

Idaho Economic Forecast

Brad Little, Governor
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DIVISION OF FINANCIAL MANAGEMENT
Executive Office of the Governor

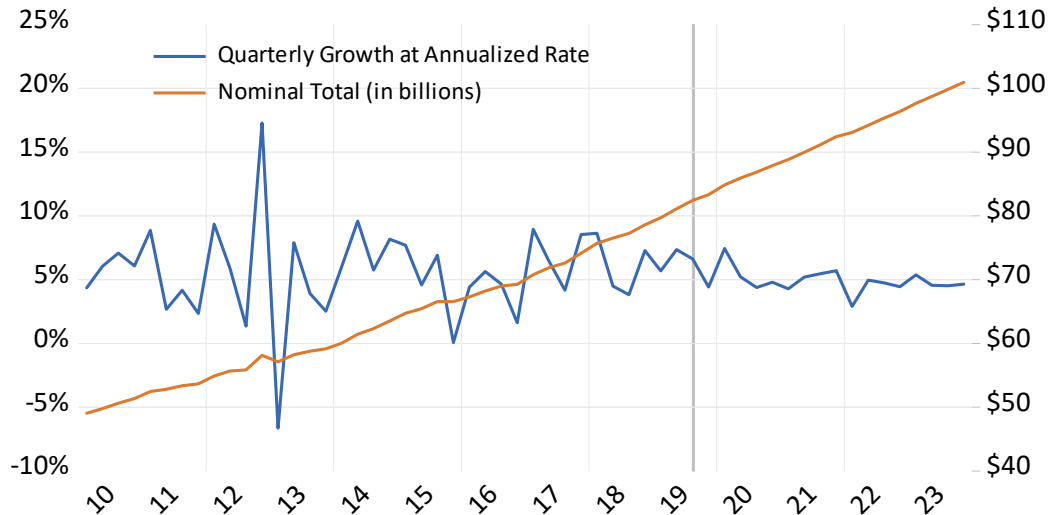
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- **Forecast 2019–2023**
- **“Involuntary Part-Time Work a Decade after the Recession”**
- **Alternative Forecasts**

Idaho Personal Income



**IDAHO
ECONOMIC
FORECAST
2019–2023**

State of Idaho
BRAD LITTLE
Governor

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INTRODUCTION

The primary national forecast presented in this publication is the November 2019 IHS Markit (IHS) baseline forecast of the US economy. The previous *Idaho Economic Forecast* was based on the September 2019 IHS baseline national forecast.

COVER

By tradition, this month's publication shows nominal personal income for Idaho on its cover. Two aspects of this are shown. The upward-to-the-right sloping curve shows the levels achieved and expected by Idaho's total personal income. These figures are in billions of dollars. They are not adjusted for inflation. That is what is meant by the term "nominal". The other curve, which is quite jagged, shows the annualized growth rates recorded for each quarter, and expected for the future. A reading of 4% means that if growth persisted for four quarters in a similar fashion, then one year hence, growth would register at 4%. In particular, for this example, the level of the actual quarter would be roughly one-percent higher than the previous quarter. The vertical grey line indicates the transition from historical data to forecast figures.

FEATURE

The traditional unemployment rate, the U-3 rate, measures those who are out of work and seeking work currently as a fraction of all those are either working or seeking work. There are broader measures of unemployment and underemployment provided by the Bureau of Labor Statistics (BLS). The U-6 rate is the broadest of these, and it measures unemployment, underemployment, and discouraged workers. One important piece of this measurement is the underemployment component. Workers who have part-time work may desire full-time work. These workers are termed involuntary part-time, or part-time for economic reasons. Other part-time workers may be content with the hours they work. Those workers are termed voluntary part-time, or part-time for non-economic reasons.

In "Involuntary Part-Time Work a Decade after the Recession", the San Francisco Federal Reserve Bank researcher Marianna Kudlyak studies the trends in part-time work across the past decade. Figures three and four in her article show transition rates to and from involuntary part-time work across time. One of the non-discussed facts presented there is that the scales of these probabilities are quite different. Once a worker has a part-time job and desires full-time work, the probability of transitioning to full-time work has recently been between one-in-four and one-in-three. It is instructive to compare that with the probability of transitioning to voluntary part-time status by consulting these figures.

A reader may be curious as to what time-frame the probabilities in the article reference. As the data comes from the Current Population Survey of the BLS, here is how a household in the survey remains within the survey, as described on the BLS website:

Part of the sample is changed each month. Each full monthly sample is split into 8 different subsamples called rotation groups. Each rotation group is itself a representative sample of the U.S. population. A given rotation group is interviewed for a total of 8 months, divided into two equal periods. The group is in the sample for 4 consecutive months, leaves the sample during the following 8 months, and then returns for another 4 consecutive months.¹

¹ <https://www.bls.gov/opub/hom/cps/design.htm>

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 2006 through 2023 and for every quarter from 2018 through 2023. The solution of the Idaho Economic Model (IEM) for this forecast begins with the third quarter of 2019.

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 second quarter of 2019 have been provided by the Idaho Department of Labor.

Personal income estimates in this report were released by the US Bureau of Economic Analysis (BEA) on September 24, 2019. BEA included revisions from 1998 forward. These were the most current data available.

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.

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EXECUTIVE SUMMARY

Dollar changes in US GDP have been \$804 billion for 2017 over 2016, then \$1.06 trillion for 2018 over 2017. The IHS projection for 2019 over 2018 is for an additional \$844 billion, and the expectation for 2020 over 2019 is for an additional \$909 billion. Adjusting for inflation, these nominal changes become what is termed real growth. As percentages, real growth came in at 2.4% for 2017, then 2.9% for 2018, and IHS is projecting 2.3% for 2019, with an expected 2.1% reading for 2020. The remainder of the forecast shows real growth at 2.0% in 2021, then 1.6% in 2022, and 1.5% in 2023.

Hampering the economy, but not included in the November IHS forecast, because the announcement just came from Boeing in December, is the halting of production of the 737-Max airliner. The firm has a preliminary estimate that real GDP will take a hit of 0.5 percentage points in the quarters of suspended production, should Boeings suppliers slow or halt production. That seems to be happening for supplier in the Wichita area. An unanticipated aid for the economy is the “phase one” trade deal between the US and China announced December 13. IHS had left in place the December 15 enactment of additional tariffs on the remaining Chinese goods imported into the US. Those were called off. Higher equity values have resulted. These raise household wealth and, with it, consumer spending. Consumer spending is the largest component of GDP. Likely, both imports and exports will also be higher due to the trade détente. The remaining key assumptions to the IHS forecast look to be met, and it is worth remembering that the US census will aid the economy in 2020. Jobs numbers will be boosted, and with that boost will be additional personal income.

Job growth at the national level is projected to slow, driven by demographics and low unemployment and underemployment rates. Headline unemployment has held at or below 4.0% since the start of 2019. Underemployment has fallen from 8.1% in January to 6.9% in November. Nonfarm jobs growth has been 1.6–1.8% in 2016–2018, and 1.6% is the projection for 2019. Under the forecast, that slows to 1.2% in 2020, then 0.8% in 2021, with just 0.4% in 2022 and 0.1% in 2023. IHS provides alternative forecasts. In the optimistic case, jobs growth slows to 1.4%, then 0.8%, with 0.3% in both 2022 and 2023. The firm puts this outcome at 10% likely. In the pessimistic case, jobs growth slows to 1.0% before reversing by 1.1% in a mild recession in 2021 which lingers to a further 0.2% nonfarm jobs contraction in 2022. This outcome is 35% likely by the firm’s estimate.

The forecast for Idaho’s nonfarm jobs is growth of 2.9% in 2019 diminishing just slightly to 2.7% in 2020. The figure is then tenaciously 2.0% across 2021–2023. This is quite a bit stronger than the national counterpart. Even in the pessimistic case, growth remains at or above 1.1%, while the optimistic case sees nonfarm jobs growth always above 2.4%. Personal income expands 6.0% in 2019 under the baseline, almost matches that at 5.8% in 2020, then slows a bit to 4.9% in 2021, 4.6% in 2022, and 4.8% in 2023. In the optimistic case, personal income growth stays above 5.5% across the forecast, whereas in the pessimistic case, personal income growth slows to 2.1% in 2021. Total personal income in Idaho is expected to be above \$86 billion in all three cases in 2020.

IDAHO ECONOMIC FORECAST
EXECUTIVE SUMMARY
JANUARY 2020

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
U.S. GDP (BILLIONS)											
Current \$	16,785	17,527	18,225	18,715	19,519	20,580	21,424	22,333	23,298	24,253	25,217
% Ch	3.6%	4.4%	4.0%	2.7%	4.3%	5.4%	4.1%	4.2%	4.3%	4.1%	4.0%
2009 Chain-Weighted	16,495	16,912	17,404	17,689	18,108	18,638	19,061	19,458	19,846	20,165	20,467
% Ch	1.8%	2.5%	2.9%	1.6%	2.4%	2.9%	2.3%	2.1%	2.0%	1.6%	1.5%
PERSONAL INCOME - CURR \$											
Idaho (Millions)	58,338	61,827	65,825	68,445	72,355	77,012	81,655	86,387	90,589	94,751	99,290
% Ch	3.9%	6.0%	6.5%	4.0%	5.7%	6.4%	6.0%	5.8%	4.9%	4.6%	4.8%
Idaho Nonfarm (Millions)	56,053	59,457	63,598	66,495	70,757	75,497	79,827	84,367	88,427	92,468	96,880
% Ch	3.5%	6.1%	7.0%	4.6%	6.4%	6.7%	5.7%	5.7%	4.8%	4.6%	4.8%
U.S. (Billions)	14,181	14,992	15,718	16,121	16,879	17,819	18,668	19,389	20,185	21,042	21,932
% Ch	1.2%	5.7%	4.8%	2.6%	4.7%	5.6%	4.8%	3.9%	4.1%	4.2%	4.2%
PERSONAL INCOME - 2009 \$											
Idaho (Millions)	57,561	60,123	63,878	65,753	68,301	71,210	74,424	77,305	79,615	81,542	83,632
% Ch	2.5%	4.5%	6.2%	2.9%	3.9%	4.3%	4.5%	3.9%	3.0%	2.4%	2.6%
Idaho Nonfarm (Millions)	55,307	57,819	61,717	63,879	66,792	69,809	72,758	75,497	77,716	79,577	81,601
% Ch	2.2%	4.5%	6.7%	3.5%	4.6%	4.5%	4.2%	3.8%	2.9%	2.4%	2.5%
U.S. (Billions)	13,992	14,579	15,253	15,487	15,933	16,477	17,016	17,351	17,741	18,109	18,473
% Ch	-0.1%	4.2%	4.6%	1.5%	2.9%	3.4%	3.3%	2.0%	2.2%	2.1%	2.0%
HOUSING STARTS											
Idaho	9,053	9,806	10,270	12,406	14,023	16,231	16,149	16,810	17,554	18,300	18,939
% Ch	27.1%	8.3%	4.7%	20.8%	13.0%	15.7%	-0.5%	4.1%	4.4%	4.2%	3.5%
U.S. (Millions)	0.928	1.000	1.107	1.178	1.209	1.250	1.255	1.268	1.256	1.279	1.259
% Ch	18.4%	7.8%	10.7%	6.4%	2.6%	3.4%	0.4%	1.1%	-1.0%	1.9%	-1.6%
TOTAL NONFARM EMPLOYMENT											
Idaho	637,030	653,299	671,414	693,928	715,200	738,680	760,037	780,614	796,613	812,711	828,641
% Ch	2.5%	2.6%	2.8%	3.4%	3.1%	3.3%	2.9%	2.7%	2.0%	2.0%	2.0%
U.S. (Thousands)	136,374	138,941	141,826	144,348	146,611	149,064	151,384	153,251	154,431	155,048	155,161
% Ch	1.6%	1.9%	2.1%	1.8%	1.6%	1.7%	1.6%	1.2%	0.8%	0.4%	0.1%
SELECTED INTEREST RATES											
Federal Funds	0.1%	0.1%	0.1%	0.4%	1.0%	1.8%	2.2%	1.6%	2.0%	2.4%	2.6%
Bank Prime	3.3%	3.3%	3.3%	3.5%	4.1%	4.9%	5.3%	4.8%	5.1%	5.5%	5.7%
Existing Home Mortgage	4.0%	4.3%	4.0%	3.9%	4.2%	4.7%	4.3%	4.1%	4.5%	4.7%	4.8%
INFLATION											
GDP Price Deflator	1.8%	1.8%	1.0%	1.0%	1.9%	2.4%	1.8%	2.1%	2.3%	2.5%	2.4%
Personal Cons Deflator	1.3%	1.5%	0.2%	1.0%	1.8%	2.1%	1.4%	1.9%	1.8%	2.1%	2.2%
Consumer Price Index	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%	1.9%	1.8%	2.5%	2.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

IDAHO ECONOMIC FORECAST
EXECUTIVE SUMMARY
JANUARY 2020

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GDP (BILLIONS)												
Current \$	21,099	21,340	21,526	21,731	21,960	22,217	22,457	22,699	22,945	23,182	23,414	23,653
% Ch	3.9%	4.7%	3.5%	3.9%	4.3%	4.8%	4.4%	4.4%	4.4%	4.2%	4.1%	4.2%
2009 Chain-Weighted	18,927	19,022	19,113	19,184	19,287	19,408	19,516	19,622	19,720	19,808	19,886	19,968
% Ch	3.1%	2.0%	1.9%	1.5%	2.2%	2.5%	2.2%	2.2%	2.0%	1.8%	1.6%	1.7%
PERSONAL INCOME - CURR \$												
Idaho (Millions)	79,703	81,132	82,443	83,341	84,853	85,939	86,865	87,892	88,818	89,951	91,156	92,429
% Ch	5.7%	7.4%	6.6%	4.4%	7.5%	5.2%	4.4%	4.8%	4.3%	5.2%	5.5%	5.7%
Idaho Nonfarm (Millions)	78,045	79,360	80,468	81,434	82,833	83,924	84,865	85,845	86,963	87,940	88,914	89,890
% Ch	5.0%	6.9%	5.7%	4.9%	7.1%	5.4%	4.6%	4.7%	5.3%	4.6%	4.5%	4.5%
U.S. (Billions)	18,355	18,600	18,772	18,946	19,134	19,297	19,469	19,656	19,876	20,082	20,287	20,497
% Ch	6.2%	5.4%	3.8%	3.8%	4.0%	3.5%	3.6%	3.9%	4.6%	4.2%	4.1%	4.2%
PERSONAL INCOME - 2009 \$												
Idaho (Millions)	73,203	74,079	74,990	75,425	76,455	77,032	77,542	78,190	78,665	79,279	79,915	80,601
% Ch	5.3%	4.9%	5.0%	2.3%	5.6%	3.1%	2.7%	3.4%	2.5%	3.2%	3.3%	3.5%
Idaho Nonfarm (Millions)	71,680	72,460	73,193	73,700	74,635	75,226	75,757	76,369	77,021	77,507	77,949	78,387
% Ch	4.6%	4.4%	4.1%	2.8%	5.2%	3.2%	2.9%	3.3%	3.5%	2.5%	2.3%	2.3%
U.S. (Billions)	16,859	16,983	17,075	17,147	17,240	17,297	17,380	17,486	17,604	17,699	17,785	17,874
% Ch	5.8%	3.0%	2.2%	1.7%	2.2%	1.3%	1.9%	2.5%	2.7%	2.2%	2.0%	2.0%
HOUSING STARTS												
Idaho	15,253	16,116	17,235	15,990	16,557	16,649	16,933	17,101	17,283	17,481	17,629	17,825
% Ch	-27.5%	24.6%	30.8%	-25.9%	15.0%	2.2%	7.0%	4.0%	4.3%	4.7%	3.4%	4.5%
U.S. (Millions)	1,213	1,256	1,282	1,270	1,267	1,267	1,269	1,271	1,245	1,248	1,259	1,271
% Ch	9.8%	14.8%	8.7%	-3.8%	-1.0%	0.2%	0.5%	0.6%	-7.7%	0.8%	3.7%	3.9%
TOTAL NONFARM EMPLOYMENT												
Idaho	752,778	756,829	762,589	767,951	773,647	779,463	782,725	786,621	790,829	794,508	798,471	802,645
% Ch	2.6%	2.2%	3.1%	2.8%	3.0%	3.0%	1.7%	2.0%	2.2%	1.9%	2.0%	2.1%
U.S. (Thousands)	150,675	151,113	151,624	152,122	152,562	153,250	153,462	153,732	154,048	154,343	154,572	154,761
% Ch	1.7%	1.2%	1.4%	1.3%	1.2%	1.8%	0.6%	0.7%	0.8%	0.8%	0.6%	0.5%
SELECTED INTEREST RATES												
Federal Funds	2.4%	2.4%	2.2%	1.7%	1.6%	1.6%	1.6%	1.7%	1.9%	1.9%	2.1%	2.2%
Bank Prime	5.5%	5.5%	5.3%	4.8%	4.7%	4.8%	4.8%	4.8%	5.0%	5.0%	5.3%	5.3%
Existing Home Mortgage	4.6%	4.3%	4.3%	3.9%	4.0%	4.1%	4.2%	4.2%	4.3%	4.4%	4.5%	4.6%
INFLATION												
GDP Price Deflator	1.1%	2.4%	1.7%	2.3%	2.1%	2.2%	2.1%	2.2%	2.3%	2.4%	2.4%	2.4%
Personal Cons Deflator	0.4%	2.4%	1.5%	2.0%	1.8%	2.1%	1.7%	1.4%	1.8%	2.0%	2.1%	2.1%
Consumer Price Index	0.9%	2.9%	1.8%	2.4%	1.6%	2.4%	1.4%	0.7%	1.7%	2.2%	2.6%	2.6%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

NATIONAL FORECAST DESCRIPTION

The Forecast Period is the Third Quarter of 2019 through the Fourth Quarter of 2022

The second reading for third quarter GDP from the Bureau of Economic Analysis (BEA) showed the US economy continuing to expand. Its summary measurement is the real GDP figure, which adjusts monetary values for inflation. Real GDP grew by 2.1% at an annualized rate. Headline BEA growth rates are annualized as well as seasonally adjusted, meaning that if four consecutive quarters behaved as the quarter under study, then the full-year's growth rate would be the percentage reported. The BEA also publishes nominal figures, commonly called current dollar figures, which do not adjust for inflation. In current dollar figures, the expansion was by a 3.8% rate. Final sales to domestic purchasers were up 3.5%. Gross domestic income was up 4.1%, and disposable income grew at a 4.4% rate. For those who work in sales or in government, these current dollar figures may better fit their conceptualization.

Contributing the bulk of GDP growth is consumer spending, representing 1.97 of the 2.1 percentage points of growth. Trade subtracted from overall growth. Export of services shrank while imports of services increased. Typically, the US runs a service surplus and a goods deficit in trade. That remains true, but to a lesser extent. Government expenditures, both local and federal, contributed 0.28 to the 2.1 percentage points of real GDP growth. Fixed investment in residential structures contributed to real GDP growth for the first time in seven quarters. Its addition was 0.18 percentage points.

Overall, the nominal value of GDP reached above \$21.5 trillion dollars in the third quarter of 2019, having crossed above \$21 trillion just in the first quarter of 2019. For comparison, the total debt by the federal government on December 4, 2019¹ was \$23.1 trillion, with \$6 trillion of that held by other parts of the government. An example of intragovernmental holdings is the Social Security Administration's holdings of US Treasuries. These will be redeemed to pay benefits to future retirees.

IHS Markit's November 2019 is the national forecast on which this publication is based. IHS is one of many economics forecasting firms. It has begun offering context for its projections by comparing some of the key assumptions with those of other professionally prepared forecasts. By and large, IHS is consistent with what others are seeing. The international portion of the forecast is a particularly easy component to make comparisons because forecasts are prepared by the International Monetary Fund (IMF) and similar institutions as well as the Organization for Economic Cooperation and Development (OECD), which is made of the largest 35 economies in the world. These forecasts also provide greater detail than IHS does in its *US Outlook* on international trends. Other points of comparison include the outlook on US housing from Fannie Mae or Freddie Mac.

On the housing front, mortgage rates have held fairly steady since September according to Freddie Mac. Having reached a low of 3.49% in early September, the 30-year fixed rate mortgage averaged 3.73% in mid-September, and by early December, the net change was 5 basis points downward to 3.68%. The

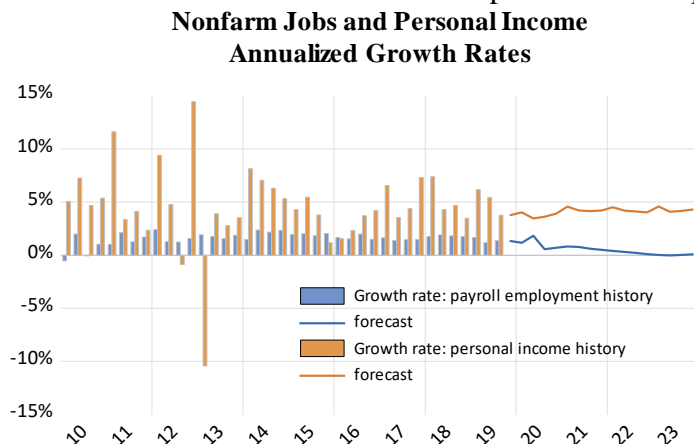
¹ <https://treasurydirect.gov/NP/debt/current>

firm sees home sales rising back to 6.1 million units on an annual rate in the third quarter², with the 6.0–6.1 million-unit transaction rate essentially sustained through 2021. This is the rate of home sales experienced in the first half of 2018, with the latter half cooler at a 5.8 million-unit average. While home values increased 2% in the first quarter of 2018 (or an 8.2% annual rate), that has slowed to a 0.7–0.8% change in recent quarters (corresponding to 3% annual growth). Freddie Mac predicts that a continuation at this rate of appreciation is likely across 2020 and 2021.

The housing story from IHS is similar to the projection from Freddie Mac. Prices are high, but price appreciation seems to be moderating. Appreciation is expected to be just below 3% within a few years. Housing starts are level for the duration of the forecast. Single family housing starts persist near 900,000 per year and multi-family housing starts persist near 400,000 per year. Home sales are forecast to climb from 6.03 million this year to 6.23 million next year. Mortgage rates are expected to rise modestly across the next half of a decade. Part of that rise is mitigated by a narrowing of the spread between mortgage rates and 10-year Treasury securities, from 200 basis points to below 160 basis points (100 basis points is one percentage point). The Treasury yield is the basis for mortgage rates.

To put the IHS baseline forecast in context, the firm indicates that near-term recession risks seem “contained” as one of the lagging segments, manufacturing, seems to have its weakness “abating”. In its executive summary, the firm posits that the recession risk before November 2020 is estimated at less than 20%. The *Pessimistic Scenario* from HIS places a 35% probability of a mild recession occurring in the near future with the particular scenario modeled beginning the downturn in the fourth quarter of 2020. Thus slowing forces must be gathering towards the end of 2020. For context, IHS expects temporary Census hiring will boost government civilian employment by over 400,000 in the second quarter of 2020, with a quick reduction to around 150,000 by the third quarter, and essentially no change from the underlying civilian employment by the fourth quarter. Fiscal stimulus within the pipeline is projected to add 1.2 percentage points of real GDP growth in 2019, cooling to 0.8 percentage points in 2020, and then to 0.6 percentage points in 2021. Thus, the removal of a couple of large stimulative efforts will dissipate going into 2021.

Payroll employment is expected to increase by 1.2% in 2020 and by 0.8% the next year. These growth rates are slower than the 1.6–1.8% expansions of the past three years. Wage growth was 3.0% in 2018



and is expected to finish 2019 at that level. An increase to 3.3% is predicted for 2020, and the level is again expected to repeat in 2021.

Personal income growth is expected at 3.9% in 2020 and 4.1% in 2021, both less than the 4.7% to 4.8% in 2017 and 2019. Further into the forecast, jobs growth slows to 0.4% and then 0.1% at the national level in 2022 and 2023.

Wage growth further accelerates to 3.5% growth

² http://www.freddiemac.com/research/forecast/20191127_housing_market_continues_to_stand_firm.page?

in 2022–2023. Personal income growth continues upwards by 4.2% in both 2022 and 2023.

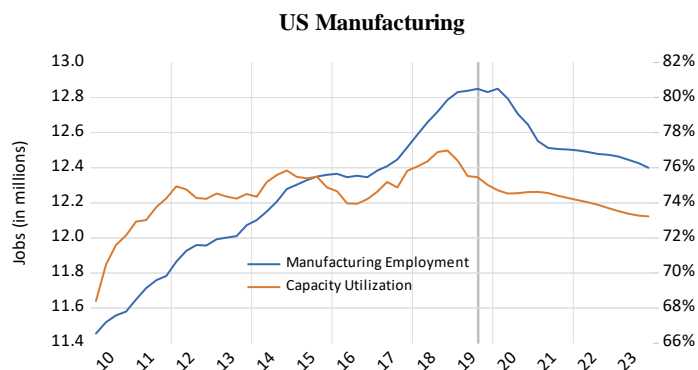
Real GDP growth is predicted to be 2.1% in 2020 and 2.0% in 2021. These are just a bit slower than the 2.3% predicted for 2019, though quite a bit slower than the 2.9% recorded in 2018. Consumer Price Index (CPI) inflation is expected to be 1.9% in 2020 and 1.8% in 2021, both very much like the experience in 2019. Worldwide, real economic growth is expected to slow from 3.2% in 2018 to 2.6% in 2019, then further to 2.5% in 2020 before recovering to 2.7% in 2021. Toward the end of the forecast, US real GDP is predicted to expand 1.5–1.6% in 2022 and 2023, while CPI inflation is expected to hold at 2.5% both years.

Business investment: Inventory of product is too high, by IHS measurements, but it has been correcting recently, and by the firm's estimate, the process is mid-way to complete. Inventory building was stronger last year than it will be going forward, which means that inventory will drag real GDP growth down by 0.27 percentage points in 2020. Other near-term influences include weather holding back utility output. The rolling blackouts which affected California during its Santa Ana winds and fire season also held back output. Exports less imports are expected to be neutral. The resumption of production at General Motors is expected to bring a rebound in the first half of 2020. IHS still predicts a resumption of deliveries of Boeing 737 Max planes in the first quarter of 2020.

Business fixed investment grew 6.4% in 2018. A 2.2% expansion is forecast for 2019. Average annual growth is expected at 2.5% in 2020–2023. IHS suggests that investment is following output, which is quieting. Is the slowing output demand driven or capacity constraints? The firm sees that capacity is following sales, that is weakening demand. Uncertainty is part of the weakening in demand. Business fixed investment is estimated to be lower by \$100 billion per year due to trade uncertainty. Low oil prices hinder drilling activity. Currently, the financial sector is also pushing oil companies to complete drilled wells (companies bring oil production online rather than adding to their proven reserve) which is also hindering drilling activity. Industrial output is now suppressed by low oil prices, counter to the consumer side of the economy which is boosted by low oil, and hence gasoline, prices. Consumer demand weakening in the future is a longer-term influence constraining output.

Probably the most telling insight IHS provides on business activity starts by observing that manufacturing capacity utilization dropped from over 76% to below 75% in the past year, with a forecast of a small reprieve with a horizontal trajectory for a couple of quarters before a continued decline towards 73% by 2023. When capacity utilization gets too high, inflation is likely to rise, but these figures are all lower than that trigger.

Hence, following two to three quarters of lag, employment in manufacturing is poised to drop by 300,000 within the next year to two, with a brief flat period before resumed, but less drastic, decline towards 2023. Rising productivity, which is one of the basic assumptions within the IHS forecast, can be consistent with falling

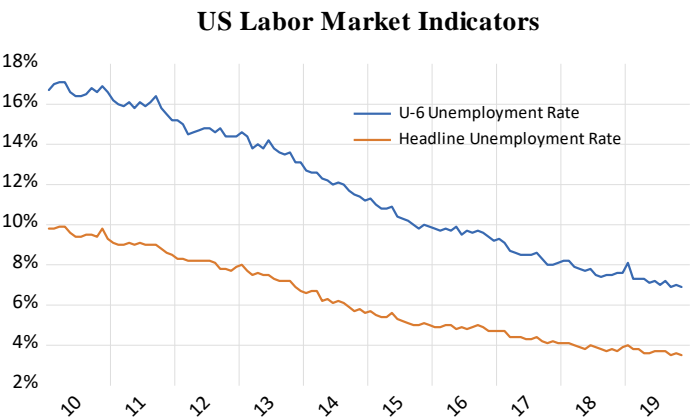


employment. If, with the remaining employees, companies hold similar production levels, productivity has increased.

Employment: Productivity features highly in the forecasts by IHS. Changes in productivity assumptions are among the determinants for the alternative scenarios the firm provides with the baseline forecast. In the baseline, IHS is assuming that productivity grows at an average of 1.5% per year across 2019–2022. This is up by two tenths of a percentage point from the recent annual measurements provided by the Bureau of Labor Statistics (BLS). Growth of 1.3% held in both 2018 and 2017, with quarterly readings of the annual rate fluctuating from a low of 0.1% to a high of 3.0% during that time period. The past three quarters have shown change at annual rates of 3.5%, 2.5%, and a decline of 0.2% in the third quarter of 2019. The agency also provides productivity measurements for a few sectors of the economy. Durable manufacturing has shown productivity growth of 1.7% in 2017 and 1.1% in 2018, while nondurable manufacturing registered growth of 0.2% and 0.6% then.

Earnings for production workers in manufacturing had traditionally been stronger than other sectors. However, the BLS has studied what has transpired in the past few decades, looking from 1990 to 2018³. It found that wage growth in manufacturing lagged behind other areas. Average manufacturing wage growth was 2.5% per year. For construction, the average was 2.6%. For financial activities, the average was 3.6%. For private education and health care the average was 3.1%. The average hourly earnings of manufacturing were higher than the average hourly earnings in all private jobs until 2006. In 2016, total private average hourly earnings surpassed even durable goods average hourly earnings, which had always (across 1990–2015) been higher than nondurable goods manufacturing earnings. Earnings in manufacturing were also boosted by longer workweeks. These averaged 40.5 hours in 1990 and averaged 42.2 hours in 2018. Total private average work weeks averaged 34.3 hours in 1990 and 33.8 hours in 2018.

The unemployment rate in November registered 3.5%. One year prior the rate was 3.7%. Across the same time, the labor force participation rate increased from 62.9% to 63.2%, with a similar rise of 0.3 percentage points in the employment to population ratio. The broader U-6 rate, which measures under employment, not just unemployment, was 7.6% a year ago, and is 6.9% as of November. Multiple job holders have increased from 5.1% of workers to 5.2% of those employed. This represents about 345,000

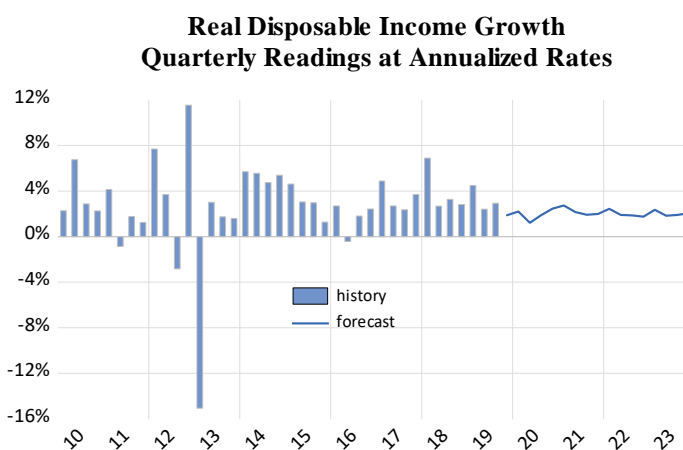


additional people holding multiple jobs. Roughly 1.79 million jobs have been added while the labor force increased by 1.58 million people and the civilian non-institutional population increased by 1.31 million (that population is those at least 16 years of age, not in the penal system, homes for the aged, or in the military; it is the ambient population BLS statistics refer to by default). Each of these statistics indicate a robust labor market.

³ <https://www.bls.gov/opub/mlr/2019/article/earnings-of-production-workers-in-manufacturing-1990-2018.htm>

IHS sees monthly payroll gains averaging 148,000 through March. It expects the labor force participation rate to remain steady. Consequently, the unemployment rate is expected to stay near 3.5%, close to what the firm predicts is the ultimate low of 3.4% which is predicted for the second quarter of 2020 through the first quarter of 2021. Thereafter, the dominant features of the labor market are slowing population growth and a decline in the labor force participation rate “driven by aging of the population.” The unemployment rate is expected to stay below 4% through 2022, and to rise to 4.5% by 2024. That is the value the firm ascribes to full employment in the baseline forecast. In this, IHS agrees with recent Federal Reserve assessments of that unemployment rate at full employment.

Consumers: Consumer spending dominates GDP in the US economy, so absent major disruptions, the picture drawn by the GDP trajectory largely reflects the picture drawn by consumers. IHS sees GDP growth slowing from 2.9% in 2018 to 2.3% in 2019, then 2.1% in 2020, 2.0% in 2021, and 1.6% in 2022. The nadir is 1.5% in 2023 before a pick-up to 1.9% in 2024. Given this slowing in growth, one would expect a slowdown in consumer activity to accompany it. Of the six reasons IHS lists which lead to slower future GDP growth, several apply to consumers. The labor market is stretched, which limits the growth of labor income. IHS expects decelerating wealth growth due to flattening house price appreciation and less growth in the stock market. The former is likely intertwined with the expected upward drift in treasury yields; the 10-year treasury yield most closely influences the 30-year mortgage rate. The remaining reasons for slower GDP growth are waning stimulus, tariffs and uncertainty, and other monetary policy.



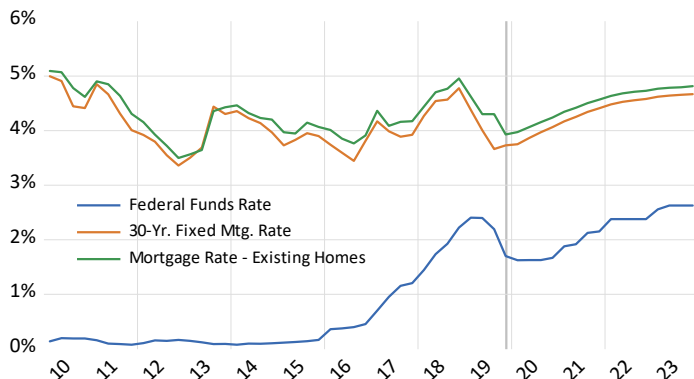
In its forecast, IHS expects that the tariffs which were planned for December 15 on Chinese goods are enacted. This means that all Chinese goods would have been subject to tariffs. Those tariffs have now been taken off the table, but their imposition was expected to boost CPI inflation in the short run. The forecast shows 1.8% CPI inflation for the rate in the third quarter of 2019, 2.4% in the fourth quarter, and 1.6% in the first quarter of 2020.

Holiday shopping is expected to be up by 4.6% over the comparable value from 2018. The online portion is expected to be up by 19% and will represent roughly one-fifth of all holiday shopping according to IHS. These growth figures contrast with what is occurring in the auto sector. Sales are predicted to register weaker numbers going forward. October was estimated at a 16.5 million units per year pace. The rate has been above 17 million per year for four years prior, as well as for the first half of 2019. IHS forecasts 2019 as coming in just below 17 million units, falling to 16.7 million in 2020, then gradually winnowing to 16.4 million in 2023.

Disposable income is after-tax income. Growth of real disposable income is projected to be 2–2.2% for each of the next four years. The most comparable recent year was 2016 when growth was 1.8%. The intervening years saw this measure grow by 2.9%, 4.0%, and 3.2%. Two conspiring forces beyond employment gains drove this. Inflation has been low, and that is forecast to persist. Real income is synonymous with inflation adjusted income. The Tax Cuts and Jobs Act lowered tax collections from individuals and spurred some bonus payments to workers.

Overall real personal consumption expenditures (PCE) growth is predicted to end 2019 at 2.6%. The baseline has that at 2.8% in 2020, then 2.4% in 2021. In the optimistic case, these future figures are 3.2% and 3.4%, whereas in the pessimistic case these figures are 2.4% and 0.8%. The temporary hiring for census work brings additional personal income in 2020. For the baseline, this places core PCE, which excludes food and energy prices, and is the Federal Reserve’s preferred measure of inflation, in the 2.0–2.1% range through 2023.

Select US Interest Rates



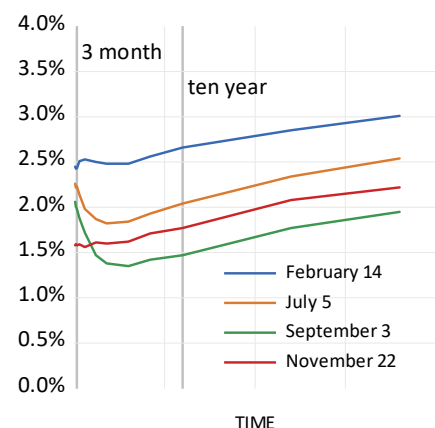
Inflation and Monetary Policy: Tariffs are expected to boost inflation in the fourth quarter of 2019 and through the first half of 2020. IHS believes that the Federal Reserve is done lowering short-term interest rates. The firm expects rates to resume rising going into 2021, with a 100 basis point increase expected to transpire through 2023. There are no further cuts to short term interest rates within the baseline forecast. Federal Reserve balance sheet growth is expanding beginning in the fourth quarter of

2019 according to the forecast. This is in line with commentary from the Fed. IHS notes that this leads yields lower within its model.

Behind these decisions are the expectation that inflation will meet the Federal Reserve’s “symmetric 2% inflation objective.” This objective has been above actual inflation, as measured by core PCE for the past few years. IHS sees this gauge registering 1.8% in the final quarter of 2019, and then to sustain 2.0–2.1% for several years. This means that the Federal Reserve would have met its symmetric objective.

Earlier in 2019 a lot of attention was paid to the inversion of the treasury yield curve. Ordinarily, longer dated treasury securities offer higher yields than shorter duration securities. The understanding is that the higher yield compensates for the greater risk of holding longer duration bonds. In terms of treasuries, that risk is often considered as missed opportunity to capitalize on other opportunities arising before maturity of the bond. However, yields fluctuate on the market as treasuries are traded, sometimes above their face value, the value to be repaid when the bond is due.

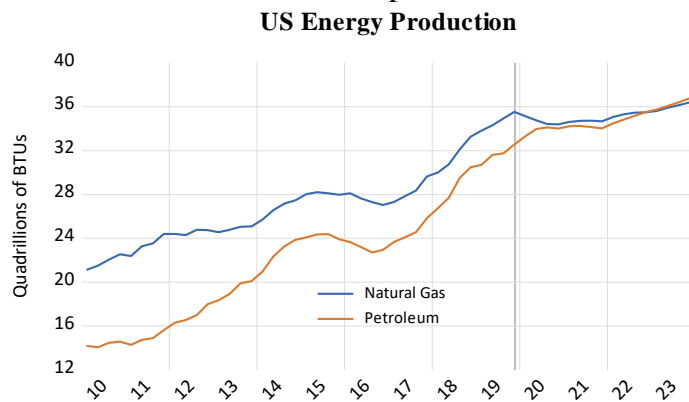
US Yield Curves



The inversion of the treasury yield curve occurred as traders bid up the value of longer dated securities, which dropped their yields below those paid on shorter duration securities. Slow and steady interest accumulation was considered more lucrative; short duration investors were expected to have poorly performing options when they needed to reinvest in the near future. That pessimism suggested a slow-down or perhaps a contraction in the near future, say, 12 to 18 months. By November, the treasury yield curve had subsequently righted itself. Note, this does not remove the risk assessment the bond market saw for a slow-down or recession. Should one not appear in the next 15 months or so, then most watchers of the bond market would likely say that the US escaped unscathed.

All treasury yields continue to suggest that long-term inflation expectations are muted. Of course, long term expectations are informed by near-term trends. Energy prices are expected to continue to exert downward pressure on inflation. Countering that, compensation has been gently pushing inflation upwards. IHS notes that average hourly earnings have increased 3% from a year ago in October, a reading met or beat by most months of 2019.

Energy: Falling oil prices were one of the larger forces holding inflation in check this past year. This is more remarkable given the disruptions in the Middle East, including attacks on refineries and on ships carrying oil. Further down the line, gasoline prices are not quite as low as the price of oil would indicate. Some of this is due to disruptions at California refineries. The firm also recognizes that oil prices may



move quickly in either direction, but for gasoline, prices fall more slowly than they rise. Gasoline prices have fallen about 10 cents since October.

Natural gas and renewable energy sources are replacing coal and oil in the energy mix. This is occurring not just in the US, but across the developed economy worldwide. In the past decade, the 5-percentage slide in the share of electricity generated from coal and oil has been met by a 3-

percentage point rise in the use of gas and a stronger rise in the use of renewable sources.

Federal Policy: Direct fiscal stimulus, from federal as well as state and local government, is estimated by IHS to peak now (in late 2019) at 1.2 percentage points of real GDP growth. Next year it is pegged at 0.8 percentage points, and the decline continues through 2022 when stimulus is expected to amount to 0.5 percentage points of growth. The firm points out that the 2020 Census is not yet fully funded, but that it is expected that the agency will receive the funding needed to hire, what IHS estimates is “several hundred thousand” temporary workers. This hiring is expected to add 0.25 percentage points to the second quarter’s GDP figure.

While the forecast assumed all tariffs announced would go into effect, the December 15 implementation of tariffs on the remaining duty-free Chinese goods were not imposed. There have been indications that a “phase-one” trade deal is in agreement. The content of the deal is for China to buy \$40 billion of

agricultural goods in 2020 and again in 2021. In exchange, the US refrained from imposing the December 15 tariffs, and some news stories have indicated a roll-back by half of their value on some of the already existing tariffs. The actual text of the phase one deal is not yet public, so details are unconfirmed.

Another negotiation with large monetary impact is the Federal Aviation Administration's (FAA) review of the Boeing 737-Max. Communication from the agency is diluting the hope that the plane would be recertified by year's end. IHS has in its forecast the resumption of deliveries within the first quarter of 2020. Reasonable interpretation of the agency position could indicate that deliveries will be delayed beyond the first quarter. Foreign aviation certification appears further behind the FAA.

While the negotiation between Canada, the US, and Mexico for the revision to the NAFTA occurred earlier in 2019, it appears that negotiation between the US House and the administration has brought about changes which should allow the treaty to be ratified by Congress. Mexico has already passed the treaty through its legislative branch. Canada introduced the legislation but closed the legislative session without passing the measure. It is expected to be reintroduced in the new parliament.

International: Some of the expectations within the outlook from the Organization for Economic Cooperation and Development (OECD) are quite similar with those from IHS. The firm expects China's growth to hit 6.2% in 2019, then slow to 5.7% in 2020, and 5.6% in 2021. The Euro area is also seen decelerating, with growth figures from IHS showing 1.9% growth in 2018 slowing to 1.1% in 2019, 0.8% in 2020, and a little recovery to 1.0% in 2021. World economic growth is weaker within the IHS forecast for 2020 and 2021 with 2.5% and 2.7% in the firm's assessment.

In its 2019 Economic Outlook, the OECD suggests that world economic growth will average 2.9% in both 2019 and 2020, descending from 3.5% in 2018. Growth is then expected back at 3.0% in 2021. These are inflation and purchasing power adjusted figures. The organization sees US real GDP growth at 2.3% in 2019 and 2.0% for both 2020 and 2021. China is expected to slow from 6.6% in 2018 to 6.2% in 2019, then further to 5.7% in 2020 and 5.5% in 2021. India is expected to resume 6+% growth in 2020 and 2021 with a brief stay at 5.8% in 2019⁴.

The organization points out that business uncertainty is elevated, with better than 30% of US firms citing government policies as a factor. Over 20% cite weak demand as a factor⁵. The slowing in world growth is spread worldwide⁶: the US contributed at least 35 basis points towards growth in 2017–2019 but is expected to contribute around 30 basis points in 2020 and 2021. The Euro area contributed over 30 basis points in 2017, over 20 basis points in 2018, and is in the low-teens in basis point contribution across 2019–2021. China slowed from 121 basis points to 117 basis points and is expected to close at 109 basis points in 2021. India has fluctuated between 44 and 54 basis points in the past three years and is expected near 50 basis points in 2020 and 2021. These basis points are contributions towards the 300 to 370 basis points corresponding to growth of 3% to 3.7%.

⁴ <https://doi.org/10.1787/888934044784>

⁵ <https://doi.org/10.1787/888934044309>

⁶ <https://doi.org/10.1787/888934044404>

In its November outlook, the OECD sees US deficits rising to nearly 7% of GDP in 2021. The organization also sees demographics bringing about slower labor force growth. It also sees tariffs as aiding in raising inflation to just slightly above the Federal Reserve's 2% target. In its analysis, underlying GDP growth in the US has been on a gentle decline from 2017 through 2019 save for the fiscal stimulus provided by the US government. This amounts to over 0.5 percentage point in both 2018 and 2019 by the organization's estimate.

In work from a year and a half ago, it compares the US, Japan, and Great Britain, as well as the OECD average for prime age labor force participation. In all cases, these participation rates were between 83% and 85% prior to the great recession. Subsequently, the US participation rate has fallen to near 81% from 2013 through 2015 and has climbed back to 82% at the time of publication of the OECD research. Elsewhere participation rates have climbed, towards 87% in Britain, even further in Japan, and the OECD average is above 85%⁷. The early working years, ages 20–24, show the US just slightly below the OECD average in terms of people not in employment, education, or training. Combining these facts suggests that the bulk of the participation drag (in comparison with other countries) is above age 24 in the US. The most recent reading from the BLS on participation rates for workers in the age range 20–24 is 71.7%⁸, and for workers in the age range of 20–54 is 82.8% according to data on the from Federal Reserve Economic Data (FRED) at the St. Louis Federal Reserve⁹.

⁷ <http://www.oecd.org/economy/united-states-economic-snapshot/> Slide presentation.

⁸ <https://fred.stlouisfed.org/series/LNS11300036>

⁹ <https://fred.stlouisfed.org/series/LNS11300060>

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IDAHO FORECAST DESCRIPTION

The Forecast Period is the Third Quarter of 2019 through the Fourth Quarter of 2023

The Bureau of Economic Analysis just released GDP figures at the county level, the first at this geographic detail.¹ Annual values are given for 2016–2018. Ada County represents a bit over one-third of the state GDP, and this share appears to be increasing. Kootenai and Canyon counties are each around one-thirteenth of the state's domestic product, with Bonneville county not far behind, at roughly one-fourteenth. Twin Falls and then Bannock counties are next in line, with the latter representing one-twenty sixth of the economy. In total, these six of the forty-four counties represent almost two-thirds of Idaho's GDP contribution.

The Census Bureau has long provided county-level data. In its 2018 vintage population estimates², Ada County is estimated near 470,000 people, or around one-fourth of the state population of 1.75 million people. In similar fashion, Canyon county is an eighth, Kootenai county is an eleventh, Bonneville county is one-fifteenth, and Bannock and Twin Falls counties are one-twentieth. These six are the largest counties by population in the state, representing just about two-thirds of Idaho's population. While there is not a one-for-one relationship between population and economic activity, there is a strong relation between the two measures. Commuter patterns and the location of production facilities in adjacent communities are factors affecting the direct relationship. As an example, Jerome Cheese (part of Agropur) is not far from the Twin Falls area.

Census data for 2018 indicates that of the newcomers to Idaho, about one-quarter are from California, nearly a fifth are from Washington, a twelfth are from Utah, and roughly a twentieth each are from Oregon and Texas. All told, these five states represent six-in-ten of those who move to Idaho. In this forecast, net migration to the state remains high, with an expectation for over 20,000 new Idahoans moving into the state each year.

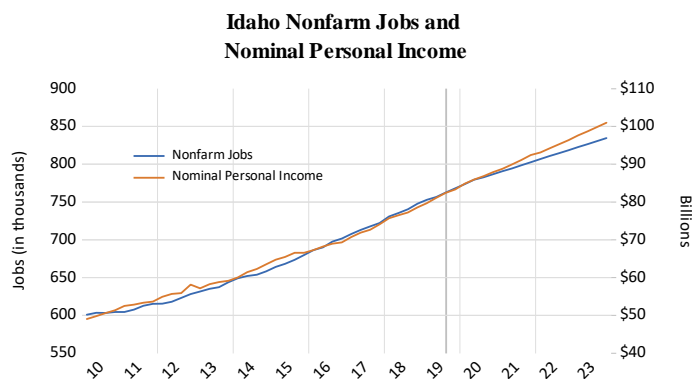
One feature of the Idaho economy which has lagged has been the wages paid. There are some local pressures building on that front beyond the low unemployment rate, which has been at or below 3% for many months. These complement the national pressures IHS reflects in its US outlook. In Idaho, H-2A wages will be \$13.62, up from \$13.48 per hour. This is the program which brings workers in for agricultural concerns. Canyon County could see 1,500 census jobs this spring/summer, where the agency will pay \$13.50 per hour. The US Census is hiring for positions state-wide, with reports of as many as 9,000 temporary positions in Idaho. Starting wage at Bogus Basin is now \$10, and as usual there are perks for working at a ski resort. Sun Valley pays \$9–12 per hour and offers reduced food costs as well as laundry services. The resort has 520 spots for employees to live at the resort. Brundage uses another federal program to bring in workers, the J-1 visa program. One-in-twenty to one-in-ten ski workers nationally are brought in by that visa program. Amazon, which will have a large presence in Nampa

¹ <https://www.bea.gov/system/files/2019-12/lagdp1219.pdf>

² <https://www.census.gov/quickfacts/fact/map/ID/PST045218>

towards the end of 2020, has a company-wide minimum wage of \$15 per hour. Currently the average annual wage in Idaho is just above \$45,500 per year. The forecast sees growth above 3% each year.

The telltale metrics this report provides for Idaho are: nonfarm jobs are expected to reach 780,600 in 2020, showing growth at 2.7%, which is 1.5 percentage points quicker than the national counterpart. Growth then slows to 2.0% each year through 2023, while the national figure drops to 0.8%, then 0.4%, and finally 0.1% in the IHS national forecast. Nominal personal income growth in Idaho is expected to be 5.8% in 2020, then 4.9%, 4.6%, and 4.8% in 2023. Total personal income would, under these projections, expand from from \$86.4 billion to \$99.3 billion. Housing starts are expected to increase around 4% per year, moving from the low-16 thousand range to the upper-18 thousand range by the end of 2023.



Some Idaho Economic History³: A bit over three decades ago sales tax collections were recording numbers stronger than the forecast. Total collections for July–December back then were \$131.3 million dollars. Adjusting for inflation⁴, that would be \$292.7 million dollars now. This year, collections by September had already surpassed that inflation adjusted value, and while this includes the back-to-school shopping season, it does not yet include the holiday shopping season. Consumption does drive a lot of the Idaho economy, just as it does nationally.

Of course, adjusting for inflation is only one of the major adjustments which should be made when looking at historical economic figures. Sales tax rates have changed over the years, and the consumer has shifted buying towards services, which are generally not subject to sales tax. However, an easier to describe change is that the Idaho economy is larger because more people are working in the state. Total employment about three decades ago had just crossed 400,000 in the state. Non-agricultural employment was near 340,000. Current employment figures within the state are almost 860,000 according to Idaho Department of Labor⁵, but the most reliable and frequently measured employment number within the state is nonfarm jobs, which sits now above 754,000⁶. Employment in Idaho has roughly doubled compared with three decades ago.

Idaho's population, though, has not doubled in the intervening three decades. Indeed, Idaho was just traversing the million people mark. Today, Idaho's population is estimated near 1.75 million. Some of the relative gains in employment come from the demographic composition of Idaho shifting away from youth towards middle age. Currently the unemployment rate has been under 3.0% for well over half of a year. Unemployment in the state routinely was near 5% in the mid-1980s.

³ Joint Revenue Projections Committee 1988 historical documents, DFM, and 1993 *Idaho Economic Forecast*.

⁴ <https://data.bls.gov/cgi-bin/cpicalc.pl>

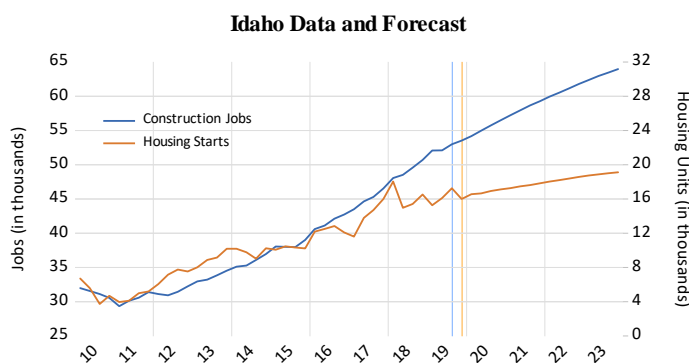
⁵ <https://lmi.idaho.gov/>

⁶ <https://lmi.idaho.gov/qcew>

Also near 5% was the typical growth in nominal personal income within the state. Inflation, though, was not nearly as tame as it currently is. The early 1980s was a time of the Federal Reserve fighting to lower inflation, not raise inflation as it is currently. Short-term interest rates were raised into the double-digits; now they are in the range of 1.5–1.75%. Indeed, inflation was likely the driving force in the changes in personal income during the 1980s. Total covered employment only increased by 0.4% *in total* from 1979 through 1986 in the state (not per year).

Moving forward by half a decade, this office noted in its *Idaho Economic Forecast* that per capita personal income in the state was about 80% of the national average, with the forecast suggesting a narrowing of the gap by two percentage points going forward. This year's figures for per capita personal income put the Idaho value at 80.9% of the national one. Construction numbers had housing starts in Idaho around 11,000 units per year with a workforce approaching 25,000 jobs. Construction jobs are now over 50,000 and housing starts are above 16,000 units per year. The gap between the federal funds rate and new mortgages was 4.2 percentage points. The current gap is 2.1 percentage points (mortgage rates are above the federal funds rate). Jobs in the goods producing sector were just under 22% of the nonfarm jobs in the state and now they are less than 17% of the nonfarm jobs in the state.

Construction and Infrastructure: As we transition into the 2020s, the numbers for this sector could hardly be more different from just a decade ago. Due to the collapse of the housing market, the construction sector had shrunk by double digit percentages in 2008 and 2009 and would shrink a further 9% in 2010 and then by only 3% in 2011. Finally, in 2012 growth would resume, with jobs expanding by 3.5%. The trough for construction in the state was just over 30,000 jobs. Moving towards today, construction topped 49,000 jobs in the state in 2018, a 9.4% increase. For 2019, the figures are projected to be north of 52,000 jobs, or 7% growth. The outlook is not quite as heady, but it remains strong. Annual growth just above 5% is expected in 2020 and 2021, with growth slowing towards 4% thereafter. Some of the expansion is accounted for directly by housing starts. Those fell to near 4,500 per year in



2011 and have since recovered to above 16,000. That level is expected to hold across 2018–2020, with 17,500 for 2021, and more than 18,000 in both 2022 and 2023.

Housing starts come with other construction activity. Roads are widened. Commercial construction serves growing communities. Periodically, major infrastructure upgrades occur. Infrastructure improvements are often

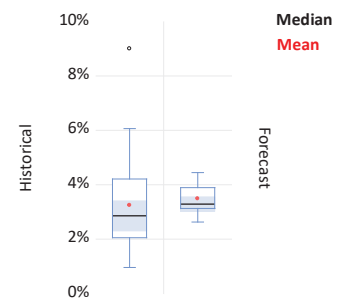
coordinated between the public and private sector: for instance, improvements to high-speed internet lines. Fiber optic internet lines are being installed in Coeur d'Alene, Hayden, Post Falls, and Rathdrum by a company from Madison, Wisconsin. Farmers' Mutual Telephone Company, a cooperative, is installing high-speed internet line in Fruitland. Tek-Hut Inc is installing fiber optic network in Burley. This company works with over 70 school districts in Idaho to provide services. The Burley expansion is aided by a Small Business Administration (SBA) loan. Another common infrastructure upgrade is to water delivery or treatment facilities and collection systems. New Meadows is working on one currently.

Infrastructure offers economic advantages to communities. News reporting of an Idaho Transportation Department (ITD) study suggests that the Boise Airport contributes \$2.7 billion to the local economy. The Lewiston Nez-Perce County Airport adds \$65 million to that community, while the Moscow-Pullman airport adds \$115 million. These last two airports are not within the top gross state product counties in Idaho nor the top population counties in Idaho. Both airports, though are near cities in Washington as well as higher-education institutions. However, the overlap between local commercial airport services and local population suggests another connection between local population and economic activity.

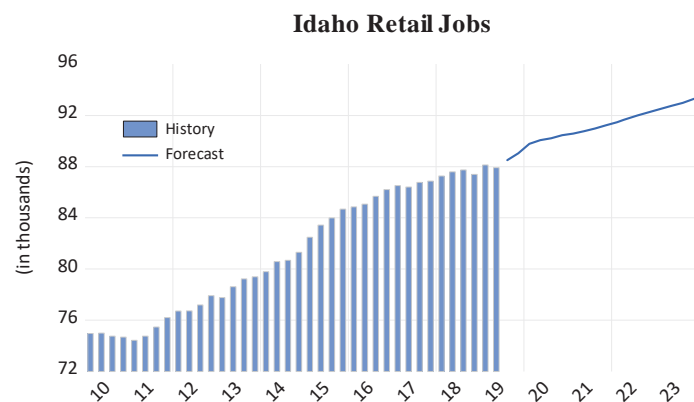
Healthcare and Private Education: Earnings in healthcare and social assistance represent 12.1% of total earnings by place of work. Healthcare jobs, social assistance jobs, and private education jobs total 110,500 within the state. The average earnings for this sector is \$57,300 per year. That average, of course, comes from a wide spectrum of actual earnings, including those that a CNA makes and those that an orthopedic surgeon makes. Private education also has incomes well separated on the scale, from Montessori instructors to part-time music teachers at private primary and secondary schools all the way through to faculty at Idaho College of Osteopathic Medicine (ICOM). Note that healthcare and private education wages are, on average, more than \$10,000 per year higher than overall wages in the state.

Healthcare and private education has been a steadily growing sector within the Idaho economy. In 2020, it is expected to be the largest employment sector if the two parts of trade, retail and wholesale, are thought of separately. That caveat will not be needed if the growth in these sectors occurs along the lines of the forecast. Healthcare and private education is expected to eclipse the trade sector going into 2023. Going forward, growth in healthcare is expected to be 3.3–3.7% per year.

Idaho Healthcare and Private Education Quarterly Job Growth at Annualized Rates



Trade and Transport: Transportation has over 45,000 workers earning on average a bit over \$35,000 per year. Tractor-trailer truck drivers are a fourth of this population and they earn on average more than the sector as a whole: over \$42,000 per year.⁷ School bus drivers, while only a third as common, average near \$29,000 per year. The retail trade sector is expected to have 90,000 jobs in Idaho in 2020. Recently, over 17,000 of those would be cashiers, where the average wage is around \$23,000 per year.



General retail salespersons are more common, near the 25,000-job count, and they earn \$28,000 on average. Supervisors of sales people count for over 6,000 jobs in the state, with earnings in the mid-\$40,000s per year.

These figures give context to trade and transportation's fraction of Idaho's earnings by place of work. About 11.5% of earnings by place of work are associated with trade and

⁷ <https://lmi.idaho.gov/oes>

transport. This is a smaller share than healthcare and private education despite the more jobs in the sector. There are about 9,000 more jobs in trade, and about 35,000 more when including transport. An average figure of \$43,900 in annual earnings comes from looking at trade (retail and wholesale) and transportation (including warehousing, and utilities, which comes with transportation and warehousing in the *Idaho Economic Model*). This average is close to the overall state average wage.

Growth in trade is still projected to be stronger than at the national level, which is expecting to show declines in each of 2021–2023. Idaho jobs growth is projected to be no lower than 0.9% each year. For transportation, warehousing, and utilities, growth is no weaker than 1.7% per year in the forecast, whereas the national counterpart shrinks across 2021–2023.

Durable Manufacturing: There is diversity of durable manufacturing in the state. Aviation occurs in the northern part. Ammunition is an industry in the Lewiston area. Camp trailers are made in the Magic Valley. Food processing equipment is built in Idaho Falls. Semiconductor manufacturing occurs in Boise, Pocatello, and Nampa. Then there are widely distributed parts of the sector as well. Sheet metal manufacturing is common to most cities and towns because HVAC systems and drainage systems are needed for most buildings. The loss of Motive Power’s locomotive (re)manufacturing facility in Boise is one of the most notable changes in the past year. The company, though, has said that it plans on keeping some engineering work in Idaho. Growth in durable goods manufacturing is expected to stay above 1.3% per year in Idaho, while nationally mild contractions are expected in 2020 and 2022–2023, with a more pronounced 1.8% drop in 2021.

Nondurable manufacturing: Measured by workforce, this category has one dominant subcategory within the *Idaho Economic Model*, and that is food processing. Roughly two-thirds of the sector is associated with food production. The Snake River Plane covers much of that, with some in the Coeur d’Alene area. Dairy is preeminent but malting, meat, and potato processing are also large portions. After food processing, the next largest subsector is chemical manufacturing, but it accounts for only one-tenth of the nondurable manufacturing in the state. The processing of gasses, fertilizers, and making of foam insulation are typical endeavors for chemical firms within Idaho. Printing is then half as large and is the other subsector before a catch-all of the remaining parts of nondurable manufacturing. That catch-all is twice as large as the chemical manufacturing component. Paper manufacturing is one part of that, but another industry in the Lewiston area, ammunition manufacturing, is not. That falls under metal manufacturing which is housed under durable goods manufacturing.

Due to the predominance of food manufacturing within the nondurable goods sector, and due to the activity unfolding within that sector, it often features more prominently within this publication than the other subsectors. This is not a recent phenomenon. Going back just over 30 years, the dairy industry has been important in describing the economic picture of Idaho. The Idaho dairy industry outlook then foresaw fewer farms with larger herds, something still within the forecast today. The older outlook also foresaw fewer plants for processing. At the time, Idaho’s dairy farmers ranked third nationally in milk production per cow. At that time, a typical cow in the US produced around 13,300 pounds of milk per year; the average is now above 17,500 pounds per cow per year. Efficiency continues to be an Idaho hallmark, and the large herd size means that there are frequent needs for more or larger processing

plants. Idaho cows produce over 24,500 pounds of milk per year on average now⁸. Recently, many plants have made upgrades or expansions to take advantage of the supply of milk. One sentence from that old report rings perhaps even truer today: “The milk is here, and the plants are here.”

Food processing jobs are expected to grow each year of the forecast, stretching from 19,300 for the expected final count in 2019 to 20,600 for the anticipated final count for 2023. Growth in the broader nondurable sector is slightly stronger than food processing each year of 2020–2022 in the forecast and matches the expected 2.6% growth for food processing in 2023.

Mining: This is not a large employment part of the Idaho economy. It accounts for about 2,300 jobs in the state. Outside of sand and gravel mining, the industry, though, is highly concentrated. Soda Springs, in southeastern Idaho, is the center of phosphate mining in the state. The region produces 15% of US phosphate and 4% of worldwide. The operations in that area have been extracting minerals for 80 years, and new mining operations are expected to extend the life of phosphate mining there for another generation or more. Simplot will be transitioning from the Smokey Canyon Mine to the Dairy Syncline Mine. Bayer will be transitioning to the Caldwell Canyon Mine from the Blackfoot Bridge mine. Itafoss mines at Lanes Creek and Rasmussen Valley. Together these mines lead to 1,800 jobs in southeastern Idaho through the mines, transport, and processing. The latter happens in Soda Springs as well as Pocatello.⁹ Some transport and processing jobs linked to mining are counted in other sectors by the Idaho Department of Labor, and so appear within those other sectors within this report as well.



Other mining sites could become major centers of activity in the state. These include the Midas Gold project at the old Stibnite site east of McCall and the Idaho Cobalt Project southeast of Salmon. Older sites can also be quite active for reclamation and remediation. The Lucky Friday mine near Mullan was recently recognized for ongoing pollution prevention efforts, including reduced concentrations of heavy metals in wastewater. The Idaho Department of Environmental Quality will spend \$1.5 million across the next decade for remediation at the old Triumph mine near Ketchum. In southeastern Idaho, selenium leach is the difficulty coming from phosphate mining. Each mine transition now involves remediation and wastewater collection or treatment efforts that continue after final extraction.

There are over 1,500 permitted sand and gravel mines in the state. As construction uses a lot of gravel to stabilize roadways and buildings, a large number of mines could be expected in a state with as much building occurring as Idaho currently has. Indeed, a map of quarries for stone and aggregate in Idaho shows clearly the trace of some of the larger cities, prominent highways, and the interstate highways which pass through Idaho.

⁸ https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=IDAHO

⁹ https://www.mtech.edu/mwtp/2019_presentations/tuesday/Todd-Drage.pdf

Government: Multiple levels of government often work together. The Department of Justice awarded \$4.2 million to the Coeur d'Alene and Shoshone-Bannock tribes to enhance law enforcement. Federal money also flows into the state through Community Development Block Grants. Fruitland roadways will benefit from two of these grants, with projects on 7th and 9th NW both receiving funds. The Bureau of Reclamation is helping the Hansen area line part of the High Line Canal. This project, at $\frac{3}{4}$ of a mile and \$450,000, is expected to conserve 50 acre-feet of water per day for more intentional irrigation use when the canal is full.

A salvage logging operation will occur near Smith's Ferry, harvesting trees damaged by moths. Replanting will use ponderosa, lodgepole, Engelmann spruce, and western larch. These should be less susceptible to such infestations. This is an example of the activities, whether through Good Neighbor Authority on federal lands or directly by Idaho Department of Lands on state lands, to mitigate fire danger and to use the resources available on Idaho lands. In Blaine County, the Idaho Department of Environmental Quality and the Idaho Department of Lands are monitoring the remediation efforts at the Triumph mine, which was in operation from 1882 through 1957. Reports on the effectiveness of the measures are due every five years. Water discharge from the mine has been reduced in volume by at least 90%. Idaho Fish and Game stocks about 30 million fish into Idaho waterways per year. Some of these are for recovery efforts. Some are for opportunities for the public. As for forest health, environmental improvements often require long-term governmental commitments.

The FBI center in Pocatello is now open. Three hundred jobs are associated with the site now. In the next two to five years an additional 250 jobs are possible. This center is to be one of three centers remaining once the FBI consolidation procedure has been carried out nationwide. Another opening in that area has been the Northgate interchange. Funding for the project came from a variety of sources including Idaho Department of Transportation, Bannock County, Pocatello and Chubbuck cities, the Pocatello Development Authority and Millennial Development.

Education accounts for the largest slice of general funds and it accounts for a bit over half of state and local government employment. The College of Southern Idaho (CSI) in Twin Falls has 26.3% of its student body being of Hispanic background. A 25% threshold is needed for an institution to be designated as a Hispanic Serving Institution. That designation allows schools to apply for special grants. At Idaho State University, the Eames Complex renovation should be completed in June. Funding for this \$19 million project came from grants, state appropriation, ISU reserves, and gifts from Bill Eames, an ISU pharmacy graduate, as well as from the Albertsons Family Foundation. The University of Idaho is participating in a spore trapping network monitoring the Snake River Plane from Parma to Tetonia. This collaborative effort, with McCain, Simplot, Basic American Foods, and Lamb Weston, monitors spores and weather conditions (weather is a vector which spreads the pathogens) primarily for potato fungus, but also for bean molds, sugar beet mildew, and grain rusts. The fall enrollment tally showed 310,628 students in K-12 in Idaho, up about 3,400 from last year. These snippets are just a few indications why education is such an important service of state and local government.

Federal employment within the state is not expected to change much on an annual measurement across the forecast. There will be measured impacts from the temporary nature of census jobs, so when

quarterly figures are reported, the (annualized) growth and decay rates could look unusual. At the state and local level, growth of 0.8–1.0% in government jobs per year is expected.

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 November 2019 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 October 2019 *Idaho Economic Forecast*, which was based on September's IHS baseline US macroeconomic forecast. In the text, a broader comparison is available as well.

Revised figures from the Bureau of Economic Analysis (BEA) raised personal income figures across the US from ten years ago through the first half of 2019. These raised figures were incorporated into the September forecast by IHS, which then raised the path forward for personal income. The changes were substantial. Personal income in 2018 was revised upwards by 1.4% and the estimate for 2019 was raised by 2.3%. That 2.3% then persisted across the forecast horizon. Since its September publication, IHS has refined its forecast, and some of these raised expectations were shaved back, but not dramatically. Personal income was lowered by 0.1% in 2019 and by 0.3% in 2020.

Nonfarm jobs growth was not substantially revised by IHS in light of the BEA revisions. Labor figures are more frequently released than income figures, and the releases are timely, so IHS has a steady read on the labor market. The largest revision present at the national level for nonfarm jobs amounted to 0.3% in 2021 when comparing the prior forecast with the one before it. Looking at this forecast with the prior forecast, again the changes for the nonfarm jobs outlook are minimal.

For the broader context, the prediction one year ago was for total nonfarm jobs in Idaho to reach 757,000 in the fourth quarter of 2019. This was up from an average of 737,500 across 2018. As more complete data became available, 2018 was seen instead near 738,500 nonfarm jobs and the 757,000-job level was attained in the second quarter of 2019. For the final quarter of 2019, the current prediction is for 768,000 nonfarm jobs within the state. Again, one year prior, growth in nonfarm jobs for 2020 over 2019 was seen at 2.2%. The current forecast for 2020 over 2019 is for 2.7% growth. Thus, the lift-off point for nonfarm jobs within the state is stronger than had been predicted a year ago, and the initial trajectory is as well.

Looking at the most recent forecast from October, the changes in the nonfarm jobs forecast are quite minimal in terms of both the lift-off and the initial trajectory. Under 300 fewer nonfarm jobs in 2020 are seen in this forecast than in October's forecast. Percentage wise, this forecast metric is unchanged in the past three months. Going forward, the ascent is a little less steep. The current forecast for 2021 is for just under 800 jobs fewer, a revision of 0.1%, and the revision thereafter is consistently for 0.2% fewer nonfarm jobs than projected in October. However, this end is due to some offsetting changes.

Professional and business services, as well as private education and healthcare see reduced growth in this forecast, the former by around 1% towards the end of the forecast, while computer and electronics,

food processing, and chemical manufacturing are projected to be stronger. For food processing, the revision upwards is just for the next two years, whereas for chemicals as well as for computer and electronics, there are consistent revisions upwards.

Returning to the broader context, one year ago, personal income for the state in 2018 was pegged at \$75.4 billion dollars. Growth was projected from that at 4.5% to 2019, 5.4% to 2020, and 5.0% to 2021, bringing personal income up to \$87.3 billion. In the current forecast, revised data from the BEA showed personal income registering \$77.0 billion in 2018 in Idaho. The current forecast shows growth of 6% in 2019, then 5.8%, and 4.9% in 2021, bringing that year's projected value to \$90.6 billion. Thus again, the lift-off point is at a higher income level, and the initial trajectory is broadly stronger.

Compared with the October forecast, the current personal income forecast is slightly lower, removing \$0.5 billion in 2020, and \$0.8 billion per year from each of 2021 through 2023. These changes shadow the direction of revision IHS gives for personal income between the previous and current national forecast.

**IDAHO ECONOMIC FORECAST
FORECASTS COMPARISON
DIFFERENCES BETWEEN
JANUARY 2020 vs. OCTOBER 2019 FORECASTS**

	2016	2017	2018	2019	2020	2021	2022	2023
U.S. GDP (BILLIONS)								
Current \$	0	0	0	-39	-162	-210	-243	-251
% Difference	0.0%	0.0%	0.0%	-0.2%	-0.7%	-0.9%	-1.0%	-1.0%
2009 Chain-Weighted	0	0	0	-8	-18	-3	-9	-4
% Difference	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%
PERSONAL INCOME - CURR \$								
Idaho (Millions)	0	0	0	-192	-550	-774	-805	-750
% Difference	0.0%	0.0%	0.0%	-0.2%	-0.6%	-0.8%	-0.8%	-0.7%
U.S. (Billions)	0	0	0	-16	-139	-228	-250	-252
% Difference	0.0%	0.0%	0.0%	-0.1%	-0.7%	-1.1%	-1.2%	-1.1%
PERSONAL INCOME - 2009 \$								
Idaho (Millions)	0	0	0	-151	-193	-133	-134	-133
% Difference	0.0%	0.0%	0.0%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
U.S. (Billions)	0	0	0	-9	-58	-78	-90	-101
% Difference	0.0%	0.0%	0.0%	-0.1%	-0.3%	-0.4%	-0.5%	-0.5%
TOTAL NONFARM EMPLOYMENT								
Idaho	0	0	0	-166	-285	-780	-1,250	-1,596
% Difference	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.2%	-0.2%
U.S. (Thousands)	0	0	0	38	73	44	-13	-71
% Difference	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GOODS PRODUCING SECTOR								
Idaho	0	0	0	431	957	637	272	248
% Difference	0.0%	0.0%	0.0%	0.3%	0.7%	0.5%	0.2%	0.2%
U.S. (Thousands)	0	0	0	5	94	53	64	79
% Difference	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	0.3%	0.4%
NONGOODS PRODUCING SECTOR								
Idaho	0	0	0	-597	-1,242	-1,418	-1,522	-1,844
% Difference	0.0%	0.0%	0.0%	-0.1%	-0.2%	-0.2%	-0.2%	-0.3%
U.S. (Thousands)	0	0	0	33	-21	-8	-77	-150
% Difference	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%
SELECTED INTEREST RATES								
Federal Funds Rate	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Bank Prime Rate	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Existing Home Mortgage Rate	0.0%	0.0%	0.0%	0.1%	0.0%	-0.1%	-0.2%	-0.3%
INFLATION								
GDP Price Deflator	0.000	0.000	0.000	-0.154	-0.722	-1.036	-1.150	-1.200
Personal Cons Deflator	0.000	0.000	0.000	-0.033	-0.429	-0.781	-0.796	-0.707
Consumer Price Index	0.000	0.000	0.000	0.000	-0.011	-0.024	-0.022	-0.017

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019**

ALTERNATIVE FORECASTS

IHS places the likelihood of its November 2019 *Optimistic Scenario* at 10% and its *Pessimistic Scenario* at 35%. This leaves the baseline forecast at 55% likely.

A snapshot of the national *Baseline Scenario* using annual rates across 2019–2023 is:

- Real GDP growth: 2.3, 2.1, 2.0, 1.6, and 1.5 percent.
- Nonfarm payrolls: 1.6, 1.2, 0.8, 0.4, and 0.1 percent.
- Headline (U-3) unemployment: 3.7, 3.4, 3.5, 3.8, and 4.3 percent.
- CPI inflation: 1.8, 1.9, 1.8, 2.5, and again 2.5 percent.
- Publicly held debt as a fraction of GDP: 80.3, 82.5, 84.5, 86.6, and 88.6 percent.

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

- Nonfarm payroll growth: 2.9, 2.7, and then three readings of 2.0 percent.
- Nominal personal income growth: 6.0, 5.8, 4.9, 4.6, and 4.8 percent.

PESSIMISTIC SCENARIO

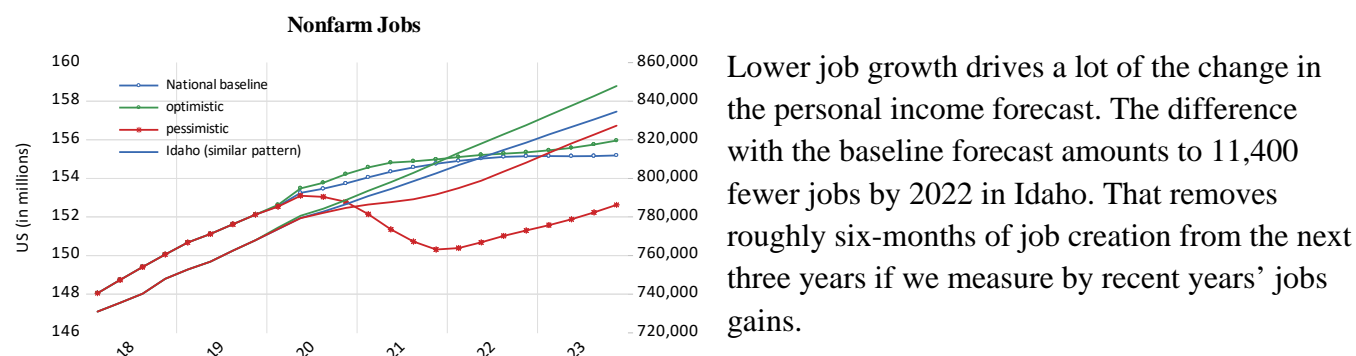
A couple of features of the IHS *Pessimistic Scenario* hold across most of the firm's such outlooks. For instance, this case usually features a mild recession expected to begin in a few quarters into the future. In this particular forecast, expansion stops in the third quarter of 2020. The duration of agreement with the baseline can be as short as one quarter but is often two to three quarters, and then the recession typically lasts two to three quarters. What often changes in the firm's outlook are the triggers for the downturn as well as the probability of a similarly adverse scenario playing out. In the November forecast, that probability is 35%, a rate which has been assigned by the firm for around six months to the pessimistic case. Prior to that the probability was lower.

Real estate pricing has been one of the triggers common to IHS pessimistic outlooks in 2019. Recently, the firm has pegged commercial real estate as vulnerable. This month marks a shift towards assigning greater vulnerability to residential real estate. In both cases, dramatic rises in prices have left parts of the sector vulnerable. Should mortgage rates rise, demand would likely fall. While the 30-year mortgage is tied to the 10-year treasury security, there is some play between treasury security yields and the short-term rates the Federal Reserve sets. Looking at the yields for mortgages this past year, they fell before the Federal Reserve lowered interest rates, and they have risen subsequent to the last cut in short-term interest rates. This is simply a reminder that interest rates consumers encounter can move even if the Federal Reserve is standing on the sidelines, neither cutting interest rates nor raising them.

In this case, housing starts drop through the first quarter of 2021, leading to a 30% differential with the baseline forecast. Foreign growth is also slower in this case. General unease causes equity values to fall, though modestly, at a haircut of under 5% as measured by the S&P500, when comparing the fourth quarter of 2020 with current valuations. Unemployment increases through 2021, with a peak unemployment rate of 5.8% at the close of that year.

Fiscal stimulus and monetary policy attempt to minimize the effects of the recession. The Federal Reserve re-lowers short-term interest rates almost to 0%, holding that across 2021 and 2022. The federal deficit grows by an extra \$80 billion in 2021, \$150 billion in 2022, and almost \$200 billion in 2023.

Within Idaho's economy, the brunt of the less favorable scenario falls on 2021. Personal income gains retreat from 4.9% growth in the baseline to 2.1%. This change is less dramatic than at the national level, where projected income growth is 1.0% rather than the 4.1% of the baseline figure for 2021. Some effects linger into 2022.



OPTIMISTIC SCENARIO

Like in its pessimistic case, the optimistic case for IHS has common features across time. As the US economy has been doing well for quite a while, the common features tend to be increased productivity and a light probability of such a scenario occurring. That light probability reflects, it seems, not much room left for increased optimism because the baseline forecast is already rosy. Increased productivity is a common feature because recent productivity readings have been low by historical standards. During 2011–2018, productivity growth averaged only 0.8%. The optimistic forecast places the average at 2.7% across the next decade. Productivity increased by 3.6% in 2009 and by 3.4% in 2010 but has registered between 0.0% and 1.3% since then. Productivity was higher in 2009 and 2010 because of low employment during and after the recession. Productivity growth was 2.9–3.8% in 2003–2004, between the Dot-Com recession and the housing market euphoria just prior to the Great Recession.

Another common feature in optimistic outlook is a lower natural rate of unemployment. The baseline case for the natural rate of unemployment is around 4.5%. Currently, unemployment is at 3.5%. This means that the economy is operating beyond full employment. Thus, with time, and absent any shocks, economic models would predict a rise in unemployment by about 1% of the labor force. In the optimistic case, the natural rate of unemployment is lower, at 4.0%. The smaller discrepancy between the current reading of unemployment and that natural rate means that there is less pressure for the unemployment rate to creep upwards, which in this case allows the unemployment rate to fall further before an upward drift begins. Inflation, as measured by the Federal Reserve's preferred gage, is just one- to two-tenths of a percentage point weaker in this case compared with the baseline. The unemployment rate drifts down to 3.2% across 2020–2021, and it remains below 4% through 2024. Again, there are demographic pressures which are predicted by IHS to pull the unemployment rate upwards, and in the US economy, some unemployment is inevitable if it takes workers longer than a month to transition between jobs.

Federal deficits are hardly different from those in the baseline. Oil prices are higher, by about \$10 per barrel, beginning in late 2020. Higher oil prices help business investment in the US, though they dampen consumer activity. Housing starts are higher than in the baseline by a bit over 100,000 units per year by late 2021. This is despite a higher average mortgage rate on existing homes by a bit more than half of a percentage point. Overall housing starts top 1.4 million units per year in 2022 and persist with that level, whereas housing starts stay near 1.25 million units per year in the baseline.

Total nonfarm jobs in Idaho increase by 2.9% in both the baseline and the optimistic cases in 2019, but the optimistic route sees 2.9% growth repeating in 2020, avoiding for one year the slight slowing in growth expected in the baseline. In 2021 and 2022, nonfarm jobs are expected to expand 2.3–2.4% each year rather than the 2.0% common to those years in the baseline. These higher growth rates amount to a total of 6,300 additional jobs by the end of 2022. Recent years have seen 20,000 or more additional nonfarm jobs within the state, so the optimistic view sees roughly an extra four months of job creation squeezed into the next three years.

Personal income gains are stronger in the optimistic case as well. In the baseline, nominal personal income gains dip below 5% in both 2021 and 2022. In this sunnier scenario, personal income grows by over 5.4% each year. Total personal income reaches \$1.6 billion higher by 2022 as a result. Recently, personal income has grown by \$4–5 billion per year, so like for nonfarm jobs, the higher growth case fits another four months of income gains within the next three years.

IDAHO ECONOMIC FORECAST
BASELINE AND ALTERNATIVE FORECASTS
JANUARY 2020

	BASELINE					OPTIMISTIC					PESSIMISTIC				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
U.S. GDP (BILLIONS)															
Current \$	21,424	22,333	23,298	24,253	25,217	21,424	22,458	23,628	24,805	26,080	21,424	22,171	22,402	23,295	24,140
% Ch	4.1%	4.2%	4.3%	4.1%	4.0%	4.1%	4.8%	5.2%	5.0%	5.1%	4.1%	3.5%	1.0%	4.0%	3.6%
2009 Chain-Weighted	19,061	19,458	19,846	20,165	20,467	19,061	19,542	20,132	20,678	21,268	19,061	19,322	19,120	19,531	19,901
% Ch	2.3%	2.1%	2.0%	1.6%	1.5%	2.3%	2.5%	3.0%	2.7%	2.9%	2.3%	1.4%	-1.0%	2.2%	1.9%
PERSONAL INCOME - CURR \$															
Idaho (Millions)	81,655	86,387	90,589	94,751	99,290	81,654	86,670	91,396	96,383	101,883	81,654	86,095	87,882	91,597	96,011
% Ch	6.0%	5.8%	4.9%	4.6%	4.8%	6.0%	6.1%	5.5%	5.5%	5.7%	6.0%	5.4%	2.1%	4.2%	4.8%
U.S. (Billions)	18,668	19,389	20,185	21,042	21,932	18,668	19,516	20,430	21,405	22,466	18,668	19,294	19,482	20,170	20,986
% Ch	4.8%	3.9%	4.1%	4.2%	4.2%	4.8%	4.5%	4.7%	4.8%	5.0%	4.8%	3.3%	1.0%	3.5%	4.0%
PERSONAL INCOME - 2009 \$															
Idaho (Millions)	74,424	77,305	79,615	81,542	83,632	74,423	77,494	80,284	83,037	86,113	74,423	77,125	77,522	79,709	82,515
% Ch	4.5%	3.9%	3.0%	2.4%	2.6%	4.5%	4.1%	3.6%	3.4%	3.7%	4.5%	3.6%	0.5%	2.8%	3.5%
U.S. (Billions)	17,016	17,351	17,741	18,109	18,473	17,016	17,450	17,947	18,442	18,988	17,016	17,284	17,186	17,552	18,036
% Ch	3.3%	2.0%	2.2%	2.1%	2.0%	3.3%	2.6%	2.8%	2.8%	3.0%	3.3%	1.6%	-0.6%	2.1%	2.8%
TOTAL NONFARM EMPLOYMENT															
Idaho	760,037	780,614	796,613	812,711	828,641	760,038	782,057	800,604	820,376	840,231	760,036	779,948	788,741	801,360	820,335
% Ch	2.9%	2.7%	2.0%	2.0%	2.0%	2.9%	2.9%	2.4%	2.5%	2.4%	2.9%	2.6%	1.1%	1.6%	2.4%
U.S. (Thousands)	151,384	153,251	154,431	155,048	155,161	151,384	153,523	154,810	155,238	155,683	151,384	152,867	151,134	150,847	152,078
% Ch	1.6%	1.2%	0.8%	0.4%	0.1%	1.6%	1.4%	0.8%	0.3%	0.3%	1.6%	1.0%	-1.1%	-0.2%	0.8%
GOODS-PRODUCING SECTOR															
Idaho	125,691	129,886	133,453	137,216	141,044	125,694	130,771	135,376	139,997	144,374	125,692	129,318	130,987	134,453	139,056
% Ch	3.8%	3.3%	2.7%	2.8%	2.8%	3.8%	4.0%	3.5%	3.4%	3.1%	3.8%	2.9%	1.3%	2.6%	3.4%
U.S. (Thousands)	21,085	21,034	20,862	20,949	20,989	21,083	21,124	21,072	21,184	21,213	21,086	21,016	20,254	19,928	20,367
% Ch	1.8%	-0.2%	-0.8%	0.4%	0.2%	1.8%	0.2%	-0.2%	0.5%	0.1%	1.8%	-0.3%	-3.6%	-1.6%	2.2%
NONGOODS-PRODUCING SECTOR															
Idaho	634,345	650,728	663,161	675,495	687,597	634,344	651,286	665,228	680,379	695,858	634,344	650,630	657,754	666,907	681,280
% Ch	2.7%	2.6%	1.9%	1.9%	1.8%	2.7%	2.7%	2.1%	2.3%	2.3%	2.7%	2.6%	1.1%	1.4%	2.2%
U.S. (Thousands)	130,299	132,217	133,570	134,100	134,172	130,301	132,399	133,738	134,054	134,470	130,297	131,851	130,881	130,919	131,711
% Ch	1.5%	1.5%	1.0%	0.4%	0.1%	1.5%	1.6%	1.0%	0.2%	0.3%	1.5%	1.2%	-0.7%	0.0%	0.6%
SELECTED INTEREST RATES															
Federal Funds	2.2%	1.6%	2.0%	2.4%	2.6%	2.2%	1.8%	2.4%	3.1%	3.4%	2.2%	1.3%	0.1%	0.2%	0.9%
Bank Prime	5.3%	4.8%	5.1%	5.5%	5.7%	5.3%	4.1%	4.5%	4.8%	5.4%	5.3%	4.4%	3.4%	3.4%	4.1%
Existing Home Mortgage	4.3%	4.1%	4.5%	4.7%	4.8%	4.3%	4.3%	4.9%	5.6%	6.0%	4.3%	4.2%	4.3%	4.4%	4.9%
INFLATION															
GDP Price Deflator	1.8%	2.1%	2.3%	2.5%	2.4%	1.8%	2.2%	2.1%	2.2%	2.2%	1.8%	2.1%	2.1%	1.8%	1.7%
Personal Cons Deflator	1.4%	1.9%	1.8%	2.1%	2.2%	1.4%	1.9%	1.8%	2.0%	1.9%	1.4%	1.8%	1.6%	1.4%	1.3%
Consumer Price Index	1.8%	1.9%	1.8%	2.5%	2.5%	1.8%	2.2%	2.0%	2.3%	2.2%	1.8%	1.8%	1.6%	2.3%	2.3%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

Involuntary Part-Time Work a Decade after the Recession

Marianna Kudlyak¹

While the unemployment rate is the most commonly cited labor market indicator, many economists and policymakers examine a wider array of indicators to gauge the health of the U.S. labor market. One such indicator is the number of people working part-time for economic reasons, often referred to as involuntary part-time employment. These are individuals who work part-time but want to work full-time. A large number of such workers is a sign that the economy is not utilizing its full labor potential.

During the 2007–09 recession, the involuntary part-time employment rate rose to unusually high levels and remained high for some time, even when unemployment fell (Canon, Kudlyak, and Reed 2014 and Valletta, Bengali, and van der List, forthcoming). Policymakers questioned whether the elevated levels represented additional slack in the labor market, which would dissipate in the economic recovery, or a more permanent structural change.

This *Letter* examines the two opposing forces that contributed to the relatively slow decline of involuntary part-time work after the 2007–09 recession. The number of workers who cited slack business conditions as the reason for involuntarily working part-time increased sharply during the recession and started declining right afterward. In contrast, the number of workers who could not find full-time work increased during the recession, continued to increase throughout the recovery, and did not start to subside until after 2013. This kept the total number of involuntary part-time workers elevated for a few years after the recession’s end, even though the unemployment rate fell steadily.

In 2019, part-time workers for economic reasons as a share of the labor force has returned to its pre-recession level. However, it remains slightly elevated relative to the historically low unemployment rate. Data on worker transitions between involuntary part-time and other types of employment—full-time and voluntary part-time—indicate that the elevation is likely to reflect an ongoing structural change towards more part-time work (Valletta 2018 and Valletta, Bengali, and van der List, forthcoming).

Part-time employment for economic reasons and unemployment

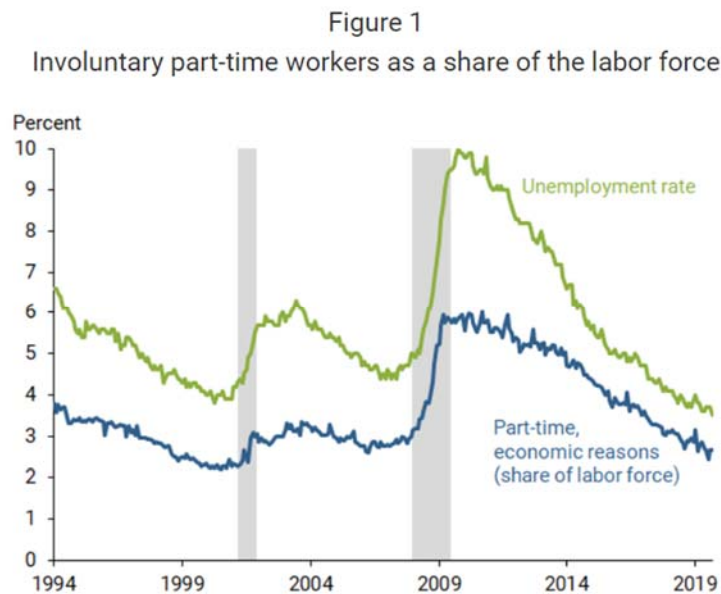
Worker data come from the Current Population Survey (CPS) for January 1994 through September 2019. The CPS classifies each individual into one of five labor force statuses: employed full-time, employed part-time for economic reasons, employed part-time for noneconomic reasons, unemployed, and out of the labor force.

People who work less than 35 hours per week are considered part-time workers. For part-time work to be classified as “for economic reasons,” the worker must desire full-time work and cite as the primary reason for not working full-time one of the following: “slack business conditions,” “could only find part-time work,” or seasonal work. Involuntary part-time workers represent underutilized labor resources or

¹This article originally appeared on November 25, 2019, in the *Economic Letter* series from the San Francisco Federal Reserve Bank. [Marianna Kudlyak](#) is a Research Advisor in the Economic Research Department of the Federal Reserve Bank of San Francisco. 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.

labor market slack. By contrast, workers who are working part-time voluntarily, or for non-economic reasons such as family commitments, generally are not regarded as representing labor market slack.

Figure 1 shows involuntary part-time employment as a share of the civilian labor force (blue line). Like unemployment (green line), this series is countercyclical, increasing during recessions and declining during recoveries.



The series spiked up from 2.7% in 2006 to 5.8% around 2009. It gradually declined, though at a slower pace than the unemployment rate. It dropped to 2.7% on average in the first nine months of 2019.

Two main reasons for involuntary part-time work

Involuntary part-time workers include two main groups. One group cites slack business conditions as the cause for their part-time status. This typically refers to workers whose shifts have been cut from full-time to part-time. This group tends to reflect cyclical variation, meaning it increases sharply during recessions and starts declining immediately once recovery begins.

Another group includes those who cite being able to only find a part-time job as the reason for working part-time. In contrast to the first group, the number of workers who can only find part-time jobs increases during a recession and continues to increase throughout the recovery as more job openings are posted. This component can reflect both cyclical and structural factors. For example, if the economy experiences structural shifts in the composition of jobs toward less full-time work being available, this component might increase.

Figure 2 shows these two main components of involuntary part-time work as shares of the labor force. Two opposing forces shown in the figure contributed to the relatively slow return of involuntary part-time work to its pre-recession level in the initial years of the recovery from the 2007–09 recession.

Figure 2
Two main reasons for involuntary part-time work status



The portion caused by slack business conditions (light blue line) reached its peak of 4.3% in 2009 and started steadily declining immediately afterward. It recently fell to 1.7%, which is lower than its pre-recession low of 1.8% in 2006.

In contrast, involuntary part-time employment due to inability to find full-time work (dark blue line) increased from 2009 to 2013 and started slowly declining only after 2013. In part, this reflected the severity of the recession: as the economy started recovering from the recession, many of the jobs that were created were part-time due to heightened uncertainty among businesses. Consequently, after the 2007–09 recession, the number of workers who cited being able to find only a part-time job continued to increase well into the recovery.

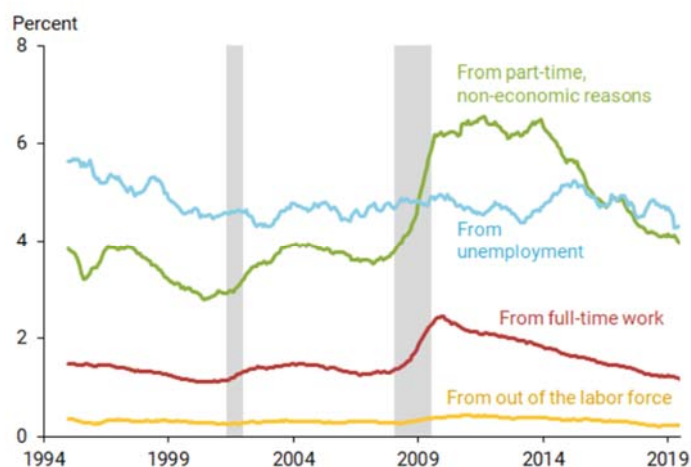
The second group kept the total number of involuntary part-time workers elevated for a few years after the recession's trough, even when the unemployment rate was steadily falling.

Transitions from and to working part-time for economic reasons

Households in the CPS are surveyed for a few consecutive months. This allows an individual's responses to be merged month-to-month to show transition rates between the five labor status groups: employed full-time, employed part-time for economic reasons, employed part-time for non-economic reasons, unemployed, and out of the labor force.

Figure 3 shows the transition rates to part-time work for economic reasons from the other four labor market statuses. During the 2007–09 recession, there was a substantial increase in the transition rates from full-time employment (red line) and from voluntary part-time employment (green line). By 2019, those rates declined. The transition rate from full-time employment, which reflects cyclical variation, has returned to its pre-recession level. However, the transition rate from voluntary part-time employment, which reflects the inability to find full-time work, is still slightly higher than before the recession and well above its level from the early 2000s.

Figure 3
Probability of transitioning to involuntary part-time status



Source: Author's calculations from CPS microdata, January 1994 to July 2019.

The elevated rate of transitions from voluntary to involuntary part-time work indicates that structural factors are in play. It suggests that workers are not able to find full-time work. Its elevation is consistent with recent literature that argues that structural shifts in the economy have made full-time work more scarce than before (Valletta, Bengali, and van der List, forthcoming).

Figure 4 shows the transition rates from involuntary part-time work to the four other labor market statuses as well as the rate of people who remain in this status over time (dark blue line). The probability of remaining involuntarily part-time employed increased substantially during the recession. It has declined since but remains elevated. That is, workers have become stuck in involuntary part-time jobs for longer periods.

Figure 4
Probability of transitioning from involuntary part-time status



Source: Author's calculations from CPS microdata, January 1994 to July 2019.

Similar to the transition rates to involuntary part-time work, Figure 4 shows a substantial cyclical variation in transition rates from this status to other types of employment. During the recession, transition rates from part-time to full-time employment (red line) and to voluntary part-time employment (green line) declined substantially. As of 2019, the transition rate to full-time employment still remains below its pre-recession level and is even further below its level from the early 2000s. This might be another indicator that full-time work has become more scarce. In contrast, the transition rate to voluntary part-time employment has recovered and exceeded its pre-recession level.

Figures 3 and 4 also show that the cyclical movements of the transition rates between involuntary part-time work and non-employment are much smaller than the movements in the transition rates for other types of employment. The changes in the transition rates to and from involuntary part-time work during and after the 2007–09 recession were associated with changes in the number of full-time employed and voluntary and involuntary part-time employed, but not with changes in unemployment or the number of people out of the labor force (Canon et al. 2015, Warren 2017, and Borowczyk-Martins and Lalé 2019).

Conclusion

This *Letter* examines part-time employment for economic reasons a decade after the 2007–09 recession. In 2019, this group constitutes 2.7% of the labor force, a substantial decline from its peak of 5.8% in 2009. At the beginning of the recovery, this rate remained high because, as the number of part-time workers due to slack business conditions was declining, the number working part-time because they could only find part-time work continued to increase well into the recovery.

In 2019, the involuntary part-time rate returned to its pre-recession rate. It remains slightly elevated relative to an unemployment rate that is near its historical low. Examining detailed worker transitions between involuntary part-time work and other types of employment—full-time and voluntary part-time—indicates that this elevation is due to the inability to find full-time jobs and is likely to reflect an ongoing structural change.

References

Borowczyk-Martins, Daniel, and Etienne Lalé. 2019. “[Employment Adjustment and Part-Time Work: Lessons from the United States and the United Kingdom](#).” *American Economic Journal: Macroeconomics* 11(1), pp. 389–435.

Canon, Maria, Marianna Kudlyak, and Marisa Reed. 2014. “[Is Involuntary Part-Time Employment Different after the Great Recession?](#)” FRB St. Louis Regional Economist, July.

Canon, Maria E., Marianna Kudlyak, Guannan Luo, and Marisa Reed. 2014. “[Flows To and From Working Part-Time for Economic Reasons and the Labor Market Aggregates During and After the 2007–09 Recession](#).” FRB Richmond Economic Quarterly, 2014:Q2.

Valletta, Robert G., Leila Bengali, and Catherine van der List. Forthcoming. “[Cyclical and Market Determinants of Involuntary Part-Time Employment](#).” *Journal of Labor Economics*. Available as FRB San Francisco Working Paper 2015-19.

Valletta, Robert G. 2018. “[Involuntary Part-Time Work: Yes, Here to Stay](#),” SF Fed Blog, April 11.

Warren, Lawrence F. 2017. "[Part-Time Employment and Firm-Level Labor Demand over the Business Cycle](#)." Center for Economic Studies, U.S. Census Bureau, unpublished manuscript.

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January 2020

FORECAST DETAIL

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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
JANUARY 2020**

DEMOGRAPHICS

	2006	2007	2008	2009	2010	2011	2012	2013	2014
POPULATION									
Idaho (Thousands)	1,468.7	1,505.1	1,534.3	1,554.4	1,570.8	1,583.8	1,595.4	1,611.5	1,631.5
% Ch	2.8%	2.5%	1.9%	1.3%	1.1%	0.8%	0.7%	1.0%	1.2%
National (Millions)	299.282	302.227	304.948	307.580	310.072	312.315	314.530	316.698	319.008
% Ch	1.0%	1.0%	0.9%	0.9%	0.8%	0.7%	0.7%	0.7%	0.7%
BIRTHS									
Idaho (Thousands)	24.185	25.023	25.156	23.726	23.202	22.311	22.941	22.348	22.888
% Ch	4.9%	3.5%	0.5%	-5.7%	-2.2%	-3.8%	2.8%	-2.6%	2.4%
National (Thousands)	4,279	4,330	4,260	4,141	4,009	3,963	3,961	3,940	3,996
% Ch	3.1%	1.2%	-1.6%	-2.8%	-3.2%	-1.1%	0.0%	-0.5%	1.4%
DEATHS									
Idaho (Thousands)	10.556	10.742	10.927	11.065	11.411	11.990	11.993	12.426	12.610
% Ch	0.4%	1.8%	1.7%	1.3%	3.1%	5.1%	0.0%	3.6%	1.5%
National (Thousands)	2,434	2,432	2,479	2,444	2,474	2,521	2,549	2,602	2,632
% Ch	-0.9%	-0.1%	1.9%	-1.4%	1.3%	1.9%	1.1%	2.1%	1.1%
NET MIGRATION									
Idaho (Thousands)	26.799	22.155	14.986	7.458	4.543	2.734	0.665	6.167	9.671
HOUSING									
HOUSING STARTS									
Idaho	19,533	14,345	7,979	5,733	5,186	4,560	7,123	9,053	9,806
% Ch	-16.6%	-26.6%	-44.4%	-28.1%	-9.5%	-12.1%	56.2%	27.1%	8.3%
National (Millions)	1.812	1.342	0.900	0.554	0.586	0.612	0.784	0.928	1.000
% Ch	-12.6%	-25.9%	-32.9%	-38.4%	5.7%	4.5%	28.1%	18.4%	7.8%
SINGLE UNITS									
Idaho	17,521	12,014	7,132	4,951	4,647	3,956	6,021	7,716	7,330
% Ch	-16.3%	-31.4%	-40.6%	-30.6%	-6.1%	-14.9%	52.2%	28.2%	-5.0%
National (Millions)	1.474	1.036	0.616	0.442	0.471	0.434	0.537	0.619	0.646
% Ch	-14.3%	-29.7%	-40.5%	-28.2%	6.6%	-7.9%	23.6%	15.3%	4.4%
MULTIPLE UNITS									
Idaho	2,012	2,331	847	782	538	604	1,103	1,336	2,475
% Ch	-18.5%	15.9%	-63.7%	-7.6%	-31.2%	12.3%	82.5%	21.2%	85.2%
National (Millions)	0.338	0.306	0.284	0.112	0.114	0.178	0.247	0.309	0.354
% Ch	-4.5%	-9.5%	-7.3%	-60.7%	2.2%	55.7%	38.9%	25.2%	14.6%
HOUSING STOCK									
Idaho (Thousands)	514.8	529.3	537.9	542.3	546.4	549.2	553.7	560.3	568.3
% Ch	4.1%	2.8%	1.6%	0.8%	0.8%	0.5%	0.8%	1.2%	1.4%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
JANUARY 2020**

DEMOGRAPHICS

	2015	2016	2017	2018	2019	2020	2021	2022	2023
POPULATION									
Idaho (Thousands)	1,651.5	1,682.9	1,718.9	1,754.2	1,785.2	1,816.9	1,844.7	1,872.0	1,899.3
% Ch	1.2%	1.9%	2.1%	2.1%	1.8%	1.8%	1.5%	1.5%	1.5%
National (Millions)	321.317	323.593	325.662	327.716	330.051	332.400	334.737	337.060	339.361
% Ch	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%
BIRTHS									
Idaho (Thousands)	22.832	22.463	22.159	21.397	21.374	21.897	22.276	22.620	22.963
% Ch	-0.2%	-1.6%	-1.4%	-3.4%	-0.1%	2.4%	1.7%	1.5%	1.5%
National (Thousands)	3,986	3,952	3,862	4,073	4,092	4,109	4,123	4,134	4,142
% Ch	-0.3%	-0.8%	-2.3%	5.5%	0.5%	0.4%	0.3%	0.3%	0.2%
DEATHS									
Idaho (Thousands)	13.031	13.370	14.007	14.263	14.566	14.887	15.214	15.546	15.885
% Ch	3.3%	2.6%	4.8%	1.8%	2.1%	2.2%	2.2%	2.2%	2.2%
National (Thousands)	2,718	2,749	2,818	2,695	2,722	2,750	2,779	2,809	2,841
% Ch	3.3%	1.1%	2.5%	-4.4%	1.0%	1.0%	1.0%	1.1%	1.2%
NET MIGRATION									
Idaho (Thousands)	10.243	22.314	27.822	28.170	24.180	24.716	20.748	20.194	20.180
HOUSING									
HOUSING STARTS									
Idaho	10,270	12,406	14,023	16,231	16,149	16,810	17,554	18,300	18,939
% Ch	4.7%	20.8%	13.0%	15.7%	-0.5%	4.1%	4.4%	4.2%	3.5%
National (Millions)	1.107	1.178	1.209	1.250	1.255	1.268	1.256	1.279	1.259
% Ch	10.7%	6.4%	2.6%	3.4%	0.4%	1.1%	-1.0%	1.9%	-1.6%
SINGLE UNITS									
Idaho	8,236	10,010	11,276	13,073	12,963	14,105	14,811	15,456	16,026
% Ch	12.4%	21.5%	12.6%	15.9%	-0.8%	8.8%	5.0%	4.4%	3.7%
National (Millions)	0.713	0.786	0.852	0.873	0.877	0.891	0.873	0.884	0.871
% Ch	10.3%	10.2%	8.5%	2.4%	0.5%	1.6%	-2.0%	1.3%	-1.5%
MULTIPLE UNITS									
Idaho	2,034	2,396	2,748	3,158	3,186	2,705	2,743	2,844	2,913
% Ch	-17.8%	17.8%	14.7%	14.9%	0.9%	-15.1%	1.4%	3.7%	2.4%
National (Millions)	0.395	0.392	0.357	0.377	0.378	0.377	0.383	0.395	0.388
% Ch	11.4%	-0.5%	-9.1%	5.6%	0.4%	-0.2%	1.6%	3.0%	-1.8%
HOUSING STOCK									
Idaho (Thousands)	576.7	586.6	597.8	611.9	626.0	640.7	656.1	672.1	688.8
% Ch	1.5%	1.7%	1.9%	2.4%	2.3%	2.3%	2.4%	2.4%	2.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
JANUARY 2020**

OUTPUT, INCOME, & WAGES

	2006	2007	2008	2009	2010	2011	2012	2013	2014
U.S. GROSS DOM. PRODUCT (Billions)									
Current Dollars	13,815	14,452	14,713	14,449	14,992	15,543	16,197	16,785	17,527
% Ch	6.0%	4.6%	1.8%	-1.8%	3.8%	3.7%	4.2%	3.6%	4.4%
2009 Chain-Weighted	15,338	15,626	15,605	15,209	15,599	15,841	16,197	16,495	16,912
% Ch	2.9%	1.9%	-0.1%	-2.5%	2.6%	1.6%	2.2%	1.8%	2.5%
PERSONAL INCOME - CURR \$									
Idaho (Millions)	46,161	49,123	50,205	48,477	50,197	53,083	56,140	58,338	61,827
% Ch	10.3%	6.4%	2.2%	-3.4%	3.5%	5.7%	5.8%	3.9%	6.0%
Idaho Nonfarm (Millions)	45,102	47,523	48,627	47,535	48,838	51,096	54,135	56,053	59,457
% Ch	10.8%	5.4%	2.3%	-2.2%	2.7%	4.6%	5.9%	3.5%	6.1%
National (Billions)	11,382	12,008	12,442	12,059	12,552	13,327	14,010	14,181	14,992
% Ch	7.4%	5.5%	3.6%	-3.1%	4.1%	6.2%	5.1%	1.2%	5.7%
PERSONAL INCOME - 2009 \$									
Idaho (Millions)	51,763	53,724	53,309	51,523	52,447	54,093	56,136	57,561	60,123
% Ch	7.4%	3.8%	-0.8%	-3.4%	1.8%	3.1%	3.8%	2.5%	4.5%
Idaho Nonfarm (Millions)	50,574	51,973	51,632	50,523	51,028	52,069	54,131	55,307	57,819
% Ch	7.9%	2.8%	-0.7%	-2.1%	1.0%	2.0%	4.0%	2.2%	4.5%
National (Billions)	12,763	13,132	13,211	12,816	13,114	13,580	14,009	13,992	14,579
% Ch	4.6%	2.9%	0.6%	-3.0%	2.3%	3.6%	3.2%	-0.1%	4.2%
PER CAPITA PERS INC - CURR \$									
Idaho	31,429	32,637	32,723	31,187	31,955	33,515	35,186	36,199	37,894
% Ch	7.3%	3.8%	0.3%	-4.7%	2.5%	4.9%	5.0%	2.9%	4.7%
National	38,029	39,730	40,801	39,206	40,479	42,670	44,542	44,777	46,993
% Ch	6.4%	4.5%	2.7%	-3.9%	3.2%	5.4%	4.4%	0.5%	4.9%
PER CAPITA PERS INC - 2009 \$									
Idaho	35,244	35,696	34,747	33,147	33,388	34,154	35,184	35,718	36,850
% Ch	4.5%	1.3%	-2.7%	-4.6%	0.7%	2.3%	3.0%	1.5%	3.2%
National	42,645	43,451	43,324	41,669	42,294	43,483	44,540	44,182	45,699
% Ch	3.6%	1.9%	-0.3%	-3.8%	1.5%	2.8%	2.4%	-0.8%	3.4%
AVERAGE ANNUAL WAGE									
Idaho	34,326	35,256	35,615	35,861	36,614	37,078	37,406	38,111	39,306
% Ch	5.7%	2.7%	1.0%	0.7%	2.1%	1.3%	0.9%	1.9%	3.1%
National	44,388	46,355	47,614	47,594	48,882	50,220	51,629	52,159	53,799
% Ch	4.5%	4.4%	2.7%	0.0%	2.7%	2.7%	2.8%	1.0%	3.1%

National Variables Forecast by IHS Economics
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**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
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OUTPUT, INCOME, & WAGES

	2015	2016	2017	2018	2019	2020	2021	2022	2023
U.S. GROSS DOM. PRODUCT (Billions)									
Current Dollars	18,225	18,715	19,519	20,580	21,424	22,333	23,298	24,253	25,217
% Ch	4.0%	2.7%	4.3%	5.4%	4.1%	4.2%	4.3%	4.1%	4.0%
2009 Chain-Weighted	17,404	17,689	18,108	18,638	19,061	19,458	19,846	20,165	20,467
% Ch	2.9%	1.6%	2.4%	2.9%	2.3%	2.1%	2.0%	1.6%	1.5%
 PERSONAL INCOME - CURR \$									
Idaho (Millions)	65,825	68,445	72,355	77,012	81,655	86,387	90,589	94,751	99,290
% Ch	6.5%	4.0%	5.7%	6.4%	6.0%	5.8%	4.9%	4.6%	4.8%
Idaho Nonfarm (Millions)	63,598	66,495	70,757	75,497	79,827	84,367	88,427	92,468	96,880
% Ch	7.0%	4.6%	6.4%	6.7%	5.7%	5.7%	4.8%	4.6%	4.8%
National (Billions)	15,718	16,121	16,879	17,819	18,668	19,389	20,185	21,042	21,932
% Ch	4.8%	2.6%	4.7%	5.6%	4.8%	3.9%	4.1%	4.2%	4.2%
 PERSONAL INCOME - 2009 \$									
Idaho (Millions)	63,878	65,753	68,301	71,210	74,424	77,305	79,615	81,542	83,632
% Ch	6.2%	2.9%	3.9%	4.3%	4.5%	3.9%	3.0%	2.4%	2.6%
Idaho Nonfarm (Millions)	61,717	63,879	66,792	69,809	72,758	75,497	77,716	79,577	81,601
% Ch	6.7%	3.5%	4.6%	4.5%	4.2%	3.8%	2.9%	2.4%	2.5%
National (Billions)	15,253	15,487	15,933	16,477	17,016	17,351	17,741	18,109	18,473
% Ch	4.6%	1.5%	2.9%	3.4%	3.3%	2.0%	2.2%	2.1%	2.0%
 PER CAPITA PERS INC - CURR \$									
Idaho	39,856	40,669	42,091	43,900	45,737	47,544	49,105	50,613	52,277
% Ch	5.2%	2.0%	3.5%	4.3%	4.2%	4.0%	3.3%	3.1%	3.3%
National	48,916	49,819	51,828	54,373	56,561	58,329	60,301	62,427	64,625
% Ch	4.1%	1.8%	4.0%	4.9%	4.0%	3.1%	3.4%	3.5%	3.5%
 PER CAPITA PERS INC - 2009 \$									
Idaho	38,678	39,070	39,734	40,593	41,688	42,546	43,157	43,558	44,034
% Ch	5.0%	1.0%	1.7%	2.2%	2.7%	2.1%	1.4%	0.9%	1.1%
National	47,470	47,860	48,925	50,277	51,555	52,198	52,998	53,726	54,435
% Ch	3.9%	0.8%	2.2%	2.8%	2.5%	1.2%	1.5%	1.4%	1.3%
 AVERAGE ANNUAL WAGE									
Idaho	40,289	41,063	42,667	44,200	45,536	47,063	48,506	50,032	51,575
% Ch	2.5%	1.9%	3.9%	3.6%	3.0%	3.4%	3.1%	3.1%	3.1%
National	55,395	55,999	57,716	59,627	61,839	63,745	66,007	68,621	71,517
% Ch	3.0%	1.1%	3.1%	3.3%	3.7%	3.1%	3.5%	4.0%	4.2%

**National Variables Forecast by IHS Economics
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**IDAHO ECONOMIC FORECAST
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PERSONAL INCOME--CURRENT \$\$

	2006	2007	2008	2009	2010	2011	2012	2013	2014
WAGE AND SALARY PAYMENTS									
Idaho (Millions)	22,715	24,023	23,953	22,800	22,945	23,461	24,151	25,254	26,661
% Ch	10.0%	5.8%	-0.3%	-4.8%	0.6%	2.2%	2.9%	4.6%	5.6%
National (Billions)	6,057	6,397	6,534	6,249	6,372	6,626	6,927	7,113	7,475
% Ch	6.4%	5.6%	2.1%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%
FARM PROPRIETORS INCOME									
Idaho (Millions)	567	1,010	1,029	329	822	1,447	1,389	1,603	1,669
% Ch	-13.5%	78.2%	2.0%	-68.0%	149.8%	76.1%	-4.0%	15.4%	4.1%
National (Billions)	33	40	40	28	39	65	61	88	70
% Ch	-29.3%	21.7%	-0.1%	-30.2%	38.8%	66.5%	-6.1%	45.0%	-20.9%
NONFARM PROPRIETORS INCOME									
Idaho (Millions)	4,147	3,938	3,687	4,224	4,291	4,404	4,909	5,573	6,161
% Ch	10.5%	-5.0%	-6.4%	14.6%	1.6%	2.6%	11.5%	13.5%	10.5%
National (Billions)	1,017	954	921	910	1,070	1,164	1,286	1,315	1,378
% Ch	9.2%	-6.2%	-3.5%	-1.1%	17.5%	8.8%	10.5%	2.2%	4.8%
DIVIDENDS, RENT & INTEREST									
Idaho (Millions)	9,850	10,589	10,724	9,468	9,502	10,698	12,274	12,145	13,246
% Ch	14.7%	7.5%	1.3%	-11.7%	0.4%	12.6%	14.7%	-1.1%	9.1%
National (Billions)	2,161	2,368	2,458	2,180	2,177	2,430	2,684	2,623	2,907
% Ch	13.1%	9.6%	3.8%	-11.3%	-0.1%	11.6%	10.5%	-2.2%	10.8%
OTHER LABOR INCOME									
Idaho (Millions)	5,685	5,965	5,998	5,812	5,980	5,855	5,933	6,527	6,376
% Ch	11.7%	4.9%	0.5%	-3.1%	2.9%	-2.1%	1.3%	10.0%	-2.3%
National (Billions)	976	1,020	1,051	1,052	1,084	1,107	1,126	1,195	1,227
% Ch	3.1%	4.6%	3.0%	0.0%	3.0%	2.2%	1.7%	6.1%	2.7%
GOVT. TRANSFERS TO INDIV.									
Idaho (Millions)	6,707	7,282	8,477	9,324	10,249	10,294	10,430	10,774	11,338
% Ch	8.6%	8.6%	16.4%	10.0%	9.9%	0.4%	1.3%	3.3%	5.2%
National (Billions)	1,614	1,728	1,955	2,147	2,325	2,359	2,363	2,424	2,542
% Ch	6.4%	7.1%	13.1%	9.8%	8.3%	1.4%	0.2%	2.6%	4.8%
CONTRIB. FOR SOCIAL INSUR.									
Idaho (Millions)	3,997	4,194	4,225	4,135	4,317	3,945	4,045	4,668	4,856
% Ch	11.4%	4.9%	0.8%	-2.2%	4.4%	-8.6%	2.5%	15.4%	4.0%
National (Billions)	923	961	988	964	984	917	951	1,104	1,154
% Ch	5.6%	4.2%	2.8%	-2.4%	2.0%	-6.8%	3.7%	16.2%	4.5%
RESIDENCE ADJUSTMENT									
Idaho (Millions)	489	510	562	655	724	870	1,098	1,131	1,233
% Ch	-4.7%	4.4%	10.0%	16.6%	10.6%	20.1%	26.2%	2.9%	9.1%

National Variables Forecast by IHS Economics
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**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
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PERSONAL INCOME--CURRENT \$\$

	2015	2016	2017	2018	2019	2020	2021	2022	2023
WAGE AND SALARY PAYMENTS									
Idaho (Millions)	27,884	29,421	31,501	33,692	35,710	37,902	39,845	41,900	44,004
% Ch	4.6%	5.5%	7.1%	7.0%	6.0%	6.1%	5.1%	5.2%	5.0%
National (Billions)	7,857	8,083	8,462	8,888	9,362	9,769	10,194	10,640	11,097
% Ch	5.1%	2.9%	4.7%	5.0%	5.3%	4.4%	4.3%	4.4%	4.3%
FARM PROPRIETORS INCOME									
Idaho (Millions)	1,666	1,298	883	753	1,056	1,243	1,356	1,447	1,540
% Ch	-0.2%	-22.1%	-31.9%	-14.7%	40.2%	17.7%	9.1%	6.7%	6.5%
National (Billions)	56	36	38	27	31	17	30	71	70
% Ch	-19.8%	-36.4%	7.0%	-28.6%	12.7%	-46.1%	82.1%	137.5%	-2.4%
NONFARM PROPRIETORS INCOME									
Idaho (Millions)	6,587	6,468	6,837	7,008	7,313	7,575	7,678	7,616	7,596
% Ch	6.9%	-1.8%	5.7%	2.5%	4.4%	3.6%	1.4%	-0.8%	-0.3%
National (Billions)	1,366	1,388	1,480	1,562	1,625	1,664	1,681	1,664	1,660
% Ch	-0.9%	1.6%	6.6%	5.5%	4.0%	2.4%	1.0%	-1.0%	-0.3%
DIVIDENDS, RENT & INTEREST									
Idaho (Millions)	14,584	15,328	16,619	18,024	18,630	19,595	20,520	21,472	22,535
% Ch	10.1%	5.1%	8.4%	8.5%	3.4%	5.2%	4.7%	4.6%	5.0%
National (Billions)	3,119	3,203	3,400	3,687	3,779	3,878	4,019	4,202	4,408
% Ch	7.3%	2.7%	6.2%	8.4%	2.5%	2.6%	3.6%	4.5%	4.9%
OTHER LABOR INCOME									
Idaho (Millions)	7,001	7,514	7,779	8,211	8,655	9,252	9,756	10,246	10,747
% Ch	9.8%	7.3%	3.5%	5.5%	5.4%	6.9%	5.4%	5.0%	4.9%
National (Billions)	1,272	1,296	1,344	1,417	1,473	1,534	1,601	1,671	1,742
% Ch	3.6%	1.8%	3.7%	5.5%	3.9%	4.2%	4.3%	4.4%	4.3%
GOVT. TRANSFERS TO INDIV.									
Idaho (Millions)	11,978	12,499	13,056	13,883	15,139	16,017	16,935	17,878	18,980
% Ch	5.6%	4.4%	4.5%	6.3%	9.0%	5.8%	5.7%	5.6%	6.2%
National (Billions)	2,683	2,774	2,848	2,971	3,174	3,332	3,496	3,663	3,860
% Ch	5.6%	3.4%	2.7%	4.3%	6.8%	5.0%	4.9%	4.8%	5.4%
CONTRIB. FOR SOCIAL INSUR.									
Idaho (Millions)	5,070	5,335	5,673	5,993	6,383	6,787	7,098	7,441	7,798
% Ch	4.4%	5.2%	6.3%	5.6%	6.5%	6.3%	4.6%	4.8%	4.8%
National (Billions)	1,205	1,240	1,300	1,356	1,429	1,487	1,543	1,605	1,671
% Ch	4.4%	2.9%	4.8%	4.4%	5.4%	4.0%	3.8%	4.0%	4.1%
RESIDENCE ADJUSTMENT									
Idaho (Millions)	1,196	1,251	1,353	1,435	1,535	1,590	1,596	1,635	1,686
% Ch	-3.0%	4.6%	8.1%	6.1%	7.0%	3.6%	0.4%	2.4%	3.1%

National Variables Forecast by IHS Economics
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IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
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EMPLOYMENT

	2006	2007	2008	2009	2010	2011	2012	2013	2014
TOTAL NONFARM EMPLOYMENT									
Idaho	638,843	656,231	648,356	609,395	602,952	609,937	621,236	637,030	653,299
% Ch	4.4%	2.7%	-1.2%	-6.0%	-1.1%	1.2%	1.9%	2.5%	2.6%
National (Thousands)	136,451	137,995	137,242	131,306	130,354	131,939	134,174	136,374	138,941
% Ch	1.8%	1.1%	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%
GOODS PRODUCING SECTOR									
Idaho	122,254	123,323	112,122	92,349	87,962	88,940	92,342	97,291	99,973
% Ch	8.8%	0.9%	-9.1%	-17.6%	-4.8%	1.1%	3.8%	5.4%	2.8%
National (Thousands)	22,530	22,229	21,331	18,559	17,752	18,045	18,420	18,739	19,226
% Ch	1.6%	-1.3%	-4.0%	-13.0%	-4.3%	1.7%	2.1%	1.7%	2.6%
MANUFACTURING									
Idaho	67,839	68,065	64,361	55,806	54,371	55,956	58,131	61,018	61,591
% Ch	4.3%	0.3%	-5.4%	-13.3%	-2.6%	2.9%	3.9%	5.0%	0.9%
National (Thousands)	14,221	13,938	13,460	11,898	11,579	11,776	11,978	12,071	12,236
% Ch	-0.5%	-2.0%	-3.4%	-11.6%	-2.7%	1.7%	1.7%	0.8%	1.4%
DURABLE MANUFACTURING									
Idaho	44,605	44,204	39,778	32,172	31,111	32,592	34,113	35,762	36,060
% Ch	5.9%	-0.9%	-10.0%	-19.1%	-3.3%	4.8%	4.7%	4.8%	0.8%
National (Thousands)	9,046	8,868	8,519	7,335	7,114	7,322	7,520	7,598	7,726
% Ch	0.3%	-2.0%	-3.9%	-13.9%	-3.0%	2.9%	2.7%	1.0%	1.7%
LOGGING & WOOD PRODUCTS									
Idaho	10,037	9,588	7,975	5,867	5,732	6,120	6,408	7,034	7,048
% Ch	4.3%	-4.5%	-16.8%	-26.4%	-2.3%	6.8%	4.7%	9.8%	0.2%
National (Thousands)	625	577	514	411	392	386	390	405	424
% Ch	-0.2%	-7.7%	-10.9%	-20.1%	-4.6%	-1.6%	1.1%	3.9%	4.6%
METAL FABRICATION									
Idaho	4,376	4,659	4,676	4,376	4,443	4,593	4,859	5,417	5,500
% Ch	12.1%	6.5%	0.4%	-6.4%	1.5%	3.4%	5.8%	11.5%	1.5%
National (Thousands)	1,553	1,562	1,527	1,312	1,282	1,348	1,410	1,432	1,454
% Ch	2.0%	0.6%	-2.2%	-14.1%	-2.3%	5.2%	4.5%	1.6%	1.6%
MACHINERY									
Idaho	2,864	2,992	3,133	2,717	2,501	2,567	2,717	2,934	2,993
% Ch	9.9%	4.5%	4.7%	-13.3%	-8.0%	2.7%	5.9%	8.0%	2.0%
National (Thousands)	1,183	1,187	1,187	1,029	996	1,056	1,098	1,105	1,127
% Ch	1.6%	0.3%	0.0%	-13.3%	-3.2%	6.0%	4.1%	0.6%	2.1%
COMPUTER & ELECTRONICS									
Idaho	16,663	16,216	14,305	11,098	10,574	11,191	11,625	11,266	11,425
% Ch	3.0%	-2.7%	-11.8%	-22.4%	-4.7%	5.8%	3.9%	-3.1%	1.4%
National (Thousands)	1,308	1,272	1,244	1,137	1,094	1,103	1,089	1,066	1,049
% Ch	-0.7%	-2.7%	-2.2%	-8.6%	-3.7%	0.8%	-1.3%	-2.1%	-1.6%
OTHER DURABLES									
Idaho	10,664	10,749	9,689	8,114	7,861	8,120	8,503	9,111	9,094
% Ch	8.9%	0.8%	-9.9%	-16.3%	-3.1%	3.3%	4.7%	7.1%	-0.2%
National (Thousands)	4,378	4,269	4,046	3,446	3,349	3,430	3,533	3,592	3,671
% Ch	-0.3%	-2.5%	-5.2%	-14.8%	-2.8%	2.4%	3.0%	1.6%	2.2%

National Variables Forecast by IHS Economics
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**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
JANUARY 2020**

EMPLOYMENT

	2015	2016	2017	2018	2019	2020	2021	2022	2023
TOTAL NONFARM EMPLOYMENT									
Idaho	671,414	693,928	715,200	738,680	760,037	780,614	796,613	812,711	828,641
% Ch	2.8%	3.4%	3.1%	3.3%	2.9%	2.7%	2.0%	2.0%	2.0%
National (Thousands)	141,826	144,348	146,611	149,064	151,384	153,251	154,431	155,048	155,161
% Ch	2.1%	1.8%	1.6%	1.7%	1.6%	1.2%	0.8%	0.4%	0.1%
GOODS PRODUCING SECTOR									
Idaho	104,328	109,886	114,901	121,141	125,691	129,886	133,453	137,216	141,044
% Ch	4.4%	5.3%	4.6%	5.4%	3.8%	3.3%	2.7%	2.8%	2.8%
National (Thousands)	19,608	19,747	20,080	20,708	21,084	21,034	20,862	20,949	20,989
% Ch	2.0%	0.7%	1.7%	3.1%	1.8%	-0.2%	-0.8%	0.4%	0.2%
MANUFACTURING									
Idaho	63,614	65,783	67,692	69,684	70,702	72,315	73,052	74,302	75,815
% Ch	3.3%	3.4%	2.9%	2.9%	1.5%	2.3%	1.0%	1.7%	2.0%
National (Thousands)	12,388	12,404	12,489	12,737	12,885	12,799	12,568	12,535	12,484
% Ch	1.2%	0.1%	0.7%	2.0%	1.2%	-0.7%	-1.8%	-0.3%	-0.4%
DURABLE MANUFACTURING									
Idaho	37,491	38,675	39,581	41,070	41,442	42,282	42,840	43,603	44,328
% Ch	4.0%	3.2%	2.3%	3.8%	0.9%	2.0%	1.3%	1.8%	1.7%
National (Thousands)	7,818	7,764	7,789	7,993	8,103	8,067	7,922	7,902	7,876
% Ch	1.2%	-0.7%	0.3%	2.6%	1.4%	-0.4%	-1.8%	-0.3%	-0.3%
LOGGING & WOOD PRODUCTS									
Idaho	7,332	7,699	7,854	8,139	8,358	8,281	8,181	8,214	8,147
% Ch	4.0%	5.0%	2.0%	3.6%	2.7%	-0.9%	-1.2%	0.4%	-0.8%
National (Thousands)	435	444	447	455	458	458	464	482	491
% Ch	2.6%	2.1%	0.6%	1.9%	0.6%	0.1%	1.3%	3.9%	1.8%
METAL FABRICATION									
Idaho	5,650	5,895	5,939	5,901	5,797	5,949	6,054	6,239	6,462
% Ch	2.7%	4.4%	0.7%	-0.7%	-1.8%	2.6%	1.8%	3.1%	3.6%
National (Thousands)	1,458	1,422	1,424	1,466	1,483	1,467	1,439	1,453	1,476
% Ch	0.3%	-2.5%	0.2%	2.9%	1.1%	-1.1%	-1.9%	1.0%	1.6%
MACHINERY									
Idaho	3,033	3,093	3,185	3,339	3,469	3,531	3,595	3,731	3,871
% Ch	1.3%	2.0%	3.0%	4.9%	3.9%	1.8%	1.8%	3.8%	3.7%
National (Thousands)	1,121	1,076	1,079	1,120	1,136	1,115	1,100	1,122	1,137
% Ch	-0.6%	-4.0%	0.2%	3.8%	1.4%	-1.9%	-1.3%	2.0%	1.4%
COMPUTER & ELECTRONICS									
Idaho	11,899	12,124	12,232	12,728	12,536	12,936	13,110	13,247	13,440
% Ch	4.1%	1.9%	0.9%	4.1%	-1.5%	3.2%	1.3%	1.0%	1.5%
National (Thousands)	1,053	1,048	1,039	1,055	1,084	1,091	1,086	1,093	1,095
% Ch	0.4%	-0.5%	-0.9%	1.6%	2.7%	0.6%	-0.4%	0.6%	0.3%
OTHER DURABLES									
Idaho	9,578	9,864	10,371	10,963	11,283	11,585	11,900	12,172	12,409
% Ch	5.3%	3.0%	5.1%	5.7%	2.9%	2.7%	2.7%	2.3%	1.9%
National (Thousands)	3,751	3,774	3,800	3,897	3,943	3,936	3,833	3,752	3,676
% Ch	2.2%	0.6%	0.7%	2.5%	1.2%	-0.2%	-2.6%	-2.1%	-2.0%

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EMPLOYMENT

MANUFACTURING (continued)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014
NONDURABLE MANUFACTURING									
Idaho	23,234	23,861	24,583	23,634	23,261	23,364	24,019	25,256	25,531
% Ch	1.3%	2.7%	3.0%	-3.9%	-1.6%	0.4%	2.8%	5.2%	1.1%
National (Thousands)	5,175	5,070	4,941	4,563	4,465	4,454	4,458	4,473	4,511
% Ch	-1.8%	-2.0%	-2.6%	-7.6%	-2.2%	-0.2%	0.1%	0.3%	0.9%
FOOD PROCESSING									
Idaho	14,700	15,094	15,835	15,642	15,443	15,355	15,661	16,397	16,507
% Ch	-0.1%	2.7%	4.9%	-1.2%	-1.3%	-0.6%	2.0%	4.7%	0.7%
National (Thousands)	1,479	1,484	1,480	1,457	1,451	1,459	1,469	1,474	1,485
% Ch	0.1%	0.3%	-0.2%	-1.6%	-0.4%	0.6%	0.7%	0.3%	0.7%
PRINTING									
Idaho	1,907	1,891	1,807	1,433	1,283	1,232	1,209	1,217	1,175
% Ch	0.4%	-0.8%	-4.4%	-20.7%	-10.5%	-3.9%	-1.9%	0.7%	-3.4%
National (Thousands)	634	622	594	522	488	472	462	452	454
% Ch	-1.9%	-1.9%	-4.5%	-12.2%	-6.5%	-3.3%	-2.1%	-2.1%	0.3%
CHEMICALS									
Idaho	2,117	2,267	2,367	2,275	2,200	2,375	2,541	2,599	2,533
% Ch	9.2%	7.1%	4.4%	-3.9%	-3.3%	7.9%	7.0%	2.3%	-2.6%
National (Thousands)	866	861	847	804	786	783	784	793	803
% Ch	-0.7%	-0.6%	-1.7%	-5.1%	-2.2%	-0.4%	0.0%	1.2%	1.2%
OTHER NONDURABLES									
Idaho	4,511	4,610	4,573	4,284	4,336	4,402	4,609	5,043	5,316
% Ch	3.1%	2.2%	-0.8%	-6.3%	1.2%	1.5%	4.7%	9.4%	5.4%
National (Thousands)	2,195	2,104	2,020	1,781	1,740	1,739	1,743	1,754	1,770
% Ch	-3.5%	-4.2%	-4.0%	-11.8%	-2.3%	0.0%	0.2%	0.6%	0.9%
MINING									
Idaho	2,373	2,666	2,751	2,139	2,294	2,623	2,779	2,629	2,519
% Ch	9.9%	12.4%	3.2%	-22.2%	7.2%	14.3%	5.9%	-5.4%	-4.2%
National (Thousands)	620	663	709	643	655	739	797	811	838
% Ch	10.3%	7.0%	6.9%	-9.3%	1.8%	12.9%	7.7%	1.8%	3.4%
CONSTRUCTION									
Idaho	52,043	52,591	45,010	34,404	31,297	30,361	31,432	33,644	35,863
% Ch	15.3%	1.1%	-14.4%	-23.6%	-9.0%	-3.0%	3.5%	7.0%	6.6%
National (Thousands)	7,690	7,627	7,162	6,017	5,518	5,530	5,646	5,857	6,151
% Ch	4.9%	-0.8%	-6.1%	-16.0%	-8.3%	0.2%	2.1%	3.7%	5.0%
NONGOODS PRODUCING									
Idaho	516,589	532,908	536,234	517,046	514,990	520,997	528,895	539,738	553,326
% Ch	3.4%	3.2%	0.6%	-3.6%	-0.4%	1.2%	1.5%	2.1%	2.5%
National (Thousands)	113,921	115,766	115,910	112,747	112,602	113,894	115,754	117,635	119,715
% Ch	1.8%	1.6%	0.1%	-2.7%	-0.1%	1.1%	1.6%	1.6%	1.8%
SERVICES									
Idaho	292,716	304,463	307,960	296,471	296,759	303,156	308,056	316,182	326,723
% Ch	4.3%	4.0%	1.1%	-3.7%	0.1%	2.2%	1.6%	2.6%	3.3%
National (Thousands)	70,745	72,076	72,242	70,144	70,275	71,651	73,394	75,049	76,735
% Ch	2.4%	1.9%	0.2%	-2.9%	0.2%	2.0%	2.4%	2.3%	2.2%
INFORMATION									
Idaho	10,592	10,913	11,028	10,012	9,626	9,465	9,364	9,288	9,322
% Ch	-4.3%	3.0%	1.1%	-9.2%	-3.9%	-1.7%	-1.1%	-0.8%	0.4%
National (Thousands)	3,038	3,031	2,983	2,804	2,707	2,673	2,675	2,705	2,726
% Ch	-0.8%	-0.2%	-1.6%	-6.0%	-3.4%	-1.3%	0.1%	1.1%	0.8%
FINANCIAL ACTIVITIES									
Idaho	31,744	32,529	31,659	29,622	29,169	29,871	30,330	31,180	32,678
% Ch	7.1%	2.5%	-2.7%	-6.4%	-1.5%	2.4%	1.5%	2.8%	4.8%
National (Thousands)	8,366	8,347	8,204	7,838	7,695	7,696	7,783	7,886	7,977
% Ch	2.1%	-0.2%	-1.7%	-4.5%	-1.8%	0.0%	1.1%	1.3%	1.1%

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EMPLOYMENT

MANUFACTURING (continued)	2015	2016	2017	2018	2019	2020	2021	2022	2023
NONDURABLE MANUFACTURING									
Idaho	26,123	27,108	28,111	28,614	29,260	30,033	30,212	30,699	31,487
% Ch	2.3%	3.8%	3.7%	1.8%	2.3%	2.6%	0.6%	1.6%	2.6%
National (Thousands)	4,570	4,640	4,700	4,743	4,782	4,732	4,646	4,633	4,607
% Ch	1.3%	1.5%	1.3%	0.9%	0.8%	-1.1%	-1.8%	-0.3%	-0.6%
FOOD PROCESSING									
Idaho	16,839	17,483	18,224	18,837	19,325	19,787	19,858	20,119	20,642
% Ch	2.0%	3.8%	4.2%	3.4%	2.6%	2.4%	0.4%	1.3%	2.6%
National (Thousands)	1,512	1,557	1,599	1,620	1,638	1,642	1,638	1,662	1,680
% Ch	1.8%	3.0%	2.7%	1.3%	1.1%	0.2%	-0.3%	1.5%	1.1%
PRINTING									
Idaho	1,124	1,230	1,299	1,251	1,278	1,254	1,207	1,201	1,198
% Ch	-4.3%	9.4%	5.6%	-3.7%	2.2%	-1.9%	-3.7%	-0.6%	-0.2%
National (Thousands)	450	447	440	431	420	407	399	400	398
% Ch	-0.7%	-0.6%	-1.6%	-2.1%	-2.4%	-3.2%	-1.9%	0.1%	-0.4%
CHEMICALS									
Idaho	2,551	2,712	2,944	2,991	2,914	3,024	3,068	3,115	3,173
% Ch	0.7%	6.3%	8.6%	1.6%	-2.6%	3.8%	1.5%	1.5%	1.9%
National (Thousands)	807	812	824	838	858	853	834	820	805
% Ch	0.6%	0.6%	1.5%	1.7%	2.4%	-0.5%	-2.3%	-1.6%	-1.8%
OTHER NONDURABLES									
Idaho	5,608	5,683	5,643	5,535	5,742	5,968	6,079	6,263	6,473
% Ch	5.5%	1.3%	-0.7%	-1.9%	3.8%	3.9%	1.9%	3.0%	3.3%
National (Thousands)	1,801	1,823	1,837	1,855	1,866	1,830	1,776	1,751	1,724
% Ch	1.7%	1.2%	0.8%	1.0%	0.6%	-1.9%	-3.0%	-1.4%	-1.6%
MINING									
Idaho	2,451	2,467	2,216	2,249	2,313	2,226	2,123	2,059	2,036
% Ch	-2.7%	0.7%	-10.2%	1.5%	2.9%	-3.8%	-4.6%	-3.0%	-1.2%
National (Thousands)	760	617	626	683	705	686	686	698	717
% Ch	-9.3%	-18.9%	1.5%	9.1%	3.2%	-2.6%	-0.1%	1.8%	2.7%
CONSTRUCTION									
Idaho	38,263	41,636	44,993	49,208	52,676	55,346	58,277	60,855	63,193
% Ch	6.7%	8.8%	8.1%	9.4%	7.0%	5.1%	5.3%	4.4%	3.8%
National (Thousands)	6,460	6,726	6,966	7,289	7,495	7,549	7,607	7,716	7,788
% Ch	5.0%	4.1%	3.6%	4.6%	2.8%	0.7%	0.8%	1.4%	0.9%
NONGOODS PRODUCING									
Idaho	567,086	584,042	600,298	617,539	634,345	650,728	663,161	675,495	687,597
% Ch	2.5%	3.0%	2.8%	2.9%	2.7%	2.6%	1.9%	1.9%	1.8%
National (Thousands)	122,218	124,601	126,531	128,356	130,299	132,217	133,570	134,100	134,172
% Ch	2.1%	1.9%	1.5%	1.4%	1.5%	1.5%	1.0%	0.4%	0.1%
SERVICES									
Idaho	336,157	348,757	361,482	375,468	388,675	401,024	411,707	421,556	431,400
% Ch	2.9%	3.7%	3.6%	3.9%	3.5%	3.2%	2.7%	2.4%	2.3%
National (Thousands)	78,796	80,747	82,527	84,231	86,005	87,579	88,964	89,493	89,663
% Ch	2.7%	2.5%	2.2%	2.1%	2.1%	1.8%	1.6%	0.6%	0.2%
INFORMATION									
Idaho	9,257	9,050	9,013	8,908	8,985	9,226	9,375	9,651	10,007
% Ch	-0.7%	-2.2%	-0.4%	-1.2%	0.9%	2.7%	1.6%	2.9%	3.7%
National (Thousands)	2,751	2,794	2,812	2,826	2,821	2,828	2,824	2,780	2,785
% Ch	0.9%	1.6%	0.7%	0.5%	-0.2%	0.2%	-0.1%	-1.6%	0.2%
FINANCIAL ACTIVITIES									
Idaho	33,300	33,955	35,220	36,546	37,389	38,721	39,755	40,611	41,486
% Ch	1.9%	2.0%	3.7%	3.8%	2.3%	3.6%	2.7%	2.2%	2.2%
National (Thousands)	8,123	8,286	8,450	8,569	8,678	8,796	8,838	8,828	8,789
% Ch	1.8%	2.0%	2.0%	1.4%	1.3%	1.4%	0.5%	-0.1%	-0.4%

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EMPLOYMENT

SERVICES (Continued)	2006	2007	2008	2009	2010	2011	2012	2013	2014
TRANS., WAREHOUSING, UTILITIES									
Idaho	20,242	21,032	21,723	20,690	20,689	21,184	21,510	21,509	22,423
% Ch	4.9%	3.9%	3.3%	-4.8%	0.0%	2.4%	1.5%	0.0%	4.2%
National (Thousands)	5,022	5,100	5,072	4,802	4,749	4,862	4,974	5,055	5,216
% Ch	2.0%	1.6%	-0.5%	-5.3%	-1.1%	2.4%	2.3%	1.6%	3.2%
PROFESSIONAL & BUSINESS									
Idaho	81,351	83,193	81,908	75,880	75,146	76,391	76,745	78,761	80,794
% Ch	5.8%	2.3%	-1.5%	-7.4%	-1.0%	1.7%	0.5%	2.6%	2.6%
National (Thousands)	17,620	18,001	17,798	16,633	16,778	17,386	17,992	18,579	19,123
% Ch	3.7%	2.2%	-1.1%	-6.5%	0.9%	3.6%	3.5%	3.3%	2.9%
EDUCATION & HEALTH									
Idaho	70,117	74,071	77,287	80,429	83,134	85,770	87,410	89,955	92,985
% Ch	3.1%	5.6%	4.3%	4.1%	3.4%	3.2%	1.9%	2.9%	3.4%
National (Thousands)	18,152	18,676	19,228	19,628	19,973	20,322	20,769	21,085	21,436
% Ch	2.7%	2.9%	3.0%	2.1%	1.8%	1.7%	2.2%	1.5%	1.7%
LEISURE & HOSPITALITY									
Idaho	59,650	63,257	63,201	58,666	57,949	59,299	61,178	63,511	65,899
% Ch	4.0%	6.0%	-0.1%	-7.2%	-1.2%	2.3%	3.2%	3.8%	3.8%
National (Thousands)	13,109	13,428	13,441	13,074	13,042	13,352	13,770	14,255	14,691
% Ch	2.3%	2.4%	0.1%	-2.7%	-0.2%	2.4%	3.1%	3.5%	3.1%
OTHER SERVICES									
Idaho	19,021	19,469	21,155	21,174	21,047	21,177	21,519	21,978	22,621
% Ch	2.9%	2.4%	8.7%	0.1%	-0.6%	0.6%	1.6%	2.1%	2.9%
National (Thousands)	5,438	5,493	5,515	5,366	5,331	5,361	5,430	5,483	5,567
% Ch	0.8%	1.0%	0.4%	-2.7%	-0.7%	0.6%	1.3%	1.0%	1.5%
TRADE									
Idaho	107,463	111,650	109,087	101,080	99,639	100,623	103,623	106,155	108,415
% Ch	3.7%	3.9%	-2.3%	-7.3%	-1.4%	1.0%	3.0%	2.4%	2.1%
National (Thousands)	21,200	21,470	21,165	20,049	19,837	20,149	20,441	20,739	21,106
% Ch	1.0%	1.3%	-1.4%	-5.3%	-1.1%	1.6%	1.4%	1.5%	1.8%
RETAIL TRADE									
Idaho	80,514	83,552	82,614	76,283	74,837	75,202	77,126	78,742	80,579
% Ch	4.8%	3.8%	-1.1%	-7.7%	-1.9%	0.5%	2.6%	2.1%	2.3%
National (Thousands)	15,359	15,522	15,291	14,529	14,450	14,675	14,845	15,078	15,366
% Ch	0.5%	1.1%	-1.5%	-5.0%	-0.5%	1.6%	1.2%	1.6%	1.9%
WHOLESALE TRADE									
Idaho	26,949	28,098	26,473	24,797	24,803	25,421	26,496	27,413	27,836
% Ch	0.3%	4.3%	-5.8%	-6.3%	0.0%	2.5%	4.2%	3.5%	1.5%
National (Thousands)	5,841	5,948	5,875	5,521	5,387	5,474	5,596	5,661	5,739
% Ch	2.4%	1.8%	-1.2%	-6.0%	-2.4%	1.6%	2.2%	1.2%	1.4%
STATE & LOCAL GOVERNMENT									
Idaho	103,531	103,975	105,986	105,999	104,900	104,563	104,576	104,991	105,852
% Ch	1.6%	0.4%	1.9%	0.0%	-1.0%	-0.3%	0.0%	0.4%	0.8%
National (Thousands)	18,887	19,073	19,742	19,484	19,742	19,722	19,513	19,233	19,098
% Ch	0.4%	1.0%	1.3%	-1.3%	1.3%	-0.1%	-1.1%	-1.4%	-0.7%
EDUCATION									
Idaho	52,652	53,021	53,609	54,615	53,925	54,005	53,966	54,355	54,898
% Ch	2.6%	0.7%	1.1%	1.9%	-1.3%	0.1%	-0.1%	0.7%	1.0%
NONEDUCATION									
Idaho	50,878	50,954	52,376	51,384	50,976	50,558	50,609	50,636	50,954
% Ch	0.6%	0.1%	2.8%	-1.9%	-0.8%	-0.8%	0.1%	0.1%	0.6%
FEDERAL GOVERNMENT									
Idaho	12,879	12,820	13,200	13,496	13,691	12,654	12,640	12,411	12,337
% Ch	-1.6%	-0.5%	3.0%	2.2%	1.4%	-7.6%	-0.1%	-1.8%	-0.6%
National (Thousands)	2,733	2,735	2,761	2,831	2,976	2,860	2,822	2,770	2,733
% Ch	0.0%	0.1%	0.9%	2.5%	5.1%	-3.9%	-1.3%	-1.8%	-1.3%

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EMPLOYMENT

SERVICES (Continued)	2015	2016	2017	2018	2019	2020	2021	2022	2023
TRANS., WAREHOUSING, UTILITIES									
Idaho	23,629	23,666	24,189	25,429	26,014	26,710	27,178	27,679	28,141
% Ch	5.4%	0.2%	2.2%	5.1%	2.3%	2.7%	1.8%	1.8%	1.7%
National (Thousands)	5,431	5,575	5,749	5,974	6,110	6,149	6,134	6,073	6,001
% Ch	4.1%	2.6%	3.1%	3.9%	2.3%	0.6%	-0.2%	-1.0%	-1.2%
PROFESSIONAL & BUSINESS									
Idaho	81,887	86,477	90,460	93,863	95,886	98,859	101,569	103,925	105,905
% Ch	1.4%	5.6%	4.6%	3.8%	2.2%	3.1%	2.7%	2.3%	1.9%
National (Thousands)	19,690	20,107	20,506	20,998	21,464	22,097	23,110	23,521	23,646
% Ch	3.0%	2.1%	2.0%	2.4%	2.2%	2.9%	4.6%	1.8%	0.5%
EDUCATION & HEALTH									
Idaho	96,238	99,045	102,380	106,124	110,857	114,942	118,887	122,805	127,054
% Ch	3.5%	2.9%	3.4%	3.7%	4.5%	3.7%	3.4%	3.3%	3.5%
National (Thousands)	22,026	22,640	23,188	23,668	24,260	24,676	24,915	25,013	25,099
% Ch	2.8%	2.8%	2.4%	2.1%	2.5%	1.7%	1.0%	0.4%	0.3%
LEISURE & HOSPITALITY									
Idaho	68,404	72,350	75,391	79,079	82,872	84,932	86,594	87,941	89,292
% Ch	3.8%	5.8%	4.2%	4.9%	4.8%	2.5%	2.0%	1.6%	1.5%
National (Thousands)	15,154	15,656	16,053	16,352	16,742	17,090	17,237	17,424	17,537
% Ch	3.2%	3.3%	2.5%	1.9%	2.4%	2.1%	0.9%	1.1%	0.6%
OTHER SERVICES									
Idaho	23,442	24,215	24,830	25,519	26,671	27,635	28,349	28,945	29,516
% Ch	3.6%	3.3%	2.5%	2.8%	4.5%	3.6%	2.6%	2.1%	2.0%
National (Thousands)	5,621	5,691	5,769	5,844	5,930	5,943	5,906	5,854	5,805
% Ch	1.0%	1.2%	1.4%	1.3%	1.5%	0.2%	-0.6%	-0.9%	-0.8%
TRADE									
Idaho	111,725	114,152	115,714	117,173	119,390	121,860	122,985	124,461	125,896
% Ch	3.1%	2.2%	1.4%	1.3%	1.9%	2.1%	0.9%	1.2%	1.2%
National (Thousands)	21,395	21,623	21,652	21,677	21,722	21,746	21,650	21,485	21,220
% Ch	1.4%	1.1%	0.1%	0.1%	0.2%	0.1%	-0.4%	-0.8%	-1.2%
RETAIL TRADE									
Idaho	83,641	85,444	86,637	87,495	88,399	90,129	90,889	91,884	92,887
% Ch	3.8%	2.2%	1.4%	1.0%	1.0%	2.0%	0.8%	1.1%	1.1%
National (Thousands)	15,614	15,836	15,839	15,825	15,782	15,758	15,632	15,480	15,240
% Ch	1.6%	1.4%	0.0%	-0.1%	-0.3%	-0.1%	-0.8%	-1.0%	-1.5%
WHOLESALE TRADE									
Idaho	28,084	28,708	29,077	29,678	30,991	31,731	32,096	32,577	33,010
% Ch	0.9%	2.2%	1.3%	2.1%	4.4%	2.4%	1.2%	1.5%	1.3%
National (Thousands)	5,780	5,787	5,813	5,852	5,940	5,988	6,018	6,005	5,980
% Ch	0.7%	0.1%	0.5%	0.7%	1.5%	0.8%	0.5%	-0.2%	-0.4%
STATE & LOCAL GOVERNMENT									
Idaho	106,621	108,301	110,128	111,820	112,934	114,017	114,981	115,991	116,903
% Ch	0.7%	1.6%	1.7%	1.5%	1.0%	1.0%	0.8%	0.9%	0.8%
National (Thousands)	19,271	19,437	19,547	19,653	19,754	19,914	20,081	20,248	20,414
% Ch	0.7%	0.9%	0.6%	0.5%	0.5%	0.8%	0.8%	0.8%	0.8%
EDUCATION									
Idaho	55,673	56,650	57,498	58,468	58,537	59,046	59,709	60,414	61,091
% Ch	1.4%	1.8%	1.5%	1.7%	0.1%	0.9%	1.1%	1.2%	1.1%
NONEDUCATION									
Idaho	50,948	51,651	52,630	53,352	54,397	54,971	55,271	55,577	55,812
% Ch	0.0%	1.4%	1.9%	1.4%	2.0%	1.1%	0.5%	0.6%	0.4%
FEDERAL GOVERNMENT									
Idaho	12,583	12,832	12,974	13,078	13,346	13,826	13,488	13,487	13,397
% Ch	2.0%	2.0%	1.1%	0.8%	2.1%	3.6%	-2.5%	0.0%	-0.7%
National (Thousands)	2,757	2,795	2,805	2,796	2,818	2,978	2,875	2,875	2,875
% Ch	0.9%	1.4%	0.4%	-0.3%	0.8%	5.7%	-3.5%	0.0%	0.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
JANUARY 2020

MISCELLANEOUS

	2006	2007	2008	2009	2010	2011	2012	2013	2014
SELECTED CHAIN-WEIGHTED DEFL.									
Gross Domestic Product	90.074	92.498	94.264	94.999	96.109	98.112	100.000	101.773	103.647
% Ch	3.1%	2.7%	1.9%	0.8%	1.2%	2.1%	1.9%	1.8%	1.8%
Consumption Expenditures	89.175	91.438	94.180	94.094	95.705	98.131	100.000	101.346	102.830
% Ch	2.7%	2.5%	3.0%	-0.1%	1.7%	2.5%	1.9%	1.3%	1.5%
Durable Goods	110.388	108.038	106.012	104.020	102.107	101.280	100.000	97.968	95.429
% Ch	-1.7%	-2.1%	-1.9%	-1.9%	-1.8%	-0.8%	-1.3%	-2.0%	-2.6%
Nondurable Goods	84.553	87.041	91.904	89.467	92.182	97.653	100.000	100.082	100.599
% Ch	3.1%	2.9%	5.6%	-2.7%	3.0%	5.9%	2.4%	0.1%	0.5%
Services	87.616	90.517	93.235	94.231	95.957	97.815	100.000	102.316	104.804
% Ch	3.5%	3.3%	3.0%	1.1%	1.8%	1.9%	2.2%	2.3%	2.4%
Consumer Price Index (1982-84=1.000)	2.016	2.073	2.153	2.146	2.181	2.249	2.296	2.330	2.367
% Ch	3.2%	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%
SELECTED INTEREST RATES									
Federal Funds	5.0%	5.0%	1.9%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
NY Fed Discount	6.0%	5.9%	2.4%	0.5%	0.7%	0.8%	0.8%	0.8%	0.8%
Prime	8.0%	8.1%	5.1%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Existing Home Mortgage	6.6%	6.5%	6.2%	5.1%	4.9%	4.7%	3.8%	4.0%	4.3%
U.S. Govt. 3-Month Bills	4.7%	4.4%	1.4%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%
U.S. Govt. 6-Month Bills	4.8%	4.4%	1.6%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%
U.S. Govt. 5-Year Notes	4.7%	4.4%	2.8%	2.2%	1.9%	1.5%	0.8%	1.2%	1.6%
U.S. Govt. 10-Year Notes	4.8%	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%
EXCHANGE RATES (2009=1.000)									
Major Currency Trading Partners	1.099	1.029	0.975	1.052	1.047	0.964	1.000	1.045	1.093
% Ch	-2.4%	-6.4%	-5.3%	7.9%	-0.5%	-7.9%	3.8%	4.5%	4.6%
Other Important Trading Partners	1.299	1.203	1.088	1.157	1.097	1.006	1.000	0.988	1.009
% Ch	-5.1%	-7.4%	-9.5%	6.3%	-5.2%	-8.3%	-0.6%	-1.2%	2.1%
SELECTED US PRODUCTION INDICES									
Wood Products	148.9	139.2	119.0	90.9	94.1	94.3	100.0	105.8	108.4
% Ch	0.8%	-6.5%	-14.6%	-23.6%	3.6%	0.2%	6.0%	5.8%	2.5%
Computers & Electronic Products	68.0	78.4	84.8	75.6	85.6	92.6	100.0	103.2	107.4
% Ch	14.0%	15.3%	8.1%	-10.8%	13.3%	8.1%	8.0%	3.2%	4.1%
Food	101.3	101.9	100.6	100.0	100.4	100.2	100.0	102.0	102.9
% Ch	0.9%	0.5%	-1.3%	-0.6%	0.5%	-0.2%	-0.2%	2.0%	0.9%
Agricultural Chemicals	107.0	98.5	85.2	89.7	93.5	88.5	100.0	116.1	108.1
% Ch	4.2%	-7.9%	-13.5%	5.2%	4.3%	-5.4%	13.0%	16.1%	-6.9%
Metal Ore Mining	103.8	101.2	104.4	91.3	97.1	98.9	100.0	101.7	104.9
% Ch	1.7%	-2.5%	3.2%	-12.6%	6.4%	1.9%	1.1%	1.7%	3.2%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
ANNUAL DETAIL
JANUARY 2020**

MISCELLANEOUS

	2015	2016	2017	2018	2019	2020	2021	2022	2023
SELECTED CHAIN-WEIGHTED DEFL.									
Gross Domestic Product	104.688	105.770	107.795	110.382	112.397	114.772	117.395	120.272	123.205
% Ch	1.0%	1.0%	1.9%	2.4%	1.8%	2.1%	2.3%	2.5%	2.4%
Consumption Expenditures	103.046	104.091	105.929	108.144	109.709	111.745	113.777	116.195	118.718
% Ch	0.2%	1.0%	1.8%	2.1%	1.4%	1.9%	1.8%	2.1%	2.2%
Durable Goods	93.360	91.136	89.040	87.534	86.645	86.388	85.283	84.093	82.880
% Ch	-2.2%	-2.4%	-2.3%	-1.7%	-1.0%	-0.3%	-1.3%	-1.4%	-1.4%
Nondurable Goods	97.076	95.858	97.427	99.299	99.211	99.898	100.641	102.737	104.952
% Ch	-3.5%	-1.3%	1.6%	1.9%	-0.1%	0.7%	0.7%	2.1%	2.2%
Services	106.704	109.120	111.793	114.851	117.483	120.463	123.611	126.910	130.351
% Ch	1.8%	2.3%	2.4%	2.7%	2.3%	2.5%	2.6%	2.7%	2.7%
Consumer Price Index (1982-84=100)	2.370	2.400	2.451	2.511	2.556	2.606	2.652	2.718	2.786
% Ch	0.1%	1.3%	2.1%	2.4%	1.8%	1.9%	1.8%	2.5%	2.5%
SELECTED INTEREST RATES									
Federal Funds	0.1%	0.4%	1.0%	1.8%	2.2%	1.6%	2.0%	2.4%	2.6%
NY Fed Discount	0.8%	1.0%	1.6%	2.4%	2.8%	2.3%	2.6%	3.0%	3.2%
Prime	3.3%	3.5%	4.1%	4.9%	5.3%	4.8%	5.1%	5.5%	5.7%
Existing Home Mortgage	4.0%	3.9%	4.2%	4.7%	4.3%	4.1%	4.5%	4.7%	4.8%
U.S. Govt. 3-Month Bills	0.1%	0.3%	0.9%	1.9%	2.1%	1.5%	1.8%	2.1%	2.3%
U.S. Govt. 6-Month Bills	0.2%	0.5%	1.0%	2.1%	2.1%	1.7%	2.2%	2.5%	2.7%
U.S. Govt. 5-Year Notes	1.5%	1.3%	1.9%	2.7%	1.9%	1.9%	2.5%	2.8%	2.9%
U.S. Govt. 10-Year Notes	2.1%	1.8%	2.3%	2.9%	2.1%	2.1%	2.7%	3.0%	3.0%
EXCHANGE RATES (2009=1.000)									
Major Currency Trading Partners	1.310	1.367	1.354	1.314	1.365	1.367	1.396	1.396	1.384
% Ch	19.8%	4.4%	-0.9%	-3.0%	3.9%	0.1%	2.1%	0.0%	-0.9%
Other Important Trading Partners	1.128	1.236	1.225	1.225	1.265	1.303	1.338	1.354	1.345
% Ch	11.7%	9.6%	-0.9%	0.0%	3.3%	3.0%	2.7%	1.2%	-0.7%
SELECTED US PRODUCTION INDICES									
Wood Products	112.7	116.9	124.1	127.1	125.7	122.2	119.8	120.5	119.8
% Ch	4.0%	3.8%	6.1%	2.5%	-1.1%	-2.8%	-2.0%	0.5%	-0.6%
Computers & Electronic Products	108.1	110.4	115.2	120.9	127.1	131.9	134.8	138.2	141.8
% Ch	0.6%	2.1%	4.4%	4.9%	5.1%	3.8%	2.2%	2.5%	2.6%
Food	104.4	106.6	110.8	113.9	114.8	115.5	117.7	119.7	121.6
% Ch	1.5%	2.1%	4.0%	2.8%	0.7%	0.7%	1.9%	1.7%	1.6%
Agricultural Chemicals	94.5	96.5	117.4	122.7	124.6	126.8	128.3	130.3	132.4
% Ch	-12.6%	2.1%	21.7%	4.5%	1.5%	1.8%	1.2%	1.6%	1.6%
Metal Ore Mining	99.9	100.3	98.0	93.4	94.9	93.4	91.7	90.7	90.2
% Ch	-4.7%	0.3%	-2.3%	-4.7%	1.6%	-1.5%	-1.8%	-1.1%	-0.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

DEMOGRAPHICS

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
POPULATION												
Idaho (Thousands)	1,741.8	1,750.4	1,758.5	1,766.1	1,772.7	1,780.7	1,789.6	1,797.8	1,806.0	1,813.4	1,820.6	1,827.7
% Ch	2.1%	2.0%	1.9%	1.7%	1.5%	1.8%	2.0%	1.8%	1.8%	1.7%	1.6%	1.6%
National (Millions)	326.888	327.404	327.991	328.580	329.169	329.758	330.346	330.934	331.521	332.108	332.693	333.279
% Ch	0.5%	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
BIRTHS												
Idaho (Thousands)	21.650	21.444	21.294	21.200	21.159	21.296	21.453	21.590	21.729	21.845	21.957	22.057
% Ch	-4.7%	-3.8%	-2.8%	-1.7%	-0.8%	2.6%	3.0%	2.6%	2.6%	2.2%	2.1%	1.8%
National (Thousands)	4,001	4,067	4,106	4,117	4,101	4,091	4,087	4,090	4,099	4,107	4,113	4,117
% Ch	9.8%	6.7%	3.9%	1.1%	-1.6%	-1.0%	-0.4%	0.3%	0.9%	0.7%	0.6%	0.4%
DEATHS												
Idaho (Thousands)	14.171	14.213	14.284	14.384	14.443	14.527	14.607	14.687	14.766	14.846	14.927	15.008
% Ch	0.4%	1.2%	2.0%	2.8%	1.6%	2.4%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
National (Thousands)	2,732	2,693	2,675	2,678	2,700	2,718	2,731	2,739	2,742	2,747	2,752	2,759
% Ch	-8.3%	-5.6%	-2.6%	0.4%	3.4%	2.7%	1.9%	1.2%	0.4%	0.6%	0.8%	1.0%
NET MIGRATION												
Idaho (Thousands)	29.088	28.869	28.060	26.663	24.220	23.516	24.216	24.768	26.324	25.707	23.983	22.847
HOUSING												
HOUSING STARTS												
Idaho	18,024	14,957	15,411	16,532	15,253	16,116	17,235	15,990	16,557	16,649	16,933	17,101
% Ch	61.2%	-52.6%	12.7%	32.4%	-27.5%	24.6%	30.8%	-25.9%	15.0%	2.2%	7.0%	4.0%
National (Millions)	1.321	1.260	1.233	1.185	1.213	1.256	1.282	1.270	1.267	1.267	1.269	1.271
% Ch	20.8%	-17.2%	-8.2%	-14.7%	9.8%	14.8%	8.7%	-3.8%	-1.0%	0.2%	0.5%	0.6%
SINGLE UNITS												
Idaho	13,711	12,397	12,714	13,469	12,637	13,274	12,671	13,269	13,863	13,934	14,229	14,394
% Ch	28.4%	-33.2%	10.6%	25.9%	-22.5%	21.8%	-17.0%	20.2%	19.1%	2.1%	8.7%	4.7%
National (Millions)	0.893	0.894	0.876	0.828	0.864	0.847	0.901	0.896	0.893	0.893	0.889	0.888
% Ch	-1.6%	0.7%	-7.8%	-20.4%	18.6%	-7.6%	28.4%	-2.4%	-1.4%	0.2%	-1.7%	-0.6%
MULTIPLE UNITS												
Idaho	4,313	2,560	2,697	3,063	2,616	2,842	4,564	2,722	2,695	2,715	2,704	2,707
% Ch	267.3%	-87.6%	23.2%	66.4%	-46.8%	39.3%	565.4%	-87.4%	-3.9%	3.0%	-1.6%	0.4%
National (Millions)	0.428	0.365	0.357	0.357	0.349	0.409	0.381	0.374	0.374	0.374	0.379	0.383
% Ch	92.6%	-46.9%	-9.2%	0.7%	-8.7%	87.9%	-25.0%	-6.8%	0.0%	0.1%	5.9%	3.4%
HOUSING STOCK												
Idaho (Thousands)	606.8	610.1	613.5	617.2	620.5	624.1	627.9	631.5	635.1	638.8	642.6	646.4
% Ch	2.7%	2.2%	2.2%	2.4%	2.2%	2.3%	2.5%	2.3%	2.3%	2.3%	2.4%	2.4%

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Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

DEMOGRAPHICS

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
POPULATION												
Idaho (Thousands)	1,834.6	1,841.3	1,848.1	1,854.9	1,861.8	1,868.6	1,875.4	1,882.2	1,889.0	1,895.9	1,902.7	1,909.5
% Ch	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%
National (Millions)	333.863	334.447	335.029	335.611	336.192	336.772	337.350	337.926	338.502	339.076	339.648	340.219
% 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)	22.147	22.233	22.318	22.405	22.491	22.577	22.664	22.749	22.835	22.920	23.005	23.090
% Ch	1.6%	1.6%	1.5%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
National (Thousands)	4,119	4,121	4,124	4,127	4,130	4,132	4,135	4,137	4,139	4,141	4,143	4,145
% Ch	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
DEATHS												
Idaho (Thousands)	15.090	15.172	15.255	15.337	15.421	15.504	15.588	15.672	15.757	15.842	15.928	16.014
% 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)	2,767	2,775	2,783	2,790	2,797	2,805	2,812	2,820	2,829	2,837	2,846	2,854
% Ch	1.2%	1.1%	1.1%	1.1%	1.0%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%
NET MIGRATION												
Idaho (Thousands)	21.511	20.835	20.443	20.204	20.100	20.201	20.245	20.229	20.211	20.190	20.150	20.171
HOUSING												
HOUSING STARTS												
Idaho	17,283	17,481	17,629	17,825	18,036	18,207	18,383	18,573	18,743	18,877	19,011	19,125
% Ch	4.3%	4.7%	3.4%	4.5%	4.8%	3.8%	3.9%	4.2%	3.7%	2.9%	2.9%	2.4%
National (Millions)	1.245	1.248	1.259	1.271	1.286	1.281	1.277	1.274	1.269	1.261	1.255	1.249
% Ch	-7.7%	0.8%	3.7%	3.9%	4.6%	-1.5%	-1.4%	-0.7%	-1.6%	-2.4%	-2.0%	-1.9%
SINGLE UNITS												
Idaho	14,549	14,731	14,898	15,067	15,229	15,370	15,529	15,695	15,852	15,968	16,092	16,194
% Ch	4.4%	5.1%	4.6%	4.6%	4.4%	3.7%	4.2%	4.4%	4.1%	2.9%	3.2%	2.6%
National (Millions)	0.868	0.868	0.874	0.881	0.890	0.886	0.882	0.878	0.876	0.872	0.869	0.866
% Ch	-8.8%	-0.1%	2.9%	3.5%	4.2%	-1.8%	-2.1%	-1.5%	-1.3%	-1.7%	-1.3%	-1.2%
MULTIPLE UNITS												
Idaho	2,734	2,750	2,731	2,758	2,807	2,837	2,854	2,878	2,890	2,910	2,919	2,931
% Ch	4.2%	2.3%	-2.8%	4.0%	7.2%	4.4%	2.5%	3.3%	1.8%	2.7%	1.3%	1.7%
National (Millions)	0.378	0.380	0.386	0.390	0.395	0.394	0.395	0.396	0.393	0.390	0.386	0.383
% Ch	-5.0%	2.7%	5.7%	4.9%	5.4%	-0.8%	0.2%	1.1%	-2.3%	-3.8%	-3.5%	-3.4%
HOUSING STOCK												
Idaho (Thousands)	650.2	654.1	658.0	662.0	666.0	670.0	674.1	678.3	682.4	686.6	690.9	695.1
% Ch	2.4%	2.4%	2.4%	2.4%	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

OUTPUT, INCOME, & WAGES

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GROSS DOM. PRODUCT (Billions)												
Current Dollars	20,163	20,510	20,750	20,898	21,099	21,340	21,526	21,731	21,960	22,217	22,457	22,699
% Ch	5.0%	7.1%	4.8%	2.9%	3.9%	4.7%	3.5%	3.9%	4.3%	4.8%	4.4%	4.4%
2009 Chain-Weighted	18,438	18,598	18,733	18,784	18,927	19,022	19,113	19,184	19,287	19,408	19,516	19,622
% Ch	2.6%	3.5%	2.9%	1.1%	3.1%	2.0%	1.9%	1.5%	2.2%	2.5%	2.2%	2.2%
PERSONAL INCOME - CURR \$												
Idaho (Millions)	75,682	76,519	77,240	78,609	79,703	81,132	82,443	83,341	84,853	85,939	86,865	87,892
% Ch	8.6%	4.5%	3.8%	7.3%	5.7%	7.4%	6.6%	4.4%	7.5%	5.2%	4.4%	4.8%
Idaho Nonfarm (Millions)	74,040	74,907	75,937	77,105	78,045	79,360	80,468	81,434	82,833	83,924	84,865	85,845
% Ch	7.7%	4.8%	5.6%	6.3%	5.0%	6.9%	5.7%	4.9%	7.1%	5.4%	4.6%	4.7%
National (Billions)	17,540	17,725	17,929	18,083	18,355	18,600	18,772	18,946	19,134	19,297	19,469	19,656
% Ch	7.4%	4.3%	4.7%	3.5%	6.2%	5.4%	3.8%	3.8%	4.0%	3.5%	3.6%	3.9%
PERSONAL INCOME - 2009 \$												
Idaho (Millions)	70,467	70,859	71,246	72,269	73,203	74,079	74,990	75,425	76,455	77,032	77,542	78,190
% Ch	6.0%	2.2%	2.2%	5.9%	5.3%	4.9%	5.0%	2.3%	5.6%	3.1%	2.7%	3.4%
Idaho Nonfarm (Millions)	68,938	69,366	70,045	70,887	71,680	72,460	73,193	73,700	74,635	75,226	75,757	76,369
% Ch	5.0%	2.5%	4.0%	4.9%	4.6%	4.4%	4.1%	2.8%	5.2%	3.2%	2.9%	3.3%
National (Billions)	16,332	16,414	16,537	16,625	16,859	16,983	17,075	17,147	17,240	17,297	17,380	17,486
% Ch	4.7%	2.0%	3.0%	2.1%	5.8%	3.0%	2.2%	1.7%	2.2%	1.3%	1.9%	2.5%
PER CAPITA PERS INC - CURR \$												
Idaho	43,451	43,714	43,923	44,510	44,961	45,562	46,068	46,358	46,984	47,390	47,712	48,090
% Ch	6.4%	2.4%	1.9%	5.5%	4.1%	5.5%	4.5%	2.5%	5.5%	3.5%	2.7%	3.2%
National	53,659	54,138	54,662	55,033	55,763	56,404	56,827	57,251	57,716	58,105	58,519	58,977
% Ch	6.8%	3.6%	3.9%	2.7%	5.4%	4.7%	3.0%	3.0%	3.3%	2.7%	2.9%	3.2%
PER CAPITA PERS INC - 2009 \$												
Idaho	40,457	40,481	40,514	40,920	41,294	41,601	41,903	41,955	42,333	42,479	42,592	42,781
% Ch	3.8%	0.2%	0.3%	4.1%	3.7%	3.0%	2.9%	0.5%	3.7%	1.4%	1.1%	1.8%
National	49,961	50,133	50,420	50,595	51,216	51,500	51,689	51,814	52,003	52,083	52,239	52,467
% Ch	4.2%	1.4%	2.3%	1.4%	5.0%	2.2%	1.5%	1.0%	1.5%	0.6%	1.2%	1.8%
AVERAGE ANNUAL WAGE												
Idaho	43,856	44,032	44,296	44,615	44,969	45,340	45,879	45,956	46,434	46,909	47,289	47,620
% Ch	1.9%	1.6%	2.4%	2.9%	3.2%	3.3%	4.8%	0.7%	4.2%	4.2%	3.3%	2.8%
National	59,283	59,465	59,851	59,910	61,135	61,678	62,069	62,472	62,911	63,457	64,032	64,579
% Ch	4.5%	1.2%	2.6%	0.4%	8.4%	3.6%	2.6%	2.6%	2.8%	3.5%	3.7%	3.5%

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**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

OUTPUT, INCOME, & WAGES

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. GROSS DOM. PRODUCT (Billions)												
Current Dollars	22,945	23,182	23,414	23,653	23,893	24,137	24,375	24,607	24,845	25,087	25,338	25,600
% Ch	4.4%	4.2%	4.1%	4.2%	4.1%	4.1%	4.0%	3.9%	3.9%	3.9%	4.1%	4.2%
2009 Chain-Weighted	19,720	19,808	19,886	19,968	20,050	20,129	20,205	20,274	20,345	20,421	20,505	20,597
% Ch	2.0%	1.8%	1.6%	1.7%	1.6%	1.6%	1.5%	1.4%	1.4%	1.5%	1.7%	1.8%
 PERSONAL INCOME - CURR \$												
Idaho (Millions)	88,818	89,951	91,156	92,429	93,092	94,224	95,324	96,366	97,634	98,730	99,830	100,968
% Ch	4.3%	5.2%	5.5%	5.7%	2.9%	5.0%	4.8%	4.4%	5.4%	4.6%	4.5%	4.6%
Idaho Nonfarm (Millions)	86,963	87,940	88,914	89,890	90,974	91,966	92,967	93,963	95,162	96,293	97,440	98,623
% Ch	5.3%	4.6%	4.5%	4.5%	4.9%	4.4%	4.4%	4.4%	5.2%	4.8%	4.8%	4.9%
National (Billions)	19,876	20,082	20,287	20,497	20,724	20,937	21,149	21,359	21,599	21,816	22,039	22,273
% Ch	4.6%	4.2%	4.1%	4.2%	4.5%	4.2%	4.1%	4.0%	4.6%	4.1%	4.2%	4.3%
 PERSONAL INCOME - 2009 \$												
Idaho (Millions)	78,665	79,279	79,915	80,601	80,771	81,308	81,820	82,268	82,899	83,386	83,868	84,375
% Ch	2.5%	3.2%	3.3%	3.5%	0.8%	2.7%	2.5%	2.2%	3.1%	2.4%	2.3%	2.4%
Idaho Nonfarm (Millions)	77,021	77,507	77,949	78,387	78,934	79,360	79,798	80,216	80,801	81,329	81,860	82,415
% Ch	3.5%	2.5%	2.3%	2.3%	2.8%	2.2%	2.2%	2.1%	2.9%	2.6%	2.6%	2.7%
National (Billions)	17,604	17,699	17,785	17,874	17,981	18,067	18,153	18,234	18,339	18,425	18,515	18,612
% Ch	2.7%	2.2%	2.0%	2.0%	2.4%	1.9%	1.9%	1.8%	2.3%	1.9%	2.0%	2.1%
 PER CAPITA PERS INC - CURR \$												
Idaho	48,413	48,852	49,324	49,829	50,002	50,425	50,828	51,198	51,684	52,077	52,469	52,877
% Ch	2.7%	3.7%	3.9%	4.2%	1.4%	3.4%	3.2%	2.9%	3.9%	3.1%	3.0%	3.2%
National	59,534	60,044	60,552	61,074	61,642	62,170	62,692	63,205	63,807	64,339	64,889	65,465
% Ch	3.8%	3.5%	3.4%	3.5%	3.8%	3.5%	3.4%	3.3%	3.9%	3.4%	3.5%	3.6%
 PER CAPITA PERS INC - 2009 \$												
Idaho	42,879	43,056	43,242	43,453	43,385	43,513	43,628	43,708	43,884	43,984	44,079	44,188
% Ch	0.9%	1.7%	1.7%	2.0%	-0.6%	1.2%	1.1%	0.7%	1.6%	0.9%	0.9%	1.0%
National	52,728	52,921	53,085	53,259	53,484	53,649	53,811	53,958	54,178	54,340	54,514	54,707
% Ch	2.0%	1.5%	1.2%	1.3%	1.7%	1.2%	1.2%	1.1%	1.6%	1.2%	1.3%	1.4%
 AVERAGE ANNUAL WAGE												
Idaho	47,959	48,321	48,683	49,061	49,457	49,840	50,226	50,605	50,994	51,379	51,766	52,161
% Ch	2.9%	3.1%	3.0%	3.1%	3.3%	3.1%	3.1%	3.0%	3.1%	3.1%	3.0%	3.1%
National	65,127	65,689	66,290	66,923	67,587	68,265	68,961	69,670	70,401	71,138	71,884	72,644
% Ch	3.4%	3.5%	3.7%	3.9%	4.0%	4.1%	4.1%	4.2%	4.3%	4.3%	4.3%	4.3%

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Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

PERSONAL INCOME -- CURR \$\$

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WAGE AND SALARY PAYMENTS												
Idaho (Millions)	33,084	33,417	33,838	34,428	34,927	35,402	36,095	36,416	37,063	37,720	38,184	38,639
% Ch	7.2%	4.1%	5.1%	7.2%	5.9%	5.6%	8.1%	3.6%	7.3%	7.3%	5.0%	4.9%
National (Billions)	8,777	8,845	8,942	8,990	9,212	9,320	9,411	9,503	9,598	9,725	9,826	9,928
% Ch	6.4%	3.2%	4.5%	2.2%	10.2%	4.8%	4.0%	4.0%	4.0%	5.4%	4.2%	4.2%
FARM PROPRIETORS INCOME												
Idaho (Millions)	889	856	539	729	869	974	1,231	1,151	1,255	1,240	1,219	1,259
% Ch	119.9%	-13.8%	-84.3%	234.4%	101.9%	57.4%	155.2%	-23.5%	41.2%	-4.5%	-6.7%	13.9%
National (Billions)	28	28	17	36	25	19	41	37	23	15	13	14
% Ch	-38.8%	-7.6%	-84.2%	1733.8%	-77.2%	-64.2%	2058.2%	-34.6%	-84.3%	-82.1%	-43.7%	33.2%
NONFARM PROPRIETORS INCOME												
Idaho (Millions)	6,896	6,911	7,042	7,182	7,202	7,258	7,366	7,427	7,568	7,556	7,563	7,612
% Ch	0.1%	0.8%	7.8%	8.2%	1.1%	3.1%	6.1%	3.4%	7.8%	-0.6%	0.3%	2.7%
National (Billions)	1,539	1,546	1,573	1,588	1,596	1,614	1,639	1,650	1,665	1,655	1,663	1,673
% Ch	7.7%	1.7%	7.1%	4.1%	2.0%	4.4%	6.5%	2.7%	3.7%	-2.4%	1.9%	2.5%
DIVIDENDS, RENT & INTEREST												
Idaho (Millions)	17,600	17,910	18,197	18,388	18,166	18,579	18,722	19,052	19,309	19,478	19,684	19,908
% Ch	10.4%	7.2%	6.5%	4.3%	-4.7%	9.4%	3.1%	7.2%	5.5%	3.5%	4.3%	4.6%
National (Billions)	3,595	3,663	3,723	3,766	3,722	3,794	3,782	3,818	3,855	3,863	3,883	3,912
% Ch	10.9%	7.8%	6.7%	4.7%	-4.6%	7.9%	-1.2%	3.9%	3.9%	0.9%	2.1%	3.0%
OTHER LABOR INCOME												
Idaho (Millions)	8,044	8,164	8,247	8,388	8,454	8,562	8,755	8,850	9,017	9,199	9,335	9,458
% Ch	4.2%	6.1%	4.1%	7.0%	3.1%	5.2%	9.3%	4.4%	7.8%	8.3%	6.0%	5.4%
National (Billions)	1,392	1,411	1,427	1,439	1,450	1,465	1,481	1,494	1,507	1,527	1,543	1,559
% Ch	6.5%	5.6%	4.5%	3.6%	3.1%	4.0%	4.5%	3.7%	3.5%	5.4%	4.2%	4.2%
GOVT. TRANSFERS TO INDIV.												
Idaho (Millions)	13,673	13,788	13,930	14,141	14,789	15,115	15,223	15,430	15,719	15,915	16,115	16,318
% Ch	11.9%	3.4%	4.2%	6.2%	19.6%	9.1%	2.9%	5.6%	7.7%	5.1%	5.1%	5.1%
National (Billions)	2,935	2,963	2,984	3,004	3,113	3,159	3,195	3,229	3,281	3,314	3,349	3,385
% Ch	8.1%	3.8%	2.8%	2.7%	15.4%	6.0%	4.7%	4.4%	6.5%	4.2%	4.3%	4.3%
CONTRIB. FOR SOCIAL INSUR.												
Idaho (Millions)	5,914	5,950	6,006	6,099	6,218	6,295	6,474	6,547	6,668	6,762	6,827	6,891
% Ch	7.0%	2.5%	3.8%	6.3%	8.0%	5.0%	11.9%	4.6%	7.6%	5.8%	3.9%	3.8%
National (Billions)	1,344	1,351	1,362	1,369	1,408	1,422	1,435	1,452	1,468	1,482	1,493	1,505
% Ch	6.9%	2.1%	3.5%	1.9%	11.9%	4.3%	3.5%	4.9%	4.3%	3.9%	3.1%	3.1%
RESIDENCE ADJUSTMENT												
Idaho (Millions)	1,410	1,423	1,454	1,453	1,514	1,538	1,526	1,562	1,589	1,592	1,591	1,587
% Ch	7.4%	3.6%	9.0%	-0.2%	18.1%	6.3%	-3.1%	9.8%	7.3%	0.7%	-0.2%	-1.1%

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**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

PERSONAL INCOME -- CURR \$\$

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
WAGE AND SALARY PAYMENTS												
Idaho (Millions)	39,117	39,590	40,079	40,595	41,131	41,640	42,162	42,668	43,208	43,736	44,263	44,810
% Ch	5.0%	4.9%	5.0%	5.3%	5.4%	5.0%	5.1%	4.9%	5.2%	5.0%	4.9%	5.0%
National (Billions)	10,033	10,139	10,247	10,357	10,470	10,583	10,696	10,809	10,923	11,037	11,153	11,273
% Ch	4.3%	4.3%	4.3%	4.4%	4.4%	4.4%	4.4%	4.3%	4.3%	4.2%	4.3%	4.4%
FARM PROPRIETORS INCOME												
Idaho (Millions)	1,060	1,209	1,433	1,722	1,293	1,425	1,516	1,554	1,614	1,570	1,515	1,462
% Ch	-49.7%	69.0%	97.4%	108.3%	-68.2%	47.7%	28.1%	10.4%	16.3%	-10.3%	-13.4%	-13.3%
National (Billions)	18	24	33	46	59	70	77	80	78	73	67	62
% Ch	136.2%	240.0%	279.8%	246.6%	175.6%	104.0%	48.9%	12.2%	-10.2%	-22.6%	-28.1%	-28.7%
NONFARM PROPRIETORS INCOME												
Idaho (Millions)	7,658	7,690	7,691	7,673	7,649	7,629	7,598	7,586	7,584	7,588	7,599	7,612
% Ch	2.4%	1.7%	0.0%	-0.9%	-1.2%	-1.1%	-1.6%	-0.7%	-0.1%	0.2%	0.6%	0.7%
National (Billions)	1,681	1,684	1,681	1,678	1,670	1,666	1,662	1,659	1,657	1,657	1,660	1,664
% Ch	2.0%	0.7%	-0.7%	-0.9%	-1.8%	-0.9%	-1.0%	-0.6%	-0.6%	0.1%	0.7%	1.0%
DIVIDENDS, RENT & INTEREST												
Idaho (Millions)	20,181	20,408	20,638	20,855	21,101	21,346	21,600	21,840	22,082	22,379	22,683	22,997
% Ch	5.6%	4.6%	4.6%	4.3%	4.8%	4.7%	4.8%	4.5%	4.5%	5.5%	5.5%	5.7%
National (Billions)	3,953	3,998	4,042	4,086	4,131	4,177	4,226	4,275	4,325	4,379	4,434	4,493
% Ch	4.2%	4.6%	4.5%	4.5%	4.4%	4.6%	4.7%	4.8%	4.8%	5.0%	5.2%	5.4%
OTHER LABOR INCOME												
Idaho (Millions)	9,582	9,695	9,812	9,935	10,063	10,184	10,308	10,429	10,558	10,684	10,809	10,939
% Ch	5.3%	4.8%	4.9%	5.1%	5.2%	4.9%	5.0%	4.8%	5.0%	4.8%	4.8%	4.9%
National (Billions)	1,575	1,592	1,609	1,626	1,644	1,662	1,680	1,697	1,715	1,733	1,751	1,770
% Ch	4.3%	4.3%	4.3%	4.4%	4.4%	4.4%	4.4%	4.3%	4.3%	4.2%	4.3%	4.4%
GOVT. TRANSFERS TO INDIV.												
Idaho (Millions)	16,626	16,828	17,038	17,249	17,560	17,770	17,982	18,197	18,601	18,852	19,106	19,362
% Ch	7.8%	5.0%	5.1%	5.1%	7.4%	4.9%	4.9%	4.9%	9.2%	5.5%	5.5%	5.5%
National (Billions)	3,442	3,477	3,514	3,551	3,608	3,645	3,681	3,719	3,794	3,838	3,882	3,927
% Ch	6.9%	4.2%	4.3%	4.3%	6.6%	4.1%	4.1%	4.1%	8.3%	4.7%	4.7%	4.7%
CONTRIB. FOR SOCIAL INSUR.												
Idaho (Millions)	6,991	7,060	7,132	7,210	7,324	7,401	7,481	7,558	7,676	7,757	7,838	7,922
% Ch	6.0%	4.0%	4.1%	4.4%	6.5%	4.3%	4.4%	4.2%	6.4%	4.3%	4.2%	4.4%
National (Billions)	1,524	1,536	1,549	1,563	1,584	1,598	1,612	1,627	1,648	1,663	1,678	1,693
% Ch	5.2%	3.4%	3.4%	3.5%	5.5%	3.6%	3.6%	3.5%	5.5%	3.5%	3.6%	3.7%
RESIDENCE ADJUSTMENT												
Idaho (Millions)	1,585	1,590	1,599	1,609	1,619	1,631	1,638	1,650	1,663	1,678	1,694	1,710
% Ch	-0.4%	1.2%	2.2%	2.7%	2.4%	3.1%	1.7%	2.8%	3.2%	3.7%	3.9%	3.9%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TOTAL NONFARM EMPLOYMENT												
Idaho	730,954	735,535	740,285	747,945	752,778	756,829	762,589	767,951	773,647	779,463	782,725	786,621
% Ch	4.9%	2.5%	2.6%	4.2%	2.6%	2.2%	3.1%	2.8%	3.0%	3.0%	1.7%	2.0%
National (Thousands)	148,048	148,742	149,409	150,058	150,675	151,113	151,624	152,122	152,562	153,250	153,462	153,732
% Ch	1.8%	1.9%	1.8%	1.7%	1.7%	1.2%	1.4%	1.3%	1.2%	1.8%	0.6%	0.7%
GOODS PRODUCING SECTOR												
Idaho	119,386	120,157	121,463	123,557	124,706	124,597	126,190	127,273	128,285	129,434	130,425	131,402
% Ch	8.7%	2.6%	4.4%	7.1%	3.8%	-0.4%	5.2%	3.5%	3.2%	3.6%	3.1%	3.0%
National (Thousands)	20,470	20,647	20,790	20,925	21,032	21,084	21,105	21,116	21,144	21,073	20,983	20,936
% Ch	4.1%	3.5%	2.8%	2.6%	2.1%	1.0%	0.4%	0.2%	0.5%	-1.3%	-1.7%	-0.9%
MANUFACTURING												
Idaho	69,145	69,439	69,675	70,478	70,343	70,147	70,873	71,445	71,844	72,219	72,475	72,721
% Ch	5.4%	1.7%	1.4%	4.7%	-0.8%	-1.1%	4.2%	3.3%	2.3%	2.1%	1.4%	1.4%
National (Thousands)	12,639	12,708	12,766	12,834	12,877	12,885	12,898	12,880	12,900	12,844	12,756	12,696
% Ch	2.3%	2.2%	1.8%	2.1%	1.4%	0.2%	0.4%	-0.5%	0.6%	-1.7%	-2.7%	-1.9%
DURABLE MANUFACTURING												
Idaho	40,747	40,895	41,090	41,548	41,403	41,031	41,481	41,855	41,999	42,235	42,386	42,508
% Ch	7.5%	1.5%	1.9%	4.5%	-1.4%	-3.6%	4.5%	3.6%	1.4%	2.3%	1.4%	1.2%
National (Thousands)	7,913	7,971	8,022	8,068	8,103	8,107	8,114	8,088	8,110	8,097	8,046	8,014
% Ch	3.5%	2.9%	2.6%	2.3%	1.7%	0.2%	0.4%	-1.3%	1.1%	-0.6%	-2.5%	-1.6%
LOGGING & WOOD PRODUCTS												
Idaho	7,991	8,044	8,234	8,286	8,443	8,304	8,308	8,377	8,299	8,297	8,268	8,259
% Ch	1.8%	2.7%	9.8%	2.6%	7.8%	-6.4%	0.2%	3.4%	-3.7%	-0.1%	-1.4%	-0.5%
National (Thousands)	454	456	456	455	456	456	459	460	455	458	458	461
% Ch	6.4%	1.2%	0.2%	-0.7%	1.1%	-0.3%	2.2%	1.6%	-4.2%	1.9%	0.7%	1.9%
METAL FABRICATION												
Idaho	5,911	5,886	5,918	5,888	5,788	5,763	5,784	5,855	5,913	5,944	5,962	5,977
% Ch	2.9%	-1.7%	2.2%	-2.0%	-6.7%	-1.7%	1.5%	5.0%	4.0%	2.1%	1.3%	1.0%
National (Thousands)	1,450	1,463	1,474	1,478	1,484	1,483	1,482	1,482	1,479	1,473	1,462	1,454
% Ch	3.6%	3.7%	3.1%	0.9%	1.8%	-0.3%	-0.3%	0.0%	-0.8%	-1.5%	-3.1%	-2.0%
MACHINERY												
Idaho	3,293	3,303	3,375	3,385	3,416	3,470	3,485	3,504	3,513	3,529	3,537	3,545
% Ch	8.6%	1.2%	9.0%	1.2%	3.7%	6.4%	1.8%	2.2%	1.0%	1.9%	0.9%	0.9%
National (Thousands)	1,102	1,117	1,126	1,134	1,141	1,140	1,135	1,128	1,127	1,119	1,108	1,106
% Ch	4.3%	5.5%	3.5%	2.7%	2.4%	-0.4%	-1.7%	-2.3%	-0.3%	-3.1%	-3.8%	-0.8%
COMPUTER & ELECTRONICS												
Idaho	12,687	12,724	12,690	12,811	12,481	12,304	12,607	12,751	12,813	12,905	12,986	13,041
% Ch	10.8%	1.2%	-1.0%	3.9%	-9.9%	-5.6%	10.2%	4.6%	2.0%	2.9%	2.6%	1.7%
National (Thousands)	1,048	1,053	1,058	1,064	1,073	1,080	1,089	1,093	1,096	1,092	1,089	1,087
% Ch	1.2%	1.9%	1.9%	2.2%	3.6%	2.4%	3.6%	1.6%	1.0%	-1.6%	-1.1%	-0.8%
OTHER DURABLES												
Idaho	10,865	10,938	10,873	11,177	11,275	11,190	11,298	11,368	11,462	11,561	11,632	11,687
% Ch	10.3%	2.7%	-2.3%	11.6%	3.6%	-3.0%	3.9%	2.5%	3.3%	3.5%	2.5%	1.9%
National (Thousands)	3,859	3,882	3,907	3,938	3,949	3,948	3,949	3,924	3,952	3,956	3,929	3,908
% Ch	3.4%	2.4%	2.6%	3.2%	1.1%	-0.1%	0.1%	-2.5%	2.8%	0.5%	-2.7%	-2.2%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TOTAL NONFARM EMPLOYMENT												
Idaho	790,829	794,508	798,471	802,645	806,871	810,722	814,742	818,508	822,717	826,696	830,552	834,599
% Ch	2.2%	1.9%	2.0%	2.1%	2.1%	1.9%	2.0%	1.9%	2.1%	1.9%	1.9%	2.0%
National (Thousands)	154,048	154,343	154,572	154,761	154,909	155,027	155,110	155,147	155,155	155,148	155,154	155,188
% Ch	0.8%	0.8%	0.6%	0.5%	0.4%	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%	0.1%
GOODS PRODUCING SECTOR												
Idaho	132,235	132,998	133,846	134,732	135,756	136,702	137,697	138,709	139,692	140,633	141,484	142,368
% Ch	2.6%	2.3%	2.6%	2.7%	3.1%	2.7%	2.8%	3.0%	2.9%	2.7%	2.4%	2.5%
National (Thousands)	20,861	20,840	20,857	20,888	20,916	20,940	20,959	20,979	20,990	20,992	20,991	20,981
% Ch	-1.4%	-0.4%	0.3%	0.6%	0.5%	0.5%	0.4%	0.4%	0.2%	0.0%	0.0%	-0.2%
MANUFACTURING												
Idaho	72,832	72,915	73,084	73,377	73,734	74,109	74,484	74,880	75,267	75,637	75,997	76,359
% Ch	0.6%	0.5%	0.9%	1.6%	2.0%	2.0%	2.0%	2.1%	2.1%	2.0%	1.9%	1.9%
National (Thousands)	12,601	12,563	12,556	12,554	12,548	12,539	12,528	12,524	12,514	12,495	12,476	12,450
% Ch	-2.9%	-1.2%	-0.2%	-0.1%	-0.2%	-0.3%	-0.3%	-0.1%	-0.3%	-0.6%	-0.6%	-0.8%
DURABLE MANUFACTURING												
Idaho	42,628	42,753	42,890	43,090	43,292	43,508	43,711	43,902	44,071	44,237	44,408	44,598
% Ch	1.1%	1.2%	1.3%	1.9%	1.9%	2.0%	1.9%	1.8%	1.5%	1.5%	1.6%	1.7%
National (Thousands)	7,943	7,917	7,914	7,914	7,910	7,903	7,897	7,896	7,891	7,882	7,873	7,859
% Ch	-3.5%	-1.3%	-0.2%	0.0%	-0.2%	-0.3%	-0.3%	0.0%	-0.3%	-0.5%	-0.4%	-0.7%
LOGGING & WOOD PRODUCTS												
Idaho	8,213	8,180	8,156	8,174	8,190	8,212	8,226	8,229	8,203	8,166	8,126	8,095
% Ch	-2.2%	-1.6%	-1.2%	0.9%	0.8%	1.1%	0.7%	0.1%	-1.3%	-1.8%	-1.9%	-1.5%
National (Thousands)	460	462	465	469	475	480	485	489	491	491	491	491
% Ch	-0.8%	2.2%	2.3%	3.9%	4.6%	4.7%	4.3%	3.4%	1.4%	0.2%	-0.3%	0.0%
METAL FABRICATION												
Idaho	5,999	6,030	6,070	6,117	6,165	6,216	6,262	6,314	6,371	6,431	6,491	6,553
% Ch	1.5%	2.1%	2.6%	3.1%	3.2%	3.4%	3.0%	3.4%	3.7%	3.8%	3.8%	3.9%
National (Thousands)	1,440	1,436	1,437	1,441	1,445	1,450	1,455	1,463	1,469	1,475	1,479	1,482
% Ch	-3.7%	-1.2%	0.4%	1.0%	1.2%	1.3%	1.5%	2.0%	1.9%	1.6%	1.1%	0.7%
MACHINERY												
Idaho	3,560	3,580	3,605	3,638	3,674	3,712	3,751	3,789	3,825	3,857	3,887	3,913
% Ch	1.7%	2.3%	2.8%	3.7%	4.0%	4.2%	4.2%	4.1%	3.9%	3.5%	3.1%	2.8%
National (Thousands)	1,097	1,096	1,101	1,107	1,113	1,119	1,125	1,131	1,135	1,137	1,139	1,139
% Ch	-3.3%	0.0%	1.7%	2.1%	2.2%	2.2%	2.1%	2.1%	1.5%	0.8%	0.5%	0.0%
COMPUTER & ELECTRONICS												
Idaho	13,073	13,095	13,121	13,151	13,184	13,224	13,267	13,314	13,361	13,412	13,466	13,522
% Ch	1.0%	0.7%	0.8%	0.9%	1.0%	1.2%	1.3%	1.4%	1.4%	1.5%	1.6%	1.7%
National (Thousands)	1,084	1,085	1,087	1,089	1,092	1,092	1,093	1,094	1,094	1,095	1,096	1,097
% Ch	-0.9%	0.1%	0.7%	1.0%	1.0%	0.2%	0.2%	0.3%	0.2%	0.3%	0.3%	0.2%
OTHER DURABLES												
Idaho	11,784	11,868	11,939	12,011	12,079	12,145	12,205	12,257	12,312	12,371	12,438	12,514
% Ch	3.4%	2.9%	2.4%	2.4%	2.3%	2.2%	2.0%	1.7%	1.8%	2.0%	2.2%	2.4%
National (Thousands)	3,862	3,838	3,824	3,808	3,785	3,762	3,739	3,720	3,702	3,683	3,669	3,651
% Ch	-4.6%	-2.5%	-1.4%	-1.7%	-2.3%	-2.4%	-2.5%	-2.0%	-2.0%	-2.0%	-1.5%	-2.0%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

MANUFACTURING (continued)

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NONDURABLE MANUFACTURING												
Idaho	28,398	28,544	28,584	28,930	28,940	29,117	29,392	29,590	29,845	29,984	30,089	30,213
% Ch	2.5%	2.1%	0.6%	4.9%	0.1%	2.5%	3.8%	2.7%	3.5%	1.9%	1.4%	1.7%
National (Thousands)	4,725	4,737	4,745	4,765	4,774	4,779	4,784	4,792	4,790	4,747	4,710	4,681
% Ch	0.5%	1.0%	0.6%	1.8%	0.7%	0.4%	0.4%	0.7%	-0.2%	-3.6%	-3.0%	-2.4%
FOOD PROCESSING												
Idaho	18,643	18,735	18,825	19,146	19,204	19,213	19,404	19,478	19,641	19,737	19,828	19,943
% Ch	9.3%	2.0%	1.9%	7.0%	1.2%	0.2%	4.0%	1.5%	3.4%	2.0%	1.9%	2.3%
National (Thousands)	1,612	1,617	1,620	1,630	1,633	1,634	1,638	1,648	1,652	1,645	1,638	1,633
% Ch	1.1%	1.5%	0.6%	2.5%	0.7%	0.2%	0.9%	2.6%	0.9%	-1.7%	-1.6%	-1.2%
PRINTING												
Idaho	1,250	1,252	1,247	1,254	1,262	1,280	1,285	1,285	1,275	1,262	1,246	1,231
% Ch	-43.8%	0.5%	-1.5%	2.2%	2.7%	5.7%	1.6%	-0.1%	-3.1%	-4.0%	-4.8%	-4.7%
National (Thousands)	434	431	430	427	423	421	420	417	413	408	405	402
% Ch	-2.1%	-2.9%	-0.9%	-2.8%	-3.6%	-2.0%	-1.1%	-2.6%	-3.8%	-4.7%	-3.6%	-2.4%
CHEMICALS												
Idaho	3,012	3,033	2,974	2,945	2,843	2,901	2,939	2,974	3,004	3,021	3,031	3,040
% Ch	6.5%	2.8%	-7.5%	-3.9%	-13.2%	8.4%	5.5%	4.8%	4.1%	2.3%	1.4%	1.2%
National (Thousands)	831	834	839	847	855	857	859	861	863	856	850	844
% Ch	-0.4%	1.8%	2.5%	3.8%	3.7%	0.9%	0.9%	1.2%	1.0%	-3.4%	-2.9%	-2.7%
OTHER NONDURABLES												
Idaho	5,492	5,524	5,538	5,585	5,631	5,723	5,763	5,853	5,926	5,964	5,983	5,998
% Ch	-5.9%	2.3%	1.0%	3.4%	3.3%	6.7%	2.8%	6.4%	5.1%	2.6%	1.3%	1.0%
National (Thousands)	1,849	1,854	1,855	1,861	1,863	1,867	1,868	1,866	1,861	1,838	1,818	1,802
% Ch	1.0%	1.2%	0.2%	1.2%	0.4%	0.9%	0.2%	-0.4%	-0.9%	-5.0%	-4.2%	-3.5%
MINING												
Idaho	2,194	2,202	2,220	2,381	2,287	2,347	2,321	2,298	2,265	2,244	2,211	2,185
% Ch	7.7%	1.4%	3.3%	32.4%	-14.9%	11.0%	-4.3%	-4.0%	-5.6%	-3.5%	-5.8%	-4.7%
National (Thousands)	656	679	693	703	710	710	700	699	692	685	685	683
% Ch	9.7%	14.7%	8.2%	6.3%	3.6%	0.3%	-5.7%	-0.5%	-3.8%	-4.0%	0.0%	-1.1%
CONSTRUCTION												
Idaho	48,047	48,516	49,568	50,698	52,076	52,102	52,996	53,531	54,176	54,971	55,739	56,496
% Ch	13.7%	4.0%	9.0%	9.4%	11.3%	0.2%	7.0%	4.1%	4.9%	6.0%	5.7%	5.5%
National (Thousands)	7,175	7,260	7,331	7,388	7,446	7,489	7,507	7,537	7,552	7,544	7,542	7,557
% Ch	6.7%	4.8%	4.0%	3.1%	3.2%	2.3%	1.0%	1.6%	0.8%	-0.4%	-0.1%	0.8%
NONGOODS PRODUCING												
Idaho	611,568	615,378	618,823	624,387	628,072	632,233	636,399	640,678	645,363	650,028	652,299	655,220
% Ch	4.2%	2.5%	2.3%	3.6%	2.4%	2.7%	2.7%	2.7%	3.0%	2.9%	1.4%	1.8%
National (Thousands)	127,577	128,094	128,619	129,133	129,642	130,028	130,519	131,006	131,418	132,177	132,478	132,796
% Ch	1.4%	1.6%	1.6%	1.6%	1.6%	1.2%	1.5%	1.5%	1.3%	2.3%	0.9%	1.0%
SERVICES												
Idaho	370,718	373,797	376,074	381,285	383,801	387,365	390,194	393,340	396,624	399,845	402,522	405,107
% Ch	5.9%	3.4%	2.5%	5.7%	2.7%	3.8%	3.0%	3.3%	3.4%	3.3%	2.7%	2.6%
National (Thousands)	83,529	83,994	84,455	84,946	85,402	85,796	86,199	86,623	86,968	87,317	87,815	88,215
% Ch	2.0%	2.2%	2.2%	2.3%	2.2%	1.9%	1.9%	2.0%	1.6%	1.6%	2.3%	1.8%
INFORMATION												
Idaho	9,001	8,961	8,885	8,784	8,872	8,953	9,033	9,082	9,131	9,212	9,266	9,294
% Ch	3.1%	-1.8%	-3.3%	-4.5%	4.1%	3.7%	3.6%	2.2%	2.2%	3.6%	2.4%	1.2%
National (Thousands)	2,816	2,830	2,827	2,829	2,812	2,816	2,825	2,832	2,823	2,830	2,832	2,825
% Ch	-0.1%	2.1%	-0.5%	0.4%	-2.5%	0.7%	1.2%	1.0%	-1.2%	1.0%	0.3%	-1.0%
FINANCIAL ACTIVITIES												
Idaho	35,969	36,427	36,734	37,052	36,816	37,120	37,652	37,967	38,332	38,624	38,846	39,080
% Ch	4.7%	5.2%	3.4%	3.5%	-2.5%	3.3%	5.9%	3.4%	3.9%	3.1%	2.3%	2.4%
National (Thousands)	8,522	8,555	8,584	8,613	8,628	8,655	8,692	8,735	8,766	8,783	8,816	8,820
% Ch	1.4%	1.5%	1.4%	1.4%	0.7%	1.3%	1.7%	2.0%	1.4%	0.8%	1.5%	0.2%

National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

MANUFACTURING (continued)

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NONDURABLE MANUFACTURING												
Idaho	30,204	30,162	30,194	30,287	30,442	30,601	30,773	30,978	31,196	31,400	31,588	31,762
% Ch	-0.1%	-0.6%	0.4%	1.2%	2.1%	2.1%	2.3%	2.7%	2.8%	2.6%	2.4%	2.2%
National (Thousands)	4,658	4,645	4,642	4,640	4,638	4,635	4,631	4,628	4,622	4,614	4,603	4,591
% Ch	-2.0%	-1.1%	-0.3%	-0.2%	-0.2%	-0.2%	-0.3%	-0.3%	-0.5%	-0.7%	-0.9%	-1.0%
FOOD PROCESSING												
Idaho	19,912	19,837	19,823	19,858	19,954	20,050	20,166	20,308	20,458	20,592	20,709	20,810
% Ch	-0.6%	-1.5%	-0.3%	0.7%	1.9%	1.9%	2.4%	2.8%	3.0%	2.6%	2.3%	2.0%
National (Thousands)	1,633	1,633	1,639	1,646	1,653	1,659	1,665	1,671	1,676	1,680	1,682	1,684
% Ch	0.0%	0.1%	1.3%	1.8%	1.7%	1.6%	1.3%	1.5%	1.2%	0.9%	0.6%	0.4%
PRINTING												
Idaho	1,218	1,209	1,203	1,200	1,200	1,201	1,201	1,202	1,201	1,200	1,198	1,195
% Ch	-4.3%	-3.1%	-1.8%	-1.0%	-0.1%	0.3%	0.2%	0.1%	-0.1%	-0.4%	-0.7%	-1.0%
National (Thousands)	400	399	399	399	399	400	400	400	399	398	397	397
% Ch	-2.3%	-1.0%	0.1%	0.2%	0.2%	0.1%	0.0%	0.0%	-0.5%	-0.8%	-0.9%	-0.9%
CHEMICALS												
Idaho	3,054	3,063	3,073	3,084	3,096	3,109	3,121	3,135	3,149	3,165	3,181	3,198
% Ch	1.8%	1.2%	1.3%	1.5%	1.6%	1.7%	1.5%	1.8%	1.8%	2.0%	2.1%	2.1%
National (Thousands)	838	836	833	829	825	822	818	815	812	808	803	799
% Ch	-2.7%	-1.3%	-1.5%	-1.6%	-1.7%	-1.7%	-1.7%	-1.6%	-1.7%	-2.0%	-2.1%	-2.1%
OTHER NONDURABLES												
Idaho	6,021	6,054	6,095	6,145	6,192	6,242	6,285	6,334	6,388	6,444	6,501	6,559
% Ch	1.5%	2.2%	2.7%	3.4%	3.1%	3.2%	2.8%	3.1%	3.5%	3.5%	3.6%	3.6%
National (Thousands)	1,787	1,778	1,772	1,766	1,760	1,754	1,748	1,742	1,736	1,728	1,720	1,711
% Ch	-3.2%	-2.1%	-1.3%	-1.4%	-1.3%	-1.3%	-1.4%	-1.4%	-1.5%	-1.7%	-1.9%	-1.9%
MINING												
Idaho	2,161	2,133	2,108	2,092	2,080	2,066	2,052	2,041	2,037	2,035	2,034	2,037
% Ch	-4.4%	-5.0%	-4.7%	-3.0%	-2.3%	-2.6%	-2.7%	-2.1%	-0.7%	-0.4%	-0.3%	0.5%
National (Thousands)	683	684	686	689	690	695	701	705	710	714	719	723
% Ch	-0.2%	0.8%	1.2%	1.7%	0.5%	3.1%	3.2%	2.6%	2.5%	2.3%	3.0%	2.3%
CONSTRUCTION												
Idaho	57,242	57,950	58,654	59,263	59,942	60,527	61,161	61,788	62,388	62,960	63,453	63,972
% Ch	5.4%	5.0%	5.0%	4.2%	4.7%	4.0%	4.3%	4.2%	3.9%	3.7%	3.2%	3.3%
National (Thousands)	7,576	7,593	7,615	7,645	7,678	7,706	7,730	7,750	7,767	7,783	7,795	7,808
% Ch	1.0%	0.9%	1.2%	1.6%	1.7%	1.5%	1.3%	1.0%	0.9%	0.8%	0.7%	0.7%
NONGOODS PRODUCING												
Idaho	658,595	661,510	664,625	667,913	671,116	674,020	677,044	679,798	683,025	686,063	689,068	692,232
% Ch	2.1%	1.8%	1.9%	2.0%	1.9%	1.7%	1.8%	1.6%	1.9%	1.8%	1.8%	1.8%
National (Thousands)	133,187	133,504	133,715	133,873	133,994	134,087	134,150	134,167	134,164	134,156	134,163	134,206
% Ch	1.2%	1.0%	0.6%	0.5%	0.4%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%
SERVICES												
Idaho	408,012	410,367	412,907	415,543	418,161	420,368	422,731	424,964	427,681	430,195	432,627	435,099
% Ch	2.9%	2.3%	2.5%	2.6%	2.5%	2.1%	2.3%	2.1%	2.6%	2.4%	2.3%	2.3%
National (Thousands)	88,591	88,889	89,115	89,260	89,372	89,471	89,549	89,580	89,614	89,632	89,667	89,739
% Ch	1.7%	1.4%	1.0%	0.7%	0.5%	0.4%	0.4%	0.1%	0.2%	0.1%	0.2%	0.3%
INFORMATION												
Idaho	9,309	9,340	9,393	9,459	9,533	9,609	9,689	9,773	9,863	9,957	10,054	10,154
% Ch	0.7%	1.3%	2.3%	2.8%	3.2%	3.2%	3.4%	3.5%	3.7%	3.9%	4.0%	4.0%
National (Thousands)	2,834	2,831	2,826	2,807	2,794	2,779	2,774	2,771	2,773	2,780	2,791	2,796
% Ch	1.2%	-0.4%	-0.6%	-2.8%	-1.8%	-2.1%	-0.7%	-0.5%	0.4%	1.0%	1.5%	0.8%
FINANCIAL ACTIVITIES												
Idaho	39,442	39,645	39,854	40,077	40,321	40,522	40,716	40,885	41,149	41,379	41,598	41,817
% Ch	3.8%	2.1%	2.1%	2.3%	2.5%	2.0%	1.9%	1.7%	2.6%	2.3%	2.1%	2.1%
National (Thousands)	8,826	8,834	8,845	8,846	8,843	8,833	8,822	8,812	8,806	8,792	8,781	8,775
% Ch	0.3%	0.4%	0.5%	0.1%	-0.2%	-0.4%	-0.5%	-0.5%	-0.3%	-0.6%	-0.5%	-0.3%

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**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

SERVICES (Continued)												
	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TRANS., WAREHOUSING, UTILITIES												
Idaho	25,077	25,333	25,683	25,625	25,877	25,853	26,079	26,247	26,467	26,659	26,790	26,922
% Ch	9.5%	4.2%	5.6%	-0.9%	4.0%	-0.4%	3.5%	2.6%	3.4%	2.9%	2.0%	2.0%
National (Thousands)	5,896	5,947	5,994	6,059	6,090	6,102	6,113	6,134	6,158	6,147	6,148	6,143
% Ch	4.4%	3.5%	3.2%	4.4%	2.1%	0.8%	0.7%	1.4%	1.6%	-0.7%	0.1%	-0.3%
PROFESSIONAL & BUSINESS												
Idaho	92,844	93,628	94,258	94,722	94,663	95,664	96,172	97,046	97,705	98,527	99,278	99,927
% Ch	5.8%	3.4%	2.7%	2.0%	-0.2%	4.3%	2.1%	3.7%	2.7%	3.4%	3.1%	2.6%
National (Thousands)	20,773	20,929	21,073	21,218	21,301	21,415	21,526	21,615	21,697	21,922	22,223	22,545
% Ch	2.2%	3.0%	2.8%	2.8%	1.6%	2.2%	2.1%	1.7%	1.5%	4.2%	5.6%	5.9%
EDUCATION & HEALTH												
Idaho	104,707	105,479	106,001	108,310	109,434	110,507	111,227	112,263	113,491	114,468	115,431	116,378
% Ch	6.1%	3.0%	2.0%	9.0%	4.2%	4.0%	2.6%	3.8%	4.4%	3.5%	3.4%	3.3%
National (Thousands)	23,481	23,590	23,742	23,858	24,017	24,181	24,358	24,486	24,617	24,632	24,694	24,761
% Ch	2.3%	1.9%	2.6%	2.0%	2.7%	2.8%	3.0%	2.1%	2.2%	0.2%	1.0%	1.1%
LEISURE & HOSPITALITY												
Idaho	77,863	78,621	78,990	80,843	81,913	82,743	83,178	83,656	84,183	84,812	85,169	85,564
% Ch	6.6%	4.0%	1.9%	9.7%	5.4%	4.1%	2.1%	2.3%	2.5%	3.0%	1.7%	1.9%
National (Thousands)	16,228	16,302	16,381	16,498	16,657	16,696	16,737	16,876	16,942	17,053	17,165	17,199
% Ch	1.5%	1.8%	2.0%	2.9%	3.9%	0.9%	1.0%	3.4%	1.6%	2.7%	2.6%	0.8%
OTHER SERVICES												
Idaho	25,257	25,347	25,523	25,949	26,226	26,526	26,854	27,080	27,317	27,542	27,741	27,942
% Ch	3.2%	1.4%	2.8%	6.8%	4.3%	4.7%	5.0%	3.4%	3.5%	3.3%	2.9%	2.9%
National (Thousands)	5,811	5,842	5,853	5,871	5,897	5,930	5,949	5,946	5,965	5,949	5,937	5,922
% Ch	0.8%	2.2%	0.8%	1.2%	1.8%	2.3%	1.3%	-0.2%	1.3%	-1.1%	-0.8%	-1.0%
TRADE												
Idaho	116,589	117,033	117,528	117,544	118,696	118,800	119,660	120,404	121,378	121,766	121,987	122,309
% Ch	1.6%	1.5%	1.7%	0.1%	4.0%	0.4%	2.9%	2.5%	3.3%	1.3%	0.7%	1.1%
National (Thousands)	21,654	21,667	21,683	21,703	21,734	21,708	21,705	21,741	21,757	21,738	21,760	21,729
% Ch	0.3%	0.2%	0.3%	0.4%	0.6%	-0.5%	0.0%	0.7%	0.3%	-0.3%	0.4%	-0.6%
RETAIL TRADE												
Idaho	87,259	87,589	87,746	87,388	88,121	87,917	88,506	89,052	89,775	90,068	90,219	90,452
% Ch	1.8%	1.5%	0.7%	-1.6%	3.4%	-0.9%	2.7%	2.5%	3.3%	1.3%	0.7%	1.0%
National (Thousands)	15,826	15,839	15,820	15,814	15,816	15,775	15,762	15,773	15,780	15,758	15,767	15,728
% Ch	0.2%	0.3%	-0.5%	-0.1%	0.1%	-1.0%	-0.3%	0.3%	0.2%	-0.5%	0.2%	-1.0%
WHOLESALE TRADE												
Idaho	29,330	29,444	29,782	30,156	30,575	30,883	31,154	31,352	31,603	31,698	31,768	31,857
% Ch	1.1%	1.6%	4.7%	5.1%	5.7%	4.1%	3.6%	2.6%	3.2%	1.2%	0.9%	1.1%
National (Thousands)	5,829	5,828	5,863	5,889	5,917	5,933	5,943	5,968	5,977	5,980	5,993	6,001
% Ch	0.5%	-0.1%	2.4%	1.8%	1.9%	1.1%	0.7%	1.6%	0.7%	0.2%	0.9%	0.5%
STATE & LOCAL GOVERNMENT												
Idaho	111,129	111,544	112,224	112,383	112,331	112,792	113,176	113,439	113,757	113,952	114,089	114,270
% Ch	1.4%	1.5%	2.5%	0.6%	-0.2%	1.7%	1.4%	0.9%	1.1%	0.7%	0.5%	0.6%
National (Thousands)	19,601	19,640	19,686	19,684	19,705	19,710	19,780	19,822	19,852	19,894	19,935	19,977
% Ch	0.4%	0.8%	0.9%	0.0%	0.4%	0.1%	1.4%	0.9%	0.6%	0.8%	0.8%	0.8%
EDUCATION												
Idaho	58,118	58,132	58,950	58,672	58,396	58,422	58,628	58,702	58,877	58,986	59,083	59,239
% Ch	2.5%	0.1%	5.7%	-1.9%	-1.9%	0.2%	1.4%	0.5%	1.2%	0.7%	0.7%	1.1%
NONEDUCATION												
Idaho	53,011	53,412	53,275	53,711	53,935	54,370	54,548	54,736	54,881	54,966	55,006	55,030
% Ch	0.2%	3.1%	-1.0%	3.3%	1.7%	3.3%	1.3%	1.4%	1.1%	0.6%	0.3%	0.2%
FEDERAL GOVERNMENT												
Idaho	13,132	13,005	12,997	13,176	13,244	13,275	13,369	13,495	13,603	14,466	13,702	13,534
% Ch	2.2%	-3.8%	-0.2%	5.6%	2.1%	0.9%	2.9%	3.8%	3.2%	27.9%	-19.5%	-4.8%
National (Thousands)	2,793	2,794	2,796	2,800	2,801	2,814	2,835	2,820	2,841	3,227	2,968	2,875
% Ch	-0.8%	0.1%	0.4%	0.5%	0.2%	1.8%	3.0%	-2.1%	3.1%	66.5%	-28.5%	-12.0%

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**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

EMPLOYMENT

SERVICES (Continued)												
	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
TRANS., WAREHOUSING, UTILITIES												
Idaho	27,020	27,101	27,225	27,365	27,490	27,619	27,748	27,857	27,954	28,056	28,190	28,364
% Ch	1.5%	1.2%	1.8%	2.1%	1.8%	1.9%	1.9%	1.6%	1.4%	1.5%	1.9%	2.5%
National (Thousands)	6,146	6,143	6,131	6,116	6,102	6,082	6,064	6,044	6,028	6,009	5,992	5,976
% Ch	0.2%	-0.2%	-0.8%	-1.0%	-0.9%	-1.3%	-1.2%	-1.3%	-1.0%	-1.3%	-1.2%	-1.1%
PROFESSIONAL & BUSINESS												
Idaho	100,660	101,263	101,864	102,488	103,125	103,676	104,203	104,697	105,124	105,666	106,174	106,656
% Ch	3.0%	2.4%	2.4%	2.5%	2.5%	2.2%	2.0%	1.9%	1.6%	2.1%	1.9%	1.8%
National (Thousands)	22,864	23,063	23,196	23,316	23,431	23,508	23,561	23,586	23,615	23,623	23,647	23,699
% Ch	5.8%	3.5%	2.3%	2.1%	2.0%	1.3%	0.9%	0.4%	0.5%	0.1%	0.4%	0.9%
EDUCATION & HEALTH												
Idaho	117,515	118,420	119,343	120,273	121,410	122,337	123,268	124,204	125,533	126,545	127,560	128,578
% Ch	4.0%	3.1%	3.2%	3.2%	3.8%	3.1%	3.1%	3.1%	4.3%	3.3%	3.2%	3.2%
National (Thousands)	24,852	24,900	24,940	24,969	24,997	25,007	25,020	25,029	25,063	25,085	25,110	25,139
% Ch	1.5%	0.8%	0.6%	0.5%	0.5%	0.2%	0.2%	0.1%	0.5%	0.3%	0.4%	0.5%
LEISURE & HOSPITALITY												
Idaho	85,951	86,327	86,797	87,302	87,554	87,730	88,085	88,394	88,765	89,155	89,464	89,783
% Ch	1.8%	1.8%	2.2%	2.4%	1.2%	0.8%	1.6%	1.4%	1.7%	1.8%	1.4%	1.4%
National (Thousands)	17,152	17,206	17,275	17,316	17,326	17,400	17,462	17,509	17,508	17,532	17,547	17,562
% Ch	-1.1%	1.3%	1.6%	0.9%	0.2%	1.7%	1.4%	1.1%	0.0%	0.6%	0.3%	0.4%
OTHER SERVICES												
Idaho	28,115	28,274	28,431	28,579	28,728	28,875	29,021	29,154	29,293	29,437	29,587	29,747
% Ch	2.5%	2.3%	2.2%	2.1%	2.1%	2.1%	2.0%	1.9%	1.9%	2.0%	2.1%	2.2%
National (Thousands)	5,919	5,913	5,901	5,890	5,878	5,862	5,846	5,830	5,821	5,810	5,800	5,791
% Ch	-0.2%	-0.4%	-0.8%	-0.8%	-0.8%	-1.1%	-1.1%	-1.1%	-0.6%	-0.8%	-0.7%	-0.6%
TRADE												
Idaho	122,520	122,792	123,131	123,498	123,874	124,286	124,691	124,993	125,336	125,676	126,049	126,526
% Ch	0.7%	0.9%	1.1%	1.2%	1.2%	1.3%	1.3%	1.0%	1.1%	1.1%	1.2%	1.5%
National (Thousands)	21,702	21,680	21,624	21,594	21,562	21,515	21,459	21,402	21,323	21,256	21,187	21,116
% Ch	-0.5%	-0.4%	-1.0%	-0.5%	-0.6%	-0.9%	-1.1%	-1.1%	-1.5%	-1.3%	-1.3%	-1.3%
RETAIL TRADE												
Idaho	90,590	90,763	90,979	91,224	91,474	91,756	92,043	92,261	92,514	92,749	92,991	93,293
% Ch	0.6%	0.8%	1.0%	1.1%	1.1%	1.2%	1.3%	1.0%	1.1%	1.0%	1.0%	1.3%
National (Thousands)	15,689	15,659	15,603	15,576	15,546	15,507	15,457	15,409	15,335	15,274	15,210	15,143
% Ch	-1.0%	-0.8%	-1.4%	-0.7%	-0.8%	-1.0%	-1.3%	-1.2%	-1.9%	-1.6%	-1.7%	-1.7%
WHOLESALE TRADE												
Idaho	31,930	32,029	32,152	32,274	32,400	32,530	32,648	32,732	32,821	32,926	33,057	33,233
% Ch	0.9%	1.2%	1.5%	1.5%	1.6%	1.6%	1.5%	1.0%	1.1%	1.3%	1.6%	2.1%
National (Thousands)	6,014	6,021	6,020	6,018	6,017	6,009	6,001	5,992	5,989	5,982	5,977	5,973
% Ch	0.8%	0.5%	0.0%	-0.2%	-0.1%	-0.5%	-0.5%	-0.6%	-0.2%	-0.4%	-0.3%	-0.3%
STATE & LOCAL GOVERNMENT												
Idaho	114,534	114,839	115,123	115,426	115,617	115,865	116,118	116,365	116,587	116,805	117,012	117,209
% Ch	0.9%	1.1%	1.0%	1.1%	0.7%	0.9%	0.9%	0.9%	0.8%	0.7%	0.7%	0.7%
National (Thousands)	20,019	20,060	20,102	20,143	20,185	20,227	20,268	20,310	20,352	20,394	20,435	20,476
% Ch	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
EDUCATION												
Idaho	59,411	59,607	59,807	60,012	60,143	60,329	60,508	60,676	60,842	61,008	61,173	61,343
% Ch	1.2%	1.3%	1.4%	1.4%	0.9%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%
NONEDUCATION												
Idaho	55,123	55,232	55,316	55,414	55,473	55,537	55,610	55,688	55,745	55,797	55,839	55,865
% Ch	0.7%	0.8%	0.6%	0.7%	0.4%	0.5%	0.5%	0.6%	0.4%	0.4%	0.3%	0.2%
FEDERAL GOVERNMENT												
Idaho	13,529	13,512	13,465	13,445	13,464	13,501	13,505	13,477	13,421	13,388	13,380	13,398
% Ch	-0.2%	-0.5%	-1.4%	-0.6%	0.6%	1.1%	0.1%	-0.8%	-1.7%	-1.0%	-0.2%	0.5%
National (Thousands)	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875	2,875
% 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 2019

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

MISCELLANEOUS

	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SELECTED CHAIN-WEIGHTED DEFL.												
Gross Domestic Product	109.341	110.209	110.765	111.212	111.504	112.173	112.635	113.277	113.862	114.473	115.069	115.684
% Ch	2.3%	3.2%	2.0%	1.6%	1.1%	2.4%	1.7%	2.3%	2.1%	2.2%	2.1%	2.2%
Consumption Expenditures	107.401	107.988	108.413	108.772	108.879	109.522	109.939	110.495	110.985	111.563	112.023	112.408
% Ch	2.5%	2.2%	1.6%	1.3%	0.4%	2.4%	1.5%	2.0%	1.8%	2.1%	1.7%	1.4%
Durable Goods	88.012	87.628	87.373	87.121	87.049	86.660	86.369	86.500	86.687	86.566	86.295	86.005
% Ch	-1.1%	-1.7%	-1.2%	-1.1%	-0.3%	-1.8%	-1.3%	0.6%	0.9%	-0.6%	-1.2%	-1.3%
Nondurable Goods	99.017	99.508	99.528	99.144	98.568	99.370	99.241	99.665	99.592	100.138	100.103	99.758
% Ch	3.6%	2.0%	0.1%	-1.5%	-2.3%	3.3%	-0.5%	1.7%	-0.3%	2.2%	-0.1%	-1.4%
Services	113.707	114.520	115.220	115.958	116.339	117.133	117.886	118.573	119.324	120.057	120.844	121.629
% Ch	2.8%	2.9%	2.5%	2.6%	1.3%	2.8%	2.6%	2.4%	2.6%	2.5%	2.6%	2.6%
Consumer Price Index	2.493	2.506	2.518	2.528	2.533	2.551	2.563	2.578	2.589	2.604	2.613	2.618
% Ch	3.2%	2.1%	2.0%	1.5%	0.9%	2.9%	1.8%	2.4%	1.6%	2.4%	1.4%	0.7%
SELECTED INTEREST RATES												
Federal Funds	1.4%	1.7%	1.9%	2.2%	2.4%	2.4%	2.2%	1.7%	1.6%	1.6%	1.6%	1.7%
NY Fed Discount	2.0%	2.3%	2.5%	2.8%	3.0%	3.0%	2.8%	2.3%	2.2%	2.3%	2.3%	2.3%
Prime	4.5%	4.8%	5.0%	5.3%	5.5%	5.5%	5.3%	4.8%	4.7%	4.8%	4.8%	4.8%
Existing Home Mortgage	4.4%	4.7%	4.8%	5.0%	4.6%	4.3%	4.3%	3.9%	4.0%	4.1%	4.2%	4.2%
U.S. Govt. 3-Month Bills	1.6%	1.8%	2.0%	2.3%	2.4%	2.3%	2.0%	1.6%	1.6%	1.5%	1.5%	1.5%
U.S. Govt. 6-Month Bills	1.7%	2.0%	2.2%	2.4%	2.4%	2.3%	1.9%	1.6%	1.6%	1.7%	1.8%	1.9%
U.S. Govt. 5-Year Notes	2.5%	2.8%	2.8%	2.9%	2.5%	2.1%	1.6%	1.6%	1.7%	1.9%	2.0%	2.2%
U.S. Govt. 10-Year Notes	2.8%	2.9%	2.9%	3.0%	2.7%	2.3%	1.8%	1.7%	1.8%	2.0%	2.2%	2.3%
EXCHANGE RATES (2009=1.000)												
Major Currency Trading Partners	1.276	1.305	1.328	1.347	1.350	1.367	1.376	1.369	1.357	1.357	1.368	1.385
% Ch	-12.0%	9.5%	7.1%	5.8%	1.1%	5.0%	2.7%	-1.9%	-3.6%	0.1%	3.4%	5.1%
Other Important Trading Partners	1.178	1.206	1.246	1.269	1.243	1.250	1.279	1.288	1.292	1.299	1.307	1.315
% Ch	-7.0%	9.7%	14.0%	7.7%	-8.1%	2.2%	9.7%	2.9%	1.3%	2.0%	2.5%	2.7%
SELECTED US PRODUCTION INDICES												
Wood Products	127.8	127.4	127.7	125.6	125.0	125.5	127.1	125.2	123.7	122.6	121.7	120.9
% Ch	3.4%	-1.2%	0.9%	-6.6%	-1.8%	1.6%	5.4%	-6.0%	-4.7%	-3.5%	-2.8%	-2.6%
Computers & Electronic Products	118.7	120.2	122.4	122.3	124.8	126.2	127.9	129.5	130.7	131.5	132.3	133.0
% Ch	5.8%	5.1%	7.5%	-0.4%	8.7%	4.4%	5.7%	5.1%	3.7%	2.6%	2.3%	2.1%
Food	113.3	114.3	114.9	113.2	115.1	115.3	114.2	114.4	114.8	115.2	115.8	116.3
% Ch	3.8%	3.6%	1.8%	-5.7%	7.0%	0.4%	-3.7%	0.9%	1.3%	1.5%	1.8%	1.9%
Agricultural Chemicals	121.8	122.8	124.1	122.3	120.5	125.4	126.1	126.3	126.5	126.6	126.9	127.2
% Ch	-8.5%	3.1%	4.4%	-5.6%	-5.7%	17.1%	2.4%	0.6%	0.5%	0.6%	0.7%	1.0%
Metal Ore Mining	91.0	93.7	92.8	95.9	91.9	96.7	95.9	94.9	94.3	93.7	93.1	92.6
% Ch	-21.1%	12.4%	-3.7%	14.1%	-15.8%	22.7%	-3.4%	-3.9%	-2.7%	-2.6%	-2.4%	-2.1%

**National Variables Forecast by IHS Economics
Forecast Begins the Third Quarter 2019**

**IDAHO ECONOMIC FORECAST
QUARTERLY DETAIL
JANUARY 2020**

MISCELLANEOUS

	2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SELECTED CHAIN-WEIGHTED DEFL.												
Gross Domestic Product	116.353	117.036	117.740	118.452	119.168	119.908	120.635	121.376	122.118	122.845	123.570	124.290
% Ch	2.3%	2.4%	2.4%	2.4%	2.4%	2.5%	2.4%	2.5%	2.5%	2.4%	2.4%	2.4%
Consumption Expenditures	112.908	113.461	114.066	114.674	115.254	115.885	116.504	117.137	117.774	118.401	119.033	119.666
% Ch	1.8%	2.0%	2.1%	2.1%	2.0%	2.2%	2.2%	2.2%	2.2%	2.1%	2.2%	2.1%
Durable Goods	85.722	85.431	85.144	84.836	84.553	84.256	83.938	83.623	83.323	83.015	82.727	82.456
% Ch	-1.3%	-1.4%	-1.3%	-1.4%	-1.3%	-1.4%	-1.5%	-1.5%	-1.4%	-1.5%	-1.4%	-1.3%
Nondurable Goods	99.887	100.281	100.894	101.502	101.890	102.463	103.021	103.576	104.133	104.681	105.228	105.766
% Ch	0.5%	1.6%	2.5%	2.4%	1.5%	2.3%	2.2%	2.2%	2.2%	2.1%	2.1%	2.1%
Services	122.424	123.212	124.002	124.804	125.636	126.485	127.327	128.193	129.060	129.918	130.781	131.646
% Ch	2.6%	2.6%	2.6%	2.6%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%
Consumer Price Index	2.629	2.643	2.660	2.677	2.692	2.709	2.726	2.743	2.760	2.777	2.794	2.811
% Ch	1.7%	2.2%	2.6%	2.6%	2.2%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
SELECTED INTEREST RATES												
Federal Funds	1.9%	1.9%	2.1%	2.2%	2.4%	2.4%	2.4%	2.4%	2.6%	2.6%	2.6%	2.6%
NY Fed Discount	2.5%	2.5%	2.8%	2.8%	3.0%	3.0%	3.0%	3.0%	3.2%	3.3%	3.3%	3.3%
Prime	5.0%	5.0%	5.3%	5.3%	5.5%	5.5%	5.5%	5.5%	5.7%	5.8%	5.8%	5.8%
Existing Home Mortgage	4.3%	4.4%	4.5%	4.6%	4.6%	4.7%	4.7%	4.7%	4.8%	4.8%	4.8%	4.8%
U.S. Govt. 3-Month Bills	1.7%	1.7%	1.9%	2.0%	2.1%	2.1%	2.1%	2.1%	2.3%	2.4%	2.4%	2.4%
U.S. Govt. 6-Month Bills	2.1%	2.1%	2.3%	2.4%	2.5%	2.5%	2.6%	2.6%	2.7%	2.8%	2.8%	2.8%
U.S. Govt. 5-Year Notes	2.3%	2.5%	2.6%	2.7%	2.7%	2.8%	2.8%	2.8%	2.9%	2.9%	2.9%	2.9%
U.S. Govt. 10-Year Notes	2.5%	2.6%	2.7%	2.8%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
EXCHANGE RATES (2009=1.000)												
Major Currency Trading Partners	1.391	1.396	1.397	1.398	1.398	1.397	1.396	1.393	1.390	1.386	1.382	1.378
% Ch	1.8%	1.4%	0.2%	0.2%	0.0%	-0.1%	-0.5%	-0.9%	-0.8%	-1.0%	-1.2%	-1.2%
Other Important Trading Partners	1.328	1.337	1.343	1.343	1.351	1.355	1.357	1.356	1.353	1.349	1.343	1.336
% Ch	4.0%	2.8%	1.6%	0.1%	2.3%	1.2%	0.6%	-0.3%	-0.7%	-1.2%	-1.7%	-2.1%
SELECTED US PRODUCTION INDICES												
Wood Products	120.2	119.7	119.7	119.9	120.2	120.5	120.7	120.6	120.3	119.9	119.6	119.5
% Ch	-2.4%	-1.8%	0.0%	0.7%	1.2%	0.9%	0.7%	-0.5%	-1.0%	-1.2%	-1.1%	-0.3%
Computers & Electronic Products	133.7	134.4	135.2	136.0	136.9	137.7	138.6	139.5	140.4	141.3	142.3	143.3
% Ch	2.1%	2.1%	2.3%	2.5%	2.6%	2.5%	2.5%	2.6%	2.6%	2.7%	2.8%	2.7%
Food	116.8	117.4	118.0	118.5	119.0	119.5	119.9	120.4	120.9	121.4	121.9	122.4
% Ch	1.8%	1.9%	2.0%	1.9%	1.7%	1.6%	1.5%	1.6%	1.6%	1.7%	1.6%	1.7%
Agricultural Chemicals	127.5	128.0	128.5	129.1	129.6	130.1	130.6	131.1	131.5	132.1	132.6	133.2
% Ch	1.1%	1.4%	1.7%	1.8%	1.7%	1.5%	1.4%	1.5%	1.5%	1.6%	1.7%	1.8%
Metal Ore Mining	92.2	91.8	91.5	91.2	91.0	90.8	90.6	90.4	90.3	90.2	90.2	90.2
% Ch	-1.8%	-1.5%	-1.4%	-1.1%	-1.0%	-1.0%	-0.9%	-0.7%	-0.6%	-0.4%	0.0%	0.2%

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APPENDIX

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THE IHS ECONOMIC US MACROECONOMIC MODEL

IHS Economic 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 Economic 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 Economic 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 Economic 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 respecified 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

$$EEA_ID_2100 = 3339.163 + 14.153 * @MOVAV(ID0IP2122_2123(-1), 4) - 1784.064 * JECIWSP/WPI10 - 1211.744 * @MOVAV(JEXCHOITPREAL(-1), 2)$$

$$EEA_ID_2300 = -35803.471 + 2194.999 * RMMTG30CON + 0.276 * HHAO + 201.531 * ID0HSPRS1_A + 172.741 * ID0HSPRS1_A(-1) + 143.950 * ID0HSPRS1_A(-2) + 115.160 * ID0HSPRS1_A(-3) + 86.370 * ID0HSPRS1_A(-4) + 57.580 * ID0HSPRS1_A(-5) + 28.790 * ID0HSPRS1_A(-6) + 0.149 * EEA_ID_44_45 + 0.128 * EEA_ID_44_45(-1) + 0.106 * EEA_ID_44_45(-2) + 0.085 * EEA_ID_44_45(-3) + 0.064 * EEA_ID_44_45(-4) + 0.043 * EEA_ID_44_45(-5) + 0.021 * EEA_ID_44_45(-6)$$

$$EEA_ID_3230 = 1037.816 + 18.010 * @MOVAV(IPSG323,4) - 7.360 * @MOVAV((IPSG323/EMN323), 4)$$

$$EEA_ID_3110 = 27178.977 + 252.494 * @MOVAV(IPSG311(-1), 4) - 616.735 * @MOVAV((IPSG311/EMN311), 6) - 1648.783 * @MOVAV(JEXCHOITPREAL(-1), 2) + 42.738 * @TREND$$

$$EEA_ID_3250 = 2820.549 + 11.589 * @MOVAV(IPSG3253,8) - 2126.963 * DUM951ON + 0.012 * HHAF$$

$$EEA_ID_3320 = 404.403 + 18.668 * @MOVAV(IPSG332,2) + 0.051 * HHAF$$

$$EEA_ID_3330 = -727.834 + 0.135 * @MOVAV(IPSG3332,8) * @TREND + 3.322 * @TREND + 561.482 * @MOVAV(JEXCHOITPREAL(-1), 4)$$

$$EEA_ID_3340 = @BEFORE("2009Q1") * (61726.915 + 77.018 * IPSG334(-3) + 54.902 * IPSG3342 - 630.672 * JPC(-2)) + @AFTER("2009Q1") * (4766.814 + 58.756 * IPSG334(-3) - 32.088 * IPSG3342 + 44.773 * JPC(-2))$$

$$EEA_ID_4200 = @BEFORE("2009Q1") * (8038.326 + 0.236 * EEA_ID_44_45) + @AFTER("2009Q1") * (-1821.120 + 0.361 * EEA_ID_44_45)$$

$$EEA_ID_44_45 = 43856.815 + 55.358 * @MOVAV(YPADJ_ID,4)/@MOVAV(JPC,4) + 3063.289 * @PCY(ID0NPT)$$

$$EEA_ID_48_49_22 = -5896.562 + 0.556 * @MOVAV(EEA_ID_4200,2) + 8218.611 * @MOVAV(ID0NPT(-1), 8)$$

$$EEA_ID_5100 = -10618.875 + 51.011 * @MOVAV(IPSG51111,4) + 102.938 * @TREND - 3044.334 * @MOVAV(JEXCHMTPREAL(-1), 2)$$

$$EEA_ID_52_53 = 9541.682 + 35.665 * YPADJ_ID/JPC + 135.704 * @MOVAV(ID0HSPR(-1), 4)$$

EEA_ID_54_55_56 = -277035.364 + 1.016 * @MOVAV(ID0YP(-1), 4) - 14270.060 * EDRE + 12550.816 * EDRIPS

EEA_ID_61_62 = -47185.948 + 2.085 * ID0YTR\$ + 70867.176 * ID0NPT

EEA_ID_71_72 = -14539.508 + 1.985 * @MOVAV((ID0YP/ID0NPT), 2) + 0.453 * @TREND * JPC

EEA_ID_8100 = 5668.749 + 28.432 * @MOVAV(YPADJ_ID,4)/@MOVAV(JPC,4)

EEA_ID_GVF = 201.063 * GFOCWSS - 0.687 * GFOCWSS * @TREND + 295.685 * DUMCENSUS + [AR(1) = 0.985, ESTSMPL = "1991Q2 2019Q2"]

EEA_ID_GVSLAD = @BEFORE("2005Q1") * (-3360.220 + 33337.234 * @MOVAV(ID0NPT,4) + 0.228 * @MOVAV(ID0YPTXB(-4), 4)) + @AFTER("2005Q1") * (50289.076 - 6875.905 * @MOVAV(ID0NPT,4) + 0.289 * @MOVAV(ID0YPTXB(-4), 4))

EEA_ID_GVSLED = -6434.583 + 169772.150 * ID0NPT * ((N - N16A)/N) + 0.113 * ID0YPTXB

EEA_ID_MFDNEC = -3102.241 - 21.381 * (@MOVAV(IPSG335,2) + @MOVAV(IPSG339,2)) + 0.982 * GDPR

EEA_ID_MFNNEC = 2629.126 + 14.124 * @MOVAV(IPSG322,2) - 14.023 * @TREND + 0.061 * HHAF

EEA_ID_WOOD = 15744.816 + 49.041 * @MOVAV(IPSG321,2) - 18328.826 * JECIWSP/WPI08 - 12.660 * IPSG321/EMD321

ID0AHEMF = @BEFORE("2005Q3") * -28.294 + @AFTER("2005Q3") * 194.198 - 0.418 * @AFTER("2005q3") * HPMF + 2.855 * EDRE - 5.179 * @AFTER("2005q3") * EDRIPS + 5.766 * EEA_ID_DMANU(-1)/EEA_ID_MANU(-1) * @MOVAV(JECIWSP(-1), 4) + 4.905 * EEA_ID_NMANU(-1)/EEA_ID_MANU(-1) * @MOVAV(JECIWSP(-1), 4)

ID0CRCROP = 202.456 + 1.294 * 10⁽⁻⁵⁾ * CRCROP + 2.104 * @TREND

ID0CRLVSTK = -1971.322 + 2.847 * 10⁽⁻⁵⁾ * CRCATCVS + 5.514 * 10⁽⁻⁵⁾ * CRDAIRY + 14.070 * @TREND

ID0EXFP = -394.360 + 224.400 * WPI01 + 4.280 * @TREND + 1.917 * 10⁽⁻⁵⁾ * EXPUS\$

ID0HSPRS1_A = -548.949 - 1.781 * (RMMTGEXIST(-1) - @MOVAV(RMMTGEXIST(-1), 4)) + 543.911 * ID0KHU1(-1)/ID0KHU1(-4) + 0.025 * @TREND * @MOVAV(ID0NPT(-4), 4)

$$\begin{aligned} \text{ID0HSPRS2A_A} = & @\text{BEFORE}("2013\text{Q4}") * (-0.596 - 0.490 * \text{RMMTGEXIST} + \\ & 730.444 * \text{IPSG321}/@ \text{MOVAV}(\text{ID0WRWCC}\$(-1), 2) + 0.018 * \\ & @ \text{MOVAV}(\text{IPSN32732T9}(-1), 2)) + @ \text{AFTER}("2013\text{Q4}") * (-2.960 + 0.394 * \\ & \text{RMMTGEXIST} + 294.689 * \text{IPSG321}/@ \text{MOVAV}(\text{ID0WRWCC}\$(-1), 2) + 0.025 * \\ & @ \text{MOVAV}(\text{IPSN32732T9}(-1), 2)) \end{aligned}$$

$$\text{ID0NB} = -2.996 + 27.637 * \text{ID0NPT} - 0.104 * @ \text{TREND}$$

$$\text{ID0ND} = 6.457 - 0.153 * \text{ID0NPT} + 1.991 * 10^{(-4)} * @ \text{TREND}^2$$

$$\text{ID0NPT} = 0.433 + 3.547 * 10^{(-7)} * @ \text{MOVAV}(\text{EEA_ID}, 4) + 0.005 * @ \text{TREND}$$

$$\text{ID0WBBF}\$ = -15.103 + 29.089 * (\text{WPI01} + \text{WPI02})/\text{JEXCHOITPREAL} + 0.068 * \text{YPCOMPWSD}$$

$$\begin{aligned} \text{ID0WBBMIL}\$ = & @ \text{BEFORE}("2010\text{Q2}") * 6.005 + @ \text{AFTER}("2010\text{Q2}") * -59.189 - \\ & 85.891 * (\text{ID0NPT}/\text{N}) * \text{GFMLCWSS} - 0.098 * \text{D}(\text{GFML}) + 0.398 * \text{GF} \end{aligned}$$

$$\text{ID0WRWCC}\$ = 14074.042 + 374.880 * \text{ID0AHEMF} + 2.516 * \text{YPCOMPWSD}$$

$$\text{ID0WRWMF}\$ = 6634.616 + 226.727 * \text{ID0AHEMF} + 5.801 * \text{YPCOMPWSD}$$

$$\begin{aligned} \text{ID0WRWOTH}\$ = & 3680.392 + 133.115 * @ \text{TREND} + 412.726 * \text{D}(\text{ID0AHEMF}) + \\ & 1.351 * \text{YPCOMPWSD} \end{aligned}$$

$$\begin{aligned} \text{ID0YDIR}\$ = & -59.825 + 1.092 * (\text{YPAINT} + \text{ZADIV} + \text{YPRENTADJ}) * \\ & @ \text{MOVAV}(\text{ID0YP}\$(-1), 4)/@ \text{MOVAV}(\text{YP}(-1), 4) \end{aligned}$$

$$\text{ID0YFC}\$ = 3.726 + 0.859 * \text{ID0YFC}\$(-1) + 0.156 * @ \text{TREND}$$

$$\begin{aligned} \text{ID0YINV_R}\$ = & -9.096 + 0.657 * \text{YPPROPADJF} + 0.515 * \text{ID0YINV_R}\$(-1) + 0.870 * \\ & @ \text{TREND} \end{aligned}$$

$$\begin{aligned} \text{ID0YPRF}\$ = & 0.002 + 1000.004 * (\text{ID0CRCROP} + \text{ID0CRLVSTK} + \text{ID0YTRF}\$ + \\ & \text{ID0YINV_R}\$ - \text{ID0YFC}\$ - \text{ID0EXFP})/1000 - 3.868 * 10^{(-5)} * @ \text{TREND} \end{aligned}$$

$$\text{ID0YPRNF}\$ = -457.623 + 4.727 * \text{YPPROPADJNF}$$

$$\text{ID0YRA}\$ = 95.207 - 0.049 * \text{ID0WBB}\$ + 0.039 * \text{HHAF}$$

$$\text{ID0YSI}\$ = -22.172 + 1.180 * \text{TXSIDOM} * \text{ID0WBB}\$/\text{YPCOMPWSD}$$

$$\text{ID0YSUP}\$ = 93.118 + 1.518 * \text{YPCOMPSUPPAI} * (\text{ID0WBB}\$/\text{YPCOMPWSD})$$

$$\text{ID0YTR}\$ = -104.558 + 888.460 * (\text{YPTRFGF} + \text{YPTRFGSL}) * (\text{ID0NPT}/\text{N})$$

$$\text{ID0YTRF}\$ = 23.910 + 9.629 * 10^{(-6)} * \text{TRF}\$\text{US}$$

Identities

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

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

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

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

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

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

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

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

$$ID0YPPC = ID0YP / ID0NPT$$

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

$$EEA_ID_GVSL = EEA_ID_GVSLAD + EEA_ID_GVSLED$$

$$EEA_ID_GV = EEA_ID_GVSL + EEA_ID_GVF$$

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

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

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

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

$$EEA_ID_MANU = EEA_ID_DMANU + EEA_ID_NMANU$$

$$EEA_ID_GOODS = EEA_ID_MANU + EEA_ID_2300 + EEA_ID_2100$$

$$EEA_ID = EEA_ID_GOODS + EEA_ID_NONGOODS$$

$$ID0HSPR = ID0HSPRS1_A + ID0HSPRS2A_A$$

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

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

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

$$ID0YP\$ = ID0WBB\$ + ID0YSUP\$ + ID0YDIR\$ + ID0YPRNF\$ + ID0YPRF\$ + ID0YTR\$ + ID0YRA\$ - ID0YSI\$$$

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

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

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

$$ID0KHU = ID0KHU1 + ID0KHU2A$$

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NATIONAL EXOGENOUS VARIABLES

CRCATCVS	Cash receipts, US cattle and calves
CRCROP	Cash receipts, US crops
CRDAIRY	Cash receipts, US dairy
DUM951ON	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.
DUMCENSUS	
EDRE	Economic depreciation rate nonresidential capital
EDRIPS	Economic depreciation rate software
EMD321	Employment in wood products
EMN311	Employment in food manufacturing
EMN323	Employment in printing and related support activities
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
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
ID0WBB\$	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_R\$	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