FEDERAL RESERVE BANK OF KANSAS CITY / SPRING 2019

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ANNUAL REPORT EDITION Stability and Stewardship

Why Is Wage Growth Low? | Diversity and Inclusion Report | New Tenth District Directors

FEDERAL RESERVE BANK OF KANSAS CITY / SPRING 2019



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TEN magazine is a quarterly publication of the Federal Reserve Bank of Kansas City focused on the connection between the Bank's research and the Tenth Federal Reserve District. TEN features articles on the Federal Reserve's history, structure and operations. The views and opinions expressed in TEN are not necessarily those of the Federal Reserve Bank of Kansas City, the Federal Reserve System, its governors, officers or representatives.

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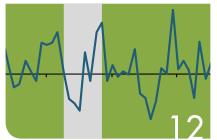
Learn more about the Federal Reserve Bank of Kansas City and the history, leadership and governance of the Federal Reserve System at kansascityfed.org/aboutus.

FEATURES



FASTER GROWTH

Over several years, locations with populations of 500,000 to 3 million often grew faster than the national rate.



WHY IS WAGE GROWTH SO LOW?

Despite continued improvement in labor market conditions, low productivity growth affects compensation.



DIVERSITY AND INCLUSION

In its yearly report to Congress, the Kansas City Fed outlines how its business practices represent the range of backgrounds and experiences across the Tenth District.



2018 ANNUAL REPORT

A detailed look at Bank operations, Tenth District officers, directors, advisory councils, roundtables and more.

ON THE COVER»

David Todd, program manager of Metropolitan Area Projects in Oklahoma City. Photo by David McNeese



From the President

ESTHER L. GEORGE

Evaluating our inflation objective

ostering a strong labor market while maintaining price stability is of course the core of the Federal Reserve's dual mandate from Congress. With the unemployment rate at a historically low level and inflation currently running just under the Federal Open Market Committee's (FOMC) objective, a longer-run policy issue is whether the persistent undershoot of our inflation objective is undermining its credibility and causing inflation to be anchored at too low a level. If inflation expectations fall persistently below 2 percent, the extent we could lower real interest rates by reducing our nominal target for the funds rate would be diminished. This could limit the accommodation we could provide if we were to return to the zero lower bound.

At the time the FOMC adopted its 2 percent inflation objective in 2012, monetary policy was highly accommodative, unconventional policy tools were being deployed, and inflation was running above 2 percent. Since then, inflation has run persistently below 2 percent. I have not viewed this as a major concern given that, aside from the effects of wide fluctuations in energy prices, inflation has remained low and relatively stable. Since 2012, core personal consumption expenditures (PCE) inflation has fluctuated in a range of roughly 1.5 to 2 percent, except during 2015 when a strong dollar pushed core inflation somewhat below 1.5 percent. Should we be concerned about this low level of inflation? As I listen to business and community leaders around my region, I hear few complaints about inflation being too low. In fact, I am more likely to hear disbelief when I mention that inflation is as low as measured in a number of key sectors. I see this reaction to inflation as a good sign, and consider this performance consistent with the definition of price stability that former Fed chairs Paul Volcker and Alan Greenspan preferred. Both of them judged price stability as an inflation rate that is sufficiently low (and stable) that it is not considered a key factor in the decisions of businesses or households.

Even so, I supported the FOMC's decision to adopt a 2 percent longer-run objective for inflation in 2012, and I support it today. I believe it has been effective in helping anchor longerrun inflation expectations. Arguably, though, adopting a point estimate instead of a range has placed considerable attention on a precise target and has exaggerated the precision with which monetary policy can achieve this particular numerical target. It would seem reasonable that even somewhat persistent deviations from the objective, if they are limited to, say 50 basis points above or below the objective may be acceptable, depending on broader economic conditions. I also support the idea that the objective should be symmetric so that deviations below and above

the objective should be viewed as costly, taking into account deviations of employment from our employment objective. Consistent with the FOMC's "Statement on Longer-Run Goals and Monetary Policy Strategy," this suggests that when our objectives are not complementary, we follow a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to mandate-consistent levels. In current circumstances, with an unemployment rate well below its projected longer-run level, I see little reason to be concerned about inflation running a bit below its longer-run objective. Moreover, I am not convinced that a slight undershoot of inflation below objective requires an offsetting overshoot of the objective. As I mentioned earlier, the current benign inflation outlook gives us the opportunity to test our assumptions about the degree of slack in the economy and the level of the natural rate of interest.

Going forward

As we look ahead, however, there is a legitimate concern that monetary policy "space" could be limited in the next downturn because of the low level of interest rates. This has led some to argue for a higher inflation target or the adoption of some kind of a price-level target. While I see little value in pursuing a higher inflation target given the credibility we have built over the last decade around 2 percent, evaluating alternative policy strategies is appropriate. Some have promoted the use of a temporary price-level target that takes effect when the federal funds rate target hits the zero bound. Another approach might be an inflation target that is achieved on average over a fixed period of time or over the business cycle. In theory, a price-level target that is fully credible could potentially smooth fluctuations in output and employment, especially at the zero lower bound.

While not prejudging the potential efficacy of such strategies, I see both fundamental and practical issues to grapple with in moving to such regimes.

What works in elegant economic models can have limitations and unintended consequences when put into practice. Fundamentally, an effective price-level target could substantially reduce uncertainty about the price level many years into the future and thereby help households and businesses make long-term plans and commitments. It also could increase the variability of, and uncertainty about, inflation over the medium term. This is because a price-level target would require policymakers to engineer an increase in inflation in response to the price level falling below its target path and engineer a decrease in inflation in response to the price level rising above the target path. These benefits and costs would need to be carefully weighed.

"WHILE I SEE LITTLE VALUE IN PURSUING A HIGHER INFLATION TARGET GIVEN THE CREDIBILITY WE HAVE BUILT OVER THE LAST DECADE AROUND 2 PERCENT, EVALUATING ALTERNATIVE POLICY STRATEGIES IS APPROPRIATE."

On a more practical level, there are a number of issues to be considered. First, in a price-level targeting regime, choosing the base period can make a big difference. For example, getting back to a 2 percent price-level path that was based in a year just prior to the Great Recession would require a much longer period of above 2 percent inflation than if the base year were set more recently. This is simply because the cumulative undershoot of the 2 percent price path would be so much greater under the earlier base period.

Second, given the difficulty over the last decade in getting inflation up to 2 percent on a sustained basis, it is not clear to me that adopting a price-level target would be any more effective than our current inflation target. And deliberately pushing inflation above 2 percent at a time when the unemployment rate is well below its presumed longer-run level could be costly. It would likely require a further overheating of the labor market with related misallocation of resources, along with increased uncertainty about the future inflation rate and price level.

Third, a price-level targeting strategy is time inconsistent unless policymakers can credibly commit to following it. If the goal is to have inflation of 2 percent on average, a period of below 2 percent inflation would require an equal period of inflation above 2 percent. But once inflation

has moved up to 2 percent, policymakers might be tempted to renege on their prior commitment and not allow inflation to go higher. This would undermine the future credibility of the price-level targeting strategy. To the extent the public understood this time inconsistency problem, price-level targeting would not be credible to begin with, absent a commitment device. With regular turnover among members of the FOMC, it would be difficult for one Committee to commit a future Committee to a particular course of action.

Fourth, the timeframe for achieving an average inflation target would be difficult to determine and communicate. "Over the business cycle" is a vague timeframe since business cycles vary in length and recessions are notoriously difficult to predict. Given that U.S. inflation has been below target for seven years, would we need or want seven-plus years of inflation above 2 percent? At what point should bygones be bygones?

Finally, the Federal Reserve's most recent Monetary Policy Report to Congress contained a section on



President Esther George spoke on March 27 at a finance scholarship group's event in New York City.

policy rules and systematic monetary policy. It provided an example of a price-level targeting rule that included the gap between the level of prices today and the level of prices that would be observed if inflation had been a constant at 2 percent from a specified starting year (1998).

The prescription from that rule would have been to set the target funds rate at less than 1 percent at the end of last year. Of course, it is impossible to judge the counterfactual implications of maintaining the funds rate target at or below 1 percent throughout the recovery. I think it is fair to assume, however, that the potential to generate real and financial imbalances might be substantial, ultimately imposing an even higher cost to the economy than where we are today.

This message was adapted from a speech President George delivered March 27 in New York City. For the full text, visit www.KansasCityFed.org.

Ethn Horge

Notes from around the Tenth District



Students participated in coding exercises and learned about careers in technology during the Girls in Tech event at the Kansas City Fed.

Girls in Tech event inspires students to code

The Federal Reserve Bank of Kansas City recently hosted students from Independence, Mo., middle schools and high schools for the KC STEM Alliance's annual Girls in Tech KC event.

Speakers at the event included the Bank's leaders in technology and Martha McCabe, the Alliance's executive director. The speakers shared messages related to their own technology careers and encouraged girls to follow their dreams.

Coding exercises for the students included an Hour of

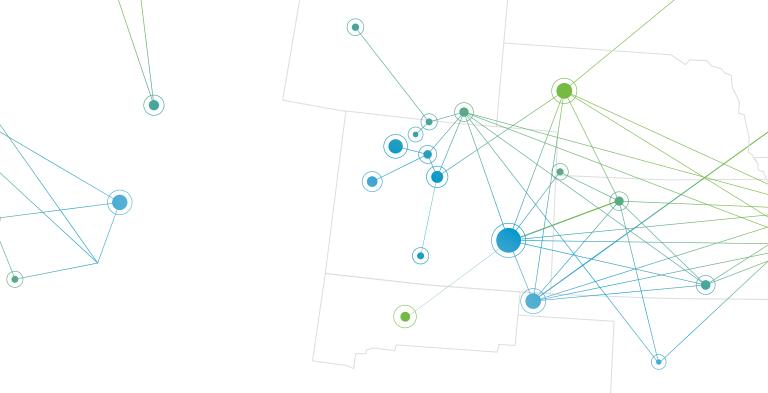
Code activity in which students paired up to create an electronic dance party featuring music and animated characters. Debbie Frobase, an educator at Pioneer Ridge Middle School, noted her school's low ratio of girls to boys enrolled in technology classes and was hopeful that the experience would encourage more female students to pursue technology careers.

"The networking and exposure is amazing," she said. "They see mentors everywhere and some already want to do this as their field."



Bank employee Sarita Gupta was a mentor for the students as they worked through coding exercises. She hopes the event will build the confidence of young coders and help them see a future technology. "Every day is a new challenge, so be prepared," she advised the students. "It can be difficult in certain ways; don't give up."

Find resources for educators at KansasCityFed.org/education.





Kansas City Fed President Esther George (left) congratulates Senior Project Manager Mattie Brown.

Brown joins Black Achievers Society

Kansas City Fed Senior Project Manager Mattie Brown recently was named to the Black Achievers Society of Kansas City and honored at a reception hosted at the Bank.

The society was founded in 1974 to honor African Americans in business and industry. The organization was founded by Emanuel Cleaver II, former Kansas City, Mo., councilman and mayor who now represents the area in Congress. The organization's mission is to "actively respond to the educational, social and economic needs of the community by providing role models for Blacks and minority youth, sharing knowledge gained through academic and corporate experience."

Brown, a native of Kansas City, Kan., has more than 20 years of project management experience from a diverse career that included working in the mortuary, health-care and software industries before joining the Bank.

Brown was chair of the Bank's 2018 United Way Campaign, and she is a member of several mentorship and diversity-and-inclusion groups, including the Women in Technology Community of Practice. As a member of the Black Achievers Society, Brown joins Bank employees Mark Watson and Porcia Block, who were recognized as members of the organization in previous years.

FURTHER RESOURCES

Learn more about the Bank's diversity and inclusion efforts at KansasCityFed.org/ aboutus/KcFedinformation/diversity.



In 2018, volunteers from the Bank's staff helped present a Money Smart event at the Kansas City Public Library downtown.

Money Smart program aims to boost financial awareness

April is designated "Money Smart Month" to bring special attention to financial literacy programs, classes, resources and services available throughout the year in communities served by the Kansas City Fed headquarters and its branch offices.

Activities have included "Teach Children to Save" and "Your Piece of the Pie" events, as well as economic student awards and Money Smart Day events in Kansas City, Denver, Oklahoma City and Omaha.

Financial education tools, interactive features and an updated listing of this year's Money Smart events are available at *KansasCityFed. org/education*. Additional information and resources are available at *MoneySmartKC.org*.



Bank Anniversaries

The following banks in the Tenth Federal Reserve District are celebrating one, five, 10, 20 or more years as Federal Reserve members in April, May or June.

Sundance State Bank	Sundance	Wyo.	88
First State Bank	Ness City	Kan.	85
First Nebraska Bank	Valley	Neb.	85
Bank of Hartington	Hartington	Neb.	83
Bankwest of Kansas	Goodland	Kan.	80
First State Bank of Colorado	Hotchkiss	Colo.	77
First State Bank and Trust Company	Larned	Kan.	77
First State Bank in Temple	Temple	Okla.	76
Citizens-Farmers Bank Cole Camp	Cole Camp	Mo.	74
Bank of Commerce	Rawlins	Wyo.	41
Citizens Bank of Edmond	Edmond	Okla.	38
Bank of Jackson Hole	Jackson	Wyo.	37
Castle Rock Bank	Castle Rock	Colo.	33
Bankers Bank	Oklahoma City	Okla.	33
Bank of Commerce	Chelsea	Okla.	22
Mabrey Bank	Bixby	Okla.	22
First State Bank	Anadarko	Okla.	21
KCB Bank	Kearney	Mo.	21
Adrian Bank	Adrian	Mo.	20
American Bank of Baxter Springs	Baxter Springs	Kan.	20
Bank of Kremlin	Kremlin	Okla.	20
Country Club Bank	Kansas City	Mo.	10
Halstead Bank	Halstead	Kan.	10
High Country Bank	Salida	Colo.	10
First Bank	Utica	Neb.	10
Bank of the Flint Hills	Wamego	Kan.	5
Buffalo Federal Bank	Buffalo	Wyo.	5
Investors Community Bank	Chillicothe	Mo.	5
New Century Bank	Belleville	Kan.	5
MNB Bank	McCook	Neb.	1

Making a CONNECTION

In founding the Federal Reserve more than a century ago, Congress recognized the importance of connecting the nation's central bank to the Main Streets of America. The Federal Reserve Bank of Kansas City carries out this role through its president and its programs and activities throughout the Tenth District, and beyond. Here is a glimpse at the recent activities of President Esther L. George and the staff of the Kansas City Fed.

KANSAS, MISSOURI and BEYOND \gg



In February, President Esther George spoke to a public policy class in the Executive MBA program at the University of Missouri-Kansas City.



Henry Bloch, founder of H&R Block Inc., with President Esther George at a reception hosted by the Kansas City Fed. President Esther George was the featured guest at "Charting America's Economic Course," a public event presented in February by the Kansas City Public Library and hosted by Crosby Kemper III, the library's executive director and former chief executive officer of UMB Financial Corp.





President Esther George addressed the Kansas City chapter of the National Association of Corporate Directors in March. Afterward she spoke with former Kroger Chief Executive Officer David Dillon, who is a Hallmark director and chairman of the University of Kansas Endowment Board of Trustees.



In January, President Esther George delivered her first policy speech of the year at an event hosted by the Central Exchange, a Kansas City organization that supports leadership development and career advancement of women. George was greeted by Central Exchange President and Chief Executive Officer Courtney Thomas.

COLORADO, NEW MEXICO, WYOMING <mark>>></mark>



The Student Boards of Directors in Albuquerque and Denver each toured a business to learn about day-to-day activities and potential career paths. In Albuquerque, students visited with the chief executive of Dion's Pizza. The Denver group toured a financial institution and met with senior managers.



In February, Denver Branch Executive, Vice President and Economist Alison Felix visited Santa Fe, N.M., to give an update on the economy to state Senate and House committees.



The Denver Branch recently hosted a group of Air Force Academy cadets. The cadets were greeted by Branch Executive Alison Felix, who provided information about the Federal Reserve and trends in the U.S. economy.

OKLAHOMA »



The Oklahoma City Branch Student Board of Directors recently visited the Oklahoma City Thunder corporate offices to hear from the team's executives and learn what makes the NBA franchise a thriving business.



Kansas City Fed Director Doug Stussi (center) in January received the Richard H. Clements Lifetime Achievement Award from the United Way of Central Oklahoma. On hand to congratulate Stussi were Bank Senior Vice President and General Auditor Josias Aleman (left) and Oklahoma City Branch Executive, Vice President and Economist Chad Wilkerson.



Educators from around Oklahoma gathered in February for Evening at the Fed at the Oklahoma City Branch. Chad Wilkerson, Oklahoma City Branch executive and vice president, gave an economic update during the event.

NEBRASKA »



Public Affairs Specialist Nicole Connelly helped conduct mock interviews for Metropolitan Community College students to support workforce development and career-readiness efforts.



The Omaha Branch and Partnership 4 Kids, which provides mentoring and goal-setting programs for students in underresourced communities, introduced students to the Federal Reserve and careers in technology. Bank employee Michael Sall shared information with students.



In January, Omaha Branch Executive, Vice President and Economist Nathan Kauffman shared an update on regional economic conditions with the Omaha Executive Association, a network of the area's top business leaders.



➤Area educators attended Evening at the Fed at the Omaha Branch, which featured a Teacher Town Hall webcast with Federal Reserve Chairman Jerome Powell. As part of the program, Kauffman shared insights on the economy and answered questions.

WHY IS WAGE GROWTH SO LOW?

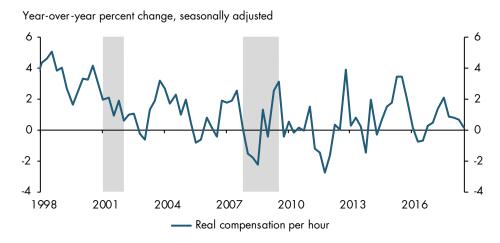
DESPITE HIGH EMPLOYMENT, WEAK PRODUCTIVITY GROWTH AFFECTS COMPENSATION

Real wage growth has been low in recent years despite continued improvement in labor market conditions. Kansas City Fed Senior Economist Jun Nie examined the interactions and relationships among productivity growth, wage growth and the unemployment rate. His findings, published in December 2018, show that low productivity growth largely accounts for recent low growth in wages.

MEASURING REAL

Real compensation per hour is a common business-sector measure of real wage growth. This measure shows a slowdown in growth in recent years compared with the years before the U.S. economic crisis. Over the last two years, real compensation per hour grew about 0.7 percent per year, compared with an average of 1.5 percent growth from 2000 to 2007.

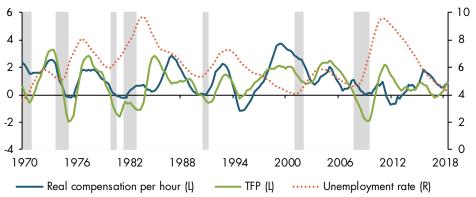
Real Wage Growth



Note: Gray bars denote National Bureau of Economic Research (NBER)-defined recessions. Sources: Bureau of Labor Statistics (Haver Analytics) and NBER (Haver Analytics).

Real Wage Growth, Productivity Growth and Unemployment

Year-over-year percent change, eight-quarter moving average, seasonally adjusted



Note: Gray bars denote NBER-defined recessions. Sources: Bureau of Lanor Statistics, Federal Reserve Bank of San Francisco, and NBER. All data sources accessed through Haver Analytics.

UNDERSTANDING HOW INDICATORS ARE CONNECTED

Real wage growth and productivity growth tend to move together in a relationship that seems to be influenced by the unemployment rate. Productivity growth is measured by evaluating growth in utilization-adjusted total factor productivity, known as TFP. Nie conducted a statistical analysis showing that a 1 percentage point increase in productivity growth is associated with a 0.75 percentage point increase in wage growth when the unemployment rate stays at its long-run level.

UNEMPLOYMENT RATE CAN INFLUENCE WAGE GROWTH MOVEMENT

When the unemployment rate is higher than its long-run level, the associated increase in wage growth is smaller. For example, when the unemployment rate is 1 percentage point higher than its long-run level, a 1 percentage point increase in productivity growth contributes only 0.64 percentage point to wage growth. Similarly, if the unemployment rate is lower than its long-run level, the associated increase in wage growth is larger than 0.75 percentage point. These relationships hold even when using alternative measures of productivity growth and wage growth (as shown in accompanying table).

	Baseline (1)	Lagged unemployment (2)	Long-run trend TFP (12-quarter moving average) (3)
Productivity growth	0.75***	0.73***	0.80***
Productivity growth × unemployment gap	-0.11***	-0.10***	-0.16*
Constant	0.48***	0.47***	0.47***

* Significant at the 10 percent level

** Significant at the 5 percent level

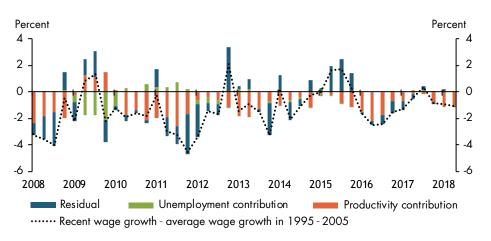
*** Significant at the 1 percent level

Sources: Bureau of Labor Statistics (Haver Analtyics), Federal Reserve Bank of San Francisco Haver Analytics), and author's calculations.

EXPLAINING THE WAGE GROWTH GAP

To answer the question of why wage growth has been weak recently, Nie compared the 2017-18 period with the period from 1995 through 2005, in which real wage growth was 1.75 percent and productivity growth was 1.87 percent. With some simple rearrangement, he "decomposed" the difference in wage growth between the two periods into two contributing forces: (1) the difference between productivity growth and its average and (2) the difference between the unemployment rate and its average (interacted with productivity growth).

The dotted line in the chart below shows the gap in wage growth between the two periods. The chart illustrates two findings. First, low productivity growth in recent years largely accounts for the lower wage growth (as shown by the negative orange bars in the chart). Second, there are significant residuals that cannot be explained (as shown by the blue bars), as wage growth can be volatile quarter to quarter. However, the residuals have been minimal in the last few quarters, suggesting that the decomposition has accurately captured the sources of the wage-growth gap—and that low productivity growth largely accounts for the gap.



Source: Author's calculations.

Overall, the analysis emphasizes the importance of both productivity growth and labor market conditions in determining wage growth. Specifically, the analysis shows that current low wage growth is mainly associated with low productivity growth. As the unemployment rate is currently almost 1 percentage point below its long-run level, Nie's research concludes that an improvement in productivity growth would likely provide a greater-than-usual boost to wage growth.

FURTHER RESOURCES

Read Jun Nie's full analysis of wage growth and productivity growth at KansasCityFed.org/research.

BROAD REPRESENTATION, REGIONAL ROOTS



Directors provide vital insight for Kansas City Fed

As designed by Congress in 1913, the Federal Reserve System is a representation of public and private institutions. While the Board of Governors in Washington, D.C., is a government agency with broad oversight, there are 12 regional Federal Reserve Banks throughout the United States that are under the direction of the local boards of directors. In addition to overseeing their respective Reserve Banks, the regional Fed directors are essential conduits between their local communities and the nation's central bank, offering insight and counsel on the economy drawn from their own expertise and contacts.

These independent regional Reserve Banks, which also have affiliated Branch offices, are a direct recognition of the value that Americans place on limiting political influence and ensuring broad representation within a central bank. Before the Federal Reserve System was established, the United States made two attempts at a central bank. Neither survived, in part because large areas of the country—especially along the frontier and in the South—felt that the institutions were too closely aligned with the power centers of the Northeast.

> The Federal Reserve's Tenth District includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. The Kansas City Fed has Branch offices in Denver, Oklahoma City and Omaha, in addition to its headquarters.

> MEET THE TENTH DISTRICT DIRECTORS WHO BEGAN THEIR TERMS OF SERVICE IN 2019.



KYLE HECKMAN, Kansas City Director

Similarities between the financial industry and aviation might not immediately come to mind, but Kyle Heckman—a bank CEO and pilot—can see the parallels.

Heckman is chairman, president and chief executive officer of Flatirons Bank, a community bank primarily serving Boulder County, Colo. He joins the Kansas City Board of Directors after serving five years on the Tenth District Community Depository Institutions Advisory Council.

While he was a student at the University of Colorado (CU) at Boulder, Heckman took an interest in aviation. Now he is an experienced instrument-rated pilot.

"Flying entails many of the same challenges and rewards that are present in banking, with respect to navigating rules and regulations, opportunities and risks, to reach a successful outcome," said Heckman, who is a member of the Experimental Aircraft Association. "At the end of the day it's really a riskmanagement judgment as to whether it's safe and prudent to move ahead. I see lots of parallels there." Heckman earlier worked for Bank of America in investment banking and credit risk management.

"I bring the perspective of operating and working with small to midsize businesses, further informed by having spent time in my early career at a national bank in a specialized group focused on a customer base of large, multinational companies," Heckman said. "I also bring the perspective of being a longtime Colorado resident, which is noteworthy given the growth and transformation of Colorado's economy in recent years and its impact on our District."

At CU, Heckman earned a bachelor's degree in economics, a bachelor's degree in business administration with an emphasis in finance, and a master's degree in business administration.

"There is much for me to continue to learn and appreciate about the history of the Federal Reserve System and its unique positioning within our nation's economic and financial framework," Heckman said.



JACQUELINE BACA, Denver Director

Jacqueline Baca is president of Bueno Foods, a family owned business in Albuquerque, N.M., that has been operating since 1951 and distributes products nationwide.

"We sell New Mexican food, which is very distinct," Baca said. "Our mission is to share our culinary heritage with the world."

Baca joins the Denver Branch Board of Directors after serving on the Tenth District Economic Advisory Council.

"I am bringing the perspective of our industry—in our region and in the New Mexico economy—as well as my perspective and viewpoints of peers and people that I reach out to," Baca said. Baca serves on the boards of Think New Mexico, Viante New Mexico and the Gas Company of New Mexico. She has a bachelor's degree in political science and a master's degree in business administration, both from the University of New Mexico.

Service on the Advisory Council was "eye-opening" in many ways in terms of learning more about the economy and the Federal Reserve, Baca said. She is looking forward to similar experiences on the Denver Branch Board.

"Just learning from other directors, learning from the economists and Federal Reserve staff, learning more about what's going on in our District and the regional economy," Baca said. "It's all about learning and helping support the Denver Branch in whichever way I can."



NICOLE GLAROS, Denver Director

Techstars, based in Boulder, Colo., is a worldwide network supporting a portfolio of nearly 2,000 startups and entrepreneurs. As the company's chief investment strategy officer, Nicole Glaros directs deployment of capital and a wide range of resources to help businesses grow and flourish.

"At our core we're a network of people, but we focus on helping entrepreneurs become more successful and helping corporate partners innovate," Glaros said.

After serving on the Tenth District Economic Advisory Council, Glaros brings her business expertise to the Denver Branch Board of Directors.

"I'm eyeball-deep in the tech and startup ecosystem, and I recognize that the world is much bigger and broader than that," Glaros said. Serving on the Board will be "a way for me to really connect with other ecosystems and other communities around the United States and also serve our government in some way."

During her tenure, Techstars has grown from one office in Boulder to 45 investment offices in 18 cities worldwide.

On the Board, Glaros is "extremely fascinated" to learn more about the economy and how the Fed influences monetary policy.

"I think that one of the things that my tech background has allowed me to do is to say 'How do we think about the world differently? How do we ask different questions that could help us solve problems in a new and innovative way?'" Glaros said. "I think that perspective can help the Board."



J. WALTER DUNCAN IV, Oklahoma City Director

As a fourth-generation oil and gas exploration executive, Walt Duncan brings deep industry expertise to the Oklahoma City Branch Board of Directors.

Duncan is president of Duncan Oil Properties Inc., a private exploration and production company based in Oklahoma City. The company was established in the late 1950s, but his family's history in the fuel exploration business goes back even farther. Duncan said that in recent years there was a discovery of records showing that the family acquired its first oil and gas lease in June 1939 in the Illinois Basin. Today, Duncan Oil manages company-owned energy interests in 26 states and Canada. Most of its operated wells are in western Oklahoma.

With that background, Duncan sees his service on the Board as an opportunity to help the Bank expand its awareness of "some of the dynamics going on in our industry." "First of all, I was flattered even to be asked," he said. "I've got kind of an analytical mind, and I've always been a student of our industry. I just hope that I can help the Board understand the challenges and the complexities of the industry so that ultimately the Fed can make better decisions about monetary policy."

Duncan has a bachelor's degree in philosophy from DePauw University in Indiana and a master's degree in business administration from the University of Texas at Austin.

By serving on the Fed's Oklahoma City Branch Board, Duncan hopes to gain as much knowledge and perspective as he shares.

"I think, very simply, just having the interaction with all of the Board members and staff of the Fed ... I just know it's going to be very rewarding," Duncan said.



ZAC KARPF, Omaha Director

Zac Karpf comes to the Omaha Branch Board of Directors with a long family history in Nebraska banking.

Karpf is chief operating officer of Platte Valley Bank and the co-chief operating officer of the Bank's holding company, Platte Valley Financial Service Companies Inc., in Scottsbluff. He grew up in the Dundee area of Omaha and was preceded in banking by his greatgrandfather, Henry C. Karpf; grandfather, Charles T. Karpf Sr.; and father, Charles T. Karpf Jr.

In addition to managing day-to-day business for Platte Valley Bank and its branches, Zac Karpf's duties with the holding company include "working with our headquarters staff here in Scottsbluff to provide all corporate support for our banks in Nebraska, Wyoming and Colorado along with our affiliate services in insurance, investments and trusts." Those services include accounting, bank operations, credit administration, human resources, information technology, marketing and mortgage operations.

To illustrate the breadth of Platte Valley's footprint, Karpf points out that the company's eastern-most location is in Sidney, Neb., and its western-most location is in Meeker, Colo.—more than six hours apart by car. "So there are a lot of differences in the variety of rural communities and customers, and we try to provide a community-based focus in each market," he said.

That attentiveness to rural communities and the agriculture sector of the economy is part of the perspective Karpf wants to bring to the Omaha Branch Board.

"It's a huge opportunity to make sure the voice of the rural, ag-based economy in western Nebraska is heard," Karpf said. "I've always been fascinated by the Federal Reserve as the central bank of what I consider to be the greatest nation in the world, so I'm really excited about diving in and learning as much as I can."



For more information on the Federal Reserve Bank of Kansas City's directors, visit KansasCityFed.org/aboutus/leadership.



FASTER GROW H Larger, less crowded locations thrive

written by SU BACON

David Todd grew up in Oklahoma City and remembers a downtown so lifeless after 5:30 p.m. that "you could lie down in the streets."

Some 30 years ago when the workday ended, businesses closed, employees evacuated en masse, and "nobody went downtown," he said.

Today, Todd, 58, describes the same downtown as "vibrant." A streetcar runs all day and well into the night carrying residents and visitors to restaurants, hotels, sports events, concerts and more.

Downtown is never completely deserted because many young professionals are making their homes there in condos and apartments.

What brought downtown from vacant to vibrant was the power of a penny.

In 1993, Oklahoma City voters approved a temporary one-cent sales tax to build a ballpark, a canal, a civic center music hall, a library and a sports arena. The tax exemplifies the kind of public policy that broadly benefits existing local businesses and residents and, as a consequence, leads to growth.

Jordan Rappaport, senior economist at the Federal Reserve Bank of Kansas City, researched population and employment growth nationwide for a December 2018 article in the *Economic Review*. Rappaport's article—"The Faster Growth of Larger, Less Crowded Locations"—examined data from 2000 to 2017 and compared metropolitan areas of various population sizes. He found that locations with populations of 500,000 to 3 million often grew faster than the national rate.

"Growth measures transition," Rappaport said. "It

"GROWTH MEASURES TRANSITION. IT SHOWS IMPROVEMENT, THAT CONDITIONS ARE BETTER THAN BEFORE FOR RESIDENTS AND BUSINESSES WHO ARE THERE."

— Jordan Rappaport

shows improvement, that conditions are better than before for residents and businesses who are there."

Rather than growth as a goal, public policies designed to help current businesses and residents tend to attract new businesses and increase the population.

Todd now is program manager of Metropolitan Area Projects (MAPS), Oklahoma City's capital improvement program funded by the penny sales tax. He credits MAPS with downtown's progress and the city's growth.

"MAPS provided so many jobs and kept money local," he said.

When the tax expired in 1999, it had raised more than \$309 million and earned nearly \$54 million in interest to pay for capital improvements. Over time, businesses began expanding, new companies came in, and the city's population grew from about 506,000 in 2000 to 643,000 in 2017.

Rejection was the impetus.

In the early 1990s, Oklahoma City was competing with Indianapolis for a major airline hub. The city offered the usual inducements but the airline chose Indianapolis. Asked why Oklahoma City wasn't chosen, an airline executive explained, "We can't imagine making our people live there," Tom McDaniel recalls. McDaniel, now 80, is a longtime Oklahoma City resident and chairman of the MAPS3 Citizens Advisory Board. He and Todd agree that the airline decision was the turning point.

"We realized we needed to be investing in ourselves,"

Todd said. "We needed to make Oklahoma City a place where people want to live."

MAPS was proposed to voters as a temporary tax for 66 months for specific projects.

"It was a pay-as-you-go plan," said McDaniel, whose advisory board meets monthly to review projects and make recommendations to the City Council. "Results were not instant."

Having no debt was part of MAPS' appeal. The projects were built only when the money became available.

Spurred by the success of MAPS1, voters in 2001 approved MAPS2 to improve Oklahoma City schools. MAPS3 is underway with construction of a park, four senior centers, trails, sidewalks and other capital improvements. A MAPS4 is being discussed.

The population effect

Another factor affecting a location's growth is its density or "the crowdedness as experienced by residents," Rappaport said.

Rappaport found that "growth is negatively correlated with population density." In other words, crowded conditions hinder growth due in part to the resulting traffic congestion, pollution and higher home prices. More than 90 percent of residents in each of the Kansas City and Oklahoma City metropolitan areas live in neighborhoods with density below 5,300 persons per square mile, Rappaport noted. In the Chicago area, less than half of residents live in neighborhoods with density below that level. Omaha is another Tenth District location growing faster in population and employment than projected. "We've got 9,000 more people working now than a year ago," said David G. Brown, president and chief executive officer of the Greater Omaha Chamber of Commerce.

The chamber evaluated the Omaha region's economy in a 2018 report, "The Barometer, an Economic Scorecard of the Omaha Region."

The report has been published annually since 2014 and measures the progress of the region that includes Omaha and Fremont in Nebraska and Council Bluffs in Iowa.

The Omaha region is compared with nine other "high-performing" cities, including "competitors" Kansas City and Oklahoma City and a "peer" city, Colorado Springs, Colo.

In assessing the progress of other locations, the report looks beyond city limits—beyond Oklahoma City, for example, to a four-county region with 1.4 million people; beyond Kansas City to surrounding Kansas and Missouri counties and cities with 2.1 million people; and beyond Omaha to other parts of Nebraska and Iowa with more than 30 communities and nearly 1 million people.

Shared resources play an important role in determining where people live and jobs locate.

"A metro area's cities and suburbs share a multitude of resources such as airports, highways, mass transit, cultural amenities, entertainment venues, air quality, potential employers and many more," Rappaport said.

Brown said the report identifies the Omaha region's strengths as arts and cultural opportunities, standard of living, entrepreneurship and low cost of doing business.

Omaha has maintained steady economic growth and a comparatively low unemployment rate, about 2.5 percent now, due to the diversity of its economy, Brown said.

The diversity is represented by a variety of industries: financial services, transportation, construction and engineering, military, agribusiness and processing and health care. "We've never had all industries down at the same time," Brown said. "Even when the economy is low, we've had major construction."

Collaboration between government and the private sector has been instrumental in keeping the economy strong. A public and private partnership in the last two years, for example, built a new cancer center, which added 1,200 jobs.

Since the late 1980s, Nebraska has had "businessfriendly" statewide legislation in place, said Jennifer Creager, senior director, public policy for the Chamber of Commerce.

Companies have received incentives for investing and expanding and for creating jobs. The legislation has been revised and revamped over the years and now is being updated to include raising hourly wages.

"The issue is no longer jobs but a need for available workforce," Creager said.

Incentives for raising wages are performance-based and require that businesses demonstrate that they are paying a certain percentage of the Nebraska average wage.

Smaller areas growing

Rapid growth in the Tenth District is not limited to larger locations.

Natural amenities such as beaches, good weather and recreational opportunities can make up for small size.

In Jackson, Wyo., with a population of about 10,000, mountain ranges, ski resorts and a river attract sports enthusiasts. Public policies favorable to bicyclists, recyclers, renters and homeowners keep residents there.

Jackson is in the Jackson Hole Valley of Teton County. Jackson is at the southern end of the valley, and Grand Teton National Park is at the northwestern end.

"We are nestled in the most beautiful part of the country," said Carrie Bell, waste diversion and outreach coordinator for Teton County Integrated Solid Waste and Recycling.

To preserve natural beauty and protect wildlife, recycling,

reusing and composting policies have been enacted. In 2014, Teton County passed a zero waste resolution, meaning that eventually nothing will be sent to the landfill. So far, 34 percent of the waste has been diverted and by 2030, the goal is to reach a rate of 60 percent.

In 2018, five months of collecting and composting commercial food waste under a pilot program resulted in nearly 150 tons composted rather than landfilled, Bell said. Commercial kitchens' food discards, such as potato peelings and leftover vegetables, were collected from seven sites operated by two concessioners at Grand Teton National Park. The food waste was collected during tourist season from May 11 through Oct. 15 in 2018. During 2017, the first year of the pilot program, roughly 73 tons of food waste was collected. The goal of the program is to have regional food-waste composting services fully operational by 2021.

Lauren Dickey, 37, grew up in Florida and moved to Jackson about 10 years ago with her husband who "loves the winter recreation," Dickey said. "Many people move here for the mountains and skiing."

Dickey says she's not a fan of the winter weather "but I love having access to a national park and forest and everything else" about Jackson. Dickey is a bicyclist and communications director for Friends of Pathways, a nonprofit that advocates for a pathway system, safer streets and trails in the Jackson area.

Bicyclists find the streets of Jackson easier to navigate, thanks to dedicated lanes and a wayfinding system that posts signs along bike routes.

Pathways are another way to get around on a bike. The pathways connect Grand Teton National Park to Jackson.

Riding on the pathways, for example, "you could leave the town of Jackson on bike and get to Jenny Lake in Grand Teton National Park and never be in traffic," Dickey said.

In 2018, Friends of Pathways launched a bike-share program in Jackson that allows visitors and residents to use public bikes stationed throughout the town. The bike share program is owned by Southern Teton Area Rapid Transit and managed by Friends of Pathways.

When bicyclists, skiers and other visitors decide to make Jackson their home, they need a place to live. That's where the Jackson/Teton County Affordable Housing Department comes in.



In Jackson, Wyo., residents and visitors are encouraged to use a bike-share program and wayfinding "pathways" that connect the town to Grand Teton National Park.

April Norton, director of the department, said the average cost for a house is \$1.3 million and the income for a family of four averages \$98,500.

"That means the average home price in Teton County is 400 percent what a normal, hard-working family of four can afford," Norton said.

The program has about 400 rental units and about 500 ownership units. Requirements to participate include income qualifications and local employment.

To keep rent affordable, the department restricts rent "to ensure that no household will pay more than 30 percent of their income toward housing," Norton said.

The affordable housing program was founded 25 years ago to keep local workers in the county.

Poised for takeoff

Providing affordable housing is an example of a policy



Senior Economist Jordan Rappaport discussed his research during a Kansas City radio interview in December 2018.

that evolved because the local community recognized a need and addressed it. At one time, workers in Jackson couldn't afford to live where they worked. Now they can, and Jackson's employment and population have grown.

Rappaport said that an example of recognizing a need and fixing it can be seen right now in the project to reconfigure Kansas City International Airport from a three-terminal complex to a one-terminal design. By a wide margin, voters in 2017 approved the one-terminal concept, and the project recently received the green light from the City Council and participating airlines.

"Not having a more functional airport is likely to be a factor holding down Kansas City's growth," Rappaport said.

Before the 2017 vote, residents expressed their frustrations with the existing airport, saying that it doesn't have enough bathrooms, restaurants or available flights.

"The current configuration is obsolete," said Dan Fowler, Kansas City councilman for the 2nd District and vice chair of the council's Airport Committee. He said the redesigned airport, expected to open in 2023, will involve 2.5 million hours a year "in terms of boots-onthe-ground construction alone and will have long-term public benefit."

The new airport will have all foot traffic in one building—rather than divided among three—and is expected to attract more retailers and restaurants, Fowler said.

Local businesses beyond the airport will benefit, too. As airlines bring more passengers in and out of Kansas City, people will be eating out, shopping, booking hotel nights, attending conferences and conventions and, all in all, spending their money in the Kansas City area.

"The airport will be a brand-new front door to Kansas City and a big economic generator," Fowler said.



FURTHER RESOURCES Read Jordan Rappaport's complete Economic Review article on this topic at KansasCityFed.org/research.



Ask an **ECONOMIST** Willem Van Zandweghe

Exploring how stock market changes affect consumer and business confidence

Willem Van Zandweghe, Kansas City Fed assistant vice president and economist, examined whether measures of consumer and business confidence respond to stock market surprises. His research was published in January 2019 following a sharp retreat in stock prices during the fourth quarter of 2018. Van Zandweghe found that by signaling strong future incomes and profits, high equity valuations boost consumer and business confidence. That, in turn, stimulates real spending. Van Zandweghe concludes that this relationship highlights a risk that a stock market decline could sap confidence and adversely affect real economic activity.

How can this connection be measured?

To examine the relationship between consumer confidence and the stock market, I estimate a statistical model of the joint behavior of equity price growth and growth in consumer confidence. I measure equity prices using the S&P 500 index and consumer confidence using the University of Michigan's consumer sentiment index, although I obtain similar results using the Conference Board's consumer confidence index. A statistical test shows that changes in equity prices predict changes in confidence, but changes in confidence do not predict changes in equity prices.

What are the potential effects on confidence?

Stock market valuations could affect consumer confidence through two channels. First, higher equity prices could boost consumer confidence by increasing household wealth. Second, higher equity prices could boost consumer confidence because they are viewed as a leading indicator of future economic activity and thus future incomes. However, the first channel is likely relatively small because stock ownership is highly concentrated among the wealthiest households. The statistical model indicates that stock market gains boost consumer sentiment more by signaling higher future incomes than by increasing households' current wealth. Like consumer confidence, business confidence responds positively to stock market surprises. Because small businesses are not publicly listed, a stock market shock does not boost the value of small businesses directly. Small business sentiment likely rises after such a shock because the higher equity prices are a leading indicator of future economic activity and thus future profits.

What are the risks resulting from stock market shocks?

A risk for the current economic outlook is that once consumers become more pessimistic about their future income and businesses become more pessimistic about their future profits, they may rein in spending, with adverse consequences for economic activity. However, taken at face value, the estimated responses of confidence and the estimated effects on consumption spending obtained by other studies suggest that even a large stock market decline would have limited effects on economic activity through this channel.

FURTHER RESOURCES

Read more about this topic at

KansasCityFed.org/research.

Tenth District by the numbers ECONOMIC INDICATORS, FACTS AND TRENDS FROM THE SEVEN STATES

Spot price for a bushel of corn in Omaha-Council Bluffs as of Feb. 11, 2019-up 8 cents from the same time last year.

Source: U.S. Department of Agriculture and Haver Analytics

SR 63

\$25.12

The average hourly wage in Missouri as of December 2018—a 3.5 percent increase over the same period last year.

Source: Bureau of Labor Statistics and Haver Analytics

121

Number of drilling rigs active in Oklahoma in February 2019, about the same number of rigs active in February 2018.

Source: Baker Hughes and Haver Analytics

Wyoming's total population as of July 1, 2018—a 1,197-person decrease from the total a year earlier.

577,737

Source: U.S. Census Bureau

FROM THE VAULT Kansas City Fed History

25,294,000

Barrels of crude oil produced in New Mexico in December 2018—the highest the state has seen.

Source: Energy Information Administration

3.3% The unemployment rate in Kansas as of December 2018, near the state's lowest levels since 1999.

Source: Bureau of Labor Statistics and Haver Analytics



The net number of migrants moving into Colorado between July 1, 2017, and July 1, 2018.

Source: U.S. Census Bureau



Omaha Branch employees, April 1939. Bank archives

In 1939, to mark the 70th year since completion of the Transcontinental Railroad, employees at the Kansas City Fed's Omaha Branch dressed in period costume for "Golden Spike Days."

The festival—in the headquarters city of Union Pacific Railroad (UP)—spanned April 26-29 and commemorated the ceremonial Golden Spike driven May 10, 1869, at Promontory Summit, Utah, to connect the UP and Central Pacific lines. That connection created America's first crosscountry rail route and helped fuel expansion and growth.

The highlight of the Omaha celebration was the April 28 world premiere of the Cecil B. DeMille film "Union Pacific." The movie dramatized the push to connect the railroad lines. It premiered simultaneously in three local theaters: the Omaha, the Orpheum and the Paramount. That same day, across the Missouri River from Omaha, event promoters unveiled the "Golden Spike Monument" next to UP's main rail yard in Council Bluffs, Iowa. The 56-foot, gold-painted concrete spike still stands.

Learn more about the 150th-year Golden Spike events at www.nps.gov/gosp/index.htm.

SNAPSHOTS

Summaries of reports and analysis from Kansas City Fed economists and staff

Debt falls but delinquencies rise

by KELLY D. EDMISTON

The Tenth District Consumer Credit Report shows debt in the third quarter of 2018 declined modestly but delinquencies were mostly higher. Credit standing is a vital factor in the financial health of low- and moderate-income (LMI) individuals and families, as well as the entire LMI community.

Community Connections, January 2019

Forecasting foreign economic growth

by CRAIG S. HAKKIO and JUN NIE Kansas City Fed economists have constructed a monthly measure of foreign economic growth based on a wide range of cross-county indicators. Unlike gross domestic product data—released in most countries with a one or two-quarter delay—the Bank's measure incorporates information up to the current month. This helps gauge economic conditions in other countries and provides a timely measure of foreign demand to help forecast U.S. export growth.

Research Working Paper, December 2018

As rates tick up, operating loans boost farm lending

by NATHAN KAUFFMAN and TY KREITMAN The volume of non-real estate farm debt continued to increase in the fourth quarter of 2018. The increase was driven by growth in operating loans, which reached a historically large average size. Rounding out a year characterized by lower farm incomes, uncertainties about agricultural trade and the growth of lending volumes, interest rates on agricultural loans trended higher.

Ag Finance Databook, January 2019

Reserve balances and the federal funds rate

by A. LEE SMITH

Declining reserves have placed upward pressure on the federal funds rate in recent years despite the payment of interest on reserve balances. Rises in the federal funds rate as reserve balances decline potentially could motivate further adjustments to the implementation of U.S. monetary policy. Economic Review, First Quarter 2019

See full reports, papers, data and more at KansasCityFed.org/research.

kcFED social seen

Social media highlights of our engagement across the region

- 1 **@COOGANCARRIE** Welcoming the CEO of the Federal Reserve Bank of Kansas City, Esther George @KCLibrary Plaza tonight she's talking about her take on the country's and Kansas City's economy. @KansasCityFed
- 2 **KANSASCITYFED** Our staff is celebrating #MuseumSelfieDay at our #Denver #MoneyMuseum! The next time you're in downtown Denver, visit our free museum to check out the hands-on exhibits for all ages. http://bit.ly/2Fqam9v in
- 3 **KANSASCITYFED** January is #NationalMentoringMonth. Our Student Board of Directors program gives youth from around the Tenth District the opportunity to learn about the nation's central bank and its role in the U.S. economy. Learn more about this program: http://bit.ly/2CG05SZ #Mentoring #Education







- 4 **KANSASCITYFED** Touchdown, #KansasCity! Our Spirits of Commerce and Industry are looking for a @Chiefs win this weekend! #ChiefsKingdom in
- 5 @MTKINCAID Great meeting Esther George today and discussing #economics at @KansasCityFed. Thank you @CentralEx for putting this on! ☑
- 6 **@NPCONNECT** We are ready for breakfast with over 90 local nonprofit executives this morning! Jeremy Hegle will share resources for community organizations from the @KansasCityFed at our first Nonprofit Executive Breakfast of the year. #nonprofitlife
- 7 KANSASCITYFED Congratulations to our Senior Project Manager Mattie Brown who was recently inducted into the Black Achievers Society of Greater #KansasCity! in

GET SOCIAL»

Find us on LinkedIn, Pinterest, Twitter and YouTube to follow Kansas City Fed activities, share your photos and post feedback.

Commitment to Diversity and Inclusion 2018 REPORT TO CONGRESS



The Federal Reserve Bank of Kansas City's 2018 Office of Minority and Women Inclusion (OMWI) Annual Report highlights the Bank's long-standing commitment to its people, procurement and partnerships.

Formally established by the Dodd-Frank Act of 2010, the office ensures the Bank's business practices remain inclusive and represent the range of backgrounds and experiences that make up the Federal Reserve's Tenth District.



The Bank recognizes that achieving its mission and serving its large, varied region requires diversity that reflects the communities it serves and the people it represents. The annual report for 2018 highlights and summarizes the many ways the Bank has made diversity and inclusion efforts a priority.

While the Bank has had a rich history of diversity and inclusion long before the Dodd-Frank Act of 2010, the Act led to more formal standards and procedures through OMWI for: Equal Employment Opportunity and racial, ethnic and gender diversity of the workforce and all management; participation of minority-owned and women-owned businesses in the Bank's programs and contracts; fair inclusion in the workforce of contractors; and technical assistance for minority-owned and women-owned businesses.

The 2018 report highlights the many successes and challenges the Bank faced in meeting its goal of diversity and inclusion. One notable highlight is the increase in the hiring rate for minorities. The total minority hiring rate increased from 21.7 percent in 2017 to 29.8 percent in 2018, which is an 8.1 percentage point increase. The total female hiring rate increased to 44.0 percent, which is 3.6 percentage points higher compared with 40.4 percent in 2017.

Other successes include strengthening existing relationships and developing new partnerships with area organizations that promote diversity in the community, as well as developing conversation guides for management to lead discussions with staff about diversity and inclusion. The Bank's internal and external communication plans were enhanced to incorporate more diverse and inclusive content and images. Challenges include identifying and competing for diverse talent with highly specialized and technical skills and leveraging external partners to be of greater assistance in sourcing talent, suppliers and candidates for the Bank's boards and councils. These challenges present opportunities for 2019 and beyond.

PEOPLE, PROCUREMENT AND PARTNERSHIPS

The Kansas City Fed employs nearly 2,000 people at its head office in Kansas City and at Branch offices in Denver, Oklahoma City and Omaha. The Bank's focus on diversity and inclusion applies to all business areas. Throughout 2018, the Bank enhanced its efforts to remain proactive and progressive relative to its strategy.

PEOPLE

The Bank's recruiting efforts in 2018 resulted in new hires that were 44 percent female and 29.8 percent minority. In 2018, females and minorities represented 43.6 percent and 21.5 percent of the total workforce, respectively.

To attract diverse talent, the Bank continues to pursue qualified applicants through recruiting events and programs at majorityminority serving colleges and universities, and community collaborative partner events. Bank employees recruited talent at 44 colleges across 10 states, including 14 majority-minority and women-serving colleges and universities.

In 2018, participation in the Bank's formal mentoring program reached a five-year high of 31.8 percent, including 29.5 percent of the minority workforce and 38.7 percent of the female workforce.

In 2018, the Kansas City Fed's employees reflected a diverse employee population when compared with relevant job groups (i.e., senior executives, midlevel managers and professionals) in the Kansas City Metropolitan Statistical Area (MSA).

A comparison of the majority of the Bank's workforce revealed that the overall representation of women and minorities exceeds MSA levels (as reported in the 2015 U.S. Census Equal Employment Opportunity (EEO) data for the MSA).

PROCUREMENT

The Bank identified and included diverse suppliers in 82 percent of all requests for proposals in 2018.

The Bank awarded 24.9 percent of all contracts to minorityowned and women-owned businesses in 2018.

In 2018, the Bank spent \$5.9 million with diverse suppliers. This constituted 12.8 percent of its total reportable spend, including 7.3 percent with minority-owned businesses and 5.5 percent with women-owned businesses. This represented an increase in total diverse spend compared with \$5.7 million in 2017.

The Bank continues to partner with local, regional and national organizations that support minority-owned and women-owned businesses. These partnerships help communicate business opportunities and build a network of diverse suppliers.

In 2018, the Bank participated in 11 outreach events and activities that provided staff with opportunities to connect with diverse suppliers. Additionally, the Bank hosted multiple meetings with diverse suppliers to learn more about their work and to inform those suppliers about the Bank's general business needs and procurement practices. The Bank was recognized and received an award for "Turning Contacts into Contracts" at the Midwest Supplier Diversity Exposition.

PARTNERSHIPS

Throughout the year, the Bank continued and expanded partnership opportunities with diverse school districts, youth organizations and community groups, ultimately reaching thousands of students and teachers throughout the Tenth District. The Kansas City Fed believes this investment leads to stronger communities and better opportunities for young people of diverse backgrounds.

Staff and additional resources in each of the Bank's four offices are dedicated to providing economic education, financial education, internships and mentoring opportunities to urban high schools and diverse school districts in Kansas City, Albuquerque, Denver, Oklahoma City and Omaha. In 2018, more than 6,000 students attended a financial education program hosted by the Bank.



Tammy Edwards

OFFICE OF MINORITY AND WOMEN INCLUSION

The Kansas City Fed's Office of Minority and Women Inclusion (OMWI) is led by Vice President Tammy Edwards, who was appointed OMWI director in 2018. In this role, she leads development and implementation of diversity and inclusion strategies and continues to serve as vice president of Community Development and Strategic Engagements for the seven states of the Tenth District.

Edwards joined the Bank in 2008 after holding various leadership positions at Sprint Corp. She regularly presents on various leadership, community and economic development topics and co-edited the 2015 book, "Transforming U.S. Workforce Development Policies for the 21st Century."

In 2018, Edwards completed a leadership development program that included shadowing Dallas Fed President Robert Kaplan. The program, administered by the Federal Reserve's Conference of First Vice Presidents, encourages leaders to work with senior management at other Reserve Banks to gain new insight and share ideas.

THE BANK DEVELOPED OR EXPANDED A NUMBER OF FINANCIAL EDUCATION RESOURCES IN 2018

Math X Economics: The Bank hosts the Math X Economics program to reach traditionally underrepresented high school students to illuminate possible career paths in the fields of math, data science and economics. The program is open to public schools serving Kansas City, Mo., and Kansas City, Kan.

Student Board of Directors: The Kansas City Fed's Student Board of Directors program included 76 students from majorityminority high schools for the 2018 school year, with boards in all four of the Bank's offices as well in Albuquerque, N.M. Over a series of interactions throughout the school year, the program strives to mentor and equip students with knowledge, skills and information to help them develop and succeed in the future.

Rock the Fed: In 2018, the Kansas City Fed took an innovative approach to sharing financial education with young people by joining with Funding the Future, a nonprofit committed to teaching financial literacy, to bring hip-hop duo The Reminders to the Bank to share their music and message about being financially savvy. More than 300 students representing schools in the Kansas City metro area attended the program. The event was held in recognition of the 2018 Federal Reserve Financial Education Day (FRFED), an annual initiative by the Reserve Banks to host a teacher or student focused financial literacy program in October. FRFED events were also hosted in each of the Bank's three Branch offices.

Teach Children to Save: The Bank participates in this national initiative aimed at teaching children in kindergarten to third grade the fundamentals of money management. In 2018, more than 200 Bank employees volunteered to visit a classroom to lead a lesson.

Girls in Tech: The Bank hosted more than 50 female students from Independence, Mo., middle and high schools for its annual Girls in Tech KC event organized by the KC STEM Alliance. The event included an Hour of Code activity where students paired up to create an electronic dance party featuring music and animated characters.



Kansas City Fed Student Board member Marcus Jones, who attends Wyandotte High School in Kansas City, Kan., practices his public speaking and presentation skills. The student board program includes a commitment to focus on development of students' professional skills.



For more about the Office of Minority and Women Inclusion and to read the 2018 OMWI report to Congress, visit *www.KansasCityFed.org/aboutus/kcfedinformation/diversity*.

TEN MAGAZINE 33 SPRING 2019

2018 ANNUAL REPORT

Federal Reserve Bank of Kansas City

The Kansas City Fed is one 12 Federal Reserve banks that are the operating arms of our nation's central bank. It is our responsibility to ensure that banks within our District are well-run and treat their customers fairly, that payments are handled safely and efficiently, and that the interests of our region are represented in national monetary policy deliberations.

Across our seven-state region — which spans from western Missouri across the Central Plains and through the Rocky Mountains — the employees of our Bank in Kansas City and our Branch offices in Denver, Oklahoma City and Omaha support our nation's financial and banking systems.

Importantly a large number of residents from across our District also are directly involved in these efforts. These individuals come from a range of backgrounds, including business, industry, agriculture, banking, labor and community development. They contribute to our Bank's various boards and advisory councils, while others may partner with us for a roundtable discussion or public event. Each is an essential element to our goal of fostering a stable economic environment.

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ESTHER L. GEORGE President and Chief Executive Officer

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RIGHT: President Esther George visited Longfellow Elementary School in Kansas City as part of the Teach Children to Save program.



How We Serve

OUR MISSION

We work in the public's interest by supporting economic and financial stability.

POLICY AND PUBLIC ENGAGEMENT

The Bank supports a healthy economy that promotes stable growth and provides opportunities for all Americans. As directed by Congress, the Federal Reserve Banks participate in the monetary policy process to help promote maximum employment and price stability over the long run.

The Bank fulfills its congressionally assigned role in shaping monetary policy by executing several actions and meeting specific responsibilities year-round. This work includes:

- Producing mission-specific and insightful research analysis that informs the Bank president's views and influences policymakers at all levels.
- Providing computing resources and data warehousing to enhance research and analysis on macroeconomic, payments, banking, community development and regional issues.
- Operating regional branch offices with accessible, expert resources, including economists, examiners, community development specialists, economic educators and other specialists.
- Connecting Main Street views to regional and national policy through diverse board of directors and advisory council members.

"IT SHOULD NEVER BE LOST TO SIGHT THAT THE RESERVE BANKS ARE INVESTED WITH MUCH OF THE QUALITY OF A PUBLIC TRUST. THEY WERE CREATED BECAUSE OF THE EXISTENCE OF CERTAIN COMMON NEEDS AND INTERESTS, AND THEY SHOULD BE ADMINISTERED FOR THE COMMON WELFARE — FOR THE GOOD OF ALL." – Board of Governors of the Federal Reserve System, First Annual Report

FINANCIAL INSTITUTION SUPERVISION

The Bank works to ensure that the nation has a safe and reliable banking system that treats customers fairly and provides credit to a diverse range of communities and businesses. Some of the actions in this scope of work include:

- Leveraging our technology, service and community bank expertise to examine our region's financial institutions for safety and soundness.
- Ensuring that banks are providing fair access to credit for all consumers.
- Making short-term collateralized loans to banks and assessing risks so that we can support the region in times of crisis and stress.
- Using supervisory authority to guard against threats to the stability of the financial system.

PAYMENTS EXPERTISE, PARTNERSHIPS AND LEADERSHIP

The Bank supports a safe, reliable, accessible and efficient payments system for all Americans and the U.S. government. In addition to processing trillions of dollars of payments for the nation's banks and the federal government, we ensure that banks have cash and coin to meet the needs of their customers. The Federal Reserve Bank of Kansas City is leading the Federal Reserve System's efforts to improve payments in the United States and make certain that the country's payments system is modern, safe, secure and accessible. Among the Bank's responsibilities:

- Supporting payments policies and systems that best serve the public.
- Using our expertise and talented technology professionals to be a top provider of operational and support services to the U.S. Treasury.
- Leveraging our service culture.
- Ensuring efficiency and strong outcomes across all payments operations.



From 1921 to 2008, the Bank's headquarters was the 925 Grand building.

LEFT: The Kansas City Fed's head office is now at 1 Memorial Drive.

How We Work

THE KANSAS CITY FED employs nearly 2,000 workers across Colorado, Kansas, western Missouri, Nebraska, Oklahoma, northern New Mexico and Wyoming. This region is the Tenth District of the Federal Reserve System and is headquartered at 1 Memorial Drive in Kansas City, Mo. The Bank operates Branch offices in Denver, Oklahoma City and Omaha.



Kansas City Fed director Mark A. Zaback, president and chief executive officer of Jonah Bank of Wyoming, speaks at a conference hosted the Audit Division.

ADMINISTRATIVE SERVICES

This division maintains efficient and effective internal operations at the Kansas City Fed. This includes Facilities Management, Law Enforcement and Financial Management. Responsibilities include: Maintaining the Reserve Bank's facilities; providing a safe and secure work environment; developing the Bank's budget and monitoring its expenses; providing accurate financial accounting and reporting; supporting the Bank's strategic planning activities and enterprise risk management; and providing procurement services. Additionally the division houses the Human Resources Technology Center, which provides project management and operational support for the centrally managed Federal Reserve System HR application portfolio.

AUDIT

The Audit Division reports to the Audit Committee of the Board of Directors and provides an independent and objective assessment of the Tenth Federal Reserve District's internal controls, risk management and governance processes to the Board of Directors and senior management.



Senior Technician Steve VanDee of Facilities Management works on improvements at the Bank's headquarters.



Technology Manager August Matlock-Carter mentors students during the annual Girls in Tech KC event organized by the KC STEM Alliance.

ECONOMIC RESEARCH

Economists, researchers and other professionals study and evaluate monetary policy, macroeconomics and other issues of importance to the Kansas City Fed and the Federal Reserve System. Through publications and presentations, staff members communicate their research findings to the Bank's senior management and directors, policymakers, other researchers and the public. Annually the division, in collaboration with Public Affairs staff of the People and Corporate Engagement Division, develops and hosts the Jackson Hole Economic Policy Symposium in Wyoming. Central bankers, economists, policymakers and academics from around the world gather there to discuss global economic topics. The Center for the Advancement of Data and Research in Economics (CADRE) provides high performance computing, data warehousing, and data management services to the Federal Reserve System.



Research Associate Jason Bae (left) works with students during the Math X Economics event.

INFORMATION TECHNOLOGY AND CUSTOMER SUPPORT

Employees in this division support the efforts of all business areas in the Kansas City Fed and the Federal Reserve System through innovative information technology solutions. The division also supports more than 110,000 financial services customers in nearly 10,000 organizations.



(From left) Terry Pulliam, Meighan Wang, Trudie Hall and Sydney Harris filled bags as part of the People and Corporate Engagement Division's annual donation to the Harvester's food bank.

PEOPLE AND CORPORATE ENGAGEMENT

This division includes regional economic research and analysis throughout the Tenth Federal Reserve District, including the Branch executives that lead the Bank's Denver, Oklahoma City and Omaha branch offices. The division also includes the Bank's human resources, internal and external communications and community development activities, as well as the District Money Museums. This division houses the Office of Minority and Women Inclusion (OMWI), which is responsible for overseeing the Bank's diversity initiatives as outlined in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

LEGAL

The Legal Division provides advice on legal issues to management and the Board of Directors at each office. The division represents the Bank in administrative and judicial proceedings, assists the Bank in complying with applicable law, counsels employees on matters concerning the Code of Conduct and helps educate Bank employees on various legal issues. Attorneys in the department also participate in various System committees.

PAYMENT STRATEGIES

This division provides leadership, analytical support, policy analysis and research to support the Federal Reserve System's mission to promote a U.S. payment system that is efficient, safe and broadly accessible. The division houses the Financial Services Policy Committee Support Office, which coordinates strategic and business planning for the Federal Reserve's financial services responsibilities. In addition, staff members lead the program management office in a strategic initiative to improve the U.S. payment system.



(From left) Jesse Etheridge, Tyler Olsen and Craig Nelson attended "Coffee and Reflections" in Kansas City. The event featured Marie Gooding, who was retiring after serving as Sixth District first vice president and Retail Payments Products director.

RETAIL PAYMENTS TECHNOLOGY SERVICES

This division maintains and develops all of the Retail Payments Office's technical resources for the Federal Reserve System. In collaboration with National IT and external vendors, the division ensures that automated clearinghouse and check processing applications meet service-level expectations.

SUPERVISION AND RISK MANAGEMENT

Supervision of bank holding companies, savings and loan holding companies and state-chartered member banks in the Tenth District are the chief responsibilities of this division. This oversight includes conducting examinations of these institutions to ensure a safe and sound banking system. Banks also are examined for compliance with consumer laws and regulations and for performance under the Community Reinvestment Act. The division also collects data from financial organizations, studies financial industry trends, conducts banking research and hosts seminars and forums for banks throughout the region.

TREASURY, PAYMENTS AND PROGRAM MANAGEMENT

This division provides program/project management, business analysis and other leadership and operational services to Reserve Bank and U.S. Treasury business partners. Through Cash Services and the Wholesale Operations Site, the division receives deposits, distributes currency and coin, and supports secure and timely transfers of funds and securities.



In 2018, Karen Vincent and Kent Randall participated in Link Day, which focuses on the development of project managers and business analysts.



A planning meeting for the 2018 Supervision and Risk Management Conference included (seated, from left) Lisa Aquino, Judith Hazen, Joe Eck, Kristi Roman, Malea Parton and Tara Humston. Attending via video conference were Jamie Bunting, Alexis Hahn and Bill Kelver.

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Management Committee



(From left) Ms. Robbins, Ms. Connor, Ms. Pennell, Ms. Sellers, Mr. Aleman, Mr. Dubbert, Ms. George, Mr. Moore, Ms. Raley, Ms. Ward, Ms. Morhaus, Mr. Woodward.

Esther L. George, President and Chief Executive Officer Kelly J. Dubbert, First Vice President and Chief Operating Officer Dawn B. Morhaus, Executive Vice President, Treasury, Payments and Program Management Division Denise I. Connor, Senior Vice President, Retail Payments Technology Services Division Kevin L. Moore, Senior Vice President, Supervision and Risk Management Division Karen A. Pennell, Senior Vice President, Information Technology and Customer Support Division Diane M. Raley, Senior Vice President, Chief of Staff and Corporate Secretary, People and Corporate Engagement Division Kimberly N. Robbins, Senior Vice President, Payment Strategies Division Donna J. Ward, Senior Vice President, Administrative Services Division Luke Woodward, Senior Vice President, Research Division Veronica M. Sellers, Advisor, Senior Vice President and General Counsel, Legal Division Josias A. Aleman, Advisor, Senior Vice President and General Auditor, Audit Division



GOVERNANCE OF THE DISTRICT; GUARDIANSHIP OF THE SYSTEM

The Board of Directors of a Federal Reserve Bank is a blend of appointed and elected positions using criteria defined by Congress in the Federal Reserve Act. The nine-member board is divided evenly among three classifications. Directors serve staggered three-year terms.

CLASS A

The three Class A directors represent commercial banks that are members of the Federal Reserve System. These directors are bankers who are nominated and elected by member banks within the Federal Reserve's Tenth District. The District includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming.

In the Class A category, a director will be elected by a specific group of member banks classified as either 1, 2 or 3. This classification is based on the total amount of capital, surplus and retained earnings for each commercial bank, with Group 1 banks being the largest. Each group within the class elects one director. For example, Patricia Minard, president and chief executive officer of Southwest National Bank in Wichita, Kansas, is a Class A director who was elected by and represents Group 1 member banks.

CLASS B

The three Class B directors represent the public but may not be an officer, director or employee of a financial affiliation company. These directors also are elected by member banks under the same categories as Class A directors. For example, Doug Stussi is a Class B director elected by Group 3 member banks. Stussi is executive vice president and treasurer of Love's Travel Stops & Country Stores and managing director of Love Family Office in Oklahoma City, Oklahoma.

CLASS C

The three Class C directors also represent the public. However, these directors are appointed by the Board of Governors of the Federal Reserve System. Like a Class B director, a Class C director may not be an officer, director or employee of a financial affiliation company. These directors may not own stock in a bank or a bank holding company. For example, Steve Maestas, chief executive officer of Maestas Development Group in Albuquerque, New Mexico, was a Class C director. From the Class C directors, the Board of Governors selects one person as chair and another as deputy chair.

SERVING ON THE HEAD OFFICE BOARD

Federal Reserve Bank of Kansas City

Reserve Bank directors meet monthly to oversee the Bank's operations and policies and to confer on economic and banking developments. The directors also provide information on economic conditions within the District as part of the Bank president's preparation for Federal Open Market Committee meetings. Among directors' responsibilities is establishing the Kansas City Fed's discount rate, which is subject to review and determination by the Federal Reserve Board. The directors and their classifications are on page 45.

SERVING ON THE BRANCH BOARDS

Denver, Oklahoma City and Omaha

Each branch of the Federal Reserve Bank of Kansas City also has its own seven-member Board of Directors. Four of these directors are appointed by the Kansas City Fed Board of Directors, and three are appointed by the Board of Governors. Branch directors serve three-year terms and engage with their respective branch executives to provide insight on regional economic conditions as well as to offer advice and counsel. Branch directors are listed on pages 46-48.



Audit Committee Mark Zaback, Chair Steve Maestas Lilly Marks Doug Stussi

Buildings Committee Steve Maestas, Chair Greg Hohl Trish Minard

Compensation Committee Jim Farrell, Chair Steve Maestas Brent Stewart Sr.

Note: Rose Washington is an ex officio voting member of each standing committee.

BOARD OF DIRECTORS, KANSAS CITY



(Front row, from left) Ms. Marks, Mr. Maestas, Ms. Washington, Ms. Minard. (Back row, from left) Mr. Stewart, Mr. Farrell, Mr. Stussi, Mr. Hohl, Mr. Zaback.

Rose M. Washington, Board Chair, Chief Executive Officer, Tulsa Economic Development Corporation, Tulsa, Oklahoma (Class C) Steve Maestas, Deputy Chair, Chief Executive Officer, Maestas Development Group, Albuquerque, New Mexico (Class C) Jim Farrell, President and Chief Executive Officer, Farmers National Company, Omaha, Nebraska (Class C) Brent A. Stewart Sr., President and Chief Executive Officer, United Way of Greater Kansas City, Kansas City, Missouri (Class B, Group 1) Lilly Marks, Vice President for Health Affairs, University of Colorado and Anschutz Medical Campus, Aurora, Colorado (Class B, Group 2) Doug Stussi, Executive Vice President and Chief Financial Officer, Love's Travel Stops & Country Stores; Managing Director, Love Family Office, Oklahoma City, Oklahoma (Class B, Group 3) Patricia J. Minord, President and Chief Executive Officer, Southwest National Bank, Wichita, Kansas (Class A, Group 1) Mork A. Zaback, President and Chief Executive Officer, Jonah Bank of Wyoming, Casper, Wyoming (Class A, Group 2) Gregory Hohl, Chairman and President, Wahoo State Bank, Wahoo, Nebraska (Class A, Group 3)

FEDERAL ADVISORY COUNCIL MEMBER

Leslie R. Andersen (not pictured), President and Chief Executive Officer, Bank of Bennington, Bennington, Nebraska

BOARD OF DIRECTORS, DENVER



(From left) Mr. Wallace, Ms. Edwards, Mr. Lewis, Mr. Johnson, Mr. Burt, Ms. Winograd.

Richard L. Lewis, Branch Chair, President and Chief Executive Officer, RTL Networks Inc., Denver, Colorado (Board of Governors appointed) Taryn Edwards, Senior Vice President, Saunders Construction, Englewood, Colorado (Board of Governors appointed) Denny Marie Post, Chief Executive Officer, Red Robin International, Greenwood Village, Colorado (Board of Governors appointed; not pictured) Ashley J. Burt, President and Chief Executive Officer, The Gunnison Bank and Trust Company, Gunnison, Colorado (Kansas City Fed Board appointed) Edmond Johnson, President and Owner, Premier Manufacturing Inc., Frederick, Colorado (Kansas City Fed Board appointed) Jeff Wallace, Chief Executive Officer, Wyoming Bank & Trust, Cheyenne, Wyoming (Kansas City Fed Board appointed) Katharine W. Winograd, President, Central New Mexico Community College, Albuquerque, New Mexico (Kansas City Fed Board appointed)

Branch directors provide insight on local economic conditions, and they advise and counsel the Branch executives. Branch directors must satisfy the same eligibility requirements that pertain to head office directors.

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BOARD OF DIRECTORS, OKLAHOMA CITY



(From left) Ms. Chapman Plumb, Ms. Patel, Mr. Turner, Mr. Abernathy, Mr. Coffman, Ms. Washington, Ms. Weber.

Clint D. Abernathy, Branch Chair, President, Abernathy Farms Inc., Altus, Oklahoma (Board of Governors appointed) Tina Patel, Chief Financial Officer, Promise Hotels Inc., Tulsa, Oklahoma (Board of Governors appointed) Katrina Washington, Owner, Stratos Realty Group, Oklahoma City, Oklahoma (Board of Governors appointed) Michael C. Coffman, Retired President and Chief Executive Officer, Panhandle Oil and Gas Inc., Oklahoma City, Oklahoma (Kansas City Fed Board appointed) Susan Chapman Plumb, Chief Executive Officer, Bank of Cherokee County, Tahlequah, Oklahoma (Kansas City Fed Board appointed) Christopher C. Turner, President and Chief Financial Officer, The First State Bank, Oklahoma City, Oklahoma (Kansas City Fed Board appointed) Dana S. Weber, President and Chief Executive Officer, Webco Industries Inc., Sand Springs, Oklahoma (Kansas City Fed Board appointed)



(From left) Mr. Butler, Ms. Hamilton, Mr. Sieck, Mr. Bourne, Mr. Esch, Ms. Russel, Mr. Henning.

Eric Butler, Branch Chair, Retired Executive Vice President and Chief Administrative Officer, Union Pacific Railroad, Omaha, Nebraska (Board of Governors appointed) John F. Bourne, Retired International Representative, International Brotherhood of Electrical Workers, Omaha, Nebraska (Board of Governors appointed) Kimberly A. Russel, President and Chief Executive Officer, Bryan Health, Lincoln, Nebraska (Board of Governors appointed) Brian D. Esch, President and Chief Executive Officer, MNB Bank, McCook, Nebraska (Kansas City Fed Board appointed) Annette Hamilton, Chief Operating Officer, Ho-Chunk Inc., Winnebago, Nebraska (Kansas City Fed Board appointed) Thomas J. Henning, President and Chief Executive Officer, Cash-Wa Distributing Co., Kearney, Nebraska (Kansas City Fed Board appointed) Dwayne W. Sieck, President and Chief Operating Officer, Mutual of Omaha Bank, Omaha, Nebraska (Kansas City Fed Board appointed)





The annual Food and Agriculture Roundtable brings together agribusiness executives and Kansas City Fed economists for discussion of the agricultural economy and monetary policy.

(First row, from left) Nathan Kauffman, Ben Breazeale, Stephanie Liska, Ankush Bhandari, Steve George, Mykel Taylor. (Second row, from left) Cortney Cowley, Barrett Barr, Clint Abernathy, Steve Elmore, Jim Farrell, Bill Horan, Andrew Gottschalk. (Third row, from left) Neil Dierks, Abram Babcock, Ed Hurliman, Jim Creel, Marco Antonio Abarca, Ray Wyse, John Campbell, Jim Timmerman. (Back row, from left) A. Lee Smith, Bill Lapp, Bill Brooks. (See the full roster on page 50.)

FOOD AND AGRICULTURE ROUNDTABLE

Marco Antonio Abarca President Ready Foods Inc. Denver, Colorado

Clint Abernathy President Abernathy Farms Inc. Alltus, Oklahoma

Abram Babcock President Adams Land & Cattle LLC Broken Bow, Nebraska

Barrett Barr Strategy Lead, Fleet Solutions Deere & Company Bettendorf, Iowa

Todd Becker President and Chief Executive Officer Green Plains Inc. Omaha, Nebraska

Ankush Bhandari Vice President Gavilon LLC Omaha, Nebraska

Ben Breazeale Assistant Vice President Cargill Overland Park, Kansas

Bill Brooks Dairy Economist INTL FCStone Dearborn, Missouri

John Campbell Managing Director Ocean Park Advisors Omaha, Nebraska Cortney Cowley Economist Federal Reserve Bank of Kansas City Omaha, Nebraska

Jim Creel President and Chief Executive Officer Taco John's Cheyenne, Wyoming

Neil Dierks Chief Executive Officer National Pork Producers Council Urbandale, Iowa

Steve Elmore Chief Ag Economist DuPont Pioneer Johnston, Iowa

Jim Farrell President and Chief Executive Officer Farmers National Company Omaha, Nebraska

Ron Farrell President Farrell Growth Group LLC Gladstone, Missouri

Steve George President and Chief Executive Officer Fremont Farms of Iowa LLP Malcom, Iowa

Andrew Gottschalk Senior Vice President RJ O'Brien & Associates Greenwood Village, Colorado

Bill Horan Partner Horan Brothers Rockwell City, Iowa Ed Hurliman Owner Hurliman Forest Products Broken Bow, Oklahoma

Nathan Kauffman Vice President and Omaha Branch Executive Federal Reserve Bank of Kansas City Omaha, Nebraska

Bill Lapp President Advanced Economic Solutions Omaha, Nebraska

Stephanie Liska President and Chief Executive Officer Beck Ag Inc. Wayne, Nebraska

A. Lee Smith Senior Economist Federal Reserve Bank of Kansas City Kansas City, Missouri

Mykel Taylor Assistant Professor Kansas State University Manhattan, Kansas

Jim Timmerman Partner Timmerman Land & Cattle Co. Springfield, Nebraska

Ray Wyse Managing Partner SWAT LLC Omaha, Nebraska



Economists from the Tenth District meet annually with Kansas City Fed regional economists to review the seven states' activities from the past year and offer insight on the future. Among the sectors discussed: agriculture, banking, construction, employment, energy, exports, housing and manufacturing.

(Front row, from left) Mr. Wobbekind, Mr. Thompson, Mr. Mitchell (Back row, from left) Mr. Robinson, Mr. Hill, Mr. Evans.

Russell Evans, Associate Professor of Economics, Executive Director, Economic Research & Policy Institute, Oklahoma City University Jeremy Hill, Director, Center for Economic Development & Business Research, Wichita State University David Mitchell, Assistant Professor, Missouri State University Jim Robinson, Principal Economist, State of Wyoming Economic Analysis Division Eric Thompson, Associate Professor of Economics, Director of the Bureau of Business Research Economics, University of Nebraska Richard L. Wobbekind, Senior Associate Dean for Academic Programs, Executive Director of the Business Research Division, University of Colorado

Advisory Councils



Members, representing business and labor, offer insight on the regional economy.

(Front row, from left) Mr. Dunlap, Mr. Latenser, Ms. Savage, Ms. Glaros. (Back row, from left) Ms. Baca, Mr. Carpenter, Mr. Solomon, Mr. Cargill, Mr. Neiman.

Jacqueline Baca, President and Chief Executive Officer, Bueno Foods, Albuquerque, New Mexico Jon Cargill, Senior Vice President and Chief Financial Officer, Hobby Lobby Stores, Oklahoma City, Oklahoma Dave Carpenter, President, American Fidelity Corporation, Oklahoma City, Oklahoma Michael Dunlap, Executive Chairman, Nelnet, Lincoln, Nebraska Nicole Glaros, Chief Innovation Officer, Techstars, Boulder, Colorado John Latenser, Owner, Neff Packaging Systems, Kansas City, Kansas Jim D. Neiman, President and Chief Executive Officer, Neiman Enterprises Inc., Hulett, Wyoming Emil Ramirez, Director, United Steelworkers District 11, Independence, Missouri (not pictured) Cassandra Savage, President, The Savage Group LLC, Overland Park, Kansas Dan Solomon, Chief Financial Officer, Koch Chemical Technology Group, Wichita, Kansas Bridgette Williams, Deputy Director, Heavy Constructors Association of Greater Kansas City, Kansas City, Missouri (not pictured)



Members, who come from community organizations and financial institutions, meet twice a year with Kansas City Fed community development staff to offer insight on economic and community development issues in the region.

(Front row, from left) Mr. Reese, Ms. Robinson-Woods, Ms. Romero, Mr. Santner, Ms. Longserre. (Back row, from left) Mr. White, Mr. Alonso, Ms. Petersen, Mr. Radley, Mr. Hernandez.

Ruben Alonso, President, AltCap, Kansas City, Missouri

Marcos A. Hernandez, Vice President, Corporate Social Responsibility, Community Development Manager and CRA, U.S. Bank, Omaha, Nebraska Marie Longserre, President and Chief Executive Officer, Santa Fe Business Incubator, Santa Fe, New Mexico Judy Petersen, Executive Director, Central Nebraska Economic Development District, Chambers, Nebraska Steve Radley, President and Chief Executive Officer, NetWork Kansas, Andover, Kansas Shawn Reese, Chief Executive Officer, Wyoming Business Council, Cheyenne, Wyoming Rebecca Reynolds, Executive Director, Little Dixie Community Action Agency, Hugo, Oklahoma (not pictured) Cecilia J. Robinson-Woods, Superintendent, Millwood Public Schools, Oklahoma City, Oklahoma Liddy Romero, Executive Director, WorkLife Partnership, Denver, Colorado John Santner, Regional Vice President, NeighborWorks America, Kansas City, Missouri Reginald Thomas, President and Business Manager, Construction and General Laborers #264, Kansas City, Missouri (not pictured) Cris A. White, Executive Director and Chief Executive Officer, Colorado Housing and Finance Authority, Denver, Colorado



COMMUNITY DEPOSITORY INSTITUTIONS ADVISORY COUNCIL

Members represent banks, thrift institutions and credit unions from around the Tenth District. They meet twice a year with Kansas City Fed staff to provide perspective on lending, the economy and other issues of interest to community depository institutions.

(Front row, from left) Ms. Andrich, Mr. Koehn, Mr. Burr, Ms. DeBoer, Ms. Stafford. (Back row, from left) Mr. Hardwick, Mr. Coyne, Mr. Briggs, Mr. Heckman, Mr. White, Mr. Schumacher.

Lyne Andrich, Executive Vice President and Chief Financial Officer, CoBiz Financial, Denver, Colorado Larry Briggs, President and Chief Executive Officer, First National Bank & Trust Co., Shawnee, Oklahoma Deron Burr, President and Chief Executive Officer, People's Bank of Seneca, Seneca, Missouri Robert Chavez, President and Chief Executive Officer, Sandia Laboratory Federal Credit Union, Albuquerque, New Mexico (not pictured) John J. Coyne III, President and Chief Executive Officer, Big Horn Federal Savings Bank Greybull, Wyoming Gail DeBoer, President and Chief Executive Officer, SAC Federal Credit Union, Omaha, Nebraska Herbert Hardwick, Chairman of the Board, Merit Bank, Overland Park, Kansas Kyle Heckman, President and Chief Executive Officer, Flatirons Bank, Boulder, Colorado Brad Koehn, Regional President, Midwest Bank N.A., Lincoln, Nebraska Leo Schumacher, President and Chief Executive Officer, Lincoln Federal Savings Bank, Lincoln, Nebraska Dawne Stafford, President and Chief Financial Officer, Security Bank, Tulsa, Oklahoma Lance L. White, President and Chief Executive Officer, Bank of the Flint Hills, Wamego, Kansas



Members represent financial institutions around the Tenth Federal Reserve District. They meet periodically with Kansas City Fed staff to provide insight on developments in the U.S. payments system and offer advice on actions

the Federal Reserve might take to ensure the system's safety and efficiency while providing broad access.

(Front row, from left) Ms. Doyle, Mr. DeBroeck, Ms. Padmanabhan, Ms. Wilson, Mr. Gilbert and Ms. Robinson. (Back row, from left) Ms. Vande Velde, Mr. Lindgren, Mr. Reuter, Mr. Copeland, and Mr. Oatman.

Mike Atkins, Chief Executive Officer, Open Technology Solutions, Centennial, Colorado (not pictured) Scott Copeland, Executive Vice President, BancFirst, Oklahoma City, Oklahoma Michael DeBroeck, Senior Vice President, Intrust Bank, Wichita, Kansas Susan Doyle, Senior Vice President, Commerce Bank, Kansas City, Missouri Chris Gilbert, Chief Information Officer, Bankers Bank of Kansas, Wichita, Kansas Steve Lindgren, Senior Vice President and Chief Operating Officer, Cornhusker Bank, Lincoln, Nebraska Russ Oatman, Senior Vice President, First National Bank of Omaha, Omaha, Nebraska Suchitra Padmanabhan, President, CBW Bank, Weir, Kansas Jim Reuter, Chief Executive Officer, FirstBank Data Corporation, Lakewood, Colorado Susan Robinson, Acting Executive Director, Kansas City Financial Center Fiscal Service, Department of the Treasury, Kansas City, Missouri Tamara Vande Velde, First Vice President and Chief Information Officer, Capitol Federal Savings, Topeka, Kansas Uma Wilson, Senior Vice President, UMB Bank, Kansas City, Missouri



KANSAS CITY Esther L. George President and Chief Executive Officer

Kelly J. Dubbert First Vice President and Chief Operating Officer

Dawn Morhaus Executive Vice President

Denise I. Connor Senior Vice President

Kevin L. Moore Senior Vice President

Karen A. Pennell Senior Vice President

Diane Raley Senior Vice President, Chief of Staff and Corporate Secretary

Kimberly N. Robbins Senior Vice President

Donna J. Ward Senior Vice President

Luke B. Woodward Senior Vice President

Veronica R. Sellers Senior Vice President and General Counsel

Josias A. Aleman Senior Vice President and General Auditor

Todd L. Aadland Senior Vice President

Craig S. Hakkio (Retired Sept. 1, 2018) Senior Vice President and Special Advisor on Economic Policy

Susan E. Zubradt Senior Vice President

John R. Arensberg Vice President

Kara S. Bemboom Vice President and Associate General Counsel Amy E. Cole Vice President

William W. Dandridge *Vice President*

Tammy Edwards Vice President and Director of the Office of Minority and Women Inclusion

Brian C. Faros Vice President and Chief Information Officer

Andrew J. Frank Vice President

Janel K. Frisch Vice President and Chief Financial Officer

Anne C. Gossweiler Vice President

Ryan L. Harwell Vice President

Richard L. Henry Vice President

Mark C. Horan Vice President

Dawn R. Howell Vice President

Megan L. Hruda Vice President

Tara L. Humston Vice President

James H. Hunter (*Retired Sept. 1, 2018*) Vice President

George A. Kahn Vice President and Economist

William T. Mackey Vice President

Renu A. Mehra Vice President

Charles S. Morris (*Retired Sept. 1, 2018*) Vice President and Economist Todd A. Offenbacker Vice President

Annette K. Owens Vice President

Evan A. Polly *Vice President*

Linda S. Schroeder Vice President

Michael R. Steckline Vice President

Brosie D. Strada Vice President

Stephanie L. Stratemeier *Vice President*

James W. Stuart II Vice President

Mark A. Watson *Vice President*

Jonathan L. Willis Vice President and Economist

Kristina J. Young Vice President

Stanley R. Beatty Assistant Vice President

Nicholas S. Billman Assistant Vice President and Assistant General Counsel

Porcia B. Block Assistant Vice President

Mark J. Boryla Assistant Vice President and Assistant General Auditor

Dan A. Bower Assistant Vice President

J. Stephen Bradberry Assistant Vice President

Jason P. Brown Assistant Vice President and Economist

Lesley D. Brown Assistant Vice President San Cannon (Retired June 1, 2018) Assistant Vice President and Economist

Holly C. Cartagena Assistant Vice President

Jamie D. Champlin Assistant Vice President

Sharon Charles Assistant Vice President

Chris J. Constant Assistant Vice President

Kelley D. Courtright Assistant Vice President

Kelli J. Cox Assistant Vice President

Ernie W. Craig Jr. Assistant Vice President

Tanya L. Cvetan Assistant Vice President

Christine D. Daffron Assistant Vice President

Dennis V. Denney Assistant Vice President

Sean K. Foley Assistant Vice President

Thomas J. Foster Assistant Vice President

Gregory H. Gander Assistant Vice President

John Gray Assistant Vice President

Lori D. Haley Assistant Vice President

Erika Hamilton Assistant Vice President

Robert L. Hampton Jr. Assistant Vice President

Judith H. Hazen Assistant Vice President

Alfred Herman Assistant Vice President

Jill M. Hicks Assistant Vice President Ann L. Hoelting (Retired May 1, 2018) Assistant Vice President

Lowell C. Jones Assistant Vice President

Jami K. Kennedy Assistant Vice President

Holly A. Koenig Assistant Vice President

D. Rick Lay (Retired March 1, 2018) Assistant Vice President

John T. Lee Assistant Vice President

Jeffrey E. Legette Assistant Vice President

Christi May-Oder Assistant Vice President

Bill Medley Assistant Vice President and Public Information Officer

Randall L. Mueller Assistant Vice President

Jacqueline M. Nugent Assistant Vice President

Amanda M. Ressler Assistant Vice President

Zachary J. Richmond Assistant Vice President

Stephen R. Sattig Assistant Vice President

Rodney J. Schmidt Assistant Vice President

Lindsay D. Schuler Assistant Vice President

Nicholas B. Sly Assistant Vice President and Economist

Paul L. Somogye Assistant Vice President

Holly D. Steffes Assistant Vice President

Carissa Swanwick Assistant Vice President Hailie F. Turner Assistant Vice President

Willem Van Zandweghe Assistant Vice President and Economist

James Wilkinson Assistant Vice President and Economist

Jackson A. Winsett Assistant Vice President and Community Affairs Officer

Adam M. Winzenried Assistant Vice President

Ginger K. Wise Assistant Vice President

Ingrid M. Wong Assistant Vice President and Assistant General Counsel

DENVER

Alison Felix Vice President, Branch Executive and Economist

Trina Chapman Assistant Vice President

Amber R. Conley Assistant Vice President

Victoria A. Field Assistant Vice President

OKLAHOMA CITY

Chad R. Wilkerson Vice President, Branch Executive and Economist

Michael A. Combs Jr. Assistant Vice President

Douglas L. Gray Assistant Vice President

OMAHA

Nathan S. Kauffman Vice President, Branch Executive and Economist

Nicholas Hatz Assistant Vice President

Todd Rich Assistant Vice President FEDERAL RESERVE BANK OF KANSAS CITY 1 Memorial Drive Kansas City, Missouri 64198-0001

CHANGE SERVICE REQUESTED



2018 FINANCIAL REPORT

The Federal Reserve Bank of Kansas City's 2018 audited financial report is at *KansasCityFed.org*. Past financial reports and lists of officers, directors and advisory councils also are online.