FEDERAL RESERVE BANK OF KANSAS CITY / WINTER 2024

TEN

NEW GENERATIONS *FOR PERSONAL FINANCE*

HOW GEN Z AND MILLENNIALS ARE TURNING TO SOCIAL MEDIA TOOLS FOR HANDLING MONEY

FEDERAL RESERVE BANK OF KANSAS CITY / WINTER 2024

TEN

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Learn more about the Federal Reserve Bank of Kansas City and the Federal Reserve System at *KansasCityFed.org/aboutus*.

FEATURES

ON THE COVER » Creighton University student Alyssa Gove.
Photo by Gary Barber
Design by Casey McKinley

The career path from community banker to central banker

(These are Jeff Schmid's remarks made in October 2023 in New Mexico during joint community engagement activities of the Kansas City Fed's Denver, Oklahoma City, Omaha and Kansas City boards of directors. See page 34 for more from New Mexico.)

It is truly an honor to have been selected by Albuquerque's María Griego-Raby, who chaired the Bank's presidential search committee, and the other members of the Bank's Board of Directors from across the Tenth Federal Reserve District to serve as the tenth president of the Federal Reserve Bank of Kansas City.

As a newcomer to the Fed, I thought I would spend the next few minutes today talking a little bit about my background and how I hope the experience and perspective I have gained as a community banker, and a bank examiner before that, will contribute to the Federal Reserve's important work on the public's behalf.

Experience

My career path is somewhat unique among current Reserve Bank presidents.

As a young college graduate fresh from the University of Nebraska, I spent eight years examining banks with the Federal Deposit Insurance Corporation (FDIC). This was where I cut my teeth for my later career. I learned a lot about the risks that can leave a bank vulnerable to failure and also how a bank can succeed in the face of significant challenges. During that period, I developed a real appreciation for community banks and the important work they do in helping people achieve their goals.

And so when I saw the opportunity, I took what I had learned and put it into practice as a community banker. For the next 30 years, I led community banks that I helped establish, including building one through the depths of the Great Financial Crisis of 2008-09. For the last couple years I've been passing along what I learned at the Southwestern Graduate School of Banking. It is the same school I attended as a young bank examiner, and that provided me with the tools I used to start my own banking career.

Today, I have gone from being a community banker to a central banker, serving as president of one of the nation's 12 Federal Reserve Banks.

So, what does it mean to be a central banker?

At one event from President Jeff Schmid's first few months, United Way of Greater Kansas City CEO Chris Rosson (right) joined Schmid for the wrap-up of the Bank's annual giving campaign.

"AS A LONG-TIME COMMUNITY BANKER TURNED CENTRAL BANKER, I HOPE THAT MY EXPERIENCES AND PERSPECTIVE AS IT RELATES TO BANK SUPERVISION, FINANCIAL SERVICES, AND MONETARY POLICY CAN HELP TO INFORM THE FEDERAL RESERVE'S IMPORTANT PUBLIC RESPONSIBILITIES."

The mission areas and responsibilities of the Federal Reserve were established by Congress and focus on creating the conditions for a strong banking system and economy. We serve a seven-state region through the Kansas City Fed and our Branch offices in Denver, Oklahoma City and Omaha. And we are active in each of central bank's three mission areas: bank supervision, financial services and, of course, monetary policy. Some of our work is in support of business lines that run across the Federal Reserve System; and as the government's bank, we provide financial services on behalf of the United States Treasury.

In addition, we have related functions focused on consumer protection, public engagement and financial stability. Within our Community Development function, our Denver Branch serves as the base of our Investment Connection program. This program works to match nonprofit organizations engaged in community and economic development projects with financial institutions, corporate enterprises, and community foundations that can provide needed funding. Think of it as a "Shark Tank" for community organizations. Recently, Investment Connection has had two substantial success stories in New Mexico: A $4 million loan with the New Mexico Mortgage Finance Authority for down payment assistance and $1 million for the Native Community Finance revolving loan fund. These are just two examples of many New Mexico organizations that have identified funding sources through Investment Connection. This is in addition to consulting with and providing technical assistance to community organizations and banks in the state.

Programs like Investment Connection provide an example of how the Fed is adapting in a changing environment. While the core missions of the Federal Reserve have not changed, the world we operate in does. I have stepped into my role as a new chief executive officer during a time of particularly significant and rapid change in the economic and financial services environments. Keeping up with those changes and staying ahead of them is a key challenge for the Federal Reserve in making sure that the public continues to be well served.

As a community banker, my experiences aligned directly with much of the Fed's work, whether it was by sending payments through the Fed's payment rails, managing the risks brought on by a change in monetary policy, or considering adjusting a business plan based on a bank examiner's feedback. And so, I bring to the job an appreciation of both the Fed's work in these areas and also some understanding of the challenges we face in a rapidly changing financial services landscape.

Supervision and regulation

Across my career, the banking and financial landscape has evolved considerably.

When I was a new bank examiner, the United States had somewhere around 18,000 banks. Today, the number is less than one-quarter of that. This consolidation has created a banking system that today includes a handful of exceptionally large banks that are taking ever-greater market share at one end of the spectrum, and thousands of small community banks at the other. This dynamic has been particularly concerning here in New Mexico, where today there are too few banks.

Meanwhile, continuing innovation and new technologies have fostered the emergence of new types of financial services firms and have changed long-established relationships and roles. I was able to observe and adjust to these changes as a community banker, just as our examiners at the Kansas City Fed have been doing. Within the area of bank supervision, the challenges are significant. The nature of innovation is such that regulators must be vigilant not to fall behind the market. Effective risk management must entail both traditional risks as well as new ones such as cybersecurity.

Meanwhile, there are old risks with new dynamics. For example, consider the potential damage of a bank run. For much of U.S. history, a bank run was something that had depositors who had lost faith in their financial institution lining up at its door to withdraw their funds in person. Now, through technology, depositors can skip the line, and a run can happen almost instantaneously over your phone.

The risks that such events present to financial institutions are of course only one part of the equation. The Fed also must be attuned to how innovation affects the public, and so consumer protection must take a high priority. From a regulatory perspective, this requires a focus not

In November, President Jeff Schmid delivered remarks at the annual Energy and the Economy Conference hosted by the Kansas City and Dallas Reserve Banks. Learn more on page 20.

Jeff Schmid talked with New Mexico entrepreneur Aleem Hasham, one of several business leaders who attended a luncheon during the Bank's October public engagement activities in Albuquerque. (Article on page 34.)

only on the risks, but also on consumer access and related issues. These were key factors in the Fed's decision to launch the FedNow real-time payments service earlier this year, which I will discuss now as I turn to the Fed's responsibilities for the payment system.

Payments system safety and efficiency

This is another area where there has been substantial change at a pace that might be considered jarring for many. For decades, Americans and their banks generally conducted their business within a fairly consistent framework for payments involving cash, check, or credit, each moving at their own established pace.

We began to gain an appreciation of how quickly things could change in this area when Check 21 took effect in 2004. Prior to that, some of us can recall that each month your bank would return to you the actual checks you had written for payment during the previous period. Check 21 allowed for digital images to replace these paper documents and was quickly adopted by financial institutions.

Now, of course, the idea of even Check 21 feels quaint as the payments landscape continued to gain speed and efficiency with a move to real-time payments. The FedNow service provides banks and other financial institutions with the ability to move payments almost instantaneously, 24 hours a day, providing consumers with greater flexibility and access to their funds (More on FedNow, page 38). The Fed's decision to launch this service was the result of a project led by my predecessor at the Kansas City Fed, Esther George, and was seen as particularly important as it relates to seeking to ensure equitable access to real-time payments for all individuals through banks of all sizes.

Monetary policy and public engagement

Finally, I want to turn for a moment to monetary policy. The Fed's monetary policy mission has its own challenges and changes to contend with. Last spring, the Federal Open Market Committee embarked on a series of interest rate increases that included four moves of 75 basis points. By late summer, a Reuters poll of economists said that there was a 65 percent probability of a recession—a number that probably sounds lower than what many forecasters were saying publicly at the time. However, the economy has proven resilient.

Currently, as the FOMC noted after our meeting only a few weeks ago, economic activity is expanding at a solid pace and projections for economic growth in 2023 have increased. Job gains remain strong and unemployment is low.

As a long-time community banker, I know that you cannot run a bank without understanding how the economy works. If you do not, your bank will either be low performing, or it will fail. You have to understand cycles. You have to have an understanding of how monetary policy works.

At the Kansas City Fed, we monitor the economy through a number of channels, and our Economic Research Department analyzes a wide range of topics that have an impact on our economy, banks and consumers. I encourage you to go to our website, *KansasCityFed.org*, where we make their research readily available. This includes topics that are highly technical—for example, a recent paper on the implications of unrealized losses for banks. Other research may be of interest to a broader audience, such as the shifting expectations for working from home. Importantly, we are significantly engaged in monitoring economic conditions in our region, including in low- to moderate-income communities and in segments of the economy that are particularly important to our region and the nation, such as energy, agriculture and our substantial commercial real estate footprint. Over the summer, our quarterly *Rocky Mountain Economist* publication examined the differences between inflation in the region and other parts of the United States.

In addition to this type of analysis, an important piece of understanding the economy comes from the real-time insight we are able to gain from our numerous partners and contacts across the region, including many of you in this room. The economic research we conduct for our monetary policy mission, by its nature, examines what has already occurred to help us uncover the possible road ahead. The insight you provide lets us know how you see that path unfolding and where the opportunities and challenges may lie.

Conclusion

As a long-time community banker turned central banker, I hope that my experiences and perspective as it relates to bank supervision, financial services, and monetary policy can help to inform the Federal Reserve's important public responsibilities. Experience has made me particularly mindful of the risks and opportunities that can be introduced by an evolving environment, and it is something that I will continue to focus on going forward.

As I conclude, I want to emphasize again that the Fed's responsiveness and success to challenges in each of these areas requires engagement with the public we serve.

I know that many here have established relationships with the Fed, either through Board service, or involvement in an advisory council or participation in a roundtable. Our relationships in New Mexico are extremely important, and I hope to see them continue to expand through both our Denver Branch and the Bank in Kansas City.

These connections are the reason that, in creating the Federal Reserve 110 years ago, Congress established a decentralized Reserve Bank structure that placed offices across the country. This proximity to businesses, financial institutions, and communities provides a first-hand understanding of our District's regional economy that is essential to our ability to successfully serve the public.

Jeff Schmid is the tenth president and CEO of the Federal Reserve Bank of Kansas City.

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 programs and activities throughout the Tenth District and beyond. Here is a glimpse at the recent activities of Kansas City Fed leaders and staff.

KANSAS, MISSOURI and BEYOND »

Conference of Federal Reserve Bank presidents convenes for meetings at New York Fed
In September, President Jeff Schmid joined other Federal Reserve Bank leaders for Conference of Presidents meetings hosted by the New York Fed. The group meets periodically to deliberate issues of strategic significance to the Federal Reserve System, discuss matters of common interest and consult with the Board of Governors. Pictured, from left: President Schmid; Thomas Barkin, Richmond; Lorie Logan, Dallas; Kathy O'Neill Paese, first vice president and interim president, St. Louis; Neel Kashkari, Minneapolis; John Williams, New York; Loretta Mester, Cleveland; Susan Collins, Boston; Austan Goolsbee, Chicago; Patrick Harker, Philadelphia and Raphael Bostic, Atlanta. Not pictured: Mary Daly, San Francisco.

Meeting with the region's banking association leaders
In October, President Schmid met with the presidents and CEOs of banking associations across the Tenth District. These organizations support banks and bankers through leadership, advocacy and education to benefit their communities and customers. Pictured, front row from left: Mike Van Norstrand, Independent Community Bankers of Colorado; Doug Wareham, Kansas Bankers Association; President Schmid; Jackson Hataway, Missouri Bankers Association; and Jenifer Waller, Colorado Bankers Association. Back row, from left: Scott Meier, Wyoming Bankers Association; Richard Baier, Nebraska Bankers Association; Dexter Schrodt, Nebraska Independent Community Bankers; and Craig Buford, Community Bankers Association of Oklahoma.

Conference focuses on important role of community banking

In St. Louis, President Schmid addressed the audience at the annual Community Banking Research Conference (in the photo at left). The October conference, sponsored by the Federal Reserve System, the Conference of State Bank Supervisors and the Federal Deposit Insurance Corp., brought together community bankers, academics, policymakers and bank regulators to discuss the latest research on community banking.

Urban Financial Services Coalition presents awards

In December, the Bank hosted the annual awards presentation of the Urban Financial Services Coalition (UFSC). The organization's mission is to provide professional development to its ethnically diverse membership base and promote equitable access to financial services and education. Pictured with President Schmid: UFSC members Ola Truelove-Ross and Theodis Watson.

District's Community Development Advisory Council meets in Oklahoma City

President Schmid in October attended the Kansas City Fed's Community Development Advisory Council's (CDAC) meeting in Oklahoma City. He also met with Oklahoma City Branch staff members. The CDAC was established in 2001 and provides insight on community and economic development challenges faced by low- to moderate-income communities. Council members pictured with Schmid, front row from left: Jackie Loya-Torres, Monica Abeita and Michelle Bish. Back row from left: Awais Sufi, Quintin Hughes Sr. and Scott Hoversland.

Former Kansas City Fed president receives public service award

Esther George, who retired as Kansas City Fed president and CEO in early 2023, in October was named the 2023 Harry S. Truman Public Service Award recipient. The award, established in 1974 by the City of Independence, Missouri—Truman's hometown—is presented annually to a citizen "who best typifies and possesses the qualities of dedication, industry, ability, honesty, and integrity that distinguished President Harry S. Truman," according to the city. "Ms. George provided vital leadership in our region during a crucial time," Independence Mayor Rory Rowland said. "In her role as president and chief executive officer of the Federal Reserve Bank of Kansas City, she grew community engagement, leadership development, and the understanding of technology."

Economic Advisory Council meets with Bank leaders

During his first several weeks as president, Jeff Schmid met members of the Bank's Economic Advisory Council (EAC). Vice President and Denver Branch Executive Nick Sly was pictured with Schmid at the October meeting. The EAC is composed of business representatives from across the Tenth District and meets with Kansas City Fed leadership twice a year to offer insight on the regional economy.

Kansas City Fed participates in Kansas rural leadership program

In late 2023, the Bank hosted the Kansas Agriculture and Rural Leadership (KARL) program, with President Schmid and Bank economists speaking during a leadership class. The two-year program is designed to identify and develop leaders who will positively impact Kansas agriculture and rural communities. Pictured with President Schmid: Jill Zimmerman, president of the KARL program, and Doug Wareham, president and CEO of the Kansas Bankers Association.

COLORADO, NEW MEXICO, WYOMING »

Discussing national economic conditions and outlooks
Vice President and Denver Branch Executive Nick Sly in October talked with business and community leaders in Cheyenne, Wyoming. Sly's presentation at the Greater Cheyenne Chamber of Commerce's annual economic forecast breakfast focused on national economic trends. Also speaking at the event was Anne Alexander, vice provost for Strategic Planning and Initiatives at the University of Wyoming. Her remarks focused on local data.

Investment Connection links organizations and potential funders
Community Development Advisor Ariel Cisneros hosted an Investment Connection session in Denver in September. Through the Investment Connection program, which was founded in the Tenth District and has expanded to the regions of several other Reserve Banks, non-profit organizations that have community and economic development proposals make presentations to potential funders. The range of funders includes financial institutions, government entities, corporate enterprises and community foundations. Learn more at *KansasCityFed.org/community/investmentconnection.*

Denver team wins award for Tenth District Beige Book work
The Kansas City Fed's Denver Regional Affairs team received a National Public Radio Planet Money "Beigie" Award for publishing the most interesting entry in a Beige Book report. The recognition is a light-hearted, occasional installment that the radio network's Planet Money program presents to draw attention to the important information included in the Federal Reserve's Beige Book reports. The reports are published eight times a year and include summaries about economic conditions in each of the 12 Federal Reserve districts. Learn more at *KansasCityFed.org/surveys/beige-book.*

Wilkerson participates in State of the Economy panel

In November, Senior Vice President and Oklahoma City Branch Executive Chad Wilkerson (second from right) participated in an economics panel at the Greater Oklahoma City Chamber's State of the Economy event, which was attended by more than 500 people.

Branch employees tour manufactured-housing facility

Lance Windel (center) in September led Oklahoma City Branch staff members on a tour of his LW Development manufactured-housing facility in Oklahoma City. Windel said his facility uses innovative techniques to address supply chain, labor and general housing needs. Pictured, from left: Sarah Dickson, public affairs director; Chase Farha, research associate; Steve Shepelwich, lead community development advisor; and Jannety Mosley, senior survey analyst.

'Invest in Girls' event provides role models in financial services

Pam Campbell (seated, far right), Tenth District outreach director, and other members of the Oklahoma City Branch staff, served as mentors at the Oklahoma Council on Economic Education's "Invest in Girls" event. The September event connected high school girls with professional women role models to help build the pipeline of women in financial service careers. Campbell also participated in a panel that provided personal finance and career insights.

Branch staff members visit Altus

Oklahoma City Branch staff members in October visited former Oklahoma City Branch Board member Clint Abernathy (center) in Altus, Okla. The visit included tours of Abernathy Farms, Lugert-Altus Irrigation District Dam and the Cotton Growers Cooperative cotton gin. Staff members also met with members of the local business community. Pictured with Abernathy (from left): Chase Farha, research associate; Pam Campbell, Tenth District outreach director; Chad Wilkerson, senior vice president and Oklahoma City Branch executive; and Cortney Cowley, senior economist.

NEBRASKA »

Hearing the perspectives of young professionals

The Omaha Branch in November welcomed emerging leaders and young professionals from a range of businesses and nonprofits across the Omaha area for a roundtable discussion. Participants shared perspectives on conditions impacting the community and the economy.

Experiencing immersive technology at medical center

In October, Senior Vice President and Omaha Branch Executive Nate Kauffman toured the University of Nebraska Medical Center and got an up-close look at the advanced learning technology offered by the iEXCEL program in the Davis Global Center on the campus. The visit including the center's holographic theater and Laser CAVE 5 immersive environment (pictured).

Kauffman interacts with students at UNK

Nate Kauffman in November spoke with students at the University of Nebraska at Kearney (UNK) about the Federal Reserve, monetary policy and the economy. (Photo by Jody Herchenbach, UNK)

Providing updates at Nebraska economics and business conference

The Nebraska Economics and Business Association hosted its Great Plains Economics and Business Conference at the Omaha Branch in October. Nate Kauffman welcomed the group and shared an update on the regional and national economy.

Notes from around the Tenth District

Robbins appointed first vice president, COO; Dubbert to retire after 38 years


Kim Robbins


Kelly Dubbert

The Kansas City Fed in December announced the appointment of Kim Robbins, executive vice president and chief of Enterprise Services for Federal Reserve Financial Services, to the position of first vice president and chief operating officer effective March 1, 2024.

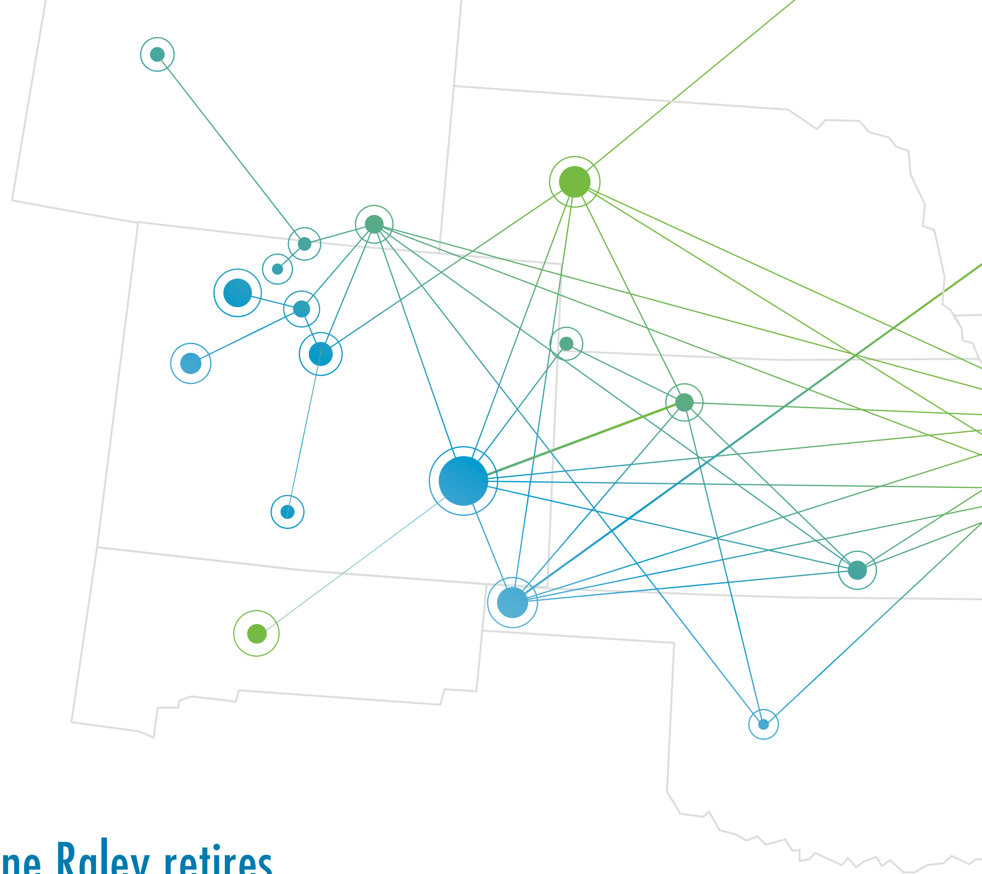
Robbins will succeed Kelly Dubbert, who previously announced that he will retire on Feb. 29 after a 38-year career at the Bank.

Robbins, a member of the Bank's Management Committee, started with the Kansas City Fed in 1996 as an analyst in Cash Services and Human Resources in the Omaha Branch. She now leads the team responsible for supporting the business functions of Federal Reserve Financial Services. As first vice president and chief operating officer, Robbins will work with President and Chief Executive Officer Jeff Schmid to lead the Bank's strategy and ensure effective financial and operational performance.

Robbins' appointment was approved by the non-banker members of the Bank's Board of Directors, as well as the Federal Reserve's Board of Governors. Robbins is a graduate of the University of Nebraska, Lincoln, and holds a bachelor's degree in business administration.

"Kim's long-track record of service and innovation, combined with her expertise about the Kansas City Fed and the Federal Reserve System, will be tremendous assets in her new leadership role," Schmid said.

Dubbert joined the Bank in 1986 after graduating from Kansas State University. He started as an analyst and held various leadership positions of increasing responsibility across the Bank's administrative, operations and information technology areas before becoming first vice president in 2012. Dubbert played instrumental roles during a period of rapid growth for the Tenth District, assuming leadership of several Federal Reserve and Treasury technology and payments functions. He served in several Federal Reserve System groups, including the Information Technology and Operations Committee, the Payments Committee, and the Enterprise Treasury Committee. He also chaired the Conference of First Vice Presidents, through which he served as chair of the System Crisis Management Team during the COVID-19 pandemic.



Senior Vice President Diane Raley retires

Diane Raley, senior vice president, chief of staff, and corporate secretary retired from the Kansas City Fed in November 2023 after 25 years of service.

Raley's career included pivotal leadership roles in communications, programming and District-wide relationship-building that increased the public's connection to the Bank and the Federal Reserve System.

Raley joined the Bank's Public Affairs Department in 1998 after working in media and public relations roles for organizations in Cincinnati, Ohio, and Memphis, Tennessee. She was appointed to the position of assistant vice president in 2001, to vice president in 2004, and to senior vice president of the Regional, Public, and Community Affairs Division and corporate secretary in 2009, also serving as a member of the Bank's Management Committee. In 2005, Raley founded *TEN* magazine to highlight the Bank's research and public engagement work and share stories about how economic trends are affecting people, communities and businesses across the District.

In her time at the Bank, Raley helped establish the branch executive roles in Denver, Oklahoma City, and Omaha, further promoting regional outreach and connection with communities and industries. For 23 years she also led strategy, planning, development and communications for the Bank's annual Economic Policy Symposium in Jackson Hole, Wyoming.

In addition to her leadership duties, Raley directly supported media relations for Bank presidents Thomas Hoenig and Esther George and oversaw the Bank's recruitment of directors across the District, resulting in increasingly diverse representation of the communities that the Bank serves.

Kara Bemboom promoted to senior vice president and chief of staff

The Kansas City Fed has announced that Kara Bemboom, former group vice president, associate general counsel, and assistant ethics officer, has been promoted to senior vice president. Bemboom now serves as the chief of staff and corporate secretary within the newly formed Legal, Governance and Public Affairs Division.

She will continue to report to Senior Vice President and General Counsel Craig Zahnd, who leads the new division. Bemboom's responsibilities include oversight of the Office of the President, the Office of the Secretary, and the Public Affairs Department, as well as serving as an advisor to the Bank's Management Committee.

Bemboom joined the Bank in 2002 as an analyst in the Human Resources Department following internships with the Bank. In 2003, she left the Bank to attain her J.D. degree at the University of Kansas School of Law. She returned in 2010 as counsel attorney and was appointed assistant vice president in 2012. She was promoted to vice president and associate general counsel in 2017. From 2013 to 2021 she served as assistant secretary to the Bank's Board of Directors. She was promoted to group vice president in 2022.

FURTHER RESOURCES
Learn more about the Bank's senior management at *KansasCityFed.org/about-us/leadership*.

Beige Book update: Tighter household budgets; dip in restaurant revenue

Economic activity in the Tenth District declined slightly in the weeks leading toward the end of 2023, according to the Federal Reserve's Beige Book report.

Consumers increasingly were likely to "share a roof and share meals" to manage household budget challenges. Demand for rental housing reportedly shifted away from single-bedroom units toward multi-bedroom housing where rent expenses could be shared with a roommate. Similarly, restaurant operators noted that revenue fell as more customers split dishes and eschewed expensive items.

Manufacturing businesses reported little change in activity, though some contacts noted a decline in their expectations of demand over the medium term. Reports of planned capital expenditures were mixed depending on how directly businesses were supported by fiscal spending and municipal projects. Renewable energy activity in the Tenth District continued to expand at a moderate pace, driven by modest growth in wind generation and robust growth in solar installations. The agricultural economy and farm credit conditions in the District softened moderately.

The Beige Book reports—made available to the public eight times a year—offer summaries on the economy in each of the Federal Reserve's 12 regional bank districts. See the most recent Tenth District summaries and sign up to receive alerts at *KansasCityFed.org/surveys/beige-book*.

As part of the Girls in Tech Kansas City initiative, about 70 students participated in the Hour of Code event in December at the Kansas City Fed's head office.

'Girls in Tech' aims to bridge industry gender gap, highlight career opportunities

The Kansas City Fed and the KC STEM Alliance in December hosted the seventh Hour of Code event, introducing technology-related careers to more than 70 Kansas City area girls.

The event was part of the Bank's longstanding work with the Alliance's "Girls in Tech Kansas City" initiative, which aims to close the gender gap in the technology sector by encouraging girls' interest in the field. Hour of Code provided opportunities for girls to engage in interactive coding sessions, learn about career options and hear from women who are information technology professionals with the Federal Reserve.

Organizers of Hour of Code said that promoting diversity and inclusion in the technology sector is important, noting that research consistently shows that a diverse workforce leads to increased innovation, reduced bias and improved business outcomes.

"We know that the gender gap forms early, when young girls are still in school building the hobbies and interests that will one day inform their decision on which career to pursue," said Brandy Rau, an information technology manager at the Bank. "Girls in Tech has a goal to stop that gap from forming by introducing coding and technology to young girls in a fun and easily understood format. While increasing the pool of girls entering tech won't close the gap on its own, it's a great place to start."

As part of the event, a panel of women in Federal Reserve technology roles talked about coding and shared career experiences and perspectives. Mentors from the KC STEM Alliance and the Bank's Women in Technology group also assisted the girls in hands-on coding puzzles.

Hour of Code is one of the programs that reflect the Bank's commitment to continuous learning and improvement to remain at the forefront of advancements in the technology field. Notably, people in technology-related positions make up nearly half of the Tenth District's workforce.

FURTHER RESOURCES
Go to *KansasCityFed.org/careers* to learn about career opportunities at the Bank.

Expanding career opportunities in banking and financial services

In September 2023, the Federal Reserve Banks of Kansas City and Dallas hosted the Minorities in Banking Forum, a Federal Reserve System event aimed at broadening advancement opportunities in the financial services industry.

Over two days, the in-person forum in Dallas brought together 120 mid-level and senior leaders from across the country. The annual forum focuses on leadership, diversity and career enhancement while encouraging professional development conversations and networking opportunities. The forum also provides information aimed at helping attendees increase their awareness of the Federal Reserve's mission and resources.

In addition to industry updates, themes of sessions at the 2023 forum included defining and communicating personal brands; dismantling mental health stigma; diversity and inclusion strategies and ways that individuals can best advocate for themselves and others in the workplace.

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 January, February and March.

Colorado Bank & Trust Company of La Junta	La Junta	Colo.	100
Community Bank & Trust	Neosho	Mo.	82
Oklahoma Capital Bank	Tulsa	Okla.	32
Community State Bank	Poteau	Okla.	29
Adams Bank & Trust	Ogallala	Neb.	29
Union State Bank	Arkansas City	Kan.	28
Exchange Bank of Missouri	Fayette	Mo.	28
Bank of Star Valley	Afton	Wyo.	28
Exchange Bank and Trust Co.	Perry	Okla.	26
Method Bank	Wyandotte	Okla.	26
First Option Bank	Osawatomie	Kan.	25
Town & Country Bank	Ravenna	Neb.	24
Lamar Bank & Trust Company	Lamar	Mo.	24
FirstBank	Antlers	Okla.	23
Bank 7	Oklahoma City	Okla.	22
Butte State Bank	Butte	Neb.	22
Auburn State Bank	Auburn	Neb.	21
Bank of Eufaula	Eufaula	Okla.	20
United Bank & Trust	Marysville	Kan.	20
Union State Bank	Everest	Kan.	20
Bank of Commerce	Chanute	Kan.	20
Five Points Bank	Hastings	Neb.	20
Peoples Bank	Pratt	Kan.	10
Equitable Bank	Grand Island	Neb.	5

Panelists at the Minorities in Banking Forum participated in a discussion under the theme "Moving from Commitment to Transformational Change."

kcFED SOCIAL SEEN

Social media highlights of our engagement across the region

1 **@REDONOMICS** James Redelsheimer: Led Embracing AI in Economic Education workshop last week at the KC Federal Reserve for 50 educators! Explored AI's vast potential to improve learning. Grateful for the inspiring day of learning.

2 **JOANNE LI, CHANCELLOR AT THE UNIVERSITY OF NEBRASKA AT OMAHA** Attending Federal Reserve Bank of Kansas City joint board meeting in Albuquerque, hanging out with our new CEO and President of KC Fed, Jeff Schmid and Executive VP and Director of Research, Joseph Gruber

3 **@KANSASCITYFED** Choosing career options can be a challenge for some students. We recently welcomed students from the @NKCSchools College & Career Pathways Program to our office so they could learn about career opportunities related to STEM, engineering and infrastructure. #KansasCity #EducationMatters #CareerGoals

4 **@KANSASCITYFED** Did you see the Kansas City Fed's Law Enforcement Honor Guard present the colors for the national anthem at the Chiefs-Broncos game? We couldn't be prouder!

5 **NILSON GOES, IEC ENGINEERING & CONSTRUCTION** Big thanks to Federal Reserve Bank of Kansas City and good friend Rita Barrett for the kind invitation to its inaugural supplier connection event. Great to learn the history of the Fed and support the future. #iecengineeringandconstruction #defendercc #federalreserve

6 **KANSASCITYFED** Our Supervision and Risk Management division met with bankers at a forum in Kansas City to discuss regulatory topics and evolving banking trends. This forum was part of an annual series of events that provide a valuable opportunity for our regulators to engage with community banks and state banking representatives in the region. #FederalReserve #CommunityBanks #Banking

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Ask an ECONOMIST

Francisco Scott and Cortney Cowley

Labor constraints and strong demand are driving robust food services inflation

Total inflation as measured by the price index for personal consumption expenditures (PCE)—known as headline inflation—has slowed in recent months. However, inflation for core services has remained elevated since the first half of 2021. Inflation for food services in particular has been significantly higher than inflation for goods and other services.

These facts and the implications resulting from them are explored in a September 2023 *Economic Bulletin* by Economist Francisco Scott and Senior Economist Cortney Cowley. They assert that food services inflation has been elevated by the sector's fast rebound in expenditures and its high dependency on labor amid labor shortages and elevated labor costs. Their full article is available at *KansasCityFed.org/research*.

What should consumers know about the forces that impact the prices they pay for food services?

Strong demand since the pandemic, ongoing labor shortages, and higher-than-average wage growth in the sector all have likely played a role in pushing food services prices higher. On the demand side, we show that real spending on food and beverages rebounded faster to its pre-pandemic trend than spending on other non-housing core services.

The faster rebound might be attributed to the vaccine rollout, pent-up demand for dining out, and the many fiscal stimulus programs during the pandemic recession. Although monetary policy has tightened substantially since the pandemic, and the financial strength of households has started to moderate, spending on food services has remained strong and above its pre-pandemic trend.

With regard to understanding the inflation picture, how important are labor market conditions?

Inflation for food services appears to have become more responsive to labor market shortages than other services. We show that year-over-year inflation for food services and other non-housing core services had a similarly positive—but somewhat weak—relationship with labor market tightness from 2014 to 2020. After 2021, however, when labor markets became severely tight, food services inflation increased faster than inflation for other core services.

Tight labor markets can drive up food services prices by significantly raising restaurants' labor expenses and reducing their capacity to serve customers. According to the U.S. Department of Agriculture's Economic Research Service, 75 cents of each dollar spent on food away from home are incurred by food services; the other 25 cents are incurred by food processing, wholesale trade, and other parts of the supply chain. Shortages of workers in restaurants and drinking establishments can be inflationary, as they rely heavily on labor to produce services.

Moreover, the National Restaurant Association estimates that 66 percent of restaurants' costs are tied to labor and food costs. In 2022, we published a research paper arguing that the price of food and food processing is disproportionately related to labor costs. Conditions in 2023 continued to support that assertion.

What were your conclusions about the relationship between food services and labor?

Food services account for a nontrivial share of non-housing core services to households, and inflation in the sector remains significantly higher than inflation for other core services. A fast rebound in spending and substantial labor market constraints might explain the divergence, because businesses in the food services sector rely disproportionately on labor to produce output. Labor shortages appear to have hindered the capacity of the sector to meet demand for food services.

Ultimately, constraints on labor have led to high wage growth in the sector, high cost pressures, and higher food services prices. Unfortunately, these cost pressures, combined with staffing shortages and other factors, contributed to an uptick in restaurant closures around the region during the second half of 2023. Looking ahead, lowering food services inflation likely will require either a drop in demand for food services, an increase in labor supply or an increase in labor productivity.

FURTHER RESOURCES
Download the full *Economic Review* at *KansasCityFed.org/research* or scan the QR code.

THE ENERGY MIX IS CHANGING, and that has global implications

by KAYLA R. REGAN

Nearly 200 energy professionals, academics and others gathered in November 2023 in Oklahoma City for the eighth annual Energy and the Economy Conference, hosted by the Kansas City and Dallas Federal Reserve Banks.

The conference was themed "Reshuffling the Energy Deck." Programming focused on improving supply chains, as well as the outlook for energy markets and capital allocation in the energy transition.

"We view this annual convening, rotating across several key energy cities in our Districts, as extremely important to helping us understand how the energy sector is evolving," Kansas City Fed President Jeff Schmid said. "Developments in the sector have an important impact not only on the economy of both of our Fed Districts, but also on the financial sector and national economy."

Attendees, including more than 600 online viewers, joined from 24 countries and five continents.

Chad Wilkerson, Kansas City Fed senior vice president and Oklahoma City branch executive, said the conference is a natural outcome of the Kansas City and Dallas Fed's connection with the energy sector. He said the conference became a place to make connections between research, data collection and anecdotal information received from industry contacts.

"It became a bit of a feedback loop over time," Wilkerson said. "I would really look forward to this conference, to really having deep conversations with a variety of perspectives from across the world—certainly across the country—to learn more about the sector."

Energy is a vital industry for the regions covered by the Kansas City and Dallas banks, which rank first and second, respectively, in total U.S. energy activity, accounting for a total area that is responsible for 20% of U.S. energy production. The Tenth District accounts for more than 40% of U.S. coal production, about 25%

Senior Vice President and Oklahoma City Branch Executive Chad Wilkerson said that consumers can benefit from understanding how energy supply chains work.

of U.S. wind energy installation and more than 15% of U.S. natural gas production.

Kunal Patel, senior business economist at the Federal Reserve Bank of Dallas and chair of the event, said this year's theme was a nod to the idea that while energy production is always in transition, centuries-old energy practices are still at play in the marketplace.

"Things are always changing in energy, and really the reshuffling of the deck is how is the energy mix changing and how are we looking at it going forward," Patel said. "It's good to hear the perspectives, whether it's from executives, companies or from analysts."

Takeaways

Some the discussion points emerging from the conference:

- The players in the energy market are changing along with technology, pricing and global politics. However, more energy will be needed with a growing global population and greater need for energy security.

- Material and technological advancement is necessary as other nations develop infrastructure and policies around energy production and consumption.
- The energy market is global and complicated, as well as sensitive to supply chain, infrastructure, material and geopolitical shifts.

A variety of sources will be necessary for ensuring future energy stability, multiple conference speakers agreed. Whether the energy came from battery, mineral or renewable sources, speakers also agreed that supply chains and infrastructure improvements would be essential.

"Any conversation about energy is ultimately a conversation about materials and about infrastructure," said Ken Medlock, Energy and Resource Economics fellow at the Baker Institute and director of the Center for Energy Studies at Rice University in Houston.

Wilkerson said this year's event highlighted consumer impacts with focus on growing demand for goods like solar panels and electric vehicles.

"Understanding the supply chains of those kinds of products, of what the challenges are, can maybe help with some of the frustrations that even I as a consumer have sometimes," he said. "It's exciting that those kinds of things are being developed, but it also highlights how difficult it really is to bring it to market."

Challenges and optimism

Presenters from several panels discussed how shifting geopolitics and developing international conflicts made it difficult to forecast energy market activity. Additionally, forging international trade deals or collaborating on technologies in a precarious global environment also make innovation in the sector more difficult, said Amy Myers Jaffe, director of the Energy, Climate Justice and Sustainability Lab at New York University's School of Professional Studies.

"Because if they don't come to a common view, then all these conflicts have the potential of activating," she said.

Despite the issues facing the industry, speakers offered reasons to be optimistic. Jaffe highlighted how technology can help mitigate issues like long gas station lines.

"We have efficiency tools today that we've never had before, so if you imagine us thinking we'll have to sit in a gasoline line, you need to remember that we could allocate fuel to Uber and Lyft drivers, or Amazon can bring it to you," she said. "Every time the price of oil goes up very high, all these technologies move much faster and faster into the market."

Arjun Murti, energy macro and policy partner at Veriten, said the cost of capital normalizing—while painful in the short term—is beneficial for long-term forecasting because investors would better understand profit potential, risks and costs.

"The fact that money's not for free is a good thing," he said. "I think this is a very healthy environment, where you're going to have to have real economics."

FURTHER RESOURCES

Go to *KansasCityFed.org/energy* to learn more about the Energy and the Economy conference series and explore information about the energy sector's impact.

RESEARCH SNAPSHOTS

Monetary policy, labor analysis, banking trends

Here are summaries of recent economic research published by the Federal Reserve Bank of Kansas City. Go to ***KansasCityFed.org/research*** to read the full publications and follow the latest analysis in ***Charting the Economy***, a stream of timely economic data curated by the Bank's research staff.

Do the effects of interest rate changes depend on the level of inflation?

Inflation, as measured by the 12-month change in the consumer price index, fell from a peak of 9% in June 2022 to 3.7% in August 2023. Despite this decline, inflation remains well above the Federal Open Market Committee's longer-run objective of 2%. In recent decades (starting in the mid-1990s), inflation generally averaged below 2%, contrasting with periods of high inflation in the 1970s and 1980s. Accordingly, many economists have interpreted inflation rates over time as being persistently "high" or "low." These regimes might influence how monetary policy affects the economy.
— Dimitris Christopoulos, Peter McAdam and Elias Tzavalis, November 2023 Economic Review

Comparing measures of rental prices can inform monetary policy

Shelter makes up one-third of the Consumer Price Index (CPI) and is important to understanding inflation developments. Comparing two measures of shelter prices—the official U.S. Bureau of Labor Statistics (BLS) dataset and the Zillow rental price index—shows that the Zillow series leads the BLS series by about six to 10 months. Changes in the Zillow series should eventually be reflected in the BLS data, so any positive gap between the two suggests that tighter monetary conditions may be needed to lower CPI inflation.
— Peter McAdam, September 2023 Economic Bulletin

Photos (top left, and above) by Getty Images

Capital flows and monetary policy in emerging markets around Federal Reserve tightening cycles

The Federal Reserve's interest rate hikes in 2022–23 raised concerns about spillover effects on smaller emerging market and developing economies. The Kansas City Fed examined the three most recent U.S. policy tightening cycles to analyze when and why central banks in emerging markets raised their own policy rates. The study found that that while emerging markets sometimes raised rates in response to capital outflows or a depreciation of their currency resulting from U.S. monetary policy, they more frequently raised rates in response to domestic inflationary pressures. The findings provide new descriptive evidence on the conduct of monetary policy in emerging markets.

— Johannes Matschke, Alice von Ende-Becker and Sai A. Sattiraju, October 2023 Economic Review

Post-pandemic shortages have limited the effect of monetary policy on the United States labor market

The labor market has so far shown remarkable resilience to the Federal Reserve's recent monetary policy tightening. Severe labor shortages in the post-pandemic era have led many employers to hold on to workers and hire less-skilled workers—even though they expect demand for their goods or services to weaken in the future. As a result, unemployment remains low, and labor productivity has declined. Unless labor shortages ease (either through increased supply or reduced demand), labor hoarding and skills mismatching likely will continue to be dominant features of the post-pandemic labor market.

— Elior Cohen, September 2023 Economic Bulletin

Do restrictions on immigration affect employment vacancies?

The decline in immigration from 2016 to 2021 provides a rare case study for understanding how firms react and adjust their online labor search in response to changes in immigration flows. The Kansas City Fed used the 2016–21 decline to study the relationship between immigration and online job postings, which contain detailed information on industry, location, and occupation. The findings showed that the decline in immigration reduced labor supply growth in labor markets that historically have relied heavily on immigrant labor, while not significantly affecting labor markets with less historical reliance on immigrant labor. Although the analysis focused on the decline in immigration from 2016 to 2021, it might also shed light on the rebound in immigration in 2022 and its evolution in the coming years.

— Elior Cohen and Samantha Shampine, August 2023 Economic Review

Photos (above and right) by Getty Images

Financing modes and lender monitoring

Shadow banks are widely believed to be a creation of financial regulation and regulatory arbitrage. A Kansas City Fed study shows that bank and nonbank modes of financing can emerge endogenously in a simple borrower-lender framework absent regulatory arbitrage or policy interventions. The coexistence of banks and shadow banks in the absence of regulatory intervention speaks to the importance of shadow banks as alternative modes of financial intermediation. The Bank study explores the scope of regulation in determining the size and location of shadow banking, as opposed to how regulation can be designed to curtail shadow bank activities.

— Arturo Antón, Kaniska Dam and Rajdeep Sengupta, November 2023 Research Working Paper

The controversial business of cash-to-crypto Bitcoin ATMs

Bitcoin ATMs, or "BTMs," are standalone machines that convert cash to cryptocurrency. They are a relatively new and less-examined part of the cryptocurrency world. This controversial industry has garnered criticism in the press as well as within the U.S. government. However, despite high fees and the recent downturn in cryptocurrency prices, some U.S. consumers are still using Bitcoin ATMs—perhaps for remittances, investment, or both. This suggests that the industry meets a demand from consumers who want an alternative to crypto exchanges. However, given the size of the Bitcoin ATM industry in the United States, the losses to uneducated crypto investors using BTMs to purchase volatile cryptocurrencies could be substantial. Further, the industry's role in facilitating money laundering and scams might pose significant risks to the public.

— Franklin Noll, August 2023 Payments System Research Briefing

Outsized decline: Oklahoma's energy employment since 2019

While Oklahoma continues to employ more oil and gas workers than any state but Texas, Oklahoma's energy sector has seen bigger job losses in recent years than any other oil and gas state. The Kansas City Fed examined the state's energy production composition, drilling productivity, and employment mix to ascertain the structural reasons for this worrisome trend. The study showed that the Oklahoma's higher share of natural gas production, lagging productivity gains, and falling number of mining establishments and office workers all contributed to the state's outsized employment decline.

— Chad Wilkerson and Chase Farha, October 2023 Oklahoma Economist

Update on Nebraska's economy and household finances

Nebraska households appear to be in a relatively solid financial position with strong job opportunities, increased wages, and robust levels of savings. Strength in the labor market does not appear to be fading much in the state, despite a small reduction in job openings. Real incomes continue to rise as wage gains have recently outpaced inflation, boosting household savings. Sharp increases in housing costs, however, may be an important indicator to monitor when considering the future strength of household finances.

— Nate Kauffman and John McCoy, October 2023 Nebraska Economist

Apartment completions will continue to surge over the next six months

Builders have been completing multifamily units during 2023 at the highest rate since the mid-1980s. The time to build multifamily units has recently been averaging about 18 months, making the rate of construction starts 18 months earlier a good predictor of completions. Based on this lag, completions are likely to surge further through at least the first half of 2024. With the deluge of new apartments going on the market, multifamily vacancies have already rebounded a percentage point above their pre-pandemic rate and are likely to continue to move up, putting downward pressure on rent inflation.

— Jordan Rappaport, November 2023 Charting the Economy

Economic benefits and social costs of legalizing recreational marijuana

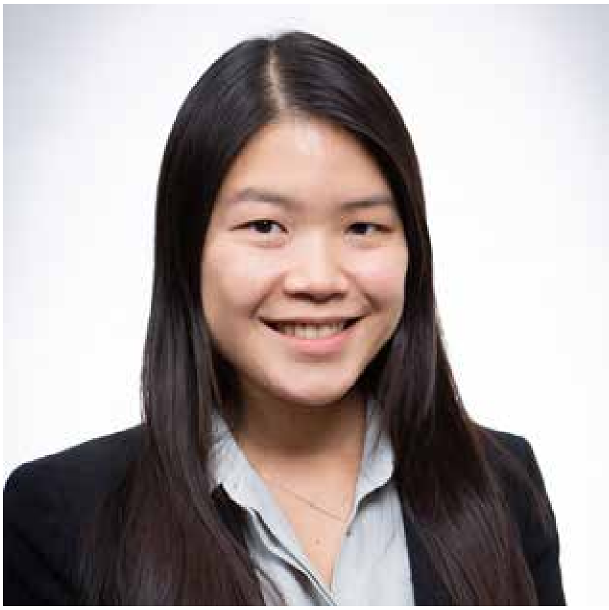
The Kansas City Fed analyzed the effects of legalizing recreational marijuana on state economic and social outcomes from 2000 to 2020. The study found moderate economic gains accompanied by some social costs. Post-legalization, average state income grew by 3%, house prices by 6%, and population by 2%. However, substance use disorders, chronic homelessness, and arrests increased by 17%, 35%, and 13%, respectively. The findings suggest that the economic benefits of legalization are broadly distributed, while the social costs may be more concentrated among individuals who use marijuana heavily. States that legalized early experienced similar social costs but larger economic gains, implying a potential first-mover advantage.

— Jason P. Brown, Elior Cohen and Alison Felix, September 2023 Research Working Paper

How *traditional credit scoring* can be A BARRIER for many consumers

by STAN AUSTIN

More than ever, consumers are barraged with media messages—including advertising enticements and warnings—about credit scores. While the public might generally know that credit scores are important, they might not know that traditional scoring methods don't always present a level playing field.



Kansas City Fed Economist Ying Lei Toh.

In a June 2023 *Economic Review* article, Kansas City Fed Economist Ying Lei Toh asserted that while credit scores are intended to help lenders make informed decisions about the risk of default, they don't always accurately reflect a borrower's ability to repay. In addition, Toh concluded, traditional credit scores may disproportionately punish consumers from economically disadvantaged groups.

"The disparity in access to credit reflects some of the socio-economic inequalities in society," Toh said.

"The credit scoring system may actually perpetuate this disparity by the way it confers benefits and advantages to people who come from more privileged backgrounds with good access to credit."

Meanwhile, Toh said, people who come from less-privileged backgrounds "are in a sense penalized because they are more likely to have experienced negative events that would pull down their credit scores, like debt collections and bankruptcies."

History of credit scores

Credit scores in the format that we know today—with a numbering system ranging from 300 (for an extremely poor credit risk) to 850 (for a superb credit evaluation)—date roughly to the late 1980s. However, efforts in the United States to standardize evaluation of creditworthiness can be traced to rudimentary local credit bureaus in the mid-1800s.

In the 1950s, Bill Fair, an engineer, and Earl Isaac, a mathematician, joined to create Fair, Isaac and Company and market a standardized credit scoring system.

Their service evolved to be known as FICO, the leading measure in traditional credit scoring.

Barriers

Toh's research shows that lenders' heavy reliance on FICO and a similar measure known as VantageScore not only affects loan approval decisions, but also the interest rates that consumers pay. That reliance can produce strong barriers for lower-income and Black or Hispanic consumers, who have lower credit scores on average, Toh said.

She cited data from the Federal Reserve's Survey of Consumer Finances showing that consumers who were below age 65, earned less than $75,000 a year, or were Black or Hispanic were substantially more likely to have their credit needs unmet or under-met. Lower-income consumers—particularly, those making less than $50,000 a year—and Black or Hispanic consumers were less likely to have applied for credit and more likely to be denied conditional on applying compared with consumers earning $75,000 or more a year and white consumers. Toh noted that one dilemma is that these consumers likely would benefit the most from access to lower-cost credit, as lower-income and Black or Hispanic consumers tend to lack savings that could help them cover unexpected emergencies.

Lance Triggs is a senior executive at Operation Hope, which helps educate individuals about credit scores.

Additional hurdles can emerge through an individual's lack of awareness. That's something that Lance Triggs has seen over the years at Operation Hope, an Atlanta-based non-profit organization that has been providing one-on-one personal finance coaching, credit building and other services since 1992. Triggs, president of the organization's Program Operations Division, said those services include helping broaden people's knowledge base as a path not only toward financial literacy but toward "financial dignity."

"At the very basic level, there are a lot of consumers who still don't really understand how the credit scoring model operates and the various factors that improve or decrease a credit score," Triggs said. "So we spend a lot of time educating people about that."

One example of what Triggs called an educational "disconnect" for consumers is that "a person can be taught about a FICO score, but there are different FICO score models," and lenders don't all use the same model.

In the Tenth District, Ponca Tribe of Nebraska member Pete Upton sees some of those same credit-awareness challenges within tribal communities. Upton, a member of the Kansas City Fed's Community Development Advisory Council (CDAC), is executive director of the Native360 Loan Fund, a certified Native Community Development Financial Institution (CDFI) providing lending services throughout Nebraska and Iowa and in parts of Kansas and South Dakota. Upton said that Native Americans comprise the CDFI's primary market, including low- to moderate-income individuals. Along with lending, providing financial literacy training is part of Native360's mission.

"Sometimes a Native CDFI can change the life of someone by helping them understand good credit," Upton said. "The communities that we serve struggle enough making ends meet, and it's our mission to bring them affordable capital." Upton noted that Native360 takes credit scores into account, but "It's not our mission to penalize them for a low credit score; it's just to get an understanding of how we can help them."

In Oklahoma, where the Citizen Potawatomi Community Development Corp. (CPCDC) provides economic-empowerment services within tribal communities, the challenge of seeking affordable credit can go beyond financial literacy.

"With Native communities there's a general mistrust of the federal government, and that can run over to the banking system," said Cindy Logsdon, the organization's chief executive officer and director. She said individuals might think " 'The bank isn't even going to look at me or give me favorable terms.' We try to bridge that gap when they're ready to form a relationship with the bank."

Logsdon, who also is a CDAC member, is a board member of the Credit Builders Alliance, a 600-member national network of non-profits working with lenders and community members to move toward equitable access to credit for everyone.

Alternative measures

In recent years, the marketplace has seen the rise of "alternative" lending models, fintechs and "Buy Now/Pay Later" services that don't rely solely or at all on traditional credit scores. For example, some fintech lenders minimize their exposure by lending based on alternative metrics, such as bank account data. Others weigh nonfinancial data, including public records, educational history, employment history, relationships and digital footprints. These alternative methods are explored in a Kansas City Fed *Payment System Research Briefing* published in June 2023 by Senior Payments Specialist Terri Bradford. The full study is available on the Bank's website. Bradford said that it's important to understand the scope of credit evaluations and how lenders are using certain data because a consumer's behavior can be read differently by traditional and non-traditional lenders.

Senior Payments Specialist Terri Bradford.

What CONSUMERS Can Do

TO HELP SHORE UP CREDIT SCORES, INDIVIDUALS CAN:

- Check their credit reports for errors. Once a year, an individual can request a credit report from the three leading credit bureaus.
- Keep credit utilization low.
- Pay off balances rather than carry a balance from month to month.
- Carefully investigate credit-builder loans and similar products designed to help boost a credit profile.

"You may be doing things that demonstrate your ability to repay, but those aren't the things that the credit bureaus are basing their decisions on," Bradford said, explaining that her study illustrates "the ways that our financial lives have changed beyond the traditional measures."

"It just highlights the fact that the old method is missing a whole lot of people, and the consequence of that has ripple effects in a whole lot of areas," Bradford said.

Although alternative data has potential to improve credit-scoring accuracy and credit access, it might take some time for the benefits to gain wide adoption among financial institutions, Bradford said.

Toh, whose study focused on traditional credit scores, added that although using more sophisticated statistical techniques in credit scoring could alleviate some disparities, "clearer regulatory guidance and more research will likely be necessary to promote the development and adoption of alternative credit-scoring models."

FURTHER RESOURCES
Read and download the full research articles at *KansasCityFed.org/research*.

NEW GENERATIONS
FOR PERSONAL FINANCE

HOW GEN Z AND MILLENNIALS INCREASINGLY ARE HANDLING MONEY VIA SOCIAL MEDIA TOOLS

by ANDREA GALLAGHER

Creighton University student Alyssa Gove says that she and her Gen Z friends enjoy the convenience and community aspects of using social media apps for finances. *Photo by Gary Barber*

As a member of Gen Z (the generation born between 1997 and 2012), Alyssa Gove has grown up with social media and everything that comes with it. Like many of her friends and classmates, the 19-year-old sophomore at Creighton University in Omaha frequently uses peer-to-peer (P2P) apps, mostly because of the convenience.

"If I go out for dinner with a friend and they cover the bill, I will Venmo them the amount that my meal cost," Gove said. "Other times I will send payments to friends as gifts for a surprise 'pick me up' or in lieu of a birthday gift if they just requested cash. It's extremely convenient to not have to carry cash around with me."

She also likes the social media aspect, which allows her to see her friends' transactions and vice versa, along with some commentary about the purchases.

"It's a nice touch, but not essential to its purpose, in my opinion," she said. "I do think that the payment 'reasons' or labels are essential because it helps me remember why I sent or received money from someone. That part is essential, I would say."

Sam Baird, a payments specialist at the Federal Reserve Bank of Kansas City, recently studied the popularity of such personal finance tools among young adults. His *Payments System Research Briefing,* "Social Media for Personal Finances: A New Trend for Millennials and Gen Z," is available at *KansasCityFed.org/research.* Baird said that, as part of Gen Z himself, he has seen the growing popularity of financial education on social media and the rise of "finfluencers" (financial influencers). He wanted to explore those trends further.

"This led to an interest in thinking about what the implications could be for these generations, as it relates to benefits and risks for consumers," Baird said.

Baird cites a 2022 *Consumer Report* survey showing that the share of consumers who have ever used a P2P app is significantly higher for younger generations (85 percent for those age 18–29 and 30–44) than for older generations (64 percent for those age 45–59 and 38 percent for those age 60 or over).

The comfort level

Lee Dunham, a finance professor at Creighton and department chair of Economics and Finance in the school's Heider College of Business, is well aware of this trend. At Creighton, Dunham helped create the FinTech major, which combines traditional finance coursework with a technical background.

"I know of many students who basically use (P2P) as their checking account," Dunham said. "The main benefit is convenience in my view, but the key risk is the likely lack of the typical consumer protections such as deposit insurance and fraud protections."

Dunham discusses the pros and cons of mobile banking, lending, investing and insurance in his FinTech classes. He sees the trend continuing toward a higher market share for banking and investment services offered by fintechs at the expense of traditional financial services firms.

"The younger generation is highly linked to their mobile and tech devices, and the idea of going to a physical bank location does not cross their minds, at least for college students that I interact with every day," Dunham said. "Many older folks want that personal relationship with someone when it comes to personal finances, but that is not the case with the younger generation."

Finance professor Lee Dunham sees the growing appeal of social media apps but points out the lack of traditional consumer protections. *Photo by Gary Barber*

Millennial James Brown of Kansas City agrees. Brown, 31, who works as an analyst in the financial investment industry, said that because his generation grew up during the transition to widespread digital technology, it tends to be more adaptable and comfortable with using online financial tools compared to the older generations.

"Younger generations embrace these tools due to their familiarity with technology, growing up as digital natives," Brown said. "The ease of use and accessibility of these apps align with the fast-paced, on-the-go lifestyle that many millennials and Gen Z individuals lead. The shift toward digital tools for financial management reflects the changing landscape of personal finance."

The risks: Beware what you share

Regardless of the app, banker Regina DeMars advises, users should understand the terms under which they are sharing data, understand who owns the technology and look up reviews to see whether there are any red flags from other users.

Markia Brown, left, and Gigi Gonzalez are social media financial influencers—"finfluencers" for short. They help educate followers about financial matters.

"Doing your due diligence before sharing sensitive information is important for electronic applications just as much as choosing your brick-and-mortar bank or financial advisor," said DeMars, director of Content Marketing & Social Media at First National Bank of Omaha. She said that using apps for personal finance can have benefits, such as the convenience, but users should always be aware of risks and keep a close eye on their accounts.

"Having financial information readily available on your mobile device is very convenient but could make it easier for others to access if you misplace your phone," DeMars said. "It's essential to use these apps securely by enabling two-factor authentication, setting up strong PINs or passwords and being cautious when sharing personal information."

The 'finfluencers'

At Creighton, Gove is studying finance and economics. In addition to her traditional academic work, she has learned about personal finance through finfluencers on TikTok and YouTube and appreciates the snippets of information that those platforms provide.

"I've learned so much about personal finance and investing from these types of (social media) accounts, and while I always do outside research, they have helped me learn how to manage my finances now and plan for the future," Gove said. "That type of information is not nearly talked about enough, especially to young people in school, so I think these accounts are such a good way to educate young people on how to save and invest their money."

One well-known finfluencer is Markia Brown, a certified financial education instructor who focuses on empowering young adults through financial knowledge. Based on the West Coast, Brown has more than 200,000 followers across various social media platforms. She said that most of them are Gen Zers and millennials who find such content easy to digest and relatable to their age groups.

"Before social media, the personal finance space was not as inclusive and diverse as now," Brown said. "The information also wasn't as easy to come across. Now, communities that were traditionally excluded from conversations about personal finance, like salary negotiations and investing, are not only able to access these conversations but actively participate and learn."

Gigi Gonzalez, whose website "The First Gen Mentor" offers financial education, added: "(Young adults) are already spending the majority of their time scrolling on social media for entertainment or to connect with friends or community...Whether people like it or not, young folks trust social media influencers more than traditional institutions."

Last year Brown and Gonzalez were featured panelists at the National Credit Union Association's Annual Summit. In Brown's presentations, she focuses on how she has used social media to provide financial education to minority underbanked communities. She doesn't tell people what to do, she said, but rather aims to make people aware of possible outcomes so that they can make educated decisions.

The outlook

As for future trends, personal finance tools and apps probably will become more personalized, said DeMars, the banker. But she said it still will be up to the consumer to identify potential risks and always be cautious.

Baird, the Kansas City Fed payments specialist, added that in addition to the risks of combining personal finance and social media, misinformation associated with financial advice on social media will remain a risk for consumers.

> "IT WILL BE IMPORTANT FOR REGULATORS TO CONTINUE TO MONITOR FRAUD VIA P2P PAYMENTS AND SOCIAL COMMERCE."
>
> — Sam Baird

"That includes risks," Brown warned. "I have an entire playlist on TikTok dedicated to exposing poor credit advice and the people who give it, often outlining the consequences one can face for the actions described. Ignorance of the law is no excuse, and my platform ensures people are educated on consumer law topics or at least where to find more information on it."

Sam Baird, Kansas City Fed payments specialist

Losses associated with payment apps have increased over the years, from $50 million in 2019 to $164 million in 2022, according to the Federal Trade Commission. Though not all of these losses resulted from social media, the FTC warns consumers that scammers can take advantage of people through P2P apps.

"It will be important for regulators to continue to monitor fraud via P2P payments and social commerce," Baird said.

For Gen Zers like Gove, the bottom line is to educate yourself, know the risks and know whom to trust for financial advice.

"I think it's important to do your own research, talk with family and friends, and even consult a professional if needed," she said. "I think videos are great to get young people thinking about finance, but they definitely shouldn't be their sole source of financial advice."

FURTHER RESOURCES
Read the full *Payments System Research Briefing* at *KansasCityFed.org/research* or scan the QR code.

CONNECTING WITH THE COMMUNITY

KANSAS CITY FED DIRECTORS, OFFICERS GATHER IN ALBUQUERQUE

Photo courtesy of Getty Images

by GRACE M. MORRISON

Each year the Kansas City Fed's four boards of directors—representing the head office and the three branch offices—gather in a Tenth District city for a joint meeting. In addition to providing a setting for discussions on Reserve Bank business, these meetings offer opportunities for Bank officials to interact with people in the hosting communities and gain better understanding of the local and regional economies.

In October 2023, the joint meeting took place in Albuquerque, home of María Griego-Raby, deputy chair of the head office board of directors and president and principal of Contract Associates. Griego-Raby guided Bank President Jeff Schmid, the directors and Bank officers on visits to parts of the Albuquerque community.

One highlight was a tour of Los Poblanos Historic Inn & Organic Farm in the village of Los Ranchos de Albuquerque. Directors and bank leaders learned about the family-run business, which was founded in 1932 as an experimental farm raising livestock, growing oats and corn, and producing a variety of flowers. Since 1999, the farm has grown lavender and produced lavender products for sale. During the tour, Director of Horticulture

Attendees included Kansas City Fed First Vice President Kelly Dubbert (left) and Oklahoma City Director Mark Burrage.

Albuquerque is the home of María Griego-Raby, deputy chair of the head office board of directors.

Wes Brittenham explained Los Poblanos' approach to regenerative farming and showed how some of the farm's fields are dedicated to on-site food production.

The October joint gathering was the first since Schmid became president in August 2023. At a luncheon attended by more than 100 Albuquerque-area business and community leaders, he delivered a speech emphasizing the importance of the Bank's connections to the communities it serves and detailing his transition "from community banker to central banker." (See page 1 to read Schmid's full remarks.)

"One of the most important parts of what we do as a central bank is connect with people in and around America, and notably, here in New Mexico," Schmid said.

FURTHER RESOURCES
Learn more about the Bank directors and their work at *KansasCityFed.org/about-us/leadership/*.

Reserve Bank senior officers and directors toured the Los Poblanos Historic Inn & Organic Farm and learned about regenerative farming from Director of Horticulture Wes Brittenham.

At the Los Poblanos gift shop, President Jeff Schmid struck up a conversation with two shoppers from the area.

BRIDGING THE DIGITAL DIVIDE

HELPING COMMUNITIES, LEADERS NAVIGATE PATHS TO EQUITABLE BROADBAND CONNECTIVITY AND SERVICES

by KAYLA R. REGAN and STAN AUSTIN

Since 2019, digital inclusion has been a focus area of the Kansas City Fed's community development work. The Bank continues its efforts to help ensure that individuals and communities have access to the internet, as well as the devices and skills to use it.

The Bank's work to help bridge the digital divide ranges from community-based research to interaction with state, regional and tribal organizations using new federal funding to develop broadband expansion programs. The Bank also has facilitated donations of hundreds of laptops for refurbishment and distribution in Tenth District communities.

Practical applications of community research

Researchers continue to make progress collecting data on digital inclusion and analyzing the efficacy of initiatives to promote it. However, this research doesn't always reach the community development practitioners and policymakers who can develop practical applications from the work.

This is why the Federal Reserve Banks of Atlanta, Dallas, Kansas City and Philadelphia hosted the Digital Inclusion Research Forum in October in Dallas. At the event, academics and researchers convened with community practitioners and policymakers to discuss the practical applications of digital inclusion research. Attendees, including Kansas City Fed Assistant Vice President and Community Affairs Officer Jeremy Hegle and Lead Community Development Advisor Steven Shepelwich, also discussed broadband policy, data collection and analysis, and the real-time demand for digital skills in the labor market. Learn more and see presentations from the forum at *DallasFed.org/cd/events/2023/23di*.

State digital equity plan workshops

The 2021 Infrastructure and Jobs Act outlined $2.75 billion for digital equity programs across states, U.S. territories and tribal governments. It marked the federal government's first broad investment in such programming. Hegle, a leader in the Federal Reserve System on digital inclusion, explained that because the funding had not existed, federal, state and local leaders were starting from scratch in creating their plans.

With this in mind, in 2022 and 2023, the Kansas City Fed and eight other Reserve Banks hosted digital equity planning workshops across the country. Of the 56 states and U.S. territories that received digital equity planning grants, 47 attended the workshops. Hegle led many of the sessions.

"At a high level, the role of the Federal Reserve is to support a strong economy. Most people see this through our work regulating banks, managing payment systems, and setting monetary policy," said Hegle, whose work has focused on digital equity. "But we also know that that the economy is strongest when everyone has access to jobs, education and commerce. This is where the Federal Reserve's community development efforts come into play."

Broadband in tribal communities

In October, the Center for Indian Country Development (CICD) at the Federal Reserve Bank of Minneapolis hosted "Nuts, Bolts, and Cables: Opportunities in Tribal Broadband," part of a series of webinar conversations on cultivating Native economies. The event was held in partnership with the Kansas City Fed and the American Indian Policy Institute at Arizona State University.

Shepelwich and other participants discussed research from the CICD showing that tribal areas have inadequate access to high-speed internet. The CICD called for more accurate and comprehensive data on the state of broadband across Indian Country in order to best utilize new funding and potential partnerships that are opening opportunities for tribes to improve digital infrastructure. Learn more at *MinneapolisFed.org/indiancountry*.

The broadband data walk research project identified three main themes:

- Being a historically redlined and disinvested neighborhood comes with ongoing challenges.
- Few residents trust internet service providers to serve residents' best interests.
- Residents want to better understand technology.

Lessons from a broadband data walk

In many neighborhoods, people who can subscribe to broadband don't. They know that access to the internet is essential to survival, and that without it they lack access to health care, jobs and government services. It is possible people don't subscribe because it's too expensive, or they may not have broadband access at all. In 2022, the Kansas City Fed's Community Development team engaged one unsubscribed Kansas City neighborhood in meaningful conversation. These community conversations culminated with the September 2023, release of "Crossing the Divide: What We Learned From a Disconnected Neighborhood," a report available to the public at *KansasCityFed.org/community*.

FURTHER RESOURCES

Follow the Bank's digital inclusion work at *KansasCityFed.org/community/digital-divide.*

NEW PAYMENTS SERVICE CONTINUES MOMENTUM

The Federal Reserve's first new payment rail in 50 years, the FedNow Service, launched in July 2023, joining the Fed's existing suite of payment services such as the Fedwire® Funds Service and FedACH®. The introduction of the FedNow Service is the culmination of four years of development and supports the Fed's mission to promote a safe, efficient, and accessible payment system for the United States.

The FedNow Service launched with 35 participating institutions and has seen steady growth with a broad geographic reach. Comprising a diverse group of community banks and credit unions as well as some of the largest financial institutions in the country, the network surpassed 300 institutions across 45 states by year's end.

The Federal Reserve expects strong network growth to continue in 2024, bringing accessibility to the FedNow Service through the longstanding connections the Fed has with thousands of financial institutions across the country.

With the service now live, the Fed's focus is on growing the network and helping financial institutions onboard. Looking ahead, the Fed will continue to enhance FedNow with new features and functionality as market needs evolve.

Moving payments instantly

Through the FedNow Service, banks and credit unions can move payments immediately—24 hours a day, seven days a week, every day of the year. Through financial institutions participating in FedNow, businesses and individuals can send and receive instant payments at any time of day, and recipients have full access to those funds immediately. That means consumers and businesses have flexibility to manage their money, especially when making time-sensitive payments.

Increased appetite for instant payments

According to surveys by the Federal Reserve, U.S. businesses and consumers continue to express a desire for instant payments (*FedPaymentsImprovement.org*). A majority of businesses (83%) and consumers (75%) already are using faster forms of payment, and most (66% of businesses and 61% of consumers) say they are likely to use faster payments more often in the future.

In the surveys, businesses highlighted the importance of flexible payment options to help them remain responsive in a changing business environment. Consumers continue to exhibit a preference for online banking options, with use of mobile payment apps increasing beyond expected groups such as millennials and GenZ. (Learn more about young adults and payment apps on page 30.)

Leveraging the platform for new solutions

As demand for instant payment grows, so does the proliferation of new use cases that can leverage them. During a December 2023 FedNow Service Town Hall webinar, financial institutions and payment service providers presented innovative examples of leveraging the FedNow platform to offer new solutions, solve existing end-user pain points and improve customer satisfaction.

Panelists from the payments industry cited the benefits of instant payments for their customers as a driver of their participation. They also expressed a desire to provide an exceptional customer experience and remain competitive in an evolving payment landscape.

Early adopters of the FedNow Service have cited a variety of instant payment use cases they are currently enabling or view as potential opportunities. Examples included parents sending funds to their children, real estate transactions, individual investors moving money in and out of accounts, and buying and selling cars.

Opportunities for financial institutions

Kansas City Fed President Jeff Schmid recently promoted the opportunities of the FedNow Service to Tenth District financial institutions.

"The Federal Reserve has been at the forefront of improving accessibility, safety and efficiency of the U.S. payment system throughout its 110-year history," Schmid said. "The FedNow Service is the latest innovation."

"FedNow offers financial institutions instant payment clearing and settlement and is an important step in the journey to achieve instant payments ubiquity in the United States," Schmid added.

The FedNow Service has many use cases, and these will continue to grow and evolve with advancements in technology and increasing demand for instant payments. Broader reach of real-time payments will allow workers to have immediate access to their paychecks, consumers to pay bills electronically much more quickly, small businesses to manage their cash flow more efficiently, and more.

The Fed's decision to offer the FedNow Service to financial institutions of all sizes across the country is important for supporting equitable access to instant payments for the American public.

FURTHER RESOURCES

Go to *FedNowExplorer.org* to learn more about instant payments and sign up to receive updates on the FedNow Service.

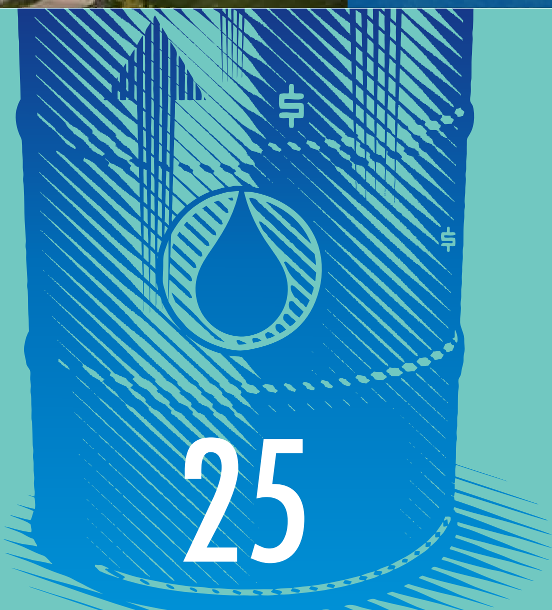
Tenth District *by the numbers*

ECONOMIC INDICATORS, FACTS AND TRENDS FROM THE SEVEN STATES

$164.3 million

Total economic impact from Kansas City hosting the NFL Draft in April 2023, with 60% coming from accommodations.

Source: Visit KC



25

The number of consecutive months, through September 2023, that prices for Wyoming oil exceeded $70 per barrel.

Source: Wyoming Department of Administration and Information

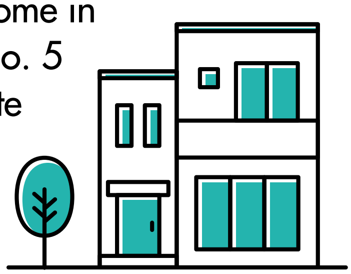
$6.4 billion

A Nebraska advisory board's projection of state revenue for the fiscal year ending June 30, 2024, up slightly from a previous projection.

Source: Nebraska Economic Forecasting Advisory Board

$189,000

The value of a typical home in Oklahoma, making it No. 5 nationally in a real estate organization's ranking of least-expensive states for housing.



Source: Agent Advice

MORE ECONOMIC DATA

The Bank regularly publishes data about regional and national economic conditions at *KansasCityFed.org/research/indicatorsdata.*

03456431

29.1%

The passenger traffic increase at Denver International Airport through the first six months of 2023, including a record 6.7 million travelers in June, compared with the same period in 2022.

Source: Denver International Airport

$7 million

The state's share of revenue—from sporting bet taxes—from the first calendar year of legal sports wagering in Kansas.

Source: Kansas Lottery

50,000

The number of customers across 26 underserved New Mexico communities to receive broadband access through $11.8 million in approved funding.

Source: New Mexico Public Regulation Commission

FROM THE VAULT

Kansas City Fed History

A snapshot of employee Joye Julius at the mainframe console in Kansas City. *Bank archives*

One giant leap for technology

Well, it probably wasn't as momentous as Neil Armstrong's first steps on the moon that same year, but in 1969 the Tenth District began implementing a computer system that allowed the Bank to make major strides into the digital age.

In February 1969, the Bank's board of directors approved a project that would install IBM S/360 computers at the head office and the three branches. The S/360, which IBM introduced in 1964 and touted as "a turning point in mainframe history" enabled the Bank to significantly improve communication, data processing and check handling. Additionally, according to an employee newsletter, the system included new database technology that "allows the user direct access to a central District data file from remote locations."

The system rollout began in Omaha in November 1969 and extended into early 1970 with Denver and Oklahoma City. Kansas City's installation was last.

"By adapting the latest data handling concepts to our operations and research activities, we will be better equipped to fulfill our responsibilities to the public, to our member banks, and to the national economy," Kansas City Fed President George H. Clay said when the project was approved.

The S/360 was an important technological step,, and over the decades the Bank has implemented numerous innovations to help advance its mission. Information technology professionals now make up nearly half of the District's workforce.

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CHANGE SERVICE REQUESTED