18,001	17,798	16,633	16,778	17,386	17,992	18,579	19,123	19,690
% Ch	2.2%	-1.1%	-6.5%	0.9%	3.6%	3.5%	3.3%	2.9%	3.0%
EDUCATION & HEALTH									
Idaho	74,071	77,287	80,429	83,134	85,770	87,411	89,956	92,985	96,237
% Ch	5.6%	4.3%	4.1%	3.4%	3.2%	1.9%	2.9%	3.4%	3.5%
National (Thousands)	18,676	19,228	19,628	19,973	20,322	20,769	21,085	21,436	22,025
% Ch	2.9%	3.0%	2.1%	1.8%	1.7%	2.2%	1.5%	1.7%	2.7%
LEISURE & HOSPITALITY									
Idaho	63,257	63,201	58,666	57,949	59,299	61,179	63,513	65,899	68,400
% Ch	6.0%	-0.1%	-7.2%	-1.2%	2.3%	3.2%	3.8%	3.8%	3.8%
National (Thousands)	13,428	13,441	13,074	13,042	13,352	13,770	14,255	14,691	15,154
% Ch	2.4%	0.1%	-2.7%	-0.2%	2.4%	3.1%	3.5%	3.1%	3.2%
OTHER SERVICES									
Idaho	19,469	21,155	21,174	21,047	21,177	21,519	21,978	22,621	23,442
% Ch	2.4%	8.7%	0.1%	-0.6%	0.6%	1.6%	2.1%	2.9%	3.6%
National (Thousands)	5,493	5,515	5,366	5,331	5,361	5,430	5,483	5,567	5,621
% Ch	1.0%	0.4%	-2.7%	-0.7%	0.6%	1.3%	1.0%	1.5%	1.0%
TRADE									
Idaho	111,650	109,087	101,080	99,640	100,623	103,623	106,156	108,417	111,728
% Ch	3.9%	-2.3%	-7.3%	-1.4%	1.0%	3.0%	2.4%	2.1%	3.1%
National (Thousands)	21,470	21,165	20,049	19,837	20,149	20,441	20,739	21,106	21,395
% Ch	1.3%	-1.4%	-5.3%	-1.1%	1.6%	1.4%	1.5%	1.8%	1.4%
RETAIL TRADE									
Idaho	83,552	82,614	76,283	74,837	75,202	77,127	78,743	80,580	83,644
% Ch	3.8%	-1.1%	-7.7%	-1.9%	0.5%	2.6%	2.1%	2.3%	3.8%
National (Thousands)	15,522	15,291	14,529	14,450	14,675	14,845	15,078	15,366	15,614
% Ch	1.1%	-1.5%	-5.0%	-0.5%	1.6%	1.2%	1.6%	1.9%	1.6%
WHOLESALE TRADE									
Idaho	28,098	26,473	24,797	24,803	25,421	26,496	27,413	27,836	28,084
% Ch	4.3%	-5.8%	-6.3%	0.0%	2.5%	4.2%	3.5%	1.5%	0.9%
National (Thousands)	5,948	5,875	5,521	5,387	5,474	5,596	5,661	5,739	5,780
% Ch	1.8%	-1.2%	-6.0%	-2.4%	1.6%	2.2%	1.2%	1.4%	0.7%
STATE & LOCAL GOVERNMENT									
Idaho	103,975	105,986	105,999	104,900	104,563	104,575	104,990	105,851	106,620
% Ch	0.4%	1.9%	0.0%	-1.0%	-0.3%	0.0%	0.4%	0.8%	0.7%
National (Thousands)	19,073	19,742	19,484	19,742	19,722	19,513	19,233	19,098	19,077
% Ch	1.0%	1.3%	-1.3%	1.3%	-0.1%	-1.1%	-1.4%	-0.7%	-0.1%
EDUCATION									
Idaho	53,021	53,609	54,615	53,924	54,005	53,966	54,354	54,896	55,671
% Ch	0.7%	1.1%	1.9%	-1.3%	0.1%	-0.1%	0.7%	1.0%	1.4%
NONEDUCATION									
Idaho	50,954	52,376	51,384	50,976	50,558	50,609	50,636	50,955	50,949
% Ch	0.1%	2.8%	-1.9%	-0.8%	-0.8%	0.1%	0.1%	0.6%	0.0%
FEDERAL GOVERNMENT									
Idaho	12,820	13,200	13,496	13,691	12,654	12,640	12,412	12,337	12,584
% Ch	-0.5%	3.0%	2.2%	1.4%	-7.6%	-0.1%	-1.8%	-0.6%	2.0%
National (Thousands)	2,735	2,761	2,831	2,976	2,860	2,822	2,770	2,733	2,757
% Ch	0.1%	0.9%	2.5%	5.1%	-3.9%	-1.3%	-1.8%	-1.3%	0.9%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

EMPLOYMENT

SERVICES (Continued)	2016	2017	2018	2019	2020	2021	2022	2023	2024
TRANS., WAREHOUSING, UTILITIES									
Idaho	23,666	24,190	25,431	26,203	26,817	28,150	28,578	28,854	29,372
% Ch	0.2%	2.2%	5.1%	3.0%	2.3%	5.0%	1.5%	1.0%	1.8%
National (Thousands)	5,558	5,732	5,979	6,166	5,890	5,977	6,265	6,404	6,471
% Ch	2.7%	3.1%	4.3%	3.1%	-4.5%	1.5%	4.8%	2.2%	1.0%
PROFESSIONAL & BUSINESS									
Idaho	86,474	90,457	93,862	96,426	98,723	102,620	105,965	107,898	109,754
% Ch	5.6%	4.6%	3.8%	2.7%	2.4%	3.9%	3.3%	1.8%	1.7%
National (Thousands)	20,107	20,505	20,950	21,315	20,387	20,976	22,572	23,421	24,594
% Ch	2.1%	2.0%	2.2%	1.7%	-4.4%	2.9%	7.6%	3.8%	5.0%
EDUCATION & HEALTH									
Idaho	99,044	102,381	106,127	111,256	110,825	113,709	118,732	122,756	126,617
% Ch	2.9%	3.4%	3.7%	4.8%	-0.4%	2.6%	4.4%	3.4%	3.1%
National (Thousands)	22,640	23,189	23,636	24,175	23,420	24,198	24,640	25,045	25,351
% Ch	2.8%	2.4%	1.9%	2.3%	-3.1%	3.3%	1.8%	1.6%	1.2%
LEISURE & HOSPITALITY									
Idaho	72,342	75,381	79,068	83,064	74,922	84,304	87,945	92,191	94,999
% Ch	5.8%	4.2%	4.9%	5.1%	-9.8%	12.5%	4.3%	4.8%	3.0%
National (Thousands)	15,657	16,053	16,299	16,581	13,276	15,701	15,825	16,835	17,044
% Ch	3.3%	2.5%	1.5%	1.7%	-19.9%	18.3%	0.8%	6.4%	1.2%
				5.0%				3.0%	
OTHER SERVICES									
Idaho	24,215	24,830	25,519	26,620	25,647	26,211	27,070	28,437	29,545
% Ch	3.3%	2.5%	2.8%	4.3%	-3.7%	2.2%	3.3%	5.0%	3.9%
National (Thousands)	5,690	5,769	5,831	5,893	5,440	5,693	6,136	6,309	6,349
% Ch	1.2%	1.4%	1.1%	1.1%	-7.7%	4.7%	7.8%	2.8%	0.6%
TRADE									
Idaho	114,157	115,720	117,178	118,754	119,722	125,825	127,606	131,016	134,169
% Ch	2.2%	1.4%	1.3%	1.3%	0.8%	5.1%	1.4%	2.7%	2.4%
National (Thousands)	21,623	21,652	21,620	21,543	20,727	21,635	21,341	20,635	20,187
% Ch	1.1%	0.1%	-0.1%	-0.4%	-3.8%	4.4%	-1.4%	-3.3%	-2.2%
RETAIL TRADE									
Idaho	85,449	86,642	87,500	87,810	88,198	92,925	94,327	97,115	99,513
% Ch	2.2%	1.4%	1.0%	0.4%	0.4%	5.4%	1.5%	3.0%	2.5%
National (Thousands)	15,837	15,839	15,780	15,639	14,997	15,822	15,188	14,245	13,640
% Ch	1.4%	0.0%	-0.4%	-0.9%	-4.1%	5.5%	-4.0%	-6.2%	-4.2%
WHOLESALE TRADE									
Idaho	28,708	29,078	29,679	30,944	31,524	32,899	33,279	33,901	34,655
% Ch	2.2%	1.3%	2.1%	4.3%	1.9%	4.4%	1.2%	1.9%	2.2%
National (Thousands)	5,786	5,813	5,840	5,904	5,729	5,814	6,153	6,391	6,546
% Ch	0.1%	0.5%	0.5%	1.1%	-2.9%	1.5%	5.8%	3.9%	2.4%
STATE & LOCAL GOVERNMENT									
Idaho	108,302	110,128	111,818	113,458	112,183	112,268	114,539	116,199	117,608
% Ch	1.6%	1.7%	1.5%	1.5%	-1.1%	0.1%	2.0%	1.4%	1.2%
National (Thousands)	19,435	19,544	19,648	19,755	19,012	19,183	19,648	20,124	20,611
% Ch	0.9%	0.6%	0.5%	0.5%	-3.8%	0.9%	2.4%	2.4%	2.4%
EDUCATION									
Idaho	56,647	57,493	58,463	59,259	55,575	57,092	59,416	60,856	61,859
% Ch	1.8%	1.5%	1.7%	1.4%	-6.2%	2.7%	4.1%	2.4%	1.6%
NONEDUCATION									
Idaho	51,655	52,634	53,356	54,199	56,608	55,176	55,123	55,343	55,749
% Ch	1.4%	1.9%	1.4%	1.6%	4.4%	-2.5%	-0.1%	0.4%	0.7%
FEDERAL GOVERNMENT									
Idaho	12,833	12,976	13,078	13,198	13,476	13,340	13,392	13,392	13,337
% Ch	2.0%	1.1%	0.8%	0.9%	2.1%	-1.0%	0.4%	0.0%	-0.4%
National (Thousands)	2,795	2,804	2,800	2,834	2,964	2,847	2,844	2,844	2,844
% Ch	1.4%	0.3%	-0.2%	1.2%	4.6%	-3.9%	-0.1%	0.0%	0.0%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

MISCELLANEOUS

	2007	2008	2009	2010	2011	2012	2013	2014	2015
SELECTED CHAIN-WEIGHTED DEFL.									
Gross Domestic Product	92.498	94.264	94.999	96.109	98.112	100.000	101.773	103.647	104.639
% Ch	2.7%	1.9%	0.8%	1.2%	2.1%	1.9%	1.8%	1.8%	1.0%
Consumption Expenditures	91.438	94.180	94.094	95.705	98.131	100.000	101.346	102.830	103.044
% Ch	2.5%	3.0%	-0.1%	1.7%	2.5%	1.9%	1.3%	1.5%	0.2%
Durable Goods	108.038	106.012	104.020	102.107	101.280	100.000	97.968	95.429	93.359
% Ch	-2.1%	-1.9%	-1.9%	-1.8%	-0.8%	-1.3%	-2.0%	-2.6%	-2.2%
Nondurable Goods	87.041	91.904	89.467	92.182	97.653	100.000	100.082	100.599	97.092
% Ch	2.9%	5.6%	-2.7%	3.0%	5.9%	2.4%	0.1%	0.5%	-3.5%
Services	90.517	93.235	94.231	95.957	97.815	100.000	102.316	104.804	106.695
% Ch	3.3%	3.0%	1.1%	1.8%	1.9%	2.2%	2.3%	2.4%	1.8%
Consumer Price Index (1982-84=1.000)	2.073	2.153	2.146	2.181	2.249	2.296	2.330	2.367	2.370
% Ch	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%
SELECTED INTEREST RATES									
Federal Funds	5.0%	1.9%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
NY Fed Discount	5.9%	2.4%	0.5%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%
Prime	8.1%	5.1%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	6.5%	6.2%	5.1%	4.9%	4.7%	3.8%	4.0%	4.3%	4.0%
U.S. Govt. 3-Month Bills	4.4%	1.4%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
U.S. Govt. 6-Month Bills	4.4%	1.6%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%
U.S. Govt. 5-Year Notes	4.4%	2.8%	2.2%	1.9%	1.5%	0.8%	1.2%	1.6%	1.5%
U.S. Govt. 10-Year Notes	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%
EXCHANGE RATES (2012=1.000)									
Major Currency Trading Partners	0.929	0.910	1.008	0.977	0.931	1.000	1.052	1.105	1.311
% Ch	#DIV/0!	-2.0%	10.8%	-3.1%	-4.7%	7.4%	5.2%	5.1%	18.6%
Other Important Trading Partners	0.878	0.873	1.004	0.958	0.938	1.000	1.016	1.066	1.210
% Ch	#DIV/0!	-0.6%	14.9%	-4.5%	-2.1%	6.6%	1.6%	4.9%	13.5%
SELECTED US PRODUCTION INDICES									
Wood Products	139.2	119.0	90.9	94.1	94.3	100.0	105.8	108.4	112.7
% Ch	-6.5%	-14.6%	-23.6%	3.6%	0.2%	6.0%	5.8%	2.5%	4.0%
Computers & Electronic Products	78.4	84.8	75.6	85.6	92.6	100.0	103.2	107.4	108.1
% Ch	15.3%	8.1%	-10.8%	13.3%	8.1%	8.0%	3.2%	4.1%	0.6%
Food	101.9	100.6	100.0	100.4	100.2	100.0	102.0	102.9	104.4
% Ch	0.5%	-1.3%	-0.6%	0.5%	-0.2%	-0.2%	2.0%	0.9%	1.5%
Agricultural Chemicals	98.5	85.2	89.7	93.5	88.5	100.0	116.1	108.1	94.5
% Ch	-7.9%	-13.5%	5.2%	4.3%	-5.4%	13.0%	16.1%	-6.9%	-12.6%
Metal Ore Mining	101.2	104.4	91.3	97.1	98.9	100.0	101.7	104.9	99.9
% Ch	-2.5%	3.2%	-12.6%	6.4%	1.9%	1.1%	1.7%	3.2%	-4.7%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
OCTOBER 2020**

MISCELLANEOUS

	2016	2017	2018	2019	2020	2021	2022	2023	2024
SELECTED CHAIN-WEIGHTED DEFL.									
Gross Domestic Product	105.736	107.751	110.322	112.317	113.427	114.995	116.879	118.973	121.310
% Ch	1.0%	1.9%	2.4%	1.8%	1.0%	1.4%	1.6%	1.8%	2.0%
Consumption Expenditures	104.121	105.984	108.239	109.851	111.041	113.116	115.233	117.168	119.226
% Ch	1.0%	1.8%	2.1%	1.5%	1.1%	1.9%	1.9%	1.7%	1.8%
Durable Goods	91.117	89.025	87.529	86.463	85.160	83.830	82.098	80.516	79.025
% Ch	-2.4%	-2.3%	-1.7%	-1.2%	-1.5%	-1.6%	-2.1%	-1.9%	-1.9%
Nondurable Goods	95.878	97.445	99.313	99.213	98.740	100.755	103.116	104.665	106.147
% Ch	-1.3%	1.6%	1.9%	-0.1%	-0.5%	2.0%	2.3%	1.5%	1.4%
Services	109.160	111.868	114.991	117.744	120.080	122.980	125.901	128.807	131.920
% Ch	2.3%	2.5%	2.8%	2.4%	2.0%	2.4%	2.4%	2.3%	2.4%
Consumer Price Index (1982-84=100)	2.400	2.451	2.511	2.557	2.587	2.650	2.710	2.763	2.817
% Ch	1.3%	2.1%	2.4%	1.8%	1.2%	2.5%	2.3%	1.9%	2.0%
SELECTED INTEREST RATES									
Federal Funds	0.4%	1.0%	1.8%	2.2%	0.4%	0.1%	0.1%	0.1%	0.1%
NY Fed Discount	1.0%	1.6%	2.4%	2.8%	0.6%	0.3%	0.3%	0.5%	0.5%
Prime	3.5%	4.1%	4.9%	5.3%	3.5%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	3.9%	4.2%	4.7%	4.1%	3.4%	3.3%	3.4%	3.4%	3.5%
U.S. Govt. 3-Month Bills	0.3%	0.9%	1.9%	2.1%	0.4%	0.1%	0.1%	0.1%	0.1%
U.S. Govt. 6-Month Bills	0.5%	1.0%	2.1%	2.1%	0.4%	0.1%	0.1%	0.1%	0.2%
U.S. Govt. 5-Year Notes	1.3%	1.9%	2.7%	2.0%	0.5%	0.4%	0.6%	0.7%	0.8%
U.S. Govt. 10-Year Notes	1.8%	2.3%	2.9%	2.1%	0.9%	0.9%	1.2%	1.3%	1.5%
EXCHANGE RATES (2012=1.000)									
Major Currency Trading Partners	1.346	1.347	1.344	1.434	1.443	1.339	1.284	1.267	1.264
% Ch	2.7%	0.1%	-0.2%	6.7%	0.6%	-7.3%	-4.0%	-1.3%	-0.3%
Other Important Trading Partners	1.325	1.336	1.372	1.462	1.561	1.475	1.393	1.387	1.389
% Ch	9.5%	0.9%	2.7%	6.5%	6.8%	-5.5%	-5.5%	-0.4%	0.1%
SELECTED US PRODUCTION INDICES									
Wood Products	116.9	124.1	127.1	126.8	124.8	129.2	130.0	129.5	129.6
% Ch	3.8%	6.1%	2.5%	-0.2%	-1.6%	3.5%	0.6%	-0.4%	0.1%
Computers & Electronic Products	110.4	115.2	120.9	127.2	130.7	140.0	146.2	149.7	152.9
% Ch	2.1%	4.4%	4.9%	5.2%	2.8%	7.1%	4.4%	2.4%	2.1%
Food	106.6	110.8	113.9	115.3	113.8	120.3	122.9	124.9	127.0
% Ch	2.1%	4.0%	2.8%	1.2%	-1.3%	5.8%	2.2%	1.6%	1.7%
Agricultural Chemicals	96.5	117.4	122.7	122.1	115.0	115.9	118.0	120.1	122.0
% Ch	2.1%	21.7%	4.5%	-0.5%	-5.8%	0.8%	1.8%	1.7%	1.6%
Metal Ore Mining	100.3	98.0	93.4	93.1	94.7	94.6	94.2	93.0	91.1
% Ch	0.3%	-2.3%	-4.7%	-0.3%	1.8%	-0.2%	-0.4%	-1.3%	-2.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

DEMOGRAPHICS

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
POPULATION												
Idaho (Thousands)	1,773.5	1,782.8	1,791.7	1,800.3	1,805.5	1,817.7	1,828.3	1,833.8	1,839.7	1,848.3	1,856.0	1,863.6
% Ch	2.2%	2.1%	2.0%	1.9%	1.2%	2.7%	2.3%	1.2%	1.3%	1.9%	1.7%	1.7%
National (Millions)	328.079	328.476	328.981	329.372	329.696	330.114	330.619	331.204	331.788	332.372	332.954	333.536
% Ch	0.4%	0.5%	0.6%	0.5%	0.4%	0.5%	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%
BIRTHS												
Idaho (Thousands)	21.853	22.089	22.198	22.180	22.172	22.270	22.345	22.325	22.310	22.340	22.346	22.340
% Ch	6.9%	4.4%	2.0%	-0.3%	-0.1%	1.8%	1.3%	-0.3%	-0.3%	0.5%	0.1%	-0.1%
National (Thousands)	4,087	4,075	4,070	4,071	4,077	4,082	4,087	4,091	4,093	4,096	4,098	4,101
% Ch	-1.9%	-1.2%	-0.5%	0.0%	0.6%	0.5%	0.5%	0.4%	0.2%	0.2%	0.3%	0.3%
DEATHS												
Idaho (Thousands)	14.341	14.389	14.455	14.539	14.678	14.757	14.837	14.918	15.000	15.082	15.165	15.247
% Ch	0.8%	1.3%	1.8%	2.4%	3.9%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
National (Thousands)	2,691	2,708	2,720	2,726	2,727	2,730	2,735	2,742	2,750	2,758	2,766	2,773
% Ch	3.1%	2.4%	1.8%	0.9%	0.1%	0.4%	0.7%	1.0%	1.2%	1.2%	1.1%	1.1%
NET MIGRATION												
Idaho (Thousands)	28.179	29.148	29.365	28.829	24.511	27.412	29.036	26.155	26.950	23.331	20.527	22.721
HOUSING												
HOUSING STARTS												
Idaho	14,532	16,770	17,341	18,700	20,455	15,398	17,831	18,009	17,664	18,024	17,940	17,823
% Ch	-36.6%	77.4%	14.3%	35.2%	43.2%	-67.9%	79.8%	4.0%	-7.4%	8.4%	-1.9%	-2.6%
National (Millions)	1.204	1.257	1.288	1.433	1.484	1.064	1.419	1.345	1.316	1.313	1.302	1.297
% Ch	9.9%	18.7%	10.2%	53.2%	15.2%	-73.6%	216.4%	-19.3%	-8.4%	-0.9%	-3.2%	-1.8%
SINGLE UNITS												
Idaho	12,334	13,608	12,714	13,456	14,530	12,190	14,046	14,173	14,087	14,495	14,493	14,473
% Ch	-26.3%	48.2%	-23.8%	25.5%	36.0%	-50.5%	76.3%	3.7%	-2.4%	12.1%	0.0%	-0.6%
National (Millions)	0.859	0.850	0.897	0.964	0.968	0.759	0.973	0.954	0.956	0.956	0.945	0.939
% Ch	20.4%	-4.3%	24.2%	33.0%	1.7%	-62.2%	170.6%	-7.6%	1.0%	-0.1%	-4.5%	-2.6%
MULTIPLE UNITS												
Idaho	2,198	3,162	4,627	5,244	5,925	3,208	3,786	3,836	3,577	3,530	3,447	3,350
% Ch	-70.2%	328.6%	358.3%	65.0%	63.0%	-91.4%	93.9%	5.4%	-24.4%	-5.1%	-9.0%	-10.8%
National (Millions)	0.345	0.407	0.390	0.469	0.517	0.305	0.446	0.391	0.360	0.357	0.357	0.358
% Ch	-11.8%	93.8%	-15.1%	108.4%	47.3%	-87.8%	355.3%	-40.9%	-28.4%	-3.0%	0.4%	0.4%
HOUSING STOCK												
Idaho (Thousands)	620.2	624.0	627.8	632.0	636.7	640.0	644.0	648.0	652.0	656.0	660.0	663.9
% Ch	2.1%	2.4%	2.5%	2.7%	3.0%	2.1%	2.5%	2.5%	2.4%	2.5%	2.5%	2.4%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

DEMOGRAPHICS

	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
POPULATION												
Idaho (Thousands)	1,869.8	1,875.4	1,882.7	1,889.8	1,897.0	1,904.4	1,911.8	1,919.3	1,926.6	1,933.7	1,940.9	1,948.1
% Ch	1.3%	1.2%	1.6%	1.5%	1.5%	1.6%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%
National (Millions)	334.117	334.697	335.275	335.851	336.427	337.001	337.573	338.144	338.713	339.281	339.846	340.410
% Ch	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
BIRTHS												
Idaho (Thousands)	22.297	22.241	22.221	22.211	22.218	22.235	22.254	22.265	22.266	22.261	22.253	22.246
% Ch	-0.8%	-1.0%	-0.4%	-0.2%	0.1%	0.3%	0.3%	0.2%	0.0%	-0.1%	-0.1%	-0.1%
National (Thousands)	4,104	4,107	4,109	4,112	4,114	4,116	4,118	4,120	4,121	4,122	4,123	4,124
% Ch	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
DEATHS												
Idaho (Thousands)	15.331	15.414	15.498	15.583	15.667	15.753	15.838	15.924	16.010	16.097	16.184	16.272
% Ch	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
National (Thousands)	2,780	2,787	2,795	2,803	2,812	2,820	2,828	2,837	2,845	2,853	2,862	2,871
% Ch	1.0%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%
NET MIGRATION												
Idaho (Thousands)	23.070	20.305	20.047	19.572	20.679	22.456	22.657	23.077	23.293	23.202	23.015	22.852
HOUSING												
HOUSING STARTS												
Idaho	17,730	17,431	17,176	16,919	16,665	16,509	16,390	16,292	16,282	16,284	16,299	16,361
% Ch	-2.1%	-6.6%	-5.7%	-5.8%	-5.9%	-3.7%	-2.9%	-2.4%	-0.2%	0.1%	0.4%	1.5%
National (Millions)	1.293	1.291	1.288	1.286	1.283	1.281	1.277	1.274	1.270	1.266	1.272	1.277
% Ch	-1.2%	-0.5%	-0.8%	-0.8%	-0.8%	-0.8%	-1.1%	-1.1%	-1.1%	-1.1%	1.8%	1.8%
SINGLE UNITS												
Idaho	14,431	14,269	14,129	13,945	13,772	13,691	13,645	13,621	13,639	13,672	13,704	13,769
% Ch	-1.1%	-4.4%	-3.9%	-5.1%	-4.9%	-2.3%	-1.3%	-0.7%	0.5%	1.0%	0.9%	1.9%
National (Millions)	0.935	0.933	0.931	0.929	0.927	0.925	0.923	0.920	0.918	0.915	0.919	0.923
% Ch	-1.8%	-0.9%	-0.8%	-0.8%	-0.8%	-0.8%	-1.1%	-1.1%	-1.1%	-1.1%	1.8%	1.8%
MULTIPLE UNITS												
Idaho	3,299	3,162	3,047	2,975	2,893	2,819	2,745	2,671	2,643	2,612	2,595	2,592
% Ch	-6.0%	-15.6%	-13.8%	-9.2%	-10.6%	-9.8%	-10.1%	-10.3%	-4.1%	-4.6%	-2.6%	-0.4%
National (Millions)	0.358	0.358	0.358	0.357	0.356	0.355	0.354	0.353	0.352	0.351	0.353	0.354
% Ch	0.4%	0.4%	-0.8%	-0.8%	-0.8%	-0.8%	-1.1%	-1.1%	-1.1%	-1.1%	1.8%	1.8%
HOUSING STOCK												
Idaho (Thousands)	667.9	671.7	675.5	679.2	682.9	686.5	690.1	693.6	697.2	700.7	704.3	707.9
% Ch	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%	2.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

OUTPUT, INCOME, & WAGES

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GROSS DOM. PRODUCT (Billions)												
Current Dollars	21,115	21,330	21,540	21,747	21,561	19,487	20,947	21,136	21,385	21,681	21,937	22,211
% Ch	4.0%	4.1%	4.0%	3.9%	-3.4%	-33.3%	33.5%	3.7%	4.8%	5.6%	4.8%	5.1%
2012 Chain-Weighted	18,950	19,021	19,142	19,254	19,011	17,282	18,439	18,553	18,702	18,898	19,041	19,197
% Ch	2.9%	1.5%	2.6%	2.4%	-5.0%	-31.7%	29.6%	2.5%	3.3%	4.3%	3.1%	3.3%
PERSONAL INCOME - CURR \$												
Idaho (Millions)	80,663	81,675	82,660	83,595	84,918	91,288	88,914	94,470	87,637	89,025	90,230	91,438
% Ch	5.6%	5.1%	4.9%	4.6%	6.5%	33.6%	-10.0%	27.4%	-25.9%	6.5%	5.5%	5.5%
Idaho Nonfarm (Millions)	78,513	79,484	80,305	81,236	82,666	89,495	86,942	92,515	85,651	87,011	88,184	89,357
% Ch	4.1%	5.0%	4.2%	4.7%	7.2%	37.4%	-10.9%	28.2%	-26.5%	6.5%	5.5%	5.4%
National (Billions)	18,367	18,481	18,598	18,761	18,951	20,402	19,520	20,417	18,963	19,202	19,384	19,548
% Ch	5.3%	2.5%	2.6%	3.6%	4.1%	34.3%	-16.2%	19.7%	-25.6%	5.1%	3.8%	3.4%
PERSONAL INCOME - 2009 \$												
Idaho (Millions)	73,974	74,435	75,072	75,632	76,584	82,698	79,891	84,649	78,099	78,914	79,550	80,198
% Ch	5.0%	2.5%	3.5%	3.0%	5.1%	36.0%	-12.9%	26.0%	-27.5%	4.2%	3.3%	3.3%
Idaho Nonfarm (Millions)	72,002	72,438	72,933	73,497	74,553	81,074	78,119	82,898	76,330	77,129	77,746	78,373
% Ch	3.5%	2.4%	2.8%	3.1%	5.9%	39.9%	-13.8%	26.8%	-28.1%	4.3%	3.2%	3.3%
National (Billions)	16,844	16,843	16,890	16,974	17,091	18,482	17,540	18,294	16,900	17,021	17,090	17,145
% Ch	4.7%	0.0%	1.1%	2.0%	2.8%	36.7%	-18.9%	18.4%	-27.2%	2.9%	1.6%	1.3%
PER CAPITA PERS INC - CURR \$												
Idaho	45,483	45,813	46,135	46,435	47,033	50,221	48,633	51,515	47,635	48,166	48,616	49,064
% Ch	3.3%	2.9%	2.8%	2.6%	5.2%	30.0%	-12.1%	25.9%	-26.9%	4.5%	3.8%	3.7%
National	55,983	56,263	56,531	56,959	57,480	61,801	59,042	61,644	57,155	57,773	58,219	58,608
% Ch	4.9%	2.0%	1.9%	3.1%	3.7%	33.6%	-16.7%	18.8%	-26.1%	4.4%	3.1%	2.7%
PER CAPITA PERS INC - 2009 \$												
Idaho	41,711	41,752	41,899	42,012	42,417	45,496	43,698	46,160	42,451	42,695	42,862	43,033
% Ch	2.7%	0.4%	1.4%	1.1%	3.9%	32.3%	-14.9%	24.5%	-28.5%	2.3%	1.6%	1.6%
National	51,340	51,275	51,341	51,533	51,839	55,986	53,051	55,235	50,935	51,211	51,328	51,404
% Ch	4.3%	-0.5%	0.5%	1.5%	2.4%	36.0%	-19.4%	17.5%	-27.7%	2.2%	0.9%	0.6%
AVERAGE ANNUAL WAGE												
Idaho	45,235	45,510	45,937	46,364	46,826	47,181	47,767	47,756	48,009	48,400	48,691	49,063
% Ch	2.4%	2.4%	3.8%	3.8%	4.0%	3.1%	5.1%	-0.1%	2.1%	3.3%	2.4%	3.1%
National	61,449	61,582	61,599	62,076	62,704	66,165	65,922	65,828	66,064	66,497	66,956	67,462
% Ch	8.1%	0.9%	0.1%	3.1%	4.1%	24.0%	-1.5%	-0.6%	1.4%	2.6%	2.8%	3.1%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

OUTPUT, INCOME, & WAGES

	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GROSS DOM. PRODUCT (Billions)												
Current Dollars	22,513	22,830	23,114	23,380	23,636	23,893	24,155	24,426	24,698	24,973	25,252	25,534
% Ch	5.5%	5.8%	5.1%	4.7%	4.4%	4.4%	4.5%	4.6%	4.5%	4.5%	4.5%	4.5%
2012 Chain-Weighted	19,381	19,575	19,738	19,878	20,005	20,131	20,257	20,387	20,516	20,640	20,764	20,887
% Ch	3.9%	4.1%	3.4%	2.9%	2.6%	2.6%	2.5%	2.6%	2.6%	2.4%	2.4%	2.4%
PERSONAL INCOME - CURR \$												
Idaho (Millions)	92,499	93,443	94,521	95,709	97,164	98,465	99,608	100,734	101,899	103,105	104,451	105,837
% Ch	4.7%	4.1%	4.7%	5.1%	6.2%	5.5%	4.7%	4.6%	4.7%	4.8%	5.3%	5.4%
Idaho Nonfarm (Millions)	90,383	91,287	92,319	93,458	94,860	96,126	97,253	98,381	99,567	100,750	102,029	103,307
% Ch	4.7%	4.1%	4.6%	5.0%	6.1%	5.4%	4.8%	4.7%	4.9%	4.8%	5.2%	5.1%
National (Billions)	19,819	20,057	20,277	20,486	20,728	20,953	21,161	21,371	21,595	21,815	22,053	22,294
% Ch	5.7%	4.9%	4.5%	4.2%	4.8%	4.4%	4.0%	4.0%	4.3%	4.2%	4.4%	4.4%
PERSONAL INCOME - 2009 \$												
Idaho (Millions)	80,786	81,255	81,856	82,535	83,441	84,218	84,841	85,436	86,059	86,683	87,405	88,158
% Ch	3.0%	2.3%	3.0%	3.4%	4.5%	3.8%	3.0%	2.8%	2.9%	2.9%	3.4%	3.5%
Idaho Nonfarm (Millions)	78,939	79,380	79,949	80,594	81,463	82,218	82,835	83,441	84,090	84,703	85,379	86,051
% Ch	2.9%	2.3%	2.9%	3.3%	4.4%	3.8%	3.0%	3.0%	3.1%	2.9%	3.2%	3.2%
National (Billions)	17,309	17,441	17,560	17,666	17,800	17,921	18,024	18,125	18,238	18,341	18,455	18,570
% Ch	3.9%	3.1%	2.8%	2.4%	3.1%	2.7%	2.3%	2.3%	2.5%	2.3%	2.5%	2.5%
PER CAPITA PERS INC - CURR \$												
Idaho	49,470	49,824	50,204	50,644	51,219	51,704	52,101	52,486	52,892	53,319	53,816	54,329
% Ch	3.3%	2.9%	3.1%	3.6%	4.6%	3.8%	3.1%	3.0%	3.1%	3.3%	3.8%	3.9%
National	59,316	59,926	60,477	60,997	61,611	62,174	62,685	63,200	63,755	64,299	64,892	65,492
% Ch	4.9%	4.2%	3.7%	3.5%	4.1%	3.7%	3.3%	3.3%	3.6%	3.5%	3.7%	3.7%
PER CAPITA PERS INC - 2009 \$												
Idaho	43,206	43,326	43,477	43,673	43,986	44,223	44,377	44,515	44,670	44,826	45,033	45,254
% Ch	1.6%	1.1%	1.4%	1.8%	2.9%	2.2%	1.4%	1.3%	1.4%	1.4%	1.9%	2.0%
National	51,805	52,109	52,374	52,601	52,910	53,178	53,392	53,602	53,844	54,058	54,303	54,553
% Ch	3.2%	2.4%	2.0%	1.7%	2.4%	2.0%	1.6%	1.6%	1.8%	1.6%	1.8%	1.9%
AVERAGE ANNUAL WAGE												
Idaho	49,385	49,743	50,151	50,586	51,044	51,444	51,836	52,233	52,618	53,023	53,455	53,864
% Ch	2.6%	2.9%	3.3%	3.5%	3.7%	3.2%	3.1%	3.1%	3.0%	3.1%	3.3%	3.1%
National	67,983	68,474	68,915	69,362	69,821	70,301	70,800	71,327	71,859	72,422	73,022	73,653
% Ch	3.1%	2.9%	2.6%	2.6%	2.7%	2.8%	2.9%	3.0%	3.0%	3.2%	3.4%	3.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

PERSONAL INCOME -- CURR \$\$

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WAGE AND SALARY PAYMENTS												
Idaho (Millions)	34,856	35,342	35,865	36,533	37,233	34,982	36,888	37,229	37,960	38,734	39,396	40,057
% Ch	2.8%	5.7%	6.1%	7.7%	7.9%	-22.1%	23.6%	3.7%	8.1%	8.4%	7.0%	6.9%
National (Billions)	9,229	9,275	9,311	9,422	9,526	8,847	9,276	9,470	9,637	9,777	9,891	10,018
% Ch	9.5%	2.0%	1.6%	4.9%	4.5%	-25.6%	20.9%	8.6%	7.2%	6.0%	4.7%	5.3%
FARM PROPRIETORS INCOME												
Idaho (Millions)	1,627	1,659	1,811	1,804	1,682	1,214	1,422	1,408	1,439	1,468	1,497	1,525
% Ch	333.8%	8.1%	42.2%	-1.7%	-24.3%	-72.9%	88.3%	-3.9%	9.1%	8.6%	8.1%	7.7%
National (Billions)	44	37	59	59	56	35	39	29	28	30	33	38
% Ch	-58.2%	-51.4%	549.0%	-1.3%	-14.7%	-85.3%	58.6%	-70.9%	-6.6%	24.3%	55.4%	76.8%
NONFARM PROPRIETORS INCOME												
Idaho (Millions)	7,308	7,395	7,566	7,663	7,777	6,979	7,424	7,386	7,345	7,333	7,351	7,398
% Ch	1.1%	4.8%	9.5%	5.2%	6.1%	-35.1%	28.0%	-2.1%	-2.2%	-0.6%	1.0%	2.6%
National (Billions)	1,583	1,592	1,618	1,639	1,650	1,473	1,579	1,312	1,238	1,266	1,293	1,284
% Ch	2.9%	2.1%	6.8%	5.3%	2.6%	-36.5%	32.1%	-52.3%	-20.7%	9.3%	8.7%	-2.7%
DIVIDENDS, RENT & INTEREST												
Idaho (Millions)	18,228	18,363	18,351	18,432	18,491	18,025	18,506	18,784	19,227	19,578	19,837	20,025
% Ch	-6.1%	3.0%	-0.3%	1.8%	1.3%	-9.7%	11.1%	6.1%	9.8%	7.5%	5.4%	3.8%
National (Billions)	3,727	3,757	3,760	3,776	3,787	3,703	3,666	3,664	3,711	3,751	3,762	3,762
% Ch	-5.1%	3.2%	0.3%	1.7%	1.1%	-8.6%	-3.9%	-0.3%	5.3%	4.4%	1.2%	0.0%
OTHER LABOR INCOME												
Idaho (Millions)	8,641	8,777	8,905	9,043	9,159	8,791	8,887	8,944	9,119	9,305	9,464	9,622
% Ch	1.2%	6.5%	6.0%	6.3%	5.2%	-15.1%	4.4%	2.6%	8.1%	8.4%	7.0%	6.9%
National (Billions)	1,462	1,470	1,478	1,486	1,482	1,400	1,461	1,488	1,514	1,536	1,554	1,574
% Ch	2.3%	2.0%	2.1%	2.3%	-1.0%	-20.4%	18.7%	7.4%	7.2%	6.0%	4.7%	5.3%
GOVT. TRANSFERS TO INDIV.												
Idaho (Millions)	14,736	14,961	15,066	15,117	15,704	26,283	20,923	25,696	17,678	17,815	17,949	18,138
% Ch	16.8%	6.3%	2.9%	1.4%	16.5%	684.6%	-59.8%	127.5%	-77.6%	3.1%	3.0%	4.3%
National (Billions)	3,085	3,119	3,142	3,155	3,235	5,688	4,275	5,221	3,619	3,636	3,655	3,684
% Ch	12.3%	4.4%	3.0%	1.7%	10.6%	855.0%	-68.1%	122.4%	-76.9%	1.9%	2.0%	3.2%
CONTRIB. FOR SOCIAL INSUR.												
Idaho (Millions)	6,222	6,315	6,408	6,518	6,659	6,416	6,717	6,566	6,730	6,868	6,982	7,092
% Ch	3.9%	6.1%	6.0%	7.0%	9.0%	-13.8%	20.1%	-8.7%	10.3%	8.4%	6.8%	6.5%
National (Billions)	1,409	1,415	1,419	1,433	1,452	1,380	1,434	1,418	1,450	1,471	1,487	1,505
% Ch	9.6%	1.7%	1.2%	4.0%	5.3%	-18.2%	16.4%	-4.3%	9.3%	5.9%	4.5%	4.8%
RESIDENCE ADJUSTMENT												
Idaho (Millions)	1,490	1,493	1,504	1,522	1,532	1,431	1,581	1,590	1,599	1,659	1,718	1,765
% Ch	29.7%	0.8%	2.8%	4.9%	2.7%	-23.9%	49.0%	2.4%	2.3%	15.8%	15.0%	11.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

PERSONAL INCOME -- CURR \$\$

	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WAGE AND SALARY PAYMENTS												
Idaho (Millions)	40,579	41,081	41,660	42,277	42,976	43,641	44,265	44,880	45,461	46,074	46,731	47,389
% Ch	5.3%	5.0%	5.8%	6.1%	6.8%	6.3%	5.8%	5.7%	5.3%	5.5%	5.8%	5.8%
National (Billions)	10,167	10,320	10,451	10,568	10,679	10,792	10,907	11,028	11,151	11,275	11,401	11,530
% Ch	6.1%	6.2%	5.2%	4.6%	4.3%	4.3%	4.3%	4.5%	4.5%	4.5%	4.6%	4.6%
FARM PROPRIETORS INCOME												
Idaho (Millions)	1,552	1,584	1,620	1,661	1,707	1,735	1,744	1,734	1,707	1,723	1,782	1,886
% Ch	7.2%	8.4%	9.5%	10.5%	11.5%	6.6%	2.1%	-2.1%	-6.2%	3.8%	14.6%	25.3%
National (Billions)	45	52	58	63	66	68	67	66	64	62	60	59
% Ch	84.1%	76.3%	59.5%	40.0%	22.2%	8.1%	-1.9%	-8.2%	-11.3%	-11.9%	-10.6%	-8.0%
NONFARM PROPRIETORS INCOME												
Idaho (Millions)	7,475	7,567	7,673	7,794	7,930	8,065	8,198	8,330	8,461	8,583	8,695	8,798
% Ch	4.2%	5.0%	5.7%	6.5%	7.1%	7.0%	6.8%	6.6%	6.5%	5.9%	5.3%	4.8%
National (Billions)	1,310	1,343	1,374	1,401	1,430	1,462	1,495	1,528	1,558	1,589	1,619	1,648
% Ch	8.5%	10.5%	9.5%	7.9%	8.7%	9.3%	9.4%	8.9%	8.1%	8.3%	7.9%	7.3%
DIVIDENDS, RENT & INTEREST												
Idaho (Millions)	20,135	20,254	20,390	20,529	20,677	20,836	21,011	21,200	21,403	21,601	21,794	21,982
% Ch	2.2%	2.4%	2.7%	2.8%	2.9%	3.1%	3.4%	3.6%	3.9%	3.8%	3.6%	3.5%
National (Billions)	3,791	3,801	3,820	3,841	3,868	3,897	3,930	3,961	3,984	4,013	4,042	4,072
% Ch	3.1%	1.0%	2.1%	2.2%	2.8%	3.1%	3.4%	3.1%	2.4%	2.9%	2.9%	3.0%
OTHER LABOR INCOME												
Idaho (Millions)	9,748	9,868	10,008	10,156	10,324	10,483	10,632	10,779	10,918	11,065	11,222	11,379
% Ch	5.3%	5.0%	5.8%	6.1%	6.8%	6.3%	5.8%	5.6%	5.3%	5.5%	5.8%	5.7%
National (Billions)	1,598	1,622	1,643	1,661	1,679	1,696	1,715	1,734	1,753	1,772	1,792	1,813
% Ch	6.1%	6.2%	5.2%	4.6%	4.3%	4.3%	4.4%	4.5%	4.5%	4.5%	4.6%	4.6%
GOVT. TRANSFERS TO INDIV.												
Idaho (Millions)	18,426	18,561	18,707	18,890	19,264	19,506	19,636	19,766	20,025	20,216	20,478	20,744
% Ch	6.5%	3.0%	3.2%	4.0%	8.2%	5.1%	2.7%	2.7%	5.4%	3.9%	5.3%	5.3%
National (Billions)	3,736	3,758	3,779	3,808	3,874	3,914	3,931	3,948	3,991	4,020	4,064	4,107
% Ch	5.7%	2.4%	2.3%	3.1%	7.1%	4.1%	1.8%	1.8%	4.4%	3.0%	4.4%	4.4%
CONTRIB. FOR SOCIAL INSUR.												
Idaho (Millions)	7,210	7,292	7,386	7,484	7,636	7,747	7,849	7,949	8,084	8,188	8,298	8,408
% Ch	6.8%	4.6%	5.2%	5.5%	8.4%	5.9%	5.4%	5.2%	7.0%	5.2%	5.5%	5.4%
National (Billions)	1,532	1,554	1,571	1,586	1,609	1,624	1,640	1,656	1,681	1,698	1,715	1,733
% Ch	7.5%	5.7%	4.6%	3.9%	5.8%	3.8%	3.9%	4.0%	6.2%	4.2%	4.2%	4.2%
RESIDENCE ADJUSTMENT												
Idaho (Millions)	1,794	1,820	1,848	1,885	1,922	1,947	1,972	1,994	2,009	2,032	2,047	2,066
% Ch	6.6%	5.9%	6.5%	8.1%	8.2%	5.3%	5.2%	4.6%	2.9%	4.7%	3.0%	3.8%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020

EMPLOYMENT

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TOTAL NONFARM EMPLOYMENT												
Idaho	752,103	758,097	762,238	769,336	776,338	722,355	752,655	759,948	771,084	780,834	789,657	797,000
% Ch	2.7%	3.2%	2.2%	3.8%	3.7%	-25.0%	17.9%	3.9%	6.0%	5.2%	4.6%	3.8%
National (Thousands)	150,184	150,609	151,160	151,788	151,922	133,717	140,716	143,863	145,872	147,034	147,718	148,500
% Ch	1.3%	1.1%	1.5%	1.7%	0.4%	-40.0%	22.6%	9.2%	5.7%	3.2%	1.9%	2.1%
GOODS PRODUCING SECTOR												
Idaho	124,560	124,923	125,684	127,130	125,763	121,804	126,142	127,647	129,240	130,868	132,580	134,204
% Ch	3.9%	1.2%	2.5%	4.7%	-4.2%	-17.2%	16.5%	2.7%	5.1%	5.1%	5.3%	5.0%
National (Thousands)	21,009	21,055	21,093	21,118	21,147	19,320	19,946	19,796	19,742	19,749	19,712	19,850
% Ch	1.9%	0.9%	0.7%	0.5%	0.6%	-30.3%	13.6%	-3.0%	-1.1%	0.1%	-0.7%	2.8%
MANUFACTURING												
Idaho	70,339	70,366	70,182	70,436	67,195	64,924	67,453	67,905	68,316	68,775	69,499	70,022
% Ch	0.1%	0.2%	-1.0%	1.5%	-17.2%	-12.8%	16.5%	2.7%	2.4%	2.7%	4.3%	3.0%
National (Thousands)	12,877	12,881	12,899	12,902	12,888	11,819	12,170	12,192	12,124	12,190	12,145	12,266
% Ch	1.4%	0.1%	0.6%	0.1%	-0.4%	-29.3%	12.4%	0.7%	-2.2%	2.2%	-1.5%	4.1%
DURABLE MANUFACTURING												
Idaho	41,427	41,245	40,954	40,819	37,679	36,229	37,983	38,167	38,455	38,714	39,067	39,450
% Ch	0.0%	-1.8%	-2.8%	-1.3%	-27.4%	-14.5%	20.8%	1.9%	3.1%	2.7%	3.7%	4.0%
National (Thousands)	8,108	8,108	8,117	8,103	8,101	7,369	7,611	7,624	7,520	7,531	7,450	7,622
% Ch	1.8%	0.0%	0.5%	-0.7%	-0.1%	-31.5%	13.8%	0.7%	-5.4%	0.6%	-4.2%	9.6%
LOGGING & WOOD PRODUCTS												
Idaho	8,432	8,406	8,359	8,331	8,116	7,843	7,894	7,938	7,966	8,021	8,071	8,112
% Ch	8.2%	-1.2%	-2.2%	-1.3%	-9.9%	-12.8%	2.6%	2.2%	1.4%	2.8%	2.5%	2.1%
National (Thousands)	457	457	460	465	465	434	438	451	443	437	423	441
% Ch	1.7%	0.1%	2.7%	3.6%	0.3%	-24.0%	4.0%	12.2%	-7.1%	-5.6%	-12.1%	18.9%
METAL FABRICATION												
Idaho	5,804	5,765	5,745	5,653	5,735	5,668	5,759	5,821	5,877	5,927	5,972	6,011
% Ch	-6.3%	-2.6%	-1.4%	-6.2%	5.9%	-4.6%	6.6%	4.4%	3.9%	3.5%	3.1%	2.7%
National (Thousands)	1,493	1,493	1,492	1,488	1,481	1,383	1,386	1,383	1,380	1,399	1,403	1,445
% Ch	2.2%	0.0%	-0.2%	-0.9%	-2.0%	-23.9%	0.8%	-0.9%	-1.0%	5.9%	1.2%	12.5%
MACHINERY												
Idaho	3,416	3,458	3,413	3,498	3,648	3,523	3,562	3,575	3,575	3,559	3,547	3,539
% Ch	2.1%	5.1%	-5.1%	10.2%	18.3%	-12.9%	4.4%	1.5%	-0.1%	-1.8%	-1.3%	-0.9%
National (Thousands)	1,132	1,129	1,125	1,119	1,110	1,034	1,037	1,039	1,035	1,038	1,017	1,066
% Ch	1.4%	-1.1%	-1.3%	-2.0%	-3.3%	-24.6%	1.2%	0.7%	-1.4%	0.9%	-7.9%	20.8%
COMPUTER & ELECTRONICS												
Idaho	12,470	12,275	12,118	11,945	11,617	11,439	11,255	11,174	11,154	11,190	11,284	11,435
% Ch	-10.5%	-6.1%	-5.0%	-5.6%	-10.5%	-6.0%	-6.3%	-2.8%	-0.7%	1.3%	3.4%	5.5%
National (Thousands)	1,070	1,076	1,086	1,092	1,098	1,088	1,086	1,079	1,085	1,092	1,097	1,097
% Ch	3.4%	2.1%	3.8%	2.5%	2.0%	-3.6%	-0.7%	-2.6%	2.3%	2.8%	1.6%	0.1%
OTHER DURABLES												
Idaho	11,209	11,294	11,354	11,503	11,477	10,490	9,513	9,659	9,884	10,017	10,193	10,354
% Ch	2.3%	3.1%	2.1%	5.3%	-0.9%	-30.2%	-32.4%	6.3%	9.7%	5.5%	7.2%	6.4%
National (Thousands)	3,957	3,954	3,955	3,938	3,948	3,430	3,663	3,672	3,577	3,565	3,510	3,573
% Ch	1.4%	-0.3%	0.1%	-1.7%	1.0%	-43.0%	30.1%	1.0%	-9.9%	-1.3%	-6.0%	7.4%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020

EMPLOYMENT

	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TOTAL NONFARM EMPLOYMENT												
Idaho	802,275	806,462	811,252	816,310	822,488	828,797	834,356	839,531	844,176	849,061	854,275	859,840
% Ch	2.7%	2.1%	2.4%	2.5%	3.1%	3.1%	2.7%	2.5%	2.2%	2.3%	2.5%	2.6%
National (Thousands)	149,546	150,714	151,645	152,357	152,946	153,505	154,054	154,613	155,183	155,679	156,131	156,546
% Ch	2.8%	3.2%	2.5%	1.9%	1.6%	1.5%	1.4%	1.5%	1.5%	1.3%	1.2%	1.1%
GOODS PRODUCING SECTOR												
Idaho	135,742	136,861	137,828	138,680	139,520	140,618	141,802	143,048	144,281	145,517	146,707	147,878
% Ch	4.7%	3.3%	2.9%	2.5%	2.4%	3.2%	3.4%	3.6%	3.5%	3.5%	3.3%	3.2%
National (Thousands)	19,949	19,981	20,046	20,111	20,192	20,247	20,290	20,315	20,343	20,374	20,407	20,446
% Ch	2.0%	0.6%	1.3%	1.3%	1.6%	1.1%	0.8%	0.5%	0.6%	0.6%	0.7%	0.8%
MANUFACTURING												
Idaho	70,614	71,153	71,650	72,118	72,549	73,098	73,647	74,182	74,688	75,169	75,608	76,018
% Ch	3.4%	3.1%	2.8%	2.6%	2.4%	3.1%	3.0%	2.9%	2.8%	2.6%	2.4%	2.2%
National (Thousands)	12,356	12,365	12,391	12,431	12,479	12,501	12,511	12,502	12,498	12,498	12,494	12,488
% Ch	3.0%	0.3%	0.8%	1.3%	1.5%	0.7%	0.3%	-0.3%	-0.1%	0.0%	-0.1%	-0.2%
DURABLE MANUFACTURING												
Idaho	39,907	40,337	40,735	41,108	41,454	41,776	42,078	42,356	42,612	42,859	43,111	43,362
% Ch	4.7%	4.4%	4.0%	3.7%	3.4%	3.1%	2.9%	2.7%	2.4%	2.3%	2.4%	2.3%
National (Thousands)	7,700	7,724	7,742	7,776	7,808	7,816	7,819	7,814	7,814	7,821	7,822	7,823
% Ch	4.1%	1.3%	0.9%	1.7%	1.7%	0.4%	0.1%	-0.2%	0.0%	0.3%	0.1%	0.0%
LOGGING & WOOD PRODUCTS												
Idaho	8,145	8,171	8,191	8,205	8,212	8,218	8,221	8,223	8,223	8,232	8,249	8,275
% Ch	1.6%	1.3%	1.0%	0.7%	0.4%	0.3%	0.2%	0.1%	0.0%	0.4%	0.8%	1.3%
National (Thousands)	448	450	450	452	455	455	455	454	454	455	456	459
% Ch	6.4%	1.6%	-0.4%	2.1%	2.3%	0.1%	0.0%	-0.4%	0.1%	1.0%	0.8%	2.8%
METAL FABRICATION												
Idaho	6,045	6,085	6,130	6,180	6,235	6,289	6,341	6,391	6,440	6,488	6,535	6,582
% Ch	2.3%	2.6%	3.0%	3.3%	3.6%	3.5%	3.3%	3.2%	3.1%	3.0%	3.0%	2.9%
National (Thousands)	1,471	1,488	1,495	1,506	1,520	1,530	1,539	1,545	1,552	1,559	1,565	1,569
% Ch	7.4%	4.6%	1.7%	3.1%	3.7%	2.7%	2.4%	1.7%	1.7%	1.9%	1.5%	1.1%
MACHINERY												
Idaho	3,535	3,538	3,548	3,566	3,590	3,616	3,641	3,668	3,694	3,717	3,735	3,749
% Ch	-0.5%	0.4%	1.2%	2.0%	2.8%	2.8%	2.9%	2.9%	3.0%	2.5%	2.0%	1.5%
National (Thousands)	1,089	1,103	1,106	1,113	1,119	1,119	1,118	1,115	1,113	1,113	1,113	1,111
% Ch	9.1%	5.1%	1.4%	2.4%	2.2%	0.2%	-0.6%	-0.9%	-0.6%	0.0%	-0.2%	-0.5%
COMPUTER & ELECTRONICS												
Idaho	11,643	11,823	11,975	12,099	12,195	12,276	12,342	12,393	12,428	12,460	12,487	12,511
% Ch	7.5%	6.3%	5.2%	4.2%	3.2%	2.7%	2.2%	1.7%	1.2%	1.0%	0.9%	0.8%
National (Thousands)	1,098	1,096	1,094	1,092	1,092	1,091	1,091	1,091	1,091	1,092	1,093	1,094
% Ch	0.6%	-0.9%	-0.8%	-0.5%	-0.3%	-0.2%	0.0%	-0.1%	0.1%	0.3%	0.4%	0.3%
OTHER DURABLES												
Idaho	10,540	10,721	10,892	11,059	11,221	11,378	11,532	11,681	11,826	11,963	12,104	12,244
% Ch	7.4%	7.0%	6.5%	6.3%	6.0%	5.7%	5.5%	5.3%	5.1%	4.7%	4.8%	4.7%
National (Thousands)	3,593	3,588	3,598	3,613	3,623	3,621	3,616	3,609	3,604	3,601	3,596	3,589
% Ch	2.2%	-0.6%	1.2%	1.6%	1.2%	-0.2%	-0.6%	-0.8%	-0.5%	-0.3%	-0.6%	-0.7%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

EMPLOYMENT

MANUFACTURING (continued)

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NONDURABLE MANUFACTURING												
Idaho	28,912	29,121	29,228	29,617	29,516	28,695	29,470	29,738	29,861	30,061	30,432	30,572
% Ch	0.3%	2.9%	1.5%	5.4%	-1.4%	-10.7%	11.2%	3.7%	1.7%	2.7%	5.0%	1.8%
National (Thousands)	4,768	4,773	4,782	4,799	4,787	4,450	4,559	4,569	4,604	4,659	4,695	4,644
% Ch	0.6%	0.4%	0.7%	1.5%	-1.0%	-25.3%	10.2%	0.8%	3.2%	4.8%	3.2%	-4.3%
FOOD PROCESSING												
Idaho	19,154	19,214	19,147	19,389	19,281	18,946	19,385	19,569	19,656	19,769	20,060	20,146
% Ch	0.6%	1.3%	-1.4%	5.1%	-2.2%	-6.8%	9.6%	3.9%	1.8%	2.3%	6.0%	1.7%
National (Thousands)	1,634	1,636	1,642	1,659	1,653	1,575	1,603	1,609	1,645	1,679	1,701	1,666
% Ch	0.9%	0.5%	1.3%	4.2%	-1.3%	-17.7%	7.2%	1.6%	9.3%	8.4%	5.3%	-7.9%
PRINTING												
Idaho	1,267	1,333	1,330	1,347	1,337	1,138	1,242	1,256	1,289	1,317	1,342	1,363
% Ch	6.2%	22.6%	-0.9%	5.0%	-2.9%	-47.4%	42.0%	4.6%	10.6%	9.1%	7.7%	6.4%
National (Thousands)	428	426	425	421	416	353	360	361	360	358	350	350
% Ch	-2.3%	-1.8%	-0.9%	-3.4%	-4.4%	-48.4%	9.0%	0.5%	-0.7%	-2.2%	-9.2%	0.1%
CHEMICALS												
Idaho	2,856	2,899	2,947	2,948	2,879	2,810	2,898	2,905	2,907	2,911	2,915	2,912
% Ch	-10.5%	6.1%	6.8%	0.2%	-9.0%	-9.4%	13.2%	1.0%	0.3%	0.6%	0.5%	-0.4%
National (Thousands)	848	849	850	853	850	830	837	853	856	862	870	873
% Ch	2.6%	0.5%	0.8%	1.2%	-1.2%	-9.2%	3.6%	7.9%	1.2%	2.6%	3.8%	1.5%
OTHER NONDURABLES												
Idaho	5,634	5,674	5,804	5,933	6,019	5,802	5,945	6,007	6,009	6,063	6,116	6,150
% Ch	4.2%	2.9%	9.4%	9.2%	5.9%	-13.7%	10.2%	4.3%	0.1%	3.6%	3.5%	2.3%
National (Thousands)	1,859	1,863	1,865	1,866	1,867	1,692	1,759	1,745	1,743	1,760	1,775	1,755
% Ch	0.3%	0.8%	0.5%	0.3%	0.2%	-32.5%	16.6%	-3.0%	-0.6%	4.1%	3.4%	-4.5%
MINING												
Idaho	2,287	2,288	2,321	2,352	2,547	2,440	2,481	2,525	2,547	2,550	2,513	2,442
% Ch	-14.8%	0.1%	5.9%	5.5%	37.4%	-15.7%	6.8%	7.2%	3.7%	0.4%	-5.7%	-10.8%
National (Thousands)	693	692	681	671	656	587	566	549	529	525	522	516
% Ch	1.2%	-0.7%	-6.1%	-6.1%	-8.3%	-36.0%	-13.6%	-11.7%	-13.2%	-3.5%	-2.2%	-4.1%
CONSTRUCTION												
Idaho	51,933	52,270	53,180	54,342	56,022	54,439	56,208	57,218	58,376	59,544	60,568	61,739
% Ch	10.2%	2.6%	7.2%	9.0%	13.0%	-10.8%	13.6%	7.4%	8.3%	8.2%	7.1%	8.0%
National (Thousands)	7,439	7,481	7,512	7,545	7,602	6,914	7,211	7,055	7,089	7,035	7,045	7,067
% Ch	3.0%	2.3%	1.6%	1.8%	3.1%	-31.6%	18.3%	-8.4%	1.9%	-3.0%	0.6%	1.2%
NONGOODS PRODUCING												
Idaho	627,544	633,173	636,555	642,206	650,575	600,551	626,513	632,301	641,845	649,965	657,077	662,796
% Ch	2.4%	3.6%	2.2%	3.6%	5.3%	-27.4%	18.4%	3.7%	6.2%	5.2%	4.4%	3.5%
National (Thousands)	129,175	129,554	130,068	130,671	130,775	114,396	120,770	124,067	126,130	127,285	128,006	128,650
% Ch	1.2%	1.2%	1.6%	1.9%	0.3%	-41.4%	24.2%	11.4%	6.8%	3.7%	2.3%	2.0%
SERVICES												
Idaho	383,311	387,860	390,982	395,683	399,594	362,111	381,281	385,429	393,010	399,193	404,645	409,106
% Ch	2.9%	4.8%	3.3%	4.9%	4.0%	-32.6%	22.9%	4.4%	8.1%	6.4%	5.6%	4.5%
National (Thousands)	85,109	85,484	85,917	86,433	86,472	73,549	78,382	80,795	82,679	83,606	84,398	84,725
% Ch	1.8%	1.8%	2.0%	2.4%	0.2%	-47.7%	29.0%	12.9%	9.7%	4.6%	3.8%	1.6%
INFORMATION												
Idaho	8,896	9,001	8,989	8,900	8,024	7,070	7,517	7,704	7,785	7,831	7,919	7,963
% Ch	5.8%	4.8%	-0.5%	-3.9%	-33.9%	-39.7%	27.8%	10.3%	4.3%	2.4%	4.6%	2.2%
National (Thousands)	2,845	2,854	2,863	2,874	2,892	2,586	2,571	2,619	2,833	2,852	2,800	2,807
% Ch	-0.9%	1.3%	1.2%	1.5%	2.5%	-36.1%	-2.3%	7.7%	37.0%	2.6%	-7.1%	1.0%
FINANCIAL ACTIVITIES												
Idaho	36,505	36,742	37,054	37,475	37,716	37,126	37,655	37,860	38,156	38,401	38,765	39,158
% Ch	-4.8%	2.6%	3.4%	4.6%	2.6%	-6.1%	5.8%	2.2%	3.2%	2.6%	3.8%	4.1%
National (Thousands)	8,691	8,727	8,764	8,803	8,832	8,586	8,658	8,803	8,505	8,480	8,418	8,530
% Ch	1.6%	1.7%	1.7%	1.8%	1.3%	-10.7%	3.4%	6.9%	-12.9%	-1.2%	-2.9%	5.4%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020

EMPLOYMENT

MANUFACTURING (continued)

	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NONDURABLE MANUFACTURING												
Idaho	30,707	30,816	30,916	31,010	31,095	31,321	31,569	31,826	32,077	32,310	32,498	32,657
% Ch	1.8%	1.4%	1.3%	1.2%	1.1%	3.0%	3.2%	3.3%	3.2%	2.9%	2.3%	2.0%
National (Thousands)	4,656	4,641	4,648	4,656	4,671	4,685	4,692	4,688	4,684	4,677	4,671	4,665
% Ch	1.0%	-1.3%	0.7%	0.6%	1.3%	1.2%	0.6%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%
FOOD PROCESSING												
Idaho	20,234	20,305	20,356	20,392	20,423	20,591	20,781	20,978	21,164	21,330	21,451	21,551
% Ch	1.8%	1.4%	1.0%	0.7%	0.6%	3.3%	3.7%	3.9%	3.6%	3.2%	2.3%	1.9%
National (Thousands)	1,671	1,663	1,684	1,700	1,720	1,737	1,750	1,756	1,761	1,766	1,771	1,776
% Ch	1.1%	-1.9%	5.1%	4.0%	4.8%	4.0%	2.9%	1.3%	1.3%	1.1%	1.2%	1.2%
PRINTING												
Idaho	1,380	1,392	1,397	1,397	1,391	1,388	1,388	1,391	1,397	1,402	1,406	1,409
% Ch	5.2%	3.4%	1.6%	0.0%	-1.7%	-0.9%	0.0%	0.8%	1.7%	1.4%	1.2%	0.9%
National (Thousands)	351	349	345	342	338	338	337	336	335	334	333	333
% Ch	1.4%	-2.2%	-4.6%	-3.9%	-4.1%	-0.6%	-0.5%	-1.3%	-1.2%	-1.4%	-0.7%	-0.7%
CHEMICALS												
Idaho	2,911	2,920	2,932	2,947	2,961	2,976	2,990	3,004	3,019	3,035	3,050	3,064
% Ch	-0.1%	1.1%	1.7%	2.1%	1.9%	2.0%	1.9%	1.9%	2.0%	2.1%	2.0%	1.9%
National (Thousands)	875	877	873	871	870	868	866	863	860	856	852	848
% Ch	0.8%	0.9%	-1.5%	-1.2%	-0.5%	-0.6%	-1.0%	-1.3%	-1.5%	-1.8%	-1.8%	-1.9%
OTHER NONDURABLES												
Idaho	6,182	6,200	6,230	6,274	6,319	6,366	6,410	6,453	6,497	6,544	6,590	6,633
% Ch	2.1%	1.2%	1.9%	2.9%	2.9%	2.8%	2.7%	2.8%	2.9%	2.9%	2.9%	2.6%
National (Thousands)	1,759	1,752	1,746	1,743	1,743	1,742	1,739	1,733	1,727	1,721	1,715	1,708
% Ch	1.0%	-1.7%	-1.2%	-0.8%	0.0%	-0.3%	-0.6%	-1.4%	-1.4%	-1.4%	-1.5%	-1.5%
MINING												
Idaho	2,388	2,331	2,283	2,249	2,238	2,226	2,220	2,217	2,211	2,208	2,209	2,214
% Ch	-8.6%	-9.3%	-8.0%	-5.7%	-2.1%	-2.1%	-1.1%	-0.5%	-1.0%	-0.6%	0.2%	0.9%
National (Thousands)	515	515	520	522	528	531	535	538	541	544	547	550
% Ch	-0.7%	-0.3%	4.2%	1.2%	4.7%	2.5%	2.7%	2.6%	2.0%	1.8%	2.3%	2.6%
CONSTRUCTION												
Idaho	62,739	63,377	63,895	64,313	64,733	65,294	65,935	66,649	67,381	68,140	68,890	69,646
% Ch	6.6%	4.1%	3.3%	2.6%	2.6%	3.5%	4.0%	4.4%	4.5%	4.6%	4.5%	4.5%
National (Thousands)	7,078	7,101	7,134	7,158	7,186	7,215	7,244	7,274	7,304	7,333	7,367	7,408
% Ch	0.6%	1.4%	1.9%	1.3%	1.6%	1.6%	1.6%	1.7%	1.6%	1.6%	1.9%	2.2%
NONGOODS PRODUCING												
Idaho	666,533	669,601	673,424	677,629	682,968	688,179	692,554	696,483	699,896	703,545	707,568	711,961
% Ch	2.3%	1.9%	2.3%	2.5%	3.2%	3.1%	2.6%	2.3%	2.0%	2.1%	2.3%	2.5%
National (Thousands)	129,597	130,733	131,599	132,246	132,753	133,258	133,764	134,298	134,840	135,305	135,724	136,100
% Ch	3.0%	3.6%	2.7%	2.0%	1.5%	1.5%	1.5%	1.6%	1.6%	1.4%	1.2%	1.1%
SERVICES												
Idaho	411,959	414,615	417,605	420,861	424,590	428,083	431,169	433,917	436,291	438,933	441,952	445,336
% Ch	2.8%	2.6%	2.9%	3.2%	3.6%	3.3%	2.9%	2.6%	2.2%	2.4%	2.8%	3.1%
National (Thousands)	85,577	86,839	87,732	88,697	89,386	89,544	90,089	90,643	91,227	91,791	92,077	92,307
% Ch	4.1%	6.0%	4.2%	4.5%	3.1%	0.7%	2.5%	2.5%	2.6%	2.5%	1.3%	1.0%
INFORMATION												
Idaho	8,002	8,042	8,081	8,122	8,165	8,208	8,249	8,286	8,324	8,363	8,398	8,433
% Ch	2.0%	2.0%	1.9%	2.0%	2.1%	2.1%	2.0%	1.8%	1.8%	1.9%	1.7%	1.7%
National (Thousands)	2,832	2,903	2,937	2,888	2,850	2,809	2,803	2,819	2,817	2,831	2,861	2,880
% Ch	3.6%	10.5%	4.7%	-6.5%	-5.1%	-5.6%	-0.9%	2.3%	-0.2%	2.0%	4.2%	2.7%
FINANCIAL ACTIVITIES												
Idaho	39,456	39,748	40,060	40,369	40,685	40,968	41,215	41,439	41,627	41,826	42,059	42,328
% Ch	3.1%	3.0%	3.2%	3.1%	3.2%	2.8%	2.4%	2.2%	1.8%	1.9%	2.2%	2.6%
National (Thousands)	8,691	8,825	8,991	9,023	9,073	9,049	9,086	9,121	9,158	9,197	9,208	9,214
% Ch	7.8%	6.3%	7.8%	1.4%	2.2%	-1.0%	1.6%	1.6%	1.6%	1.7%	0.5%	0.2%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

EMPLOYMENT

SERVICES (Continued)												
	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TRANS., WAREHOUSING, UTILITIES												
Idaho	25,810	25,919	26,290	26,795	27,157	25,583	26,999	27,531	27,777	28,054	28,298	28,471
% Ch	3.2%	1.7%	5.8%	7.9%	5.5%	-21.2%	24.0%	8.1%	3.6%	4.0%	3.5%	2.5%
National (Thousands)	6,138	6,157	6,172	6,197	6,221	5,661	5,822	5,856	5,903	5,979	5,951	6,076
% Ch	3.4%	1.2%	1.0%	1.6%	1.6%	-31.4%	11.9%	2.3%	3.2%	5.3%	-1.9%	8.7%
PROFESSIONAL & BUSINESS												
Idaho	94,720	95,799	97,046	98,139	100,186	96,430	98,635	99,643	101,004	102,174	103,163	104,139
% Ch	0.4%	4.6%	5.3%	4.6%	8.6%	-14.2%	9.5%	4.2%	5.6%	4.7%	3.9%	3.8%
National (Thousands)	21,155	21,258	21,372	21,476	21,510	19,467	20,075	20,495	20,832	20,957	20,916	21,200
% Ch	1.0%	1.9%	2.2%	2.0%	0.6%	-32.9%	13.1%	8.6%	6.7%	2.4%	-0.8%	5.5%
EDUCATION & HEALTH												
Idaho	109,344	110,759	111,271	113,649	114,581	109,202	109,466	110,052	111,501	112,901	114,482	115,951
% Ch	4.3%	5.3%	1.9%	8.8%	3.3%	-17.5%	1.0%	2.2%	5.4%	5.1%	5.7%	5.2%
National (Thousands)	23,933	24,084	24,263	24,421	24,509	22,253	23,129	23,791	23,883	23,966	24,757	24,186
% Ch	2.2%	2.6%	3.0%	2.6%	1.4%	-32.0%	16.7%	11.9%	1.6%	1.4%	13.9%	-8.9%
LEISURE & HOSPITALITY												
Idaho	81,761	83,002	83,662	83,831	84,391	62,334	75,785	77,180	80,967	83,732	85,662	86,857
% Ch	6.4%	6.2%	3.2%	0.8%	2.7%	-70.2%	118.5%	7.6%	21.1%	14.4%	9.5%	5.7%
National (Thousands)	16,488	16,517	16,576	16,743	16,600	10,146	12,718	13,640	15,117	15,709	15,894	16,084
% Ch	2.6%	0.7%	1.4%	4.1%	-3.4%	-86.0%	146.9%	32.3%	50.9%	16.6%	4.8%	4.9%
OTHER SERVICES												
Idaho	26,276	26,638	26,671	26,894	27,539	24,366	25,225	25,459	25,820	26,100	26,356	26,568
% Ch	5.6%	5.6%	0.5%	3.4%	9.9%	-38.7%	14.9%	3.8%	5.8%	4.4%	4.0%	3.3%
National (Thousands)	5,859	5,887	5,907	5,918	5,909	4,851	5,409	5,591	5,605	5,664	5,662	5,842
% Ch	0.9%	1.9%	1.4%	0.7%	-0.7%	-54.6%	54.6%	14.2%	1.0%	4.3%	-0.1%	13.3%
TRADE												
Idaho	118,521	118,759	118,459	119,280	120,259	114,566	121,658	122,404	123,788	125,556	126,504	127,450
% Ch	3.2%	0.8%	-1.0%	2.8%	3.3%	-17.6%	27.2%	2.5%	4.6%	5.8%	3.1%	3.0%
National (Thousands)	21,550	21,518	21,526	21,577	21,574	19,394	20,596	21,343	21,584	21,709	21,523	21,725
% Ch	-0.5%	-0.6%	0.1%	1.0%	-0.1%	-34.7%	27.2%	15.3%	4.6%	2.3%	-3.4%	3.8%
RETAIL TRADE												
Idaho	87,964	87,883	87,379	88,015	88,689	83,844	89,863	90,395	91,424	92,728	93,424	94,126
% Ch	2.4%	-0.4%	-2.3%	2.9%	3.1%	-20.1%	32.0%	2.4%	4.6%	5.8%	3.0%	3.0%
National (Thousands)	15,669	15,621	15,617	15,649	15,643	13,821	14,989	15,537	15,804	15,958	15,725	15,799
% Ch	-1.1%	-1.2%	-0.1%	0.8%	-0.2%	-39.1%	38.4%	15.4%	7.1%	4.0%	-5.7%	1.9%
WHOLESALE TRADE												
Idaho	30,557	30,876	31,080	31,264	31,570	30,723	31,795	32,009	32,365	32,828	33,080	33,324
% Ch	5.3%	4.2%	2.7%	2.4%	4.0%	-10.3%	14.7%	2.7%	4.5%	5.8%	3.1%	3.0%
National (Thousands)	5,881	5,897	5,909	5,928	5,931	5,574	5,607	5,806	5,780	5,751	5,797	5,926
% Ch	1.1%	1.1%	0.8%	1.3%	0.2%	-22.0%	2.4%	15.0%	-1.8%	-2.0%	3.3%	9.2%
STATE & LOCAL GOVERNMENT												
Idaho	112,510	113,283	114,003	114,038	117,299	110,330	110,029	111,074	111,679	111,868	112,609	112,917
% Ch	0.3%	2.8%	2.6%	0.1%	11.9%	-21.7%	-1.1%	3.9%	2.2%	0.7%	2.7%	1.1%
National (Thousands)	19,702	19,726	19,776	19,814	19,860	18,566	18,695	18,929	19,011	19,125	19,240	19,356
% Ch	0.4%	0.5%	1.0%	0.8%	0.9%	-23.6%	2.8%	5.1%	1.8%	2.4%	2.4%	2.4%
EDUCATION												
Idaho	58,803	59,206	59,644	59,384	58,716	53,642	54,410	55,532	56,164	56,668	57,551	57,986
% Ch	0.9%	2.8%	3.0%	-1.7%	-4.4%	-30.3%	5.9%	8.5%	4.6%	3.6%	6.4%	3.1%
NONEDUCATION												
Idaho	53,706	54,077	54,359	54,653	58,583	56,688	55,619	55,542	55,515	55,200	55,058	54,931
% Ch	-0.4%	2.8%	2.1%	2.2%	32.0%	-12.3%	-7.3%	-0.6%	-0.2%	-2.3%	-1.0%	-0.9%
FEDERAL GOVERNMENT												
Idaho	13,202	13,272	13,111	13,206	13,423	13,544	13,546	13,393	13,368	13,349	13,320	13,324
% Ch	0.3%	2.1%	-4.8%	2.9%	6.7%	3.7%	0.1%	-4.4%	-0.8%	-0.6%	-0.9%	0.1%
National (Thousands)	2,813	2,826	2,848	2,847	2,869	2,888	3,097	3,000	2,855	2,844	2,844	2,844
% Ch	0.7%	1.8%	3.2%	-0.2%	3.2%	2.6%	32.3%	-12.0%	-18.0%	-1.5%	0.0%	0.0%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020**

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

EMPLOYMENT

SERVICES (Continued)												
	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TRANS., WAREHOUSING, UTILITIES												
Idaho	28,580	28,600	28,569	28,562	28,648	28,774	28,929	29,067	29,182	29,310	29,435	29,563
% Ch	1.5%	0.3%	-0.4%	-0.1%	1.2%	1.8%	2.2%	1.9%	1.6%	1.8%	1.7%	1.8%
National (Thousands)	6,152	6,193	6,350	6,366	6,402	6,388	6,406	6,422	6,450	6,474	6,480	6,482
% Ch	5.1%	2.7%	10.5%	1.0%	2.3%	-0.9%	1.1%	1.0%	1.8%	1.5%	0.3%	0.1%
PROFESSIONAL & BUSINESS												
Idaho	104,959	105,699	106,337	106,863	107,245	107,666	108,112	108,567	109,025	109,479	109,979	110,534
% Ch	3.2%	2.9%	2.4%	2.0%	1.4%	1.6%	1.7%	1.7%	1.7%	1.7%	1.8%	2.0%
National (Thousands)	22,024	22,557	22,780	22,927	23,201	23,282	23,460	23,741	24,136	24,501	24,753	24,985
% Ch	16.5%	10.0%	4.0%	2.6%	4.9%	1.4%	3.1%	4.9%	6.8%	6.2%	4.2%	3.8%
EDUCATION & HEALTH												
Idaho	117,145	118,169	119,286	120,328	121,315	122,289	123,244	124,177	125,085	126,059	127,104	128,222
% Ch	4.2%	3.5%	3.8%	3.5%	3.3%	3.2%	3.2%	3.1%	3.0%	3.2%	3.4%	3.6%
National (Thousands)	24,086	24,774	24,897	24,805	24,995	24,973	25,052	25,161	25,268	25,357	25,386	25,394
% Ch	-1.6%	11.9%	2.0%	-1.5%	3.1%	-0.4%	1.3%	1.8%	1.7%	1.4%	0.5%	0.1%
LEISURE & HOSPITALITY												
Idaho	87,121	87,452	88,096	89,112	90,619	91,893	92,797	93,453	93,849	94,448	95,309	96,389
% Ch	1.2%	1.5%	3.0%	4.7%	6.9%	5.7%	4.0%	2.9%	1.7%	2.6%	3.7%	4.6%
National (Thousands)	15,813	15,499	15,558	16,431	16,559	16,747	16,973	17,059	17,060	17,078	17,034	17,003
% Ch	-6.6%	-7.7%	1.5%	24.4%	3.2%	4.6%	5.5%	2.1%	0.0%	0.4%	-1.0%	-0.7%
OTHER SERVICES												
Idaho	26,695	26,904	27,177	27,506	27,913	28,286	28,623	28,928	29,200	29,447	29,668	29,866
% Ch	1.9%	3.2%	4.1%	4.9%	6.1%	5.5%	4.8%	4.3%	3.8%	3.4%	3.0%	2.7%
National (Thousands)	5,978	6,089	6,218	6,258	6,307	6,296	6,311	6,321	6,337	6,353	6,355	6,350
% Ch	9.7%	7.6%	8.8%	2.6%	3.2%	-0.7%	1.0%	0.6%	1.0%	1.0%	0.1%	-0.3%
TRADE												
Idaho	127,435	127,345	127,576	128,068	129,303	130,668	131,616	132,477	133,175	133,838	134,497	135,164
% Ch	0.0%	-0.3%	0.7%	1.6%	3.9%	4.3%	2.9%	2.6%	2.1%	2.0%	2.0%	2.0%
National (Thousands)	21,704	21,461	21,317	20,880	20,580	20,807	20,648	20,506	20,343	20,121	20,131	20,153
% Ch	-0.4%	-4.4%	-2.7%	-8.0%	-5.6%	4.5%	-3.0%	-2.7%	-3.1%	-4.3%	0.2%	0.4%
RETAIL TRADE												
Idaho	94,127	94,094	94,325	94,762	95,767	96,844	97,593	98,256	98,773	99,266	99,758	100,256
% Ch	0.0%	-0.1%	1.0%	1.9%	4.3%	4.6%	3.1%	2.7%	2.1%	2.0%	2.0%	2.0%
National (Thousands)	15,698	15,403	15,062	14,588	14,232	14,445	14,242	14,059	13,846	13,581	13,566	13,568
% Ch	-2.5%	-7.3%	-8.6%	-12.0%	-9.4%	6.1%	-5.5%	-5.1%	-5.9%	-7.4%	-0.4%	0.1%
WHOLESALE TRADE												
Idaho	33,308	33,251	33,251	33,306	33,536	33,824	34,023	34,221	34,402	34,572	34,740	34,907
% Ch	-0.2%	-0.7%	0.0%	0.7%	2.8%	3.5%	2.4%	2.3%	2.1%	2.0%	1.9%	1.9%
National (Thousands)	6,007	6,058	6,255	6,292	6,348	6,362	6,405	6,447	6,497	6,540	6,564	6,584
% Ch	5.5%	3.5%	13.7%	2.4%	3.6%	0.9%	2.8%	2.6%	3.1%	2.7%	1.5%	1.2%
STATE & LOCAL GOVERNMENT												
Idaho	113,777	114,252	114,837	115,289	115,669	116,030	116,381	116,714	117,071	117,430	117,789	118,144
% Ch	3.1%	1.7%	2.1%	1.6%	1.3%	1.3%	1.2%	1.1%	1.2%	1.2%	1.2%	1.2%
National (Thousands)	19,472	19,589	19,706	19,824	19,943	20,063	20,183	20,304	20,426	20,549	20,672	20,796
% Ch	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
EDUCATION												
Idaho	58,759	59,178	59,672	60,055	60,411	60,727	61,012	61,274	61,505	61,739	61,976	62,217
% Ch	5.4%	2.9%	3.4%	2.6%	2.4%	2.1%	1.9%	1.7%	1.5%	1.5%	1.5%	1.6%
NONEDUCATION												
Idaho	55,018	55,074	55,165	55,234	55,258	55,303	55,369	55,441	55,566	55,691	55,813	55,926
% Ch	0.6%	0.4%	0.7%	0.5%	0.2%	0.3%	0.5%	0.5%	0.9%	0.9%	0.9%	0.8%
FEDERAL GOVERNMENT												
Idaho	13,362	13,389	13,406	13,412	13,407	13,399	13,388	13,375	13,358	13,343	13,330	13,318
% Ch	1.1%	0.8%	0.5%	0.2%	-0.1%	-0.2%	-0.3%	-0.4%	-0.5%	-0.4%	-0.4%	-0.4%
National (Thousands)	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844
% Ch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

MISCELLANEOUS

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SELECTED CHAIN-WEIGHTED DEFL.												
Gross Domestic Product	111.497	112.181	112.602	112.989	113.380	112.808	113.600	113.920	114.346	114.726	115.207	115.701
% Ch	1.2%	2.5%	1.5%	1.4%	1.4%	-2.0%	2.8%	1.1%	1.5%	1.3%	1.7%	1.7%
Consumption Expenditures	109.042	109.726	110.108	110.529	110.882	110.387	111.294	111.602	112.212	112.813	113.425	114.015
% Ch	0.6%	2.5%	1.4%	1.5%	1.3%	-1.8%	3.3%	1.1%	2.2%	2.2%	2.2%	2.1%
Durable Goods	86.965	86.749	86.363	85.774	85.406	84.739	85.681	84.814	84.357	84.086	83.677	83.200
% Ch	-0.6%	-1.0%	-1.8%	-2.7%	-1.7%	-3.1%	4.5%	-4.0%	-2.1%	-1.3%	-1.9%	-2.3%
Nondurable Goods	98.579	99.359	99.239	99.673	99.544	97.798	98.832	98.784	99.591	100.333	101.149	101.948
% Ch	-2.4%	3.2%	-0.5%	1.8%	-0.5%	-6.8%	4.3%	-0.2%	3.3%	3.0%	3.3%	3.2%
Services	116.605	117.436	118.154	118.781	119.456	119.486	120.318	121.059	121.843	122.591	123.364	124.122
% Ch	1.7%	2.9%	2.5%	2.1%	2.3%	0.1%	2.8%	2.5%	2.6%	2.5%	2.5%	2.5%
Consumer Price Index	2.533	2.552	2.563	2.578	2.586	2.563	2.594	2.605	2.624	2.641	2.659	2.677
% Ch	0.9%	3.0%	1.8%	2.4%	1.2%	-3.5%	4.9%	1.7%	2.9%	2.7%	2.8%	2.7%
SELECTED INTEREST RATES												
Federal Funds	2.4%	2.4%	2.2%	1.6%	1.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
NY Fed Discount	3.0%	3.0%	2.8%	2.3%	1.8%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Prime	5.5%	5.5%	5.3%	4.8%	4.4%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	4.6%	4.2%	3.9%	3.9%	3.6%	3.3%	3.2%	3.3%	3.3%	3.3%	3.3%	3.3%
U.S. Govt. 3-Month Bills	2.4%	2.3%	2.0%	1.6%	1.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
U.S. Govt. 6-Month Bills	2.4%	2.3%	1.9%	1.6%	1.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
U.S. Govt. 5-Year Notes	2.5%	2.1%	1.6%	1.6%	1.2%	0.4%	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%
U.S. Govt. 10-Year Notes	2.7%	2.3%	1.8%	1.8%	1.4%	0.7%	0.6%	0.7%	0.8%	0.8%	0.9%	1.0%
EXCHANGE RATES (2012=1.000)												
Major Currency Trading Partners	1.411	1.433	1.445	1.448	1.469	1.494	1.417	1.393	1.383	1.344	1.323	1.305
% Ch	4.6%	6.4%	3.4%	0.7%	6.1%	7.0%	-19.2%	-6.6%	-2.8%	-10.7%	-6.2%	-5.4%
Other Important Trading Partners	1.426	1.448	1.482	1.489	1.512	1.612	1.559	1.560	1.545	1.485	1.447	1.422
% Ch	-3.3%	6.4%	9.7%	1.9%	6.3%	29.2%	-12.6%	0.3%	-3.7%	-14.6%	-10.0%	-6.7%
SELECTED US PRODUCTION INDICES												
Wood Products	125.0	125.6	127.3	129.4	130.7	115.6	125.0	128.0	128.8	128.9	129.3	129.8
% Ch	-1.8%	1.9%	5.8%	6.5%	4.1%	-38.7%	36.5%	10.0%	2.6%	0.3%	1.2%	1.5%
Computers & Electronic Products	124.8	126.0	128.0	129.9	132.0	126.0	130.9	134.1	136.9	139.0	141.1	143.1
% Ch	8.7%	4.0%	6.3%	6.2%	6.4%	-16.9%	16.7%	10.0%	8.5%	6.5%	6.1%	5.6%
Food	115.1	115.3	114.6	116.1	116.5	107.9	114.0	116.6	118.5	120.0	121.2	121.7
% Ch	7.0%	0.7%	-2.4%	5.3%	1.4%	-26.5%	24.5%	9.5%	6.7%	5.2%	3.9%	1.8%
Agricultural Chemicals	120.5	125.4	120.4	122.1	120.9	112.8	112.3	114.1	115.0	115.6	116.2	116.7
% Ch	-5.7%	17.1%	-15.0%	5.8%	-3.9%	-24.1%	-2.0%	6.6%	3.4%	2.1%	2.0%	1.8%
Metal Ore Mining	91.9	96.1	91.8	92.5	98.0	91.8	94.4	94.7	94.6	94.6	94.5	94.5
% Ch	-15.8%	19.7%	-16.6%	2.8%	26.1%	-23.0%	12.0%	1.0%	-0.1%	-0.2%	-0.1%	-0.2%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
OCTOBER 2020**

MISCELLANEOUS

	Q1	2022 Q2	Q3	Q4	Q1	2023 Q2	Q3	Q4	Q1	2024 Q2	Q3	Q4
SELECTED CHAIN-WEIGHTED DEFL.												
Gross Domestic Product	116.160	116.631	117.107	117.619	118.152	118.688	119.243	119.811	120.385	120.992	121.616	122.245
% Ch	1.6%	1.6%	1.6%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	2.0%	2.1%	2.1%
Consumption Expenditures	114.498	115.000	115.473	115.961	116.446	116.917	117.406	117.905	118.406	118.945	119.501	120.053
% Ch	1.7%	1.8%	1.7%	1.7%	1.7%	1.6%	1.7%	1.7%	1.7%	1.8%	1.9%	1.9%
Durable Goods	82.730	82.288	81.883	81.491	81.108	80.713	80.318	79.927	79.550	79.197	78.851	78.501
% Ch	-2.2%	-2.1%	-2.0%	-1.9%	-1.9%	-1.9%	-1.9%	-1.9%	-1.9%	-1.8%	-1.7%	-1.8%
Nondurable Goods	102.380	102.902	103.385	103.799	104.152	104.488	104.833	105.185	105.543	105.940	106.350	106.755
% Ch	1.7%	2.1%	1.9%	1.6%	1.4%	1.3%	1.3%	1.3%	1.4%	1.5%	1.6%	1.5%
Services	124.847	125.562	126.237	126.960	127.696	128.422	129.173	129.937	130.699	131.503	132.328	133.148
% Ch	2.4%	2.3%	2.2%	2.3%	2.3%	2.3%	2.4%	2.4%	2.4%	2.5%	2.5%	2.5%
Consumer Price Index	2.690	2.704	2.717	2.731	2.744	2.756	2.769	2.782	2.795	2.809	2.824	2.838
% Ch	1.9%	2.2%	2.0%	2.0%	1.9%	1.8%	1.9%	1.9%	1.9%	2.1%	2.1%	2.0%
SELECTED INTEREST RATES												
Federal Funds	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
NY Fed Discount	0.3%	0.3%	0.3%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Prime	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	3.3%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.5%	3.5%	3.5%	3.6%
U.S. Govt. 3-Month Bills	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
U.S. Govt. 6-Month Bills	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%
U.S. Govt. 5-Year Notes	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.9%
U.S. Govt. 10-Year Notes	1.1%	1.1%	1.2%	1.3%	1.3%	1.3%	1.3%	1.4%	1.4%	1.5%	1.5%	1.6%
EXCHANGE RATES (2012=1.000)												
Major Currency Trading Partners	1.297	1.289	1.279	1.272	1.267	1.267	1.267	1.267	1.266	1.264	1.262	1.262
% Ch	-2.3%	-2.3%	-3.0%	-2.3%	-1.4%	-0.1%	-0.1%	0.1%	-0.4%	-0.5%	-0.6%	-0.1%
Other Important Trading Partners	1.406	1.393	1.389	1.387	1.387	1.388	1.387	1.387	1.389	1.389	1.389	1.389
% Ch	-4.6%	-3.6%	-1.1%	-0.6%	0.1%	0.1%	-0.1%	0.0%	0.5%	-0.1%	0.1%	0.0%
SELECTED US PRODUCTION INDICES												
Wood Products	130.0	130.1	130.1	129.9	129.6	129.4	129.4	129.4	129.5	129.5	129.6	130.0
% Ch	0.6%	0.3%	0.0%	-0.5%	-0.8%	-0.5%	-0.3%	0.2%	0.1%	0.2%	0.2%	1.3%
Computers & Electronic Products	144.6	145.7	146.7	147.6	148.4	149.2	150.1	150.9	151.7	152.5	153.2	154.0
% Ch	4.3%	3.2%	2.8%	2.4%	2.3%	2.2%	2.3%	2.2%	2.1%	2.0%	2.1%	2.1%
Food	122.2	122.7	123.2	123.7	124.1	124.7	125.2	125.7	126.2	126.8	127.3	127.9
% Ch	1.6%	1.7%	1.6%	1.5%	1.6%	1.7%	1.6%	1.7%	1.7%	1.7%	1.8%	1.8%
Agricultural Chemicals	117.2	117.7	118.3	118.8	119.3	119.8	120.3	120.9	121.3	121.8	122.2	122.6
% Ch	1.7%	1.8%	1.9%	1.8%	1.7%	1.6%	1.7%	1.8%	1.6%	1.5%	1.4%	1.3%
Metal Ore Mining	94.4	94.3	94.1	93.9	93.5	93.2	92.8	92.3	91.8	91.4	90.9	90.4
% Ch	-0.3%	-0.6%	-0.8%	-1.0%	-1.3%	-1.6%	-1.7%	-2.0%	-2.1%	-2.0%	-2.0%	-2.1%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2020

This page is left blank intentionally.

APPENDIX

IHS Markit's US Macroeconomic Model	Page 66
Idaho Economic Model: Equations	Page 70
Identities	Page 73
Exogenous Variables	Page 76
Endogenous Variables	Page 78

THE IHS Markit US MACROECONOMIC MODEL

IHS Markit (IHS) Macroeconomic Model is a multiple-equation model of the US economy. Consisting of over 1,200 equations, the model is solved iteratively to generate the results of different policy and forecast scenarios. The model incorporates the best insights of many theoretical schools of thought to depict the economic decision processes and interactions of households, businesses, and governments.

The IHS model is divided into the following eight major sectors:

- I Private Domestic Spending**
- II Production and Income**
- III Taxes**
- IV International Transactions**
- V Financial**
- VI Inflation**
- VII Supply**
- VIII Expectations**

- I. **Private Domestic Spending.** Major aggregate demand components include consumption, investment, and government. Consumer purchases are divided among three categories: durable goods, nondurable goods, and services. In nearly all cases, real expenditures are influenced by real income and the relative price of consumer goods. Durable and semi-durable goods are also sensitive to household net worth, current finance costs, and consumer sentiment.

IHS divides investment into two general categories: fixed investment and inventories. The former is driven by utilization rates, capital stock, relative prices, financial market conditions, financial balance sheet conditions, and government policies. Inventory investment is heavily influenced by such factors as past and present sales levels, vendor performance, and utilization rates.

The government sector is divided into federal government and state and local government. Most of the federal expenditure side is exogenous. Federal receipts are endogenous and divided into personal taxes, corporate taxes, indirect business taxes, and contributions for social insurance. State and local sector receipts depend primarily on federal grants and various tax rates and bases. State and local government spending is driven by legal requirements (i.e., balanced budgets), the level of federal grants (due to the matching requirements of many programs), population growth, and trend increases in personal income.

- II. **Production and Income.** The industrial production sector includes 74 standard industrial classifications. Production is a function of various cyclical and trend variables and a generated output term, i.e., the input-output (I-O) relationship between the producing industry and both intermediate industries and final demand. The cyclical and trend variables correct for changes in I-O coefficients that are implied by the changing relationship between buyers and sellers.

Pre-tax income categories include private and government wages, corporate profits, interest rate, and entrepreneurial returns. Each of these categories, except corporate profits, is determined by some combination of wages, prices, interest rates, debt levels, capacity utilization rate, and unemployment rate. Corporate profits are calculated as the residual of total national income less the nonprofit components of income mentioned above.

- III. **Taxes.** The model tracks personal, corporate, payroll, and excise taxes separately. Tax revenues are simultaneously forecast as the product of the rate and the associated pre-tax income components. The model automatically adjusts the effective average personal tax rate for variations in inflation and income per household, and the effective average corporate rate for credits earned on equipment, utility structures, and R&D. State taxes are fully endogenous, except for corporate profits and social insurance tax rates.
- IV. **International.** The international sector can either add or divert strength from the central flow of domestic income and spending. Imports' ability to capture varying shares of domestic demand depends on the prices of foreign output, the US exchange rate, and competing domestic prices. Exports' portion of domestic spending depends on similar variables and the level of world gross domestic product. The exchange rate itself responds to international differences in inflation, interest rates, trade deficits, and capital flows between the US and its competitors. Investment income flows are also explicitly modeled.
- V. **Financial.** The IHS model includes a highly detailed financial sector. Several short- and long-term interest rates are covered in this model, and they are the key output of this sector. The short-term rates depend upon the balance between the demand and supply of reserves in the banking system. The supply of reserves is the primary exogenous monetary policy lever within the model, reflecting the Federal Reserve's open market purchases or sales of Treasury securities. Longer-term interest rates are driven by shorter-term rates as well as factors affecting the slope of the yield curve. These factors include inflation expectations, government borrowing requirements, and corporate finance needs.
- VI. **Inflation.** Inflation is modeled as a controlled, interactive process involving wages, prices, and market conditions. The principal domestic cost influences are labor compensation, nonfarm productivity, and foreign input costs that later are driven by the exchange rate, the price of oil, and foreign wholesale price inflation. This set of cost influences drives each of the industry-specific producer price indexes, in combination with a demand pressure indicator and appropriately weighted composites of the other producer price indexes.
- VII. **Supply.** In this model, aggregate supply (or potential GNP), is estimated by a Cobb-Douglas production function that combines factor input growth and improvements to total factor productivity. Factor input equals a weighted average of labor, business fixed capital, and energy. Factor supplies are defined by estimates of the full employment labor force, the full employment capital stock net of pollution abatement equipment, the domestic production of petroleum and natural gas, and the stock of infrastructure. Total factor productivity depends upon the stock of research and development capital and trend technological change.
- VIII. **Expectations.** Expectations impact several expenditure categories in the model, but the principal nuance relates to the entire spectrum of interest rates. Shifts in price expectations or the expected government capital needs influences are captured directly in this model through price expectations and budget deficit terms. The former impacts all interest rates and the latter impacts intermediate- and long-term rates. On the expenditure side, inflationary expectations impact consumption via consumer sentiment, while growth expectations affect business investment.

THE IDAHO ECONOMIC MODEL

The Idaho Economic Model (IEM) is an income and employment based model of Idaho's economy. The Model consists of a simultaneous system of linear regression equations, which are estimated using quarterly data. The primary exogenous variables are obtained from the IHS Economics US Macroeconomic Model. Endogenous variables are forecast at the statewide level of aggregation.

The focal point of the IEM is Idaho personal income, which is given by the identity:

**personal income = wage and salary payments + other labor
income + farm proprietors' income + nonfarm proprietors'
income + property income + transfer payments - contributions
for social insurance + residence adjustment.**

With the exception of farm proprietors' income and wage and salary payments, each of the components of personal income is estimated stochastically by a single equation. Farm proprietors' income and wage and salary payments each comprise submodels containing a system of stochastic equations and identities.

The farm proprietor sector is estimated using a highly-aggregated submodel consisting of equations for crop marketing receipts, livestock marketing receipts, production expenses, inventory changes, imputed rent income, corporate farm income, and government payments to farmers. Farm proprietors' income includes inventory changes and imputed rent, but this component is netted out of the tax base.

At the heart of the IEM is the wage and salary sector, which includes stochastic employment equations for 23 North American Industry Classification System employment categories. Conceptually, the employment equations are divided into basic and domestic activities. The basic employment equations are specified primarily as functions of national demand and supply variables. Domestic employment equations are specified primarily as functions of state-specific demand variables. Average annual wages are estimated for several broad employment categories and are combined with employment to arrive at aggregate wage and salary payments.

The demographic component of the model is used to forecast components of population change and housing starts. Resident population, births, and deaths are modeled stochastically. Net migration is calculated residually from the estimates for those variables. Housing starts are divided into single and multiple units. Each equation is functionally related to economic and population variables.

The output of the IEM (i.e., the forecast values of the endogenous variables) is determined by the parameters of the equations and the values of exogenous variables over the forecast period. The values of equation parameters are determined by the historic values of both the exogenous and endogenous variables. IEM equation parameters are estimated using the technique of ordinary least squares. Model equations are occasionally re-specified in response to the dynamic nature of the Idaho and national economies. Parameter values for a particular equation (given the same specification) may change as a result of revisions in the historic data or a change in the time interval of the estimation. In general, parameter values should remain relatively constant over time, with changes reflecting changing structural relationships.

While the equation parameters are determined by structural relationships and remain relatively fixed, the forecast period exogenous variable values are more volatile determinants of the forecast values of endogenous variables. They are more often subject to change as expectations regarding future economic behavior change, and they are more likely to give rise to debate over appropriate values. As mentioned

above, the forecast period values of exogenous variables are primarily obtained from IHS Economics US macroeconomic model.

Since the output of the IEM depends in large part upon the output of the IHS Economics model, an understanding of the IHS Economics model, its input assumptions, and its output is useful in evaluating the results of the IEM's forecast. The assumptions and output of the IHS Economics model are discussed in the National Forecast section.

IDAHO ECONOMIC MODEL: Equations and Identities

Equations

$$\text{EEA_ID_2100} = 1465.597 + 11.409 * @\text{MOVAV}(\text{ID0IP2122_2123}(-1),4) - 2356.077 * \text{JECIWSP/WPI10} + 1587.384 * \text{ENRM21}$$

$$\begin{aligned} \text{EEA_ID_2300} = & -45270.856 + 2084.296 * \text{RMMTG30CON} + 0.328 * \text{HHAO} + \\ & 212.991 * \text{ID0HSPRS1_A} + 182.564 * \text{ID0HSPRS1_A}(-1) + 152.13 \text{ EEA_ID_2100} = \\ & 1465.597 + 11.409 * @\text{MOVAV}(\text{ID0IP2122_2123}(-1),4) - 2356.077 * \text{JECIWSP/WPI10} + \\ & 1587.384 * \text{ENRM21} + 17 * \text{ID0HSPRS1_A}(-2) + 121.709 * \text{ID0HSPRS1_A}(-3) + \\ & 91.282 * \text{ID0HSPRS1_A}(-4) + 60.855 * \text{ID0HSPRS1_A}(-5) + 30.427 * \text{ID0HSPRS1_A}(-6) \\ & + 0.172 * \text{EEA_ID_44_45} + 0.148 * \text{EEA_ID_44_45}(-1) + 0.123 * \text{EEA_ID_44_45}(-2) \\ & + 0.098 * \text{EEA_ID_44_45}(-3) + 0.074 * \text{EEA_ID_44_45}(-4) + 0.049 * \text{EEA_ID_44_45}(-5) \\ & + 0.025 * \text{EEA_ID_44_45}(-6) \end{aligned}$$

$$\begin{aligned} \text{EEA_ID_3110} = & 20286.498 + 196.993 * @\text{MOVAV}(\text{IPSG311}(-1),4) - \\ & 458.589 * @\text{MOVAV}((\text{IPSG311}/\text{EMN311}),6) + \\ & 268.469 * @\text{MOVAV}(\text{JEXCHOITPREAL}(-1),2) + 40.729 * @\text{TREND} \end{aligned}$$

$$\text{EEA_ID_3230} = -1177.125 + 27.216 * @\text{MOVAV}(\text{IPSG323},4) - 8.648 * @\text{MOVAV}((\text{IPSG323}/\text{EMN323}),2) + 8.695 * @\text{TREND}$$

$$\text{EEA_ID_3250} = 792.237 + 5.833 * \text{IPSG3253} + 2.192 * \text{IFNRES}$$

$$\text{EEA_ID_3320} = 1036.153 + 13.131 * @\text{MOVAV}(\text{IPSG332},2) + 0.046 * \text{HHAF} + 21.422 * @\text{MOVAV}(@\text{DURING}("2010q1\ 2016q4") * @\text{TREND}("2010q1"),3)$$

$$\text{EEA_ID_3330} = 20.583 + 0.132 * @\text{MOVAV}(\text{IPSG3332},8) * @\text{TREND} - 1.306 * @\text{TREND} + 707.867 * @\text{MOVAV}(\text{JEXCHOITPREAL}(-1),4)$$

$$\begin{aligned} \text{EEA_ID_3340} = & @\text{BEFORE}("2009Q1") * (61726.918 + 77.018 * \text{IPSG334}(-3) + \\ & 54.902 * \text{IPSG3342} - 630.672 * \text{JPC}(-2)) + @\text{AFTER}("2009Q1") * (7748.164 + \\ & 65.047 * \text{IPSG334}(-3) - 34.151 * \text{IPSG3342} + 10.795 * \text{JPC}(-2)) \end{aligned}$$

$$\begin{aligned} \text{EEA_ID_4200} = & 0.149 * \text{EEA_ID_44_45} + 2841.630 * \text{EWST42} + \\ & 60.280 * @\text{TREND}("2009q1") * @\text{AFTER}("2009q1") + 173.397 * @\text{BEFORE}("2009q4") - \\ & 1918.477 \end{aligned}$$

$$\begin{aligned} \text{EEA_ID_44_45} = & 46448.665 + 52.239 * @\text{MOVAV}(\text{YPADJ_ID},4) / @\text{MOVAV}(\text{JPC},4) + \\ & 2243.675 * @\text{PCY}(\text{ID0NPT}) + 208.820 * @\text{MOVAV}(@\text{DURING}("2004Q1\ 2008Q1") * \\ & @\text{TREND}("2004Q1"),4) \end{aligned}$$

$$\text{EEA_ID_48_49_22} = -7691.808 + 0.564 * @\text{MOVAV}(\text{EEA_ID_4200},2) + 9257.901 * @\text{MOVAV}(\text{ID0NPT}(-1),8)$$

$$\text{EEA_ID_5100} = 283.441 + 34.063 * @\text{MOVAV}(\text{IPSG51111},4) + 35.500 * @\text{TREND} - 533.413 * @\text{MOVAV}(\text{JEXCHMTPREAL}(-1),2)$$

EEA_ID_52_53 = 9600.827 + 35.873*YPADJ_ID/JPC + 89.217*@MOVAV(ID0HSPR(-1),4) + 143.120*@MOVAV(@DURING("2004Q1 2008Q1") * @TREND("2004Q1"),4)

EEA_ID_54_55_56 = -215051.578 + 0.812*@MOVAV(ID0YP(-1),4) - 14243.807*EDRE + 11249.560*EDRIPS

EEA_ID_61_62 = -34582.329 + 2.490*ID0YTR\$ + 60385.998*ID0NPT

EEA_ID_71_72 = -32887.052 + 2.546*@MOVAV((ID0YP/ID0NPT),2) + 0.348*@TREND*JPC

EEA_ID_8100 = 5548.193 + 28.639*@MOVAV(YPADJ_ID,4)/@MOVAV(JPC,4)

EEA_ID_GVF = 202.160*GFOCWSS - 0.693*GFOCWSS*@TREND + 287.825*DUMCENSUS + [AR(1) = 0.985, ESTSMPL = "1991Q2 2020Q1"]

EEA_ID_GVSLAD = @BEFORE("2005Q1")*(-3360.220 + 33337.234*@MOVAV(ID0NPT,4) + 0.228*@MOVAV(ID0YPTXB(-4),4)) + @AFTER("2005Q1")*(49490.331 - 7257.924*@MOVAV(ID0NPT,4) + 0.325*@MOVAV(ID0YPTXB(-4),4))

EEA_ID_GVSLED = 2936.465 + 139320.660*ID0NPT*((N - N16A)/N) + 0.130*ID0YPTXB

EEA_ID_MFDNEC = -19746.592 + 51.423*(@MOVAV(IPSG335,2) + @MOVAV(IPSG339,2)) + 0.088*GDPR + 124.362*EEA

EEA_ID_MFNNEC = -292.889 + 26.576*@MOVAV(IPSG322,2) + 0.047*HHAF

EEA_ID_WOOD = 8791.247 + 62.338*@MOVAV(IPSG321,2) - 9950.676*JECIWSP/WPI08 - 9.969*IPSG321/EMD321

ID0AHEMF = @BEFORE("2005Q3")* - 34.038 + @DURING("2005Q3 2012Q3")*167.009 + @AFTER("2012Q4")*165.964 - 0.620*@AFTER("2005q3")*HPMF + 3.181*EDRE - 4.441*@AFTER("2005q3")*EDRIPS + 3.521*EEA_ID_DMANU(-1)/EEA_ID_MANU(-1)*@MOVAV(JECIWSP(-1),4) + 13.467*EEA_ID_NMANU(-1)/EEA_ID_MANU(-1)*@MOVAV(JECIWSP(-1),4) + 0.024*@DURING("2004Q1 2008Q1") * @TREND("2004Q1")^1.500

ID0CRCROP = 429.961 + 1.363e-05*CRCROP

ID0CRLVSTK = -1869.044 + 1.487e-05*CRCATCVS + 6.807e-05*CRDAIRY + 15.545*@TREND

ID0EXFP = -992.037 + 294.005*WPI01 + 11.127*@TREND + 1.672e-05*EXPUS\$

ID0HSPRS1_A = -581.589 - 0.835*(RMMTGEXIST(-1) -
 @MOVAV(RMMTGEXIST(-8),4)) + 574.998*ID0KHU1(-1)/ID0KHU1(-4) +
 0.029*@TREND*@MOVAV(ID0NPT(-4),4)

ID0HSPRS2A_A = @BEFORE("2017Q1")*(-0.437*RMMTGEXIST +
 713.865*IPSG321/@MOVAV(ID0WRWCC\$(-1),2) +
 0.018*@MOVAV(IPSN32732T9(-1),2)) + @AFTER("2017Q1")*(-
 1.758*RMMTGEXIST - 2793.306*IPSG321/@MOVAV(ID0WRWCC\$(-1),2) +
 0.150*@MOVAV(IPSN32732T9(-1),2)) - 0.831*@BEFORE("2013q4")

ID0NB = -4.760 + 17.596*ID0NPT + 0.138*@MOVAV(ID0NB(-100),3) -
 0.147*@AFTER("2007Q4") * @TREND("2007Q4")

ID0ND = 6.468 - 0.166*ID0NPT + 1.994e-04*@TREND^2

ID0NPT = 0.435 + 3.536e-07*@MOVAV(EEA_ID,4) + 0.005*@TREND

ID0WBBF\$ = 389.902 - 59.325*(WPI01 + WPI02)/JEXCHOITPREAL +
 0.050*YPCOMPWSD + 5.402*@DURING("2009Q2 2014Q4") * @TREND("2009Q2")

ID0WBBMIL\$ = 94.883 + 559.898*(ID0NPT/N)*GFMLCWSS + 0.655*D(GFML) -
 0.303*GF - 3.002*@AFTER("2007Q4") * @TREND("2007Q4") +
 16.971*@RECODE(@ABS(RMFF_0 - RMFF_0(-4)) > 1, D(RUC_0) , 0) *
 @RECODE(@AFTER("2019Q1"), .25, 1)

ID0WRWCC\$ = 426.839*ID0AHEMF + 3.415*YPCOMPWSD + 8709.720 -
 772.197*@AFTER("2011q4")*RMMTG30CON

ID0WRWMF\$ = 7683.583 + 217.483*ID0AHEMF + 5.679*YPCOMPWSD

ID0WRWOTH\$ = 4399.105 + 121.183*@TREND + 545.755*D(ID0AHEMF) +
 1.545*YPCOMPWSD

ID0YDIR\$ = -307.527 + 1.114*(YPAINT + ZADIV +
 YPRENTADJ)*@MOVAV(ID0YP\$(-1),4)/@MOVAV(YP(-1),4)

ID0YFC\$ = 4.064 + 0.859*ID0YFC\$(-1) + 0.153*@TREND

ID0YINV_R\$ = -12.051 + 0.512*ID0YINV_R\$(-1) + 0.901*@TREND +
 0.650*YPPROPADJF

ID0YPRF\$ = -58.817 + 915.440*(ID0CRCROP + ID0CRLVSTK + ID0YTRF\$ +
 ID0YINV_R\$ - ID0YFC\$ - ID0EXFP)/1000 + 1.860*@TREND

ID0YPRNF\$ = 2185.594 + 2.217*YPPROPADJNF - 2.258*YPRENTADJ +
 75.823*@AFTER("2007Q4") * @TREND("2007Q4")

ID0YRA\$ = @BEFORE("2012Q1")*0.034*ID0WBB\$ +
 @AFTER("2012Q1")*0.046*ID0WBB\$ + 156.350 + 0.010*HHAF - 0.021*HHAO

$$ID0YSI\$ = -65.869 + 1.190 * TXSIDOM * ID0WBB\$ / YPCOMPWSD$$

$$ID0YSUP\$ = 47.502 + 1.521 * YPCOMPSUPPAI * (ID0WBB\$ / YPCOMPWSD)$$

$$ID0YTR\$ = -280.759 + 906.580 * (YPTRFGF + YPTRFGSL) * (ID0NPT / N)$$

$$ID0YTRF\$ = 13.61022760 + 9.49e-06 * TRF\$US + 0.039 * ID0CRCROP - 0.028 * ID0CRLVSTK$$

Identities

$$ID0YPTXB = (ID0YP\$ - ID0YSI\$ - ID0YTR\$) / JPC * 100$$

$$ID0NMG = (ID0NPT - ID0NPT(-4)) - ((ID0NB - ID0ND) / 1000)$$

$$ID0WBBOTH\$ = ID0WRWOTH\$ * (EEA_ID - EEA_ID_2300 - EEA_ID_MANU) / 1000000$$

$$ID0YPNF = ID0YPNF\$ / JPC * 100$$

$$ID0YP = ID0YP\$ / JPC * 100$$

$$ID0YPNFPC = ID0YPNF\$ / JPC * 100 / ID0NPT$$

$$YPADJ_ID = ID0YPNF\$ + @MOVAV(ID0YPRF\$, 4) + @MOVAV(ID0WBBF\$, 4)$$

$$IDWAGE = (ID0WBB\$ - ID0WBBF\$ - ID0WBBMIL\$) / EEA_ID * 1000000$$

$$ID0YPPC = ID0YP / ID0NPT$$

$$ID0YP\$PC = ID0YP\$ / ID0NPT$$

$$EEA_ID_GVSL = EEA_ID_GVSLAD + EEA_ID_GVSL$$

$$EEA_ID_GV = EEA_ID_GVSL + EEA_ID_GVF$$

$$EEA_ID_SV = EEA_ID_48_49_22 + EEA_ID_5100 + EEA_ID_52_53 + EEA_ID_54_55_56 + EEA_ID_61_62 + EEA_ID_71_72 + EEA_ID_8100$$

$$EEA_ID_NONGOODS = EEA_ID_SV + EEA_ID_4200 + EEA_ID_44_45 + EEA_ID_GV$$

$$EEA_ID_DMANU = EEA_ID_WOOD + EEA_ID_3320 + EEA_ID_3330 + EEA_ID_3340 + EEA_ID_MFDNEC$$

$$EEA_ID_NMANU = EEA_ID_3110 + EEA_ID_3230 + EEA_ID_3250 + EEA_ID_MFNNEC$$

$$EEA_ID_MANU = EEA_ID_DMANU + EEA_ID_NMANU$$

$$EEA_ID_GOODS = EEA_ID_MANU + EEA_ID_2300 + EEA_ID_2100$$

$$EEA_ID = EEA_ID_GOODS + EEA_ID_NONGOODS$$

$$ID0HSPR = ID0HSPRS1_A + ID0HSPRS2A_A$$

$$ID0WBB\$ = ID0WBBMF\$ + ID0WBBOTH\$ + ID0WBBCC\$ + ID0WBBF\$ + ID0WBBMIL\$$$

$$ID0WBBCC\$ = (ID0WRWCC\$ * EEA_ID_2300) / 1000000$$

$$ID0WBBMF\$ = (ID0WRWMF\$ * EEA_ID_MANU) / 1000000$$

$$ID0YP\$ = ID0WBB\$ + ID0YSUP\$ + ID0YDIR\$ + ID0YPRNF\$ + ID0YPRF\$ + ID0YTR\$ + ID0YRA\$ - ID0YSIS\$$$

$$ID0YPNF\$ = ID0YP\$ - ID0YPRF\$ - ID0WBBF\$$$

$$ID0KHU1 = ((0.997)^{0.25} * ID0KHU1(-1) + ID0HSPRS1_A) / 4$$

$$ID0KHU2A = ((0.997)^{0.25} * ID0KHU2A(-1) + ID0HSPRS2A_A) / 4$$

$$ID0KHU = ID0KHU1 + ID0KHU2A$$

This page is left blank intentionally.

NATIONAL EXOGENOUS VARIABLES

CRCATCVS	Cash receipts, US cattle and calves
CRCROP	Cash receipts, US crops
CRDAIRY	Cash receipts, US dairy
DUMCENSUS	These are dummy variables used in regression equations to capture the impacts of discrete economic or noneconomic events such as strikes, plant opening or closures, unusual weather conditions, etc.
EDRE	Economic depreciation rate nonresidential capital
EDRIPS	Economic depreciation rate software
EEA	National Nonfarm Payrolls
EMD321	Employment in wood products
EMN311	Employment in food manufacturing
EMN323	Employment in printing and related support activities
ENRM21	Employment in mining
EWST42	Employment in wholesale trade
EXPUS\$	Agricultural production expenses, US
GF	Federal purchases of goods and services
GFML	Federal defense purchases of goods and services
GFMLCWSS	Federal government defense personnel outlays
GFOCWSS	Federal government nondefense personnel outlays
HHAF	Household financial assets
HHAO	Household holdings of real estate and other nonfinancial assets
HPMF	Average Weekly Hours in Manufacturing
ID0IP2122_2123	Industrial production index, metal and nonmetal ore mining, 2012=100.0
IFNRES	Private investment for nonresidential structures including mines
IPSG311	Industrial production index, food, 2012=100.0
IPSG321	Industrial production index, wood products, 2012=100.0
IPSG322	Industrial production index, paper, 2012=100.0
IPSG323	Industrial production index, printing, 2012=100.0
IPSG3253	Industrial production index, agricultural chemicals, 2012=100.0
IPSG332	Industrial production index, fabricated metal products, 2012=100.0
IPSG3332	Industrial production index, industrial machinery, 2012=100.0
IPSG334	Industrial production index, computer and electronic products, 2012=100.0
IPSG3342	Industrial production communications equipment, 2012 = 100.0
IPSG335	Industrial production index, electrical equipment, appliances, and components, 2012=100.0
IPSG339	Industrial production index, miscellaneous manufacturers, 2012=100.0
IPSG51111	Industrial production index, newspaper publishing, 2012=100.0
IPSN32732T9	Industrial production index, concrete and cement products, 2012=100.0
JECIWSP	Employment cost index—private sector wages and salaries, December 2005=1.00
JEXCHMTPREAL	Real US trade-weighted exchange rate with major currency trading partners, 2005=1.00
JEXCHOITPREAL	Real US trade-weighted exchange rate with other important trading partners, 2009=1.00

JPC	Implicit price deflator, personal consumption, 2009=100.0, chain weighted
N	Population, US
N16A	Population, US, aged 16 and older
RMMTG30CON	Commitment rate on conventional 30-year mortgage
RMMTGEXIST	Effective conventional mortgage rate, existing homes, combined lenders
TRF\$US	Government payments to US farms
TXSIDOM	Domestic social security tax receipts
WPI01	Producer price index, farm products, 1982=1.0
WPI02	Producer price index, processed foods and feeds, 1982=1.0
WPI08	Producer price index, lumber and wood products, 1982=1.0
WPI10	Producer price index, metals and metal products, 1982=1.0
YP	Personal income
YPAINT	Personal interest income
YPCOMPSUPPAI	Other labor income, US
YPCOMPWSD	Wage and salary disbursements
YPPROPADJF	Farm proprietors' income (with inventory valuation and capital consumption adjustments)
YPPROPADJNF	Nonfarm proprietors' income (with inventory valuation and capital consumption adjustments)
YPRENTADJ	Rental income of persons with capital consumption adjustment
YPTRFGF	Federal transfer payments to individuals
YPTRFGSL	State and local transfer payments to individuals
ZADIV	Dividends

IDAHO ENDOGENOUS VARIABLES

EEA_ID	Employment on nonagricultural payrolls, total
EEA_ID_2100	Employment in mining
EEA_ID_2300	Employment in construction
EEA_ID_3110	Employment in food processing
EEA_ID_3230	Employment in printing
EEA_ID_3250	Employment in chemicals
EEA_ID_3320	Employment in fabricated metal products
EEA_ID_3330	Employment in machinery
EEA_ID_3340	Employment in computers and electronic products
EEA_ID_4200	Employment in wholesale trade
EEA_ID_44_45	Employment in retail trade
EEA_ID_48_49_22	Employment transportation, warehousing, and utilities
EEA_ID_5100	Employment in information
EEA_ID_52_53	Employment in finance, insurance, and real estate
EEA_ID_54_55_56	Employment in professional, scientific, and technical services
EEA_ID_61_62	Employment in health care and educational services
EEA_ID_71_72	Employment in leisure and hospitality
EEA_ID_8100	Employment in other services
EEA_ID_DMANU	Employment in durable goods manufacturing
EEA_ID_GOODS	Employment in goods producing
EEA_ID_GV	Employment in government
EEA_ID_GVF	Employment in federal government
EEA_ID_GVSL	Employment in state and local government
EEA_ID_GVSLAD	Employment in state and local government, administration
EEA_ID_GVSLED	Employment in state and local government, education
EEA_ID_MANU	Employment in manufacturing
EEA_ID_MFDNEC	Employment in other durable manufacturing
EEA_ID_MFNNEC	Employment in other nondurable manufacturing
EEA_ID_NMANU	Employment in nondurable manufacturing
EEA_ID_NONGOODS	Employment in nongoods producing
EEA_ID_SV	Employment in services
EEA_ID_WOOD	Employment in wood products and logging
ID0AHEMF	Average hourly earnings in manufacturing
ID0CRCROP	Cash receipts, crops
ID0CRLVSTK	Cash receipts, livestock
ID0EXFP	Farm production expenses
ID0HSPR	Housing starts, total
ID0HSPRS1_A	Housing starts, single units
ID0HSPRS2A_A	Housing starts, multiple units
ID0KHU	Housing stock, total
ID0KHU1	Housing stock, single units
ID0KHU2A	Housing stock, multiple units
ID0NB	Number of births
ID0ND	Number of deaths
ID0NMG	Net in-migration of persons
ID0NPT	Resident population
ID0WBBS\$	Wage and salary disbursements

ID0WBBCC\$	Wage and salary disbursements, construction
ID0WBBF\$	Wage and salary disbursements, farm
ID0WBBMF\$	Wage and salary disbursements, manufacturing
ID0WBBMIL\$	Wage and salary disbursements, military
ID0WBBOTH\$	Wage and salary disbursements, except farm, manufacturing, military, and construction
ID0WRWCC\$	Average annual wage, construction
ID0WRWMF\$	Average annual wage, manufacturing
ID0WRWOTH\$	Average annual wage, except farm, manufacturing, military, and construction
ID0YDIR\$	Dividend, interest, and rent income
ID0YFC\$	Corporate farm income
ID0YINV_RS	Farm inventory value changes, imputed rent, and income
ID0YP	Total real personal income, 2005 dollars
ID0YP\$	Total personal income
ID0YP\$PC	Per capita personal income
ID0YPNF	Nonfarm personal income, 2005 dollars
ID0YPNF\$	Nonfarm personal income
ID0YPNFPC	Per capita nonfarm income, 2005 dollars
ID0YPPC	Real per capita personal income, 2005 dollars
ID0YPRF\$	Net farm proprietors' income
ID0YPRNF\$	Nonfarm proprietors' income
ID0YPTXB	Tax base, 2005 dollars
ID0YRA\$	Residence adjustment, personal income
ID0YSI\$	Contributions for social insurance
ID0YSUP\$	Other labor income
ID0YTR\$	Transfer payments to individuals
ID0YTRF\$	Government payments to Idaho farmers
IDWAGE	Idaho average annual wage
YPADJ_ID	Adjusted total personal income