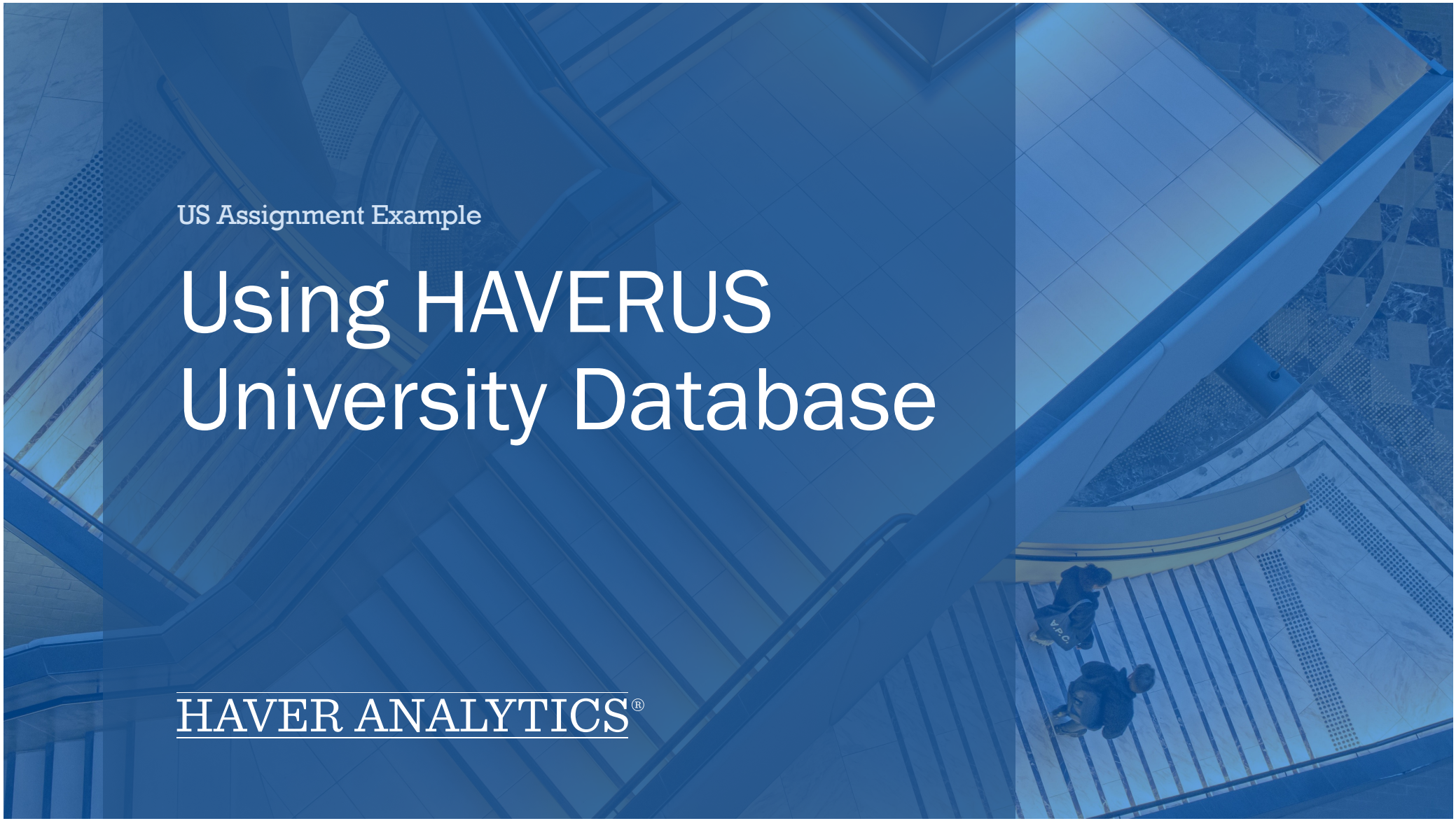


US Assignment Example

Using HAVERUS University Database

HAVER ANALYTICS®

Example One

The Phillips Curve

A core analysis for economic study is the Phillips Curve. Highlighting the correlation between inflation and unemployment rates, it offers insight into how monetary and fiscal policy can influence behaviors.

Supported by a dynamic data-driven illustration accessible from Haver, educators can easily present the model's strengths and weaknesses while delving into the underlying conditions, monetary and fiscal policy behaviors and subsequent outcomes over various time periods. Students can interactively engage with the data and overlay other factors to support independent research – both theoretical and econometric in nature.

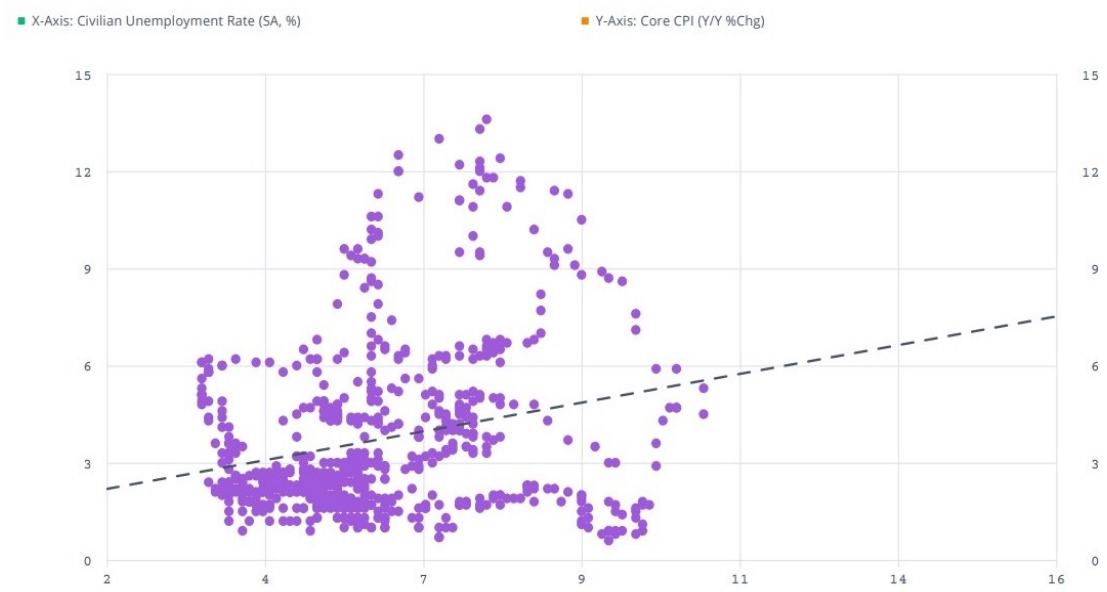
Inflation and Unemployment

A professor leading an intermediate level macroeconomics class might use Haver data to show the tradeoff between inflation and unemployment to:

- Demonstrate the dynamic relationship between these two variables
- Plot inflation and unemployment over the past 60 years.

From this basic information, the study can delve deeper…

Phillips Curve (1959-2019)



Source: Bureau of Labor Statistics

AUG 1959 – SEP 2019

1983-2019 Focus

To better view the relationship, a class could focus on the 1983-2019 period.

Interactive Analysis

The HaverView™ platform allows students to visualize the data and spot key points. Students can easily:

- Trace the path of the Phillips curve
- Put the cursor over the dots to discern periods of clear tradeoff and other periods of transition
- See the spiraling nature of changes in inflation regimes, especially in the period 1984 to 1994

Phillips Curve (1983-2019)

Source: Bureau of Labor Statistics

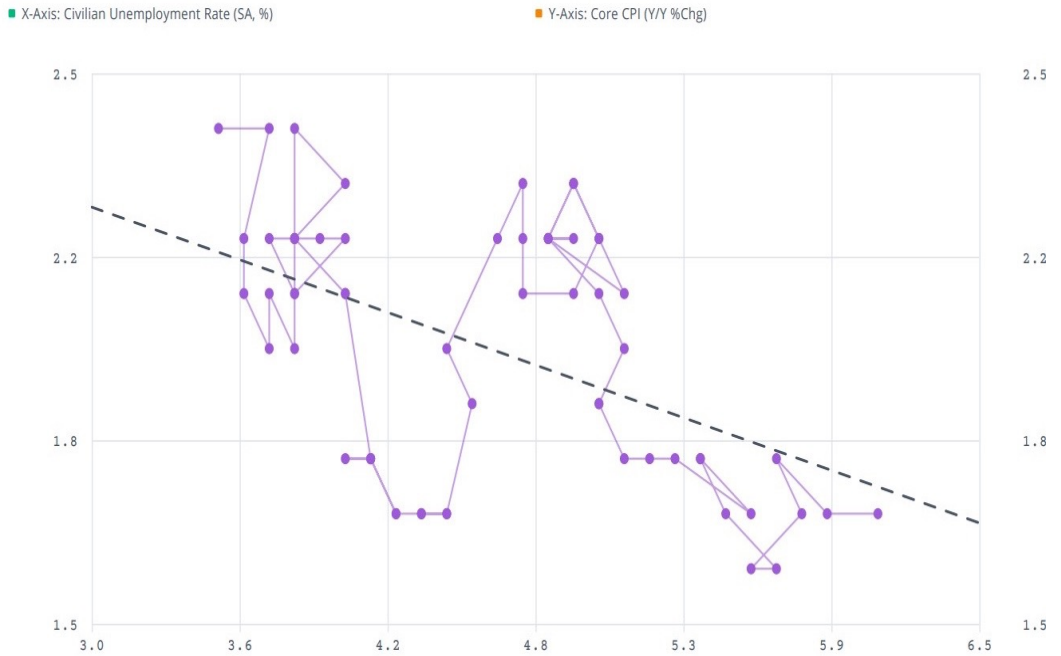
AUG 1983 – SEP 2019

Sensitivity to Unemployment

Viewing the data in an even more compressed timeframe highlights the lessening sensitivity of inflation to the unemployment rate.

For instance, the 2014-19 data suggests it take would take significant labor market slack (unemployment) to drive down the inflation rate by a single point.

Phillips Curve (2014-2019)



Source: Bureau of Labor Statistics

AUG 2014 – SEP 2019

Diving Deeper

The Phillips Curve is broadly illustrative.

Interesting discussion can center on the factors underlying a flattening Phillips curve, such as: more services in the consumption basket, increasingly global production processes, the tendency of lower inflation rates to be less volatile, and anchored inflation expectations.

- Class discussion could cover the impact on monetary policy of a decline in and flattening of the Phillips curve.
- An econometrics class could derive a relationship, by segmenting the data into stable periods to derive the true relationships at various times and measure their strength and direction, perhaps conducting an F-test to demonstrate whether the relationship measurably changed in a statistical sense.
- Students might use various inflation measures to see whether core PCE is the best measure of underlying inflation. Or compare wages vs. unemployment.
- Also, students could derive Phillips Curves by finding short-term unemployment and the various alternative measures of labor market slack.

Example Two

The Taylor Rule

An essential analysis for intermediate economic study is the Taylor Rule. A rule meant to be prescriptive, it helps gauge the overall stance of policy, whether tight or easy.

Haver provides the data and tools to foster discussion around policy appropriateness at various points in time based on this benchmark. One could begin by discussing the Great Recession and the effectiveness of the ensuing accommodative policy over time.

As an accompanying assignment, a professor could set up an Excel file with time series of various measures of inflation (CPI, PCE; headline, core) and slack (potential gap, unemployment rate) and have the students calculate and chart several Taylor rule rates. Students could also compare the Taylor rule with the so-called Yellen rule.

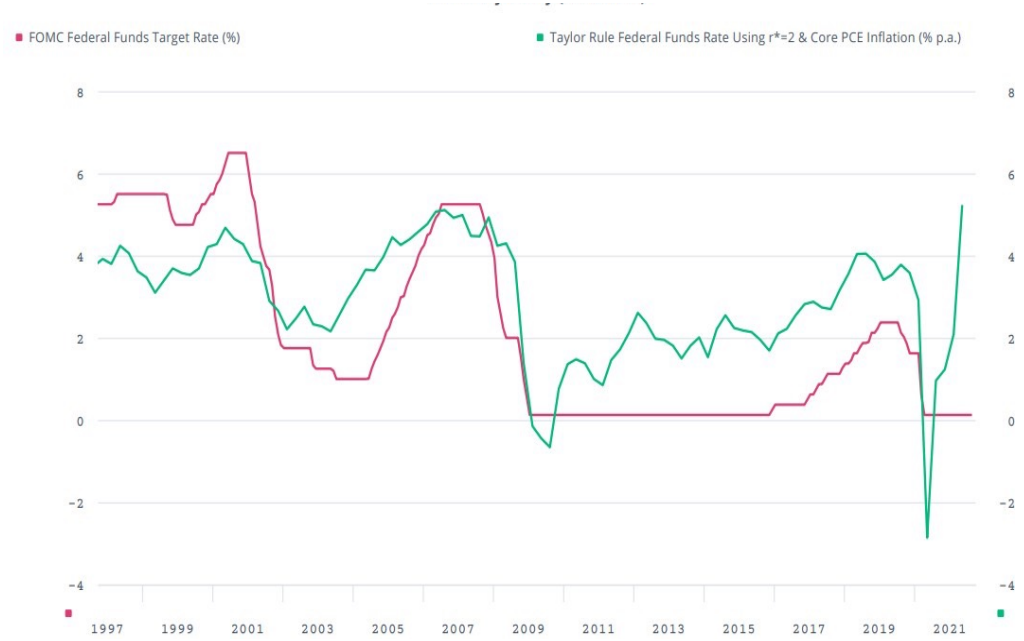
Estimating Parameters

An econometrics class could use actual data and tools from Haver to estimate and derive the parameters for the Taylor rule relationships to:

- Assess prescriptively whether a policy direction is optimal; and
- Gain insights into how closely policymakers follow the rule as well as their reactions and responses

The chart at right plots one of the Haver-created Taylor rules versus the Fed target.

Monetary Policy (1996-2021)



Source: Federal Reserve Board

Example Three

Unemployment & Labor Market Health

Labor market health is central to economic study and offers important nuances for discussion. While monthly employment numbers (especially factory hiring) may be considered as a leading or coincident indicator of economic health, unemployment is a lagging indicator and helps to illustrate longer-term direction. Why?

Employers, especially of skilled labor, are loathe to reduce staff, they will often keep employees even as sales and profitability are declining. Even then, employment might shift from full-time to part-time or contract labor as recessionary pressures increase.

With Haver data, lecturers and students can gain insight into unemployment — short-term, long-term, voluntary, involuntary and duration — to discuss the health of the labor market.

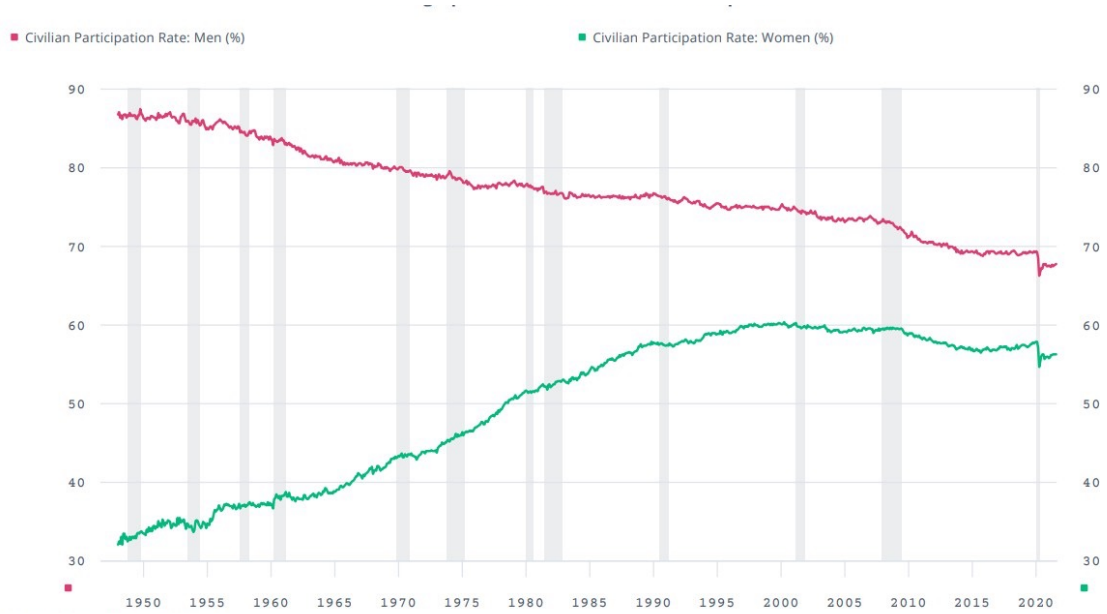
Exploring BLS Data

Rich, detailed labor market data from the Bureau of Labor Statistics (BLS) offers economic students the basis for in-depth analysis of the health of the labor market.

Students can uncover unemployment rates by age, gender, education, race/ethnicity, marital status and education.

As illustrated in the chart at right, over the past 60 years dramatic shifts in employment have occurred with women entering the labor force.

Demographic Shifts in Labor Force Participation



Source: Bureau of Labor Statistics

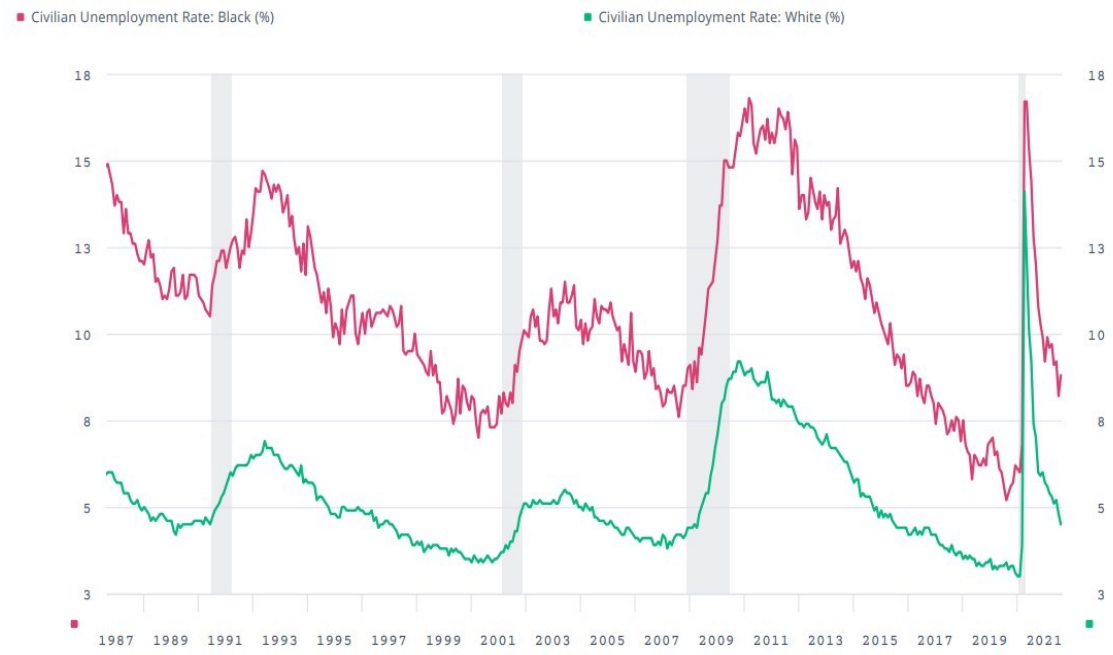
Demographics

Understanding demographics and labor participation among various groups within society sheds light on economic advantages and disadvantages and spurs active conversation on many levels. Digging into the data sheds light on:

- Differences in labor market status for various demographics, including race, gender, age and education
- The total number of people employed, in the labor force, and in the population

From the data they can calculate and graph the unemployment rate, participation rate and employment to population ratio.

Unemployment Rates by Race



Source: Bureau of Labor Statistics

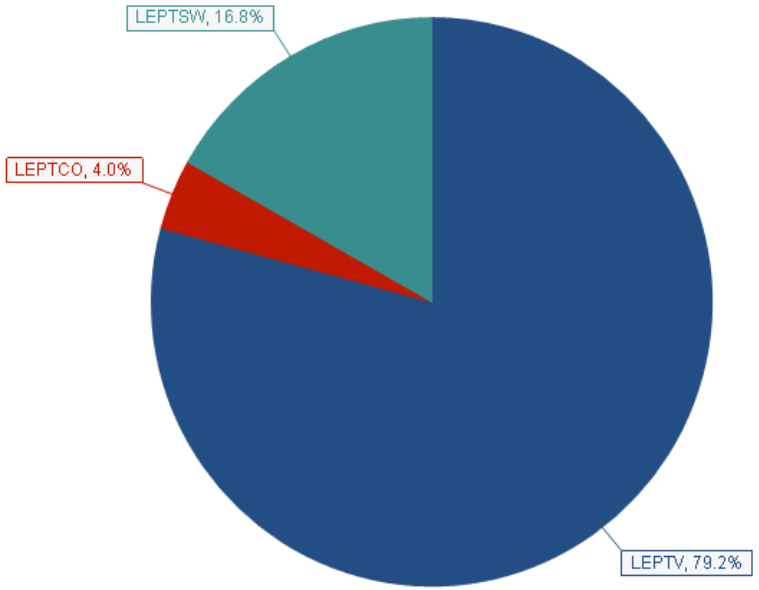
Labor Market Health

Instructors can leverage Haver data and tools to encourage students to explore additional barometers of labor market health, such as:

- **Employment** – find the number of people working part-time versus full-time for economic reasons (slack work, unable to find full-time).

The chart at right highlights the type of part-time workers — slack work: green, could only get part time: red, part-time by choice: blue.

Part-time Worker Breakdown – May 2021



Source: Bureau of Labor Statistics

Example Four

Leading & Lagging Indicators

Knowing what indicators lead, lag or are coincident to the business cycle is vital to economic study. Clear understanding of what leads, and why, is key to predicting the trends driving the future state of an economy. In-depth study of data illustrating leads, lags and coincident factors helps budding economists avoid circular thinking – e.g. making statements that the unemployment rate is high (lagging) so payroll employment will fall (coincident), or debt is high (lagging) so consumer spending will fall (coincident).

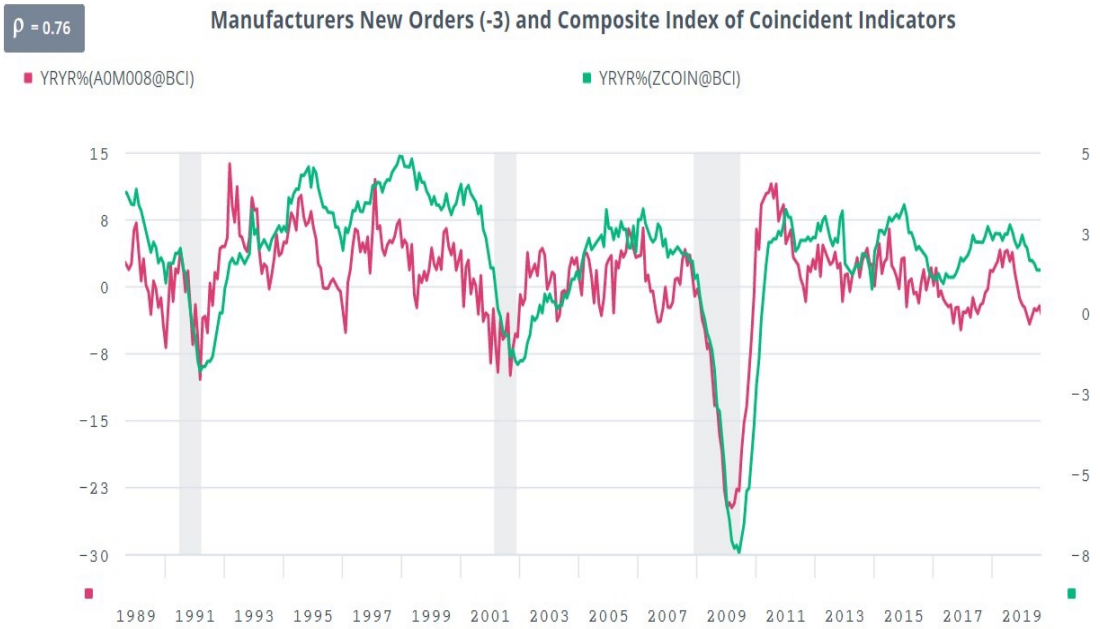
Supported by a dynamic data-driven illustration accessible from Haver, educators can easily present the leads, lags and coincident indicators while delving into the underlying correlations and typical timeframe of each input. Students can interactively engage with the data and overlay other factors to support additional research.

Correlation on Leads

With access to Haver data, students can identify leading indicators and dig deeper into understanding correlation between indicators to verify a leading series leads the coincident index and by how much. They can also quantify how many months lead each series provides.

Knowledge of leading indicators (e.g. initial claims, new orders, building permits, yield curve, etc.) will help with predictive study.

Manufacturers New Orders (-3) and Composite Index of Coincident Indicators: 1989-2019

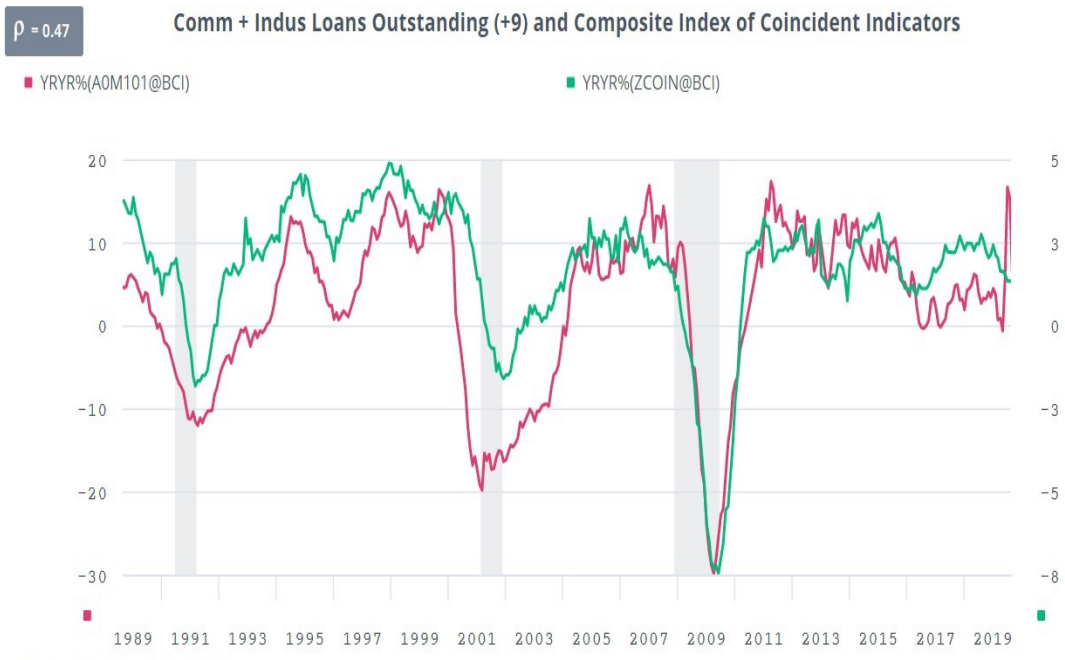


Source: The Conference Board

Correlation on Lags

With access to Haver data, students can identify lagging indicators and dig deeper to discern the importance of leading vs. lagging indicators to uncover what inferences can or cannot be accurately made from the data.

Comm+Indus Loans Outstanding (+9) and Composite Index of Coincident Indicators (1989-2019)



Source: The Conference Board

We welcome your inquiries.

sales@haver.com

