COLLEGE COSTS

After soaring for years, tuition inflation has slowed significantly
RISE AND FALL
After soaring for more than 20 years, college tuition inflation has slowed markedly in recent years.

OUTLOOK FOR FARMLAND VALUES
Reduced interest rate spreads and a recent uptick in sales in some states suggest that a decline in farmland values could be on the horizon.

EXPLAINING LIFETIME EARNINGS
Senior Economist José Mustre-del-Río and Assistant Economist Emily Pollard show how labor market experience and other factors affect lifetime earnings differences.

INVESTING IN STRONGER COMMUNITIES
In its ninth year, the Kansas City Fed’s Investment Connection program is linking nonprofits with financial institutions, foundations and government agencies.
Is low inflation a problem for the United States?

As central banks have done in other countries, the Federal Reserve last November announced its plans to review its monetary policy strategy, tools and communications practices. This review strikes me as appropriate given the changes that occur over time in our economy, but it may be especially important now in a low-interest-rate environment. I look forward to the ideas that may come forward as part of this review, even as I offer a few thoughts of my own here on the Federal Reserve’s price stability mandate and the Federal Open Market Committee’s (FOMC) inflation objective and policy strategies.

The balanced approach

Fostering a strong labor market while maintaining price stability is the core of the Federal Reserve’s dual mandate from Congress. With the unemployment rate at an historic low level and inflation currently running under the FOMC’s objective, a longer-run policy issue is whether the persistent undershoot of the inflation objective is undermining its credibility and causing inflation to be anchored at too low a level. Some have expressed concern that if inflation expectations fall persistently below the 2 percent objective, that the extent we could lower real interest rates by reducing our target for the federal funds rate—the Fed’s key policy tool—would be diminished.

This could limit the accommodation we could provide in a future downturn because interest rates cannot fall below a lower bound of roughly zero percent.

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 inflation has fluctuated in a range of roughly 1½ to 2 percent, except during 2015 when a strong dollar pushed core inflation somewhat below 1½ percent.

As long as inflation was below its objective and unemployment was above its longer-run level, it was appropriate to run an accommodative policy to promote the movement of both variables back toward their longer-run sustainable levels. Accommodative policies tend to lower unemployment and, generally speaking, increase inflation.

But with the unemployment rate now below its longer-run level, should we still be concerned about inflation running slightly below target? As I listen to business and community leaders around my region, I hear few complaints about inflation being too low. In fact, I
In May, Esther George joined Minneapolis Fed President Neel Kashkari at a meeting of the Economic Club of Minnesota. Photo courtesy of Economic Club of Minnesota.

am more likely to hear disbelief when I mention that inflation is as low as measured in a number of key sectors.

This leads me to the observation that inflation as experienced by households and businesses is fundamentally different from inflation as viewed by financial market participants and many economists. Households see the prices of everyday goods such as food, energy, rents and health care rising and don’t understand why the Fed would be concerned that inflation is too low. Their short-run expectations for inflation are driven largely by changes in retail gasoline prices while their longer-run expectations, as measured by the University of Michigan, have been fairly stable.

Businesses see their labor and other input costs rising, and with limited pricing power, see their profit margins squeezed. For them, the product prices they charge are determined by structural factors such as global competition and technological disruption that don’t necessarily respond to monetary policy, while their costs are driven by tight labor and commodity market conditions.

In contrast, financial market participants see inflation and inflation expectations as key drivers of monetary policy decisions. They look at past, current and expected future inflation relative to target to form a view about the policy path that they then use to price financial market instruments. If they perceive the 2 percent inflation objective as a line in the sand that the Fed does not want to overshoot, they may come to expect inflation to run below 2 percent over the longer run. This concern has led to calls for the Fed to ease rates to boost inflation and inflation expectations higher in an effort to maintain the credibility of the target and preserve policy space. But even if such a policy were effective, how is policy space preserved if rates have to be cut to boost longer-run inflation expectations?

Context for FOMC decisions

Even with these concerns, 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 longer-run 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 goal. It would seem reasonable that even somewhat persistent deviations from
the objective, if they are limited to, say 50 basis points above or below, may be acceptable taken in the context of broader economic conditions.

The FOMC anticipated that its objectives for employment and inflation could move in different directions. It addresses this issue in its annual “Statement on Longer-Run Goals and Monetary Policy Strategy,” noting that when its objectives are not complementary, the Committee follows 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 neutral rate of interest.

The current level of inflation may perplex central bankers and financial market participants, but in the context of a growing economy and job gains, it doesn’t demand a Fed policy response in my view.”

What this means is that we should not focus on one leg of the mandate without consideration for the other. For example, cutting interest rates today to boost inflation to 2 percent at some point in the future would likely cause labor markets to tighten further, leading to a reallocation of resources into the most interest sensitive sectors. Given the current unresponsiveness of inflation to labor market tightness, it might take a considerable further easing of policy and considerable further tightening of labor market conditions to have the desired impact on inflation. And given the lags with which monetary policy operates, it may take a considerable period of time. In the meantime, lower interest rates might fuel asset price bubbles, create financial imbalances, and ultimately a recession.

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 neutral rate of interest.

The current level of inflation may perplex central bankers and financial market participants, but in the context of a growing economy and job gains, it doesn’t demand a Fed policy response in my view. Steering what is currently a low and stable rate of inflation up by 20-50 basis points to reach a precise numerical target, while disregarding the labor market, the other leg of our dual mandate, strikes me as a degree of fine-tuning that goes beyond our span of control.

This message is based on remarks from President Esther George’s visit to Minneapolis in May.

Esther George
Notes from around the Tenth District

Denver ‘Rock the Fed’ brings financial education to students through music

In May, the Bank and Funding the Future, a nonprofit organization focused on teaching financial literacy to students, hosted a “Rock the Fed” educational concert at the Denver Branch. Colorado-based hip-hop and R&B duo The Reminders performed and delivered personal finance wisdom for nearly 100 students from Denver’s Strive-PREP Rise High School.

“It’s a creative way to engage students at a young age and encourage them to begin thinking about fiscal responsibility,” said Senior Public Affairs Specialist Erin Davis, who organized the event. “The message also resonates with the students because The Reminders openly discuss financial misconceptions that impacted them early in their careers.”

The Reminders are husband and wife Aja Black and Big Samir. The performers are from Colorado Springs and have shared stages with such artists as Snoop Dogg and K’Naan. The couple talked to students about the importance of saving, having a plan, how to build credit, the dangers of predatory lending and how making wise financial decisions can turn dreams into a reality.

“I thought we were just going to a bank,” said Strive-PREP Rise student Antonio Brunetti. “But now I know more about how to make money and how to have a wealth mentality.”

The event was the second Rock the Fed concert in recent years that the Denver Branch has presented in partnership with Funding the Future.

Funding the Future, based in Wyoming, brings concerts to middle and high schools nationwide with the aim of helping students learn to make smart financial decisions.

FURTHER RESOURCES
Personal finance resources are available at KansasCityFed.org/education.

Students from Strive-PREP Rise High School attended the “Rock the Fed” concert and financial education event in May at the Denver Branch. Photo by Erin Davis
Economist receives Early Career Achievement Award from Oklahoma State

Kansas City Fed Economist Cortney Cowley recently received the Early Career Achievement Award from her alma mater, Oklahoma State University in Stillwater.

The university’s College of Agricultural Sciences and Natural Resources annually presents the award to two former students who have found early success in their careers. Cowley, who works in the Bank’s Omaha Branch, earned a bachelor’s degree in biosystems engineering at Oklahoma State (OSU) and, after completing a master’s degree in civil engineering at Colorado State University, received a doctorate in agricultural economics at OSU. Travis Bradshaw, an agricultural education instructor in Burlington, Oklahoma, was the other 2019 Early Career Achievement honoree.

At the Bank, Cowley conducts research related to the farm economy, agricultural finance and natural resources and is a contributor to the Economic Review research journal.

“I feel gratitude for the opportunities I’ve had early in my career and pride in being a part of the Federal Reserve Bank of Kansas City,” Cowley said. “As an agricultural economist, I have the unique opportunity to work with an incredible team that is the leader in agricultural economic analysis for the Federal Reserve System. I think we do great work, but it is very rewarding to have others recognize that as well.”

While in Stillwater for the awards presentation, Cowley presented a research seminar for the university’s Department of Agricultural Economics and met with undergraduate and graduate students to discuss her career at the Bank.

Presenting the Early Career Achievement Award to Cortney Cowley (center) were Oklahoma State University administrators Thomas Coon and Cinda Clary. Photo courtesy Oklahoma State University

FURTHER RESOURCES
Read the work of Bank economists at KansasCityFed.org/research.
At the 2019 Math X Event, an interactive game and discussions led by Bank research staff helped teens learn about the field of economics. Photo by Gary Barber

Math X provides up-close view of economics field

About 50 students from Kansas City area high schools attended the Kansas City Fed’s annual Math X Economics event in February.

The purpose of the event is to introduce the field of economics to high school students, with the hope that they might consider studying it in college and choosing it as a career.

The 2019 Math X program included presentations and activities led by the Bank’s research associates, who typically work in Economic Research for two to three years after receiving their undergraduate degrees.

“I think the best way to get students interested in the field is to show how economic thinking can be applied to so many topics, so almost everyone can find something that speaks to them,” said McKenzie Humann, a research associate who led some of the Math X activities.

The fast-paced program featured an interactive icebreaker, an overview of the field of economics, group discussions with Bank employees and a game activity in which students had to use limited resources to buy and barter materials as prices fluctuated. The game taught economic concepts such as the benefits of trade and the elasticity of demand. Students found the program eye-opening.

“I’m learning that lots of things I learn at school go into economics,” said Nikela Reed, a junior at Ruskin High School in Kansas City, Missouri. “Biology, sociology, math, behavioral science—these are all part of economics.”

NaAliah Griffith, a senior at Center High School in Kansas City, Missouri, plans to major in finance and enjoyed learning about career possibilities within the world of economics. NaAliah attended the 2018 Math X event and felt that the game activity helped build on what she had learned.

“This is more about how to use resources wisely and think strategically—and be aware of other people around us,” she said. “It’s really cool.”

FURTHER RESOURCES
Learn more about the work of economists at the Bank at KansasCityFed.org/research.
Humston appointed to lead Supervision and Risk Management

Tara Humston, a Topeka, Kansas, native and career bank supervisor at the Kansas City Fed, has been named senior vice president with responsibility for the Bank’s Supervision and Risk Management Division.

With the promotion, Humston joins the Bank’s Management Committee and will lead the supervision of the Tenth District’s state member banks, bank holding companies and savings and loan holding companies. In addition, she will be responsible for the Bank’s discount window and national technology initiatives supporting Federal Reserve System supervision staff.

The Tenth Federal Reserve District, which includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, western Missouri and northern New Mexico, is home to 180 state member banks.

Humston began her career at the Bank as an analyst in the Bank’s Statistical Services Department in 1998. She transferred to the Exams and Inspections Department as an assistant examiner in 1999 and held various examiner positions before being promoted to manager in 2005. She was appointed assistant vice president in 2010 with responsibility for the Administrative Services, Information Services, and Surveillance and Risk Analysis departments. She returned to the Exams and Inspections Department in 2011.

In 2015, Humston expanded her responsibilities and served as assistant secretary to the Board of Directors for two years. In 2016 she was appointed vice president of Support Solutions; Credit and Risk Management; and Statistics, Structure and Reserves. Humston also has led Federal Reserve System assignments.

She succeeds Kevin Moore as SRM’s leader. Moore retired after 37 years of service with the Bank. Humston’s promotion was effective May 1.

Humston has a bachelor’s degree in accounting and business administration from the University of Kansas.

FURTHER RESOURCES
Learn more about the Bank’s Supervision and Risk Management role at KansasCityFed.org/banking.
Communities across the country are in an economic race, and broadband internet access is a critical element. Broadband allows businesses large and small to reach customers, farmers to deploy resource-saving technologies, and workers to learn critical job skills.

Lack of broadband, community advisors told the Kansas City Fed, is a major problem for many rural and low- and moderate-income communities. Now, after more than a year of research, the Bank later this summer will release a comprehensive report, “Disconnected: The Digital Divide and How to Fix It.”

The Kansas City Fed launched its digital inclusion project in early 2018 to outline issues related to the digital divide and identify innovative approaches that communities were taking to narrow it. Through a combination of community leader roundtables, one-on-one interviews and a national online survey, the Kansas City Fed engaged more than 150 community leaders.

“Disconnected” is not a technical report. It is written for laypersons to provide a complete understanding of digital inclusion and its relevance to community and economic development. Findings are organized by seven themes that emerged throughout the study. Each theme combines relevant research and statistics, as well as stories of how the issue plays out in our communities.

To learn more about this initiative and be alerted when the report is available, contact the Kansas City Fed’s Community Affairs staff at Digital@kc.frb.org.
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

» President Esther George with New York Fed employees in March at a Money Marketeers event in New York City. Photo by Kenneth Kim

» Esther George met with Tenth District bankers during the American Bankers Association (ABA) Washington, D.C., Summit in April.
At the ABA Washington Summit, Esther George participated in a panel discussion with (from left) ABA President and Chief Executive Officer Rob Nichols, Richmond Fed President Thomas Barkin and Atlanta Fed President Raphael Bostic. Photo by David Hathcox

In May, producers of the St. Louis Fed’s “Timely Topics: Women in Economics” podcast series interviewed Esther George at the Kansas City Fed’s Studio 10. Listen at StLouisFed.org, Apple, Spotify, Stitcher or TuneIn. Photo by Gary Barber
In May, the Omaha Branch hosted an economic forum in La Vista, Nebraska. After Esther George’s remarks on the nation’s economy and monetary policy, she spoke with Carmen Tapio, president and chief executive officer of North End Teleservices in Omaha, and Javier Fernandez, chief financial officer of the Omaha Public Power District.
In April, Esther George, Omaha Branch Executive Nathan Kauffman and members of the Omaha Branch Board of Directors toured BluePrint Engines as part of the board’s meeting in Kearney, Nebraska. The group also toured the Health Science Center (top photo) at the University of Nebraska at Kearney.
Colorado, New Mexico, Wyoming »

» Erin Davis, senior public affairs specialist at the Denver Branch, was a panel judge at Problem Based Learning Day at Northglenn High School, in Northglenn, Colorado. Davis heard presentations from seniors on the topic of personal finance education.

» Alison Felix, vice president, economist and Denver Branch executive, visited Grand Junction (left) and Steamboat Springs in Colorado to lead roundtables on the regional economy and get feedback from local business and community leaders.
Chad Wilkerson, vice president, economist and Oklahoma City Branch executive, speaks to students at the Outstanding Economic Student Awards. The Oklahoma City Branch partners with the Oklahoma Council on Economic Education to recognize students statewide who excel in economics.

The Oklahoma City Branch honored students from 16 Oklahoma high schools for completing the 2018-19 Student Board of Directors program.

Senior Community Affairs Advisor Steve Shepelwich with Oklahoma City Community Foundation officials Nancy Anthony (left) and Kelley Barnes after a Work-based Learning conference.
Omaha Branch Public Affairs Specialist Nicole Connelly discusses college and career options with students at Omaha’s Miller Park Elementary School during a program hosted by the Omaha Branch.

The Omaha Branch Student Board of Directors visited Mutual of Omaha offices to learn about careers and the insurance and financial services company’s connection to the local economy.

Vice President, Omaha Branch Executive and Economist Nathan Kauffman talks with students at Omaha’s Conestoga Elementary School as part of Teach Children to Save Day. Omaha Branch employees visited kindergarten through third-grade classrooms to read books and lead activities focused on saving money.
Decades before the dawn of the Civil War, there were discussions about creating black-owned banks in the United States. These institutions would serve not only as vital and necessary catalysts for economic opportunity, but also stand as powerful symbols in the fight against slavery and for racial equality. Given the environment, it is understandable why these earliest visions could not be immediately realized.

Although the war eventually brought freedom, access to the nation’s established financial system was not forthcoming. Instead, the necessary credit to establish a business or help a family had to be sought through non-traditional channels, such as through wealthy individuals who were willing to lend or cooperative initiatives. Often these efforts only achieved limited success. Meanwhile, a bank established by the government to serve the former slaves – known as Freedman’s Bank – came under the control of established financiers. The machinations of these powerful individuals, who used the bank’s resources for their own purposes, decimated the life savings of thousands of depositors.
Finally, in the late 1800s, the dreams of the earliest visionaries were realized. The nation’s first black bankers were able to overcome numerous challenges to begin serving as an important source of credit while also providing training and jobs. These banks were among the most innovative and resilient of the era. They were truly community banks, offering the benefits described by the historic Maggie Lena Walker, who later became famous as the nation’s first female minority banker and described the mission of the bank as follows:

“Let us put our moneys together. Let us use our moneys; let us put our moneys out at usury among ourselves and reap the benefit ourselves. Let us have a bank that will take the nickels and turn them into dollars.”

When the Alabama Penny Savings Bank (above) opened in 1890 in Birmingham, Alabama, it lacked a state charter, couldn’t pay its staff and accepted deposits on a table. By century’s end, it had become a successful state bank, weathered a major financial panic and created an innovative program to increase home ownership among its customers.

FURTHER RESOURCES
Go to KansasCityFed.org/letusputourmoneytogether to see video discussions of this book and get access to other historical books published by the Bank.
In 2018, the spread between returns to farmland owners and benchmark interest rates narrowed to its lowest level in more than a decade in the Tenth Federal Reserve District. At the same time, farmland sales increased in some states for the first time in several years. Together, the reduced spread and indications of increased sales in some regions suggest the potential for lower farmland values moving forward. These findings are examined in research published in April 2019 by Economist Cortney Cowley and Vice President, Economist and Omaha Branch Executive Nathan Kauffman.

**RELATIVE STABILITY FOR FARM REAL ESTATE**
Low commodity prices and deteriorating farm income have placed pressure on farm real estate markets in recent years. From 2013 to 2018, farm income in the United States declined more than 50 percent, and working capital declined 65 percent. Despite these developments, the Federal Reserve Bank of Kansas City's Survey of Agricultural Credit Conditions shows farmland values remained relatively stable, declining only modestly in most areas. Indeed, Tenth District cropland values declined only 16 percent from 2013 to 2018. Farmland values in other states across the Midwest and Great Plains declined by similarly modest amounts over this period.

![Graph of Nonirrigated Cropland Values in the Tenth District](image)

*Source: Federal Reserve Bank of Kansas City.*

**STEADY DECREASE IN CAPITALIZATION RATES**
Despite significant declines in liquidity, farm borrowers have remained relatively solvent, and agricultural lenders have drawn on the value of farm real estate when managing risk in their farm loan portfolios. However, even as farm real estate markets have been relatively stable amid significant declines in commodity prices and farm income, risks of further declines in farmland values appear to have increased. Capitalization rates, which can be calculated as the ratio of cash rents to farmland values, have decreased continuously the last 10 years, coinciding with a rise in interest rates.

![Graph of Capitalization Rates and Benchmark Interest Rates](image)

*Note: The capitalization rate is the ratio of cash rents for nonirrigated cropland divided by values for nonirrigated cropland.*

*Sources: Federal Reserve Bank of Kansas City and Board of Governors of the Federal Reserve System (Federal Reserve Bank of St. Louis FRED Economic Data).*
LAND SALES INCREASE, BUT VALUES COULD FALL

A recent increase in farmland sales in some states also suggests that a decline in farmland values could be on the horizon. In 2018, the volume of farmland sales increased in some Tenth District states for the first time in several years. Throughout the downturn in the agricultural economy over the last five years, a persistently low volume of land sales has contributed to the stability of farmland values. However, a majority of agricultural banks in Kansas and Nebraska reported an increase in the volume of farmland sales in 2018 relative to the previous year. Although the volume of farmland sales declined in other parts of the District, the overall pace of the decline slowed considerably.

DUAL FORCES IMPACTING OUTLOOK

Together, the uptick in farmland sales in some states and the lower spread between returns to farmland and benchmark interest rates suggest farmland values could decline further. Farmland values have remained relatively stable, and demand for farmland generally has remained steady. For example, despite significant declines in farm income, farmers generally have remained active buyers in farm real estate markets. In fact, farmers accounted for more than 75 percent of farmland purchases in the Tenth District in 2018. One explanation for this trend is that farmers and investors continue to be attracted to farmland as a strategic investment. In addition, farmers and investors may be more willing to accept lower returns on farmland than in the past. However, if farmland sales continue to increase in 2019 alongside persistently low agricultural commodity prices and higher interest rates, farmland values could decline further.

FURTHER RESOURCES

Read the full analysis by Cortney Cowley and Nathan Kauffman at KansasCityFed.org/economicbulletin.
All across the country this summer, newly minted high school graduates and their families are preparing for the greatly anticipated freshman year of college.

And whether that pivotal year takes place at a mega-campus or small school, state-funded institution or private university, these young adults will face the same stark reality that greeted their parents’ generation: tuition costs that seem to climb every year. Although many disparate factors can impact what a student ultimately pays for a college education, new research by the Federal Reserve Bank of Kansas City shows that the overall pace of college tuition inflation actually has slowed in recent years after more than 20 years of rapid growth. The research, published in April by Research and Policy Advisor Brent Bundick and Assistant Economist Emily Pollard, found that the cost of college tuition in the United States increased about 7 percent per year from 1980 to 2004.

“During that time, the average cost of tuition and required fees for one year of college rose from $1,289 to $7,122, significantly outpacing the inflation rate of the overall basket of goods and services purchased by households,” Bundick and Pollard wrote. However, since 2005 the annual rate of college tuition inflation
“THE INCREASE IN THE COST OF COLLEGE HAS RECEIVED A GREAT DEAL OF ATTENTION IN THE MEDIA AND OTHER PUBLIC DISCUSSIONS. HOWEVER, THE SLOWDOWN IN TUITION INFLATION THAT OCCURRED OVER THE LAST FEW YEARS HAS RECEIVED MUCH LESS ATTENTION.”

— Brent Bundick

has slowed significantly, averaging closer to 2 percent for the last few years.

“The increase in the cost of college has received a great deal of attention in the media and other public discussions,” Bundick said. “However, the slowdown in tuition inflation that occurred over the last few years has received much less attention.”

Bundick said that understanding the forces driving tuition inflation is important for projecting future tuition costs as well as evaluating personal income mobility.

Numerous research studies have shown that higher-skill—and higher-paying—positions in the modern economy increasingly require a college degree, and for some individuals and families the costs associated with a college education could represent a significant barrier to upward mobility.

In a separate study, published in June in the Federal Reserve Bank of New York’s *Liberty Street Economics* blog, economists found that college graduates continue to earn a substantial “wage premium” in the U.S. labor market. The New York Fed economists found that in recent years the average college graduate with a bachelor’s degree earned about $78,000 per year, compared with $45,000 per year for the average worker with only a high school diploma. Therefore a typical college graduate earns a “premium” of more than $30,000, or nearly 75 percent.

**Driving forces**

The Kansas City Fed study sheds some light on the factors that could influence changes in the pace of college tuition inflation. For example, the analysis shows that such supply-side factors as labor costs in the education sector or declines in state appropriations could cause some institutions to pass on those changes to students in the form of higher tuition.
At the same time, changes in demand factors—such as increased availability of student loan programs—also might be contributing to higher tuition costs by increasing overall demand for higher education. Bundick notes that while the Bank’s study mentions the increased availability of student loans as a possible factor in tuition inflation changes, the research does not delve into the highly publicized topic of student debt.

Another finding is that public institutions had a greater effect than private colleges on the overall slowdown in tuition inflation rates. The research found that tuition inflation rates at public colleges tended to rise sharply after recessions but have trended downward in recent years. Tuition rates at private colleges trended down slightly in the 1980s but have been less volatile since then.

**Costs climb**

Even as tuition inflation has slowed, there is no question that a college education in the United States today is more expensive than ever. The Kansas City Fed research reflects that fact, noting how costs soared during the 25 years following 1980.

“Just to further put it into perspective, we calculate that one year of college tuition at a four-year public university was equal to about 7 percent of the median household’s income in 1980,” Bundick said. “After the rapid growth of college tuition inflation over the subsequent 25 years, a year of college tuition represented about 16 percent of median annual income in 2005.”

Costs, change over time, and the increases are most easily tracked at state colleges and universities, whose funding continually is subject to governing boards’ decisions, legislative action and public scrutiny. Around the Federal Reserve’s Tenth District:

- About a year ago, a tuition and fee increase averaging 4 percent was implemented for Oklahoma public colleges.
• Last fall, Wyoming officials increased community college tuition $5 per credit hour. Separately the University of Wyoming’s Board of Trustees announced a 4 percent tuition increase effective in the 2019-20 academic year.

• In April, the University of New Mexico’s Board of Regents, following a 4 percent salary increase for faculty and staff, increased tuition 3.1 percent.

• In May, the University of Kansas and Wichita State University each proposed 1 percent tuition increases to the state’s Board of Regents; Kansas State University proposed a 3.1 percent increase.

• In May, the University of Missouri System’s Board of Curators approved a tuition increase of 5 percent at all four campuses — Columbia, Kansas City, Rolla and St. Louis. Elsewhere in the state, Lincoln University’s curators in June approved a 4 percent tuition increase, while Missouri Southern University’s governing board approved an increase of 9.3 percent.

• In June, for the first time in its history, the Nebraska State College System approved two consecutive years of tuition increases. The increases are about 2.5 percent in each of the next two academic years.

• In June, the University of Colorado’s Board of Regents approved a fiscal year 2019-20 operating budget that includes what its senior vice chancellor called a “zero percent tuition increase” for incoming resident students.

Dealing with reality
Such developments are a fact of life for college administrators and students. As costs rise, “We try to help students know and understand the resources that are available to them to pay for the tuition and fees and the expenses to attend and live while they go to college,” said Scott Young, director of the Office of Financial Aid and Scholarships at the University of Missouri-Kansas City. Young has worked in the collegiate financial aid field for 13 years. “I think there’s definitely a growth trend in terms of more students having more needs as costs have gone up.”

Sarah Valdivia has worked in financial aid-related positions for 10 years and recently became assistant director of financial aid at Creighton University in Omaha.

As a private institution, Creighton’s finances aren’t subject to state appropriations and are more likely to be bolstered by endowments and similar funding. Valdivia, who mainly works with graduate and professional-level students, said she has observed the slowdown in tuition inflation in recent years, though the overall cost of attendance remains formidable.

Most of the students she advises, “are very proactive about pursuing scholarship opportunities first. Anything that is not made up in the scholarship opportunities, they have to make up in loans.”
Carnayla Johnson knows firsthand that facing such costs can be a harsh dose of reality. Johnson, a native of Kansas City, said she was the first person in her family to attend college, earning a “full” scholarship to Howard University in Washington, D.C. She chose Howard because her first choice, Hampton University in Virginia, offered a partial scholarship. However, as she earned a bachelor’s degree in psychology and human development, she quickly realized her Howard scholarship wouldn’t be enough to pay for everything she would need.

“Coming from a home that really didn’t have the money to send me off to college, I took out loans to cover living expenses,” Johnson said.

After graduating from Howard with several thousands of dollars in debt, she had a similar experience earning a master’s degree in social work at Washington University in St. Louis. Many basic living expenses weren’t covered by scholarships and a work-study job in a research laboratory, so she took on more loans.

“Looking back, if I could do it without loans I would do it that way,” said Johnson, now a clinical trials associate at the Hennepin Healthcare Research Institute in Minneapolis.

Such experiences are common. In the Kansas City Fed research, Bundick and Pollard conclude that as long as college-educated workers continue to earn significantly more than workers with only a high school education, the changes in tuition costs likely will have “important implications for current and future household incomes.”

“Certainly, college still remains expensive, but the rate of growth in tuition prices have slowed down in recent years, which is what we wanted to document,” Bundick said.

FURTHER RESOURCES
Read the complete analysis by Brent Bundick and Emily Pollard in the Economic Review at KansasCityFed.org/research.
Ask an ECONOMIST
José Mustre-del-Río & Emily Pollard

Explaining lifetime earnings differences across individuals

Expectations of lifetime earnings are key factors in many individuals’ decisions, from weighing education options to deciding on career paths. However, lifetime earnings differ widely across individuals, and uncovering the factors that explain these differences can be challenging. Senior Economist José Mustre-del-Río and Assistant Economist Emily Pollard used a unique data set combining administrative and survey data to assess variation in lifetime earnings. Their findings were published in the Bank’s Economic Review in March 2019.

What makes this study unique?

Measuring lifetime earnings—as well as identifying what explains differences in lifetime earnings—can be challenging. First, measuring lifetime earnings requires data on entire lifetimes and cannot be proxied by earnings at a point in time. For example, medical doctors may temporarily have low earnings while in residency but will likely see their earnings rise thereafter. Similarly, individuals raising young children may temporarily work fewer hours but may work more as their children age. Second, examining which individual-level factors help explain earnings differences requires detailed demographic data.

Our study dealt with these challenges by using data from the U.S. Census Bureau’s Survey of Income and Program Participation Synthetic Beta (SSB). These data take respondents from the bureau’s Survey of Income and Program Participation (SIPP) and match them with Social Security Administration (SSA) and Internal Revenue Service (IRS) Form W-2 earnings records. These records allowed us to construct entire earnings histories for a large sample of individuals. Additionally, because the data are based on a sample of individuals surveyed in the SIPP, they include a host of demographic characteristics (such as race, education, and marital and parental status) that typically are not available in administrative data.

Which kinds of workers were included in the assessment?

To ensure that we had a good picture of earnings over a person’s entire career, we included only individuals who were age 18-25 in 1978, the start of our sample. We then followed these individuals through 2011—the last year for which data were available—when they were age 51-58. Additionally, we restricted our sample to people with a high degree of labor market attachment. In particular, we included only people with at least 17 years of positive earnings—meaning that they worked for pay during at least half of the 34-year sample.

Which factors help explain lifetime earnings?

Our results suggest that observable characteristics such as gender, race, age, education and labor market experience explain a little more than half of lifetime earnings differences. However, among these characteristics, labor market experience—the fact that some individuals systematically work more years than others—accounts for roughly 40 percent of the difference in earnings. In contrast, standard demographic characteristics such as gender, race or education alone explain no more than 15 percent of differences in lifetime earnings. Thus, cumulative labor market experience appears to be crucial in explaining lifetime earnings differences across individuals.

FURTHER RESOURCES
Read more about this topic at KansasCityFed.org/research.
The Tenth District report on low- and moderate-income economic conditions—known as LMI Economic Conditions—is published twice annually by the Kansas City Fed. The purpose of the report is to provide a comprehensive description and analysis of economic and financial conditions facing the LMI population and LMI communities.

The most recent edition of LMI Economic Conditions, published in February 2019, suggests that economic conditions in LMI communities may be stabilizing. Overall perceptions of economic conditions surged to just below neutral (no change in conditions). Statistics revealed a tight labor market, and survey responses showed continued improvement in job availability for LMI workers. But structural issues remain. For example, low labor-force participation and inflation in goods making up large shares of LMI expenditure baskets, such as rent and health care, seem to be outpacing wage growth. Further, more than 60 percent of contacts reported that the demand for the services they provide was increasing, although some temporary factors may have been at play. According to contacts, the stock of affordable housing remained inadequate, especially for special populations. Access to credit for LMI households appeared to be limited by poor credit histories and rising interest rates.

Indexes show positive trends emerging

The index is approaching neutral (100) for the first time since the survey began in 2009, suggesting that the LMI community may be stabilizing after a decade of sluggishness. The index jumped from 73.2 in July 2018, to 93.1 in January 2019, the latest survey.

However, concerns raised for services, labor force

The demand for services like food assistance, shelter and indigent health care is expected to increase for the LMI population. A higher demand for services is associated with poorer financial conditions. The index for expectations fell sharply to 47.2 from 56.9.

The LMI job availability index advanced to its highest level since the survey started in 2009. It rose from 130.8 to 135.7 in the January survey.

Labor force participation rate is 44 percent for those in LMI households, down from 44.6 percent in December 2017. The rate is much lower than the non-LMI District rate of 64.7 percent.
Tenth District

The LMI survey was initiated in the first quarter of 2009 and is distributed every January and July to organizations that provide services directly to LMI individuals and communities and directly engage the LMI population on a regular basis. Underlying the survey scheme is a supposition that those interacting directly with LMI individuals and communities are best positioned to relay the economic realities facing LMI populations and to raise critical and emerging issues.

The survey asks a series of questions on the demand for services, job availability, access to credit and the availability of affordable housing. Each question asks if conditions have improved, worsened, or are unchanged. Survey respondents also are asked to provide their overall assessment of economic conditions in LMI communities. The responses are used to construct indexes that track economic conditions in LMI communities over time. Survey respondents also are asked to provide comments, which offer perspective for the quantitative indexes calculated from survey responses.

The LMI Economic Conditions report, which debuted in 2015, was in part a consolidation of two previously existing publications: the LMI Survey report and the Tenth District LMI Labor Force report. The impetus for the change was a desire to provide information on economic conditions in LMI communities in a more useful, concise and complete publication. It was conceptualized as a one-stop shop for economic information relevant to LMI communities. The LMI Survey remains the primary source for data and information on economic conditions in LMI communities.

About the LMI Survey: Historical Perspective

38.2% of survey respondents said affordable housing had become less available.

“We are seeing more low-income families doubling up in housing due to the lack of housing, especially safe, affordable housing.”

-Survey respondent
Last November, a team from the Women’s Employment Network (WEN), took the stage at Investment Connection, a signature Kansas City Fed community development program that connects nonprofits with financial institutions, foundations and government agencies.

At Investment Connection events, nonprofits pitch proposals in the hope of securing funding. The events also inform financial institutions about critical needs facing low- and moderate-income populations in their communities, with the goal of fostering economic advancement and growth. Since it started in 2011, Investment Connection has connected nonprofits with more than $34 million in funding. Last year nearly 400 nonprofits, funders and organizations participated across the Bank’s seven-state region.

At November’s Investment Connection event in Kansas City, WEN made a presentation in front of 30 area banks. The WEN team shared details about programming, client stories and how their efforts connect with bank Community Reinvestment Act (CRA) criteria. In the end, a 15-minute presentation at Investment Connection has today garnered $72,000 of funding. In addition, WEN fostered lasting contacts and relationships.

“It’s an amazing opportunity to get in front of that many banks in one day and have their focus on Community Reinvestment Act requirements,” said Ashley Williamson, community engagement manager at WEN, a Kansas City organization. “After the event, we met with five (banks), and of the five, four invested with us. They were all connections we made through Investment Connection. Some matched our ask, some committed to a long-term pledge, and we even have—not just financial donations—but banks interested in working with us in a volunteer capacity.”

This year, the Kansas City Fed kicked off its ninth annual Investment Connection series on April 16 in Albuquerque, New Mexico.

“Nine years later we’re continuing to improve the program and make it stronger,” said Ariel Cisneros, senior community development advisor for the Kansas City Fed and founder of the Investment Connection program. “The investment opportunities are exclusive to the neighborhoods and communities these banks serve.”

One financial institution, North American Savings...
Bank (NASB), a national bank and mortgage lender, attended Investment Connection for the first time in November and learned how WEN guides women of all ages and socioeconomic backgrounds who are facing barriers to meaningful employment. Natalie Rowe, NASB’s community development manager, was in the audience.

“Being able to come to an event, where the presentations have been vetted, and parties understand our role, it really cuts our time and makes our job easy,” Rowe said. “It enables us to make swifter decisions. WEN was one of the organizations that we added to our pipeline. After reviews, WEN’s request and mission to help women achieve economic independence aligned well with NASB’s community efforts. We were able to move forward and present them with funds this May.”

She said that NASB is now reviewing other nonprofits from Investment Connection that might be a good fit for the bank’s charitable giving philosophy, which supports organizations that provide educational, health and social services to children and families in need.

The success of Investment Connection has led to its expansion with the Federal Reserve Banks of Cleveland, Dallas, Minneapolis, New York, Richmond and St. Louis. The program’s impact also was cited earlier this year when Cisneros received the Federal Reserve System’s inaugural Janet L. Yellen Award for Excellence in Community Development.

“Other banks in the system are adopting the program with great success,” Cisneros said. “The St. Louis area was the first in 2017. The program has already generated nearly $1.3 million in connections for the city.”

The program has proved to be mutually beneficial for all attendees. Cisneros added that survey results rank the program 4.8 on a scale of one to five. Funders save a tremendous amount of time, while nonprofits gain unprecedented access and exposure to a key audience, he said.

“We have not come across something that has connected to us to this many banks,” said Williamson. “It’s a really unique concept, and we have benefitted from it, just for an afternoon of pitching that will create long-lasting relationships. It also got us on the radar with other banks that we might not work with this year, but will definitely contact in the future.”

2019 INVESTMENT CONNECTION EVENTS
Aug. 14 – Denver
Sept. 17 – Tulsa
Oct. 2 – Kansas City
Nov. 14 – Omaha

Above: Senior Community Development Advisor Ariel Cisneros (left), at the 2019 kickoff event in Albuquerque, with Bank of the West Senior Vice President Jason Anderson. Photo by Gary Barber

Left: In May, Natalie Rowe of North American Savings Bank (second from left) presented funding to the Women’s Employment Network (WEN). On hand were (from left) Ashley Williamson and Erin Cole of WEN and Jeremy Hegle, Kansas City Fed senior community development advisor. Photo by Gary Barber

FURTHER RESOURCES
Community organizations, funders and others can participate at KansascityFed.org/community/investmentconnection.
Tenth District by the numbers

ECONOMIC INDICATORS, FACTS AND TRENDS FROM THE SEVEN STATES

Increase in Wyoming’s purchase-only home price index for the first quarter of 2019 from the same period in 2018.

Increase: 2.1%

Sources: Federal Housing Finance Agency and Haver Analytics

4,700

Jobs added in Oklahoma’s construction sector in April 2019 compared with April 2018.

Sources: Bureau of Labor Statistics and Haver Analytics

4.1%

Nebraska’s year-over-year growth in personal income in the fourth quarter of 2018.

Sources: Bureau of Economic Analysis and Haver Analytics

-10.5%

Year-to-date decline in Colorado exports through March 2019 compared with the same period in 2018.

Sources: WISERTrade and U.S. Census Bureau
Nonfarm jobs added in New Mexico between April 2018 and April 2019, a 1.6% increase.

Sources: Bureau of Labor Statistics and Haver Analytics

Missouri’s unemployment rate in April 2019.

Sources: Bureau of Labor Statistics and Haver Analytics

Total housing permits in Kansas in April 2019, representing 256 fewer units than in April 2018.

Sources: U.S. Census Bureau and Haver Analytics

It’s a drill so etched into the modern workday that most people hardly give it a thought: press a button, wait a few seconds, and an elevator door opens. Press another button, and a few seconds later you’re stepping off onto another floor.

But flash back several decades, and you’ll get a very different picture: the era of elevator operators.

These were the uniformed employees who manually controlled passenger elevators at the Bank’s original headquarters at 925 Grand.

One accompanying picture captures a moment from 1954 when former President Harry S. Truman had an office in the building. Truman is shown shaking hands with elevator operator Jeanne Adams. Installation of the first two fully self-service elevators came in 1979.

Another photo from the 1950s shows elevator operator Emma Marler Blair Severns, who now is 92 years old. For a 2016 Bank employees’ publication, Severns reflected on her time at the Bank and said she still had holiday cards and notes from Truman, as well as $2 bills that he gave to operators each Christmas.
SNAPSHOTS
Summaries of reports and analysis from Kansas City Fed economists and staff

Capital reallocation and capital investment
by DAVID RODZIEWICZ and NICHOLAS SLY
Corporate debt levels have grown substantially during the 10-year recovery from the global financial crisis. However, much of this debt has been used to reallocate capital through mergers and acquisitions rather than to fund investment activity.
Economic Review, May 2019

Understanding ‘missing disinflation’
by WILLEM VAN ZANDWEGHE
Traditional Phillips curve models falsely predicted a large disinflation during the Great Recession, raising questions about their utility.
Economic Review, May 2019

Ag credit conditions steadily deteriorate
by NATHAN KAUFFMAN and TY KREITMAN
In the first quarter, farm income decreased across the Tenth District, carry-over debt increased, and banks continued restructuring debt and denying some new loan requests.
Ag Credit Survey, May 2019

The persistent effects of temporary tightening
by BRENT BUNDICK
Historical evidence suggests that even short-lived increases in uncertainty about financial conditions can have longer-term effects on the macroeconomy.
Economic Bulletin, April 2019

Sharp increase in drilling productivity
by JASON P. BROWN, DAVID RODZIEWICZ and COLTON TOUSEY
New measures show that U.S. crude oil production increased sixfold from the mid-2000s to early 2017, despite declines in crude oil prices and the number of active drilling rigs.
Economic Bulletin, May 2019

See full reports, papers, data and more at KansasCityFed.org/research.
Social media highlights of our engagement across the region

1. @KANSASCITYFED Denver Branch Executive and Economist Alison Felix visited Grand Junction, CO for an economic forum about regional & national trends. Thank you to @GJChamber for also coordinating a roundtable with local business owners & community leaders. Good discussion!

2. KANSASCITYFED It was great hosting the Greater Oklahoma City Hispanic Chamber of Commerce’s Latino Leadership Class yesterday at our Oklahoma City Branch! We discussed Kansas City Fed history, provided an economic update and explained the Bank’s community development functions.

3. @KANSASCITYFED The #KCFED Community Development Advisory Council (CDAC) met with President Esther George Monday while visiting the Kansas City headquarters. CDAC members are community leaders from each state in the 10th District & focus on issues like workforce development & community services.

4. KANSASCITYFED We’re having a great time participating in this year’s #KansasCityCorporateChallenge! Congratulations to our employees who competed in the bike race and took first place overall!

5. KANSASCITYFED We had a great time at Miller Park Elementary in #Omaha working with 5th graders for College and Career Exploration! Students took the time to think about what goals they had going into middle school.

6. @NEN5THGRADE The Federal Reserve Bank of Kansas City had a very cool scavenger hunt for the kids. Can you believe we were in the presence of $9 million!

7. @KANSASCITYFED Students at @olatheschools did a great job today presenting their entrepreneurial ideas as part of the #KCFed’s Your Piece of the Pie program! #MyOlatheSchools

8. KANSASCITYFED In honor of Women’s History Month, we’re recognizing Betty Dixon, the first female law enforcement officer to join the Bank. The Kansas City Fed hired Dixon as a Protection Officer at the Omaha branch in 1973. Today, more than a dozen women are Tenth District Law Enforcement officers.

GET SOCIAL

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

The Founding of America’s First Black Banks

Order a free copy of “Let Us Put Our Money Together,” see video discussions and learn about the Bank’s other historical publications.

KansasCityFed.org/letusputourmoneytogether

(See pages 16-17 of this issue for a summary.)