

December 2018

Arkansas  
Professional

# ENGINEER

Official Magazine of the American Council of Engineering Companies of Arkansas & the Arkansas Society of Professional Engineers



## What is the road to good roads?

Governor Asa Hutchinson paves the way for a highway plan to be presented to voters in 2020. But the politics ahead could be bumpy.

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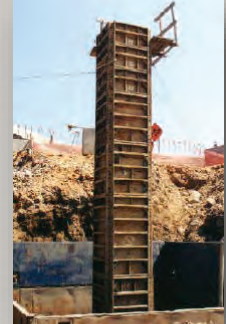
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# Arkansas Professional

# ENGINEER

Official Magazine of the American Council of Engineering Companies of Arkansas & the Arkansas Society of Professional Engineers

## News and Features

### 14 **Spotlight / Engineering, surveying equal at B & F Engineering**

Is B & F Engineering an engineering firm or a surveying firm? Yes. The Hot Springs-based firm was started in 1972 by two individuals with dual licenses: Don Beavers, P.E., P.S., and Bill Fletcher, P.E., P.S. The firm mirrored the two founders' skills.

### 16 **Cover / How to pay for pavement?**

Gov. Asa Hutchinson's strong support for a highway program represents a new direction for his administration after he previously focused on other priorities. Yet to be answered: What will a highway program look like, and how will Arkansas pay for it?

### 18 **Other issues: QBS, licensing and ... tort reform?**

Along with highways, engineers will be watching other proposals during the 2019 legislative session, including procurement reform, legislative efforts to end unnecessary licensing requirements, and another attempt to present tort reform to the voters.

### 20 **Forecast: Growth to continue, then slow**

At ACEC/A's Arkansas Industry Update, Dr. Michael Pakko said the economy should grow about 2 percent the next two years, but then growth will slow by the end of 2020. Moreover, growth is occurring unevenly, and Arkansas' low unemployment rate is partly the result of declining labor force participation.



**16** What do you do when the state needs to close a \$4.8 billion highway funding gap? If you're Gov. Asa Hutchinson, you might start by asking people to continue paying a tax they're already paying.

## Departments

- 6 ACEC/A President's Column
- 7 ASPE President's Column
- 8 In the News
- 10 ACEC/A Affiliate Members
- 11 Advertiser Index
- 12 Calendar of Events



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# Where is the funding?

Since the presidential election in 2016, the engineering profession has been anxiously waiting for Congress to make significant funding additions for infrastructure improvements. This need has been emphasized as a tool to help create jobs and maintain America's competitiveness.

To date, President Trump's goal has been for the federal government to provide \$200 billion over a 10-year period, which is intended to spur more than a trillion-dollar investment by the states, municipalities and private sector. Projects to be funded, among others, include roadways, waterways, aviation, rural infrastructure and energy. Progress in Congress has been slowed due to divisions over how such a massive spending plan should be subsidized. Some members of Congress do not agree that reliance on the state, local government and private sector is the right approach. I had originally hoped for a large funding bill in 2018, but it appears that most of the momentum for one was lost in the earlier part of the year. There is optimism, however, that this momentum will pick back up now that the mid-term elections are done.

With all of this said, some piecemeal advancements in infrastructure funding have been made by Congress.

One such success is America's Water Infrastructure Act of 2018, signed into law by President Trump on October 23. Strongly supported by the American Water Works Association, the bill passed the Senate and House in a bipartisan fashion, which indicates its importance. It reauthorizes funding for the Public Water System Supervision (PWSS) Grant Program and the Drinking Water State Revolving Loan Fund (DWSRF). This bill has been



**Byron Hicks, P.E.**  
**ACEC/A President**

referred to as a "landmark water bill" as it combines certain aspects of State Revolving Funds (SRFs) with the leveraging power of the Water Infrastructure Finance and Innovation Act (WIFIA). The act is intended to make the application process easier and more affordable for our communities to meet their water infrastructure needs. It also reauthorizes WIFIA to

provide \$50 million in 2020 and 2021 to finance large-scale water infrastructure projects. In addition, it establishes a grant program for water systems to increase resilience to natural hazards.

Another success is through the "mini-bus" act passed in September that combined funding for several agencies. It includes funding for flood control, dredging activities, regional sports and other projects.

The FAA Reauthorization Act of 2018 was signed by President Trump and will fund the FAA through 2023. Although it continues Airport Improvement Program funding at previous levels, it does create a new airport infrastructure program to be funded by discretionary grants.

We also saw an increase in surface transportation funding with the federal spending bill that was signed in March. This bill was a step in the right direction, but we will continue to urge Congress to develop a long-term solution to the funding of the Highway Trust Fund. We will also look forward to 2019 as we anticipate the Arkansas Department of Transportation will seek additional highway funding either during the next legislative session or through the voters.

I look forward to seeing what the post-election results bring us while hoping for a bipartisan solution to our infrastructure funding needs.

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# Say something when we see something

On March 15, 2018, a 174-foot pedestrian bridge at Florida International University collapsed, killing six people and injuring eight others. Eight vehicles, seven of them occupied, were crushed.

Design professionals were at fault.

According to a National Transportation Safety Board investigation updated Nov. 15, designers overestimated the capacity and underestimated the demand in a section where two truss members joined the bridge deck. Tests so far have shown that the materials did meet minimum requirements.

This project used an accelerated bridge construction (ABC) technique known as a "bridge move" using self-propelled modular transporters. The structure was initially built on temporary shoring offline adjacent to the highway and then was transported into final position over a weekend.

My understanding is that the move itself went smoothly, and I don't think that ABC in general is the issue here. It has proven to be a beneficial strategy used many times before, including by my own company.

But it was also shown from previous reports that cracking was observed and documented earlier in construction, prior to the bridge move. Major cracking was observed with the bridge in its final position a few days prior to collapse.

Why was construction not stopped and traffic diverted at that point? Somebody chose to remain silent, or at least did not speak loudly enough and to the right people.

FIU has been a national leader in ABC for many years, and it has hosted an ongoing webinar program from which many bridge engineers have benefited, including myself. ABC has also been used many



**Fred Harper, P.E.**  
**ASPE President**

times to successfully complete bridge construction in high-traffic situations.

This tragedy reinforces the professional engineer's importance, and it offers another cold reminder to do our best work every day. When teaching my bridge design staff, I like to borrow an old phrase from carpentry: "Measure twice; cut once."

My company is currently designing a bridge replacement using an ABC method known as a "lateral bridge slide." It will replace two parallel bridges on Interstate 30 near Arkadelphia and will be the first time the Arkansas Department of Transportation has used this method. The superstructure will be built offline on temporary shoring and then slid laterally into place over approximately a three-day window. The intent is to minimize disruption by completing most of the construction in parallel with normal traffic operation.

I'm confident that ABC is an effective method for bridge construction. In fact, by minimizing disruption, it can actually enhance public safety. We're all safer when traffic, including emergency vehicles, can travel unimpeded by sudden stops and by motorists swerving in and out of slow-moving lanes.

But while the proposed structure type is more basic than what was constructed in Florida, the FIU bridge collapse certainly gives my team an extra awareness to make sure the process goes smoothly.

That collapse is another confirmation that engineers indeed play a hand in public safety. It's not just lofty language to speak of engineers in this way. In this case, six people lost their lives and eight others were injured.

It's also a stark reminder to say something when we see something.

## In the News



Hoskins



Williams



Graves

### Hoskins to become Garver president; Williams to retire

Brock Hoskins, P.E., Garver's chief operating officer and board member, will become president Jan. 1 as part of a planned internal succession strategy, while current president, CEO and board member Dan Williams, P.E., will retire in December 2019.

Williams, who has been with Garver for 36 years including nearly eight as president and CEO, will remain CEO throughout 2019 as the company celebrates its centennial year.

Hoskins joined Garver in 1990 and was named chief operating officer and executive vice president in 2012. Hoskins also

serves on the board and managed the company's Northwest Arkansas office.

The company also announced that Michael Graves, P.E., will become chief operating officer in January 2019 when Hoskins becomes president. Graves has been with the company 14 years, serving as vice president and regional director.

### Garver names Bradley its people services leader



Bradley

Erin Bradley has joined Garver as people services leader and will manage the company's human resources efforts nationwide. With over two decades of human resources experience, Bradley has broad industry knowledge, including engineering, manufacturing and construction.

From Garver's office in Overland Park, Kansas, Bradley will be responsible for managing Garver's health and retirement benefit programs, recruitment, employee engagement, training, and wellness initiatives.

Garver has long been praised for its workplace culture that includes a competitive pay structure and employee benefits, commitment to employees maintaining a work-life balance, and a leadership team that is responsive to employee feedback. Garver was named No. 1 "Best Firm to Work For" in the multi-discipline category by the Zweig Group in 2018.

### Olsson Associates changes name to Olsson, has new logo

Olsson Associates, an employee-owned engineering and design firm, announced Oct. 15 the launch of its new corporate brand, name and website, [www.olsson.com](http://www.olsson.com). The firm will now be known as Olsson.



"Our new name pays homage to our history and will help us communicate a simplified and clear message as we continue to grow and expand our geographic footprint," said Brad Strittmatter, Olsson CEO, in a press release.

"We're a full-service firm, and we want everyone to know us by one name and as one Olsson, committed to the purpose behind every project we do and to improving the world."

Olsson has more than 1,000 employees and has offices in eight states, and it has worked on projects throughout the United States. Earlier this year, it cracked the top 100 in Engineering News-Record's top design firms annual list, which is based on revenue. Olsson was ranked 98th.

Projects include Grandscape in the Dallas metro area, the country's largest mixed-use real estate development project;

*In the News continues on page 10*

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## In the News (Cont'd)

Gateway Arch National Park renovation in St. Louis, Missouri; Mercy Hospital in Joplin, Missouri; and the wastewater treatment facility in Batesville.

The firm's new website, [www.olsson.com](http://www.olsson.com), has been improved to better reflect the firm's services, markets and major projects.

The firm offers a variety of design and consulting services. For more information, go to [www.olsson.com](http://www.olsson.com).

## Four B & F pros achieve in past year

Four B & F Engineering professionals have earned professional achievements in the last year.

Danny Boyett, P.S., earned his CFedS certification in June through the Certified Federal Surveyors Program. Boyette joined B&F's team in September 2010.



**Boyett**

In the last 17 years, he has performed boundary surveys in Arkansas, Texas, Missouri, Oklahoma, Louisiana, Arizona and California. In 1999, he received his Bachelor of Science in Biology with a minor in chemistry from Henderson State University. In 2010, he received his Master of Science in Geospatial Surveying Engineering from Texas A&M University – Corpus Christi. He joined B & F in September 2010. He became a licensed Arkansas surveyor in October 2012.

Shane O'Brien, P.E., was notified of passing the Principles and Practice of Engineering exam in 2017. O'Brien graduated from the Cork Institute of Technology in Ireland with a Bachelor's Degree in Structural Engineering in 2010. He began working at B & F in December 2010. While working at B & F, he learned to work in English units instead of the metric system and adjusted to International Building Code, American Concrete Institute, and American Institute of Steel Construction standards. His coursework was Accreditation Board for Engineering and Technology-accredited, so he was able to take the Fundamentals of Engineering exam in 2015.



**O'Brien**

Kevin Worth, P.S., has passed the Principles and Practice of Surveying exam. Worth started working at B & F Engineering at age 31 in August 1995 despite knowing nothing about surveying. Jobs in the Hot Springs area were hard to find, and he had never had a job with normal hours. When he learned he would have weekends off, he was ready to give it a try. He enjoyed the job and worked as a rodman, then an instrument man, and then a crew chief. He eventually passed the Fundamentals



**Worth**

of Surveying exam before passing the PS exam. He now primarily analyzes survey field data in the office.

Dustin Morris, P.E., passed the PE exam in May. He has been with B & F since January 2014. He first earned a Bachelor of Science in Physics degree from the University of Central Arkansas in 2010 and then earned a Bachelor of Science in Civil Engineering degree at the University of Arkansas. He completed his coursework in 2013. He celebrated the birth of his first child while in his second semester of engineering school.



**Morris**

## Crist Engineers welcomes Wintle as project manager

Little Rock-based Crist Engineers, Inc. has added Dr. Brian Wintle, P.E., as project manager.

Wintle has more than 10 years of experience in municipal and utility engineering project management, water and wastewater infrastructure design, planning, analysis, and regulatory compliance. Serving as an adjunct instructor for Oklahoma State University since

### JOB OPPORTUNITY

**B & F Engineering, Inc.** is searching for a Staff Engineer in its Hot Springs office.

**Responsibilities:** Perform introductory planning and design under the supervision of a licensed professional engineer. Produce civil development plan sheets for commercial and industrial projects including site layout, grading, drainage, erosion control, water distribution, and sanitary sewer collection using AutoCAD and AutoCAD Civil3D. Calculate earthwork quantities. Assist with preparing

public hearing displays. Attend field inspections with engineers. Nominal travel 1-2 times every two months for site inspections.

**Education:** Bachelor's degree in Civil Engineering or closely-related field. Possess Arkansas P.E./Intern license or have graduated from accredited engineering program.

Mail resume to: B & F Engineering, Inc., ATTN: Tammy King, 928 Airport Road, Hot Springs, AR 71913 or email to [tammyk@bnfeng.com](mailto:tammyk@bnfeng.com)



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2012, he has a strong academic background in research and education in the engineering field, and his credentials include board certifications in hazardous materials management and environmental engineering. Professional areas of expertise include compliance strategies for surface water treatment facilities; evaluation and design of private, municipal and industrial water distribution systems; and evaluation and design of wastewater treatment plants and collection systems.

"The combination of academic credentials and work experience makes Brian Wintle an outstanding addition to Crist Engineers. Crist Engineers looks forward to having Brian contribute to the quality service that we provide our clients," said Stewart Noland, president.



**Wintle**

Founded in 1938, Crist Engineers is one of Arkansas' oldest consulting engineering firms. It offers specialized experience in water treatment and distribution, wastewater collection and treatment, and other services including planning and construction management to clients in Arkansas and surrounding states.



## Crafton Tull files site plan for Topgolf facility

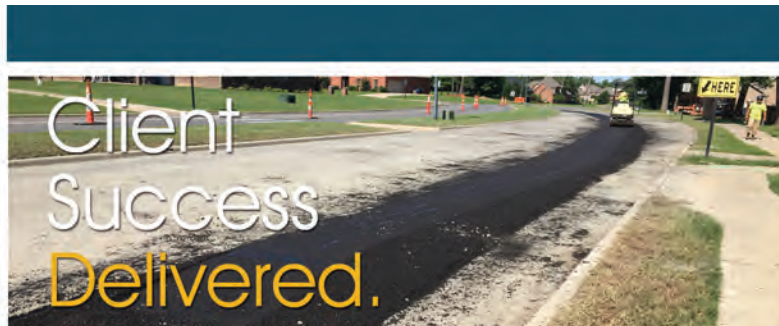
Crafton Tull has filed a preliminary site plan with the city of Rogers on behalf of Topgolf Entertainment.

The design consists of climate-controlled hitting bays as well as a restaurant, bar, and private event space. In addition, the approximately 11-acre site design includes three retention ponds and a 370-space parking lot with bike racks for 20 bicycles. The project is expected to bring 300 full-and-part time jobs to

*In the News continues on page 12*

## Advertiser Index

Garver.....	Cover
Improved Construction Methods.....	3
Olsson.....	5
ETEC.....	8
Crafton Tull.....	9
B&F Engineering.....	10
Hawkins-Weir Engineers.....	11
FTN Associates.....	12
BXS Insurance.....	13
Crow Construction and Paving.....	15
Crist Engineers.....	17
McClelland Consulting Engineers.....	19
Brown Engineers.....	21
RP Power.....	23



With a water crisis on the horizon and less than 6 miles separating them, the City of Maumelle turned to Central Arkansas Water. CAW called on Hawkins-Weir Engineers, Arkansas' Wet Infrastructure Leader, for the planning, design, and construction services needed to quickly and cost effectively deliver their pristine water to every tap. By working closely with both CAW and Maumelle, the 30" transmission main was installed under budget and ahead of the aggressive 12-month schedule.



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## In the News (Cont'd)

the Rogers area. With an expected 2020 opening date, the venue will serve an estimated 250,000 guests per year.

### Crafton Tull noted for innovative workplace practices

Crafton Tull has been honored with a 2018 When Work Works Award for exemplary workplace practices.

The prestigious award is part of the Society for Human Resource Management's (SHRM's) When Work Works project, a national initiative that helps employers become more successful by transforming the way they view and adopt effective and flexible workplaces.

The award recognizes employers of all sizes that are excelling at offering a variety of top-rated employee initiatives such as work-life fit policies, flexible scheduling, and transition to parenthood programs. The award includes initiatives that address the evidence-based aspects of effective workplaces.

In applying for the award, Crafton Tull was evaluated on factors associated with employee health, well-being and engagement: opportunities for learning; a culture of trust; work-life fit; supervisor support for work success; autonomy; and satisfaction with earnings, benefits and opportunities for advancement.

The award is earned after a rigorous assessment that emphasizes the real-life experiences of employees and incorporates national benchmarks of employer practices from the National Study of Em-

ployers and the employee experiences from the National Study of the Changing Workforce. Two-thirds of an organization's winning score is based on a survey of its employees.

"It is an honor to win the When Work Works award, especially because it comes from our em-



#### Engineering Excellence Awards

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Little Rock

#### ASPE State Conference

April 11-12  
Hot Springs

#### ACEC Deep South Meeting and ACEC/A Annual Conference

July 10-14  
Sandestin  
Hot Springs

#### ACEC Fall Conference

Oct. 13-16  
Chicago

ployees. People spend a lot of their time at work, and it's rewarding to know the effort we put into making Crafton Tull a fulfilling place to be is recognized," said Matt Crafton, P.E., CEO and chairman of the board at Crafton Tull, in a press release.



**LEANN PARKER, P.S.**, completed the Conway Area Leadership Institute.

### Crafton Tull's Parker completes Conway leadership program

Crafton Tull's LeAnn Parker, P.S., graduated November 1 from the Conway Area Leadership Institute. The Institute prepares emerging leaders to better serve the community. The program consists of an eight-month curriculum involving frequent interactions and shared experiences. LeAnn is a project manager in the Conway office and has been employed with Crafton Tull since 2009.



**Crafton**

### Michael Baker to implement first bridge lateral slide

Michael Baker International was recently selected by the Arkansas Department of Transportation (ARDOT) to implement the state's first highway bridge replacement project that utilizes the lateral slide accelerated bridge construction method.

The firm received the contract to provide design services for the replacement of two parallel bridges over De Roche Creek on Interstate 30 near Arkadelphia.

As proposed, two new bridges will be constructed on temporary falsework to

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the north and south of the existing parallel bridges, while crews construct the permanent substructure for the proposed bridges underneath the existing bridges. Two separate bridge-slide operations then will move each of the new bridges into their permanent positions. This option limits traffic disruption to roughly three days each, during which traffic will be reduced to one lane in each direction.

ARDOT's implementation of this technique is intended to minimize disruption and improve safety for both passengers and construction workers. Michael Baker will provide guidance to ARDOT staff during design and construction phases, and this project will then serve as a model as the department implements this approach across the state.

## Michael Baker's Musick develops, leads survey group

Michael Baker International recently hired Aaron Musick, PLS, to develop and lead its new survey team.

Musick subsequently hired Billy Sewell, an experienced local survey party chief, and George Cozart, an experienced survey field technician, to assist with field collection of survey data.

Musick, with the technical support of Leonard Speed, led the effort to achieve



**SURVEY GROUP.** Pictured are Aaron Musick, PLS; Billy Sewell; Leonard Speed; and George Cozart.

certification by ARDOT to perform surveys for the department, and selection by the department to provide on-call surveys.

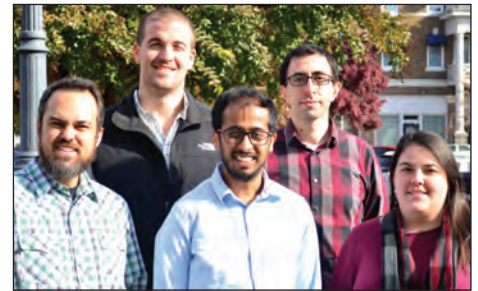
This survey team has already performed surveys of various types for a number of Arkansas clients in support of ongoing design projects, including ARDOT, the city of Little Rock, the Bill & Hillary Clinton National Airport, and the city of Jonesboro.

## Michael Baker adds two bridge engineers to team

Michael Baker International recently added two bridge design engineers to its growing transportation staff in Little Rock.

Hussam Saleem, Ph.D., E.I., and Sharath Ranganath, E.I., joined Fred Harper, P.E., Justin Carney, P.E., and Megan Land, E.I. Saleem and Ranganath both have several years of experience.

Michael Baker's Transportation team, led by Scott Thornsberry, P.E., now boasts a staff of 10 engineers and designers supporting Arkansas transportation clients.



**BRIDGE TEAM.** Pictured left to right are Fred Harper, P.E.; Justin Carney, P.E.; Sharath Ranganath, E.I.; Hussam Saleem, E.I.; and Megan Land, E.I.

## CEI's Geurian is ACEC Fellow

CEI's President, CEO and Chairman Jeffrey D. Geurian, P.E., FACEC, has been elected as a Fellow in the American Council of Engineering Companies.

The ACEC College of Fellows is a distinguished class of engineers selected by their peers for exemplary contributions to the profession and to the Council.

*In the News continues on page 15*



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## ACEC/A Member Spotlight

# Engineering, surveying equal at B & F

Founders had both P.E. and P.S. licenses, and firm's work reflects that dual focus today

Is B & F Engineering an engineering firm or a surveying firm?

Yes.

The Hot Springs-based firm was started in 1972 by two individuals with dual licenses: Don Beavers, P.E., P.S., and Bill Fletcher, P.E., P.S. Beavers was president until 1981, while Fletcher was president from 1982 until 1997. The firm's third president was Gary Ryles, P.E., who performed the structural design work for the tower overseeing downtown Hot Springs. All three have since retired.

The firm mirrored the two founders' skills. Early projects included both general civil engineering and surveying work for the Army Corps of Engineers and the U.S. Forest Service. Other early clients who have remained with the firm include the city of Beebe and Oaklawn Jockey Club.

"The business has always maintained a real balance between engineering and surveying, even today," said James Montgomery, P.S., the firm's president. "We're pretty much a 50-50 shop, and I think that's really kind of unusual for the industry."

B & F Engineering still operates on the same piece of property it occupied when it started in 1972, though it did move into a larger building behind its original offices.

Current major clients include the Arkansas Department of Transportation and numerous industrial clients in Texas. B & F does a lot of work for other engineering firms and for Hot Springs area schools.

"We work for a lot of different clients, and we all have a special relationship with those clients," Montgomery said.

The firm has had a contract with the Corps of Engineers since 1992. It's currently doing surveying work on the border wall in McAllen, Texas. The firm has two crews and three subconsultants there.

Montgomery joined the firm in 1992 after working eight years for a Dallas



**B & F ENGINEERING** survey crew members perform quality assurance during the construction of ARDOT's Springdale bypass, top. Left, B & F provided design and surveying services to improve traffic flow at Lakeside Public Schools in Hot Springs. Above, B & F performed the structural design for the First Security Amphitheater in Little Rock's River Market. This project was completed in conjunction with SCM Architects and won an Engineering Excellence Award in 2015.

firm. Six of those years were spent working on the superconducting supercollider, the 53-mile particle accelerator project ultimately killed by Congress.

The firm employs 45, down slightly from its high of 49. Those include eight professional engineers, seven professional surveyors, and seven survey crews. Other partners are Keith Matthews, P.E.; John Rogers, P.E.; Tim Tieaskie, P.E.; Jonathan Hamner, P.S.; Daniel George, P.E.; and Dustin Ward, P.E.

"Bill, Don and Gary, they laid a great foundation, and we continue to build on that today," Montgomery said. "Our employees, they are everything. The thing I'm most proud of is that in 26-plus years, I can think of only a handful of true layoffs due to lack of work. We've always gone the extra mile to keep an employee, even if that was going to be costly to the bottom line."

"Without people, you're not able to provide the service."

## In the News (Cont'd)



**CEI'S JEFF GEURIAN, P.E., FACEC**, is pictured with Manish D. Kothari, ACEC chairman, and Linda Bauer Darr, ACEC president and CEO.

Geurian is one of five new Fellows. He was recognized with the prestigious Fellows medallion and award at the 2018 ACEC Fall Conference College of Fellows Induction Ceremony October 29 in Las Vegas.

## Barr joins staff at Halff+Marlar

James Barr, P.E., has joined the Halff+Marlar office in Little Rock as a senior transportation engineer.

With 24 years of experience in transportation design, Barr has been respon-

sible for every aspect of highway design, including transportation planning and NEPA corridor studies, conceptual design of roadways and major interchanges, right of way and construction plan preparation, traffic signal design, hydraulics, and project coordination and management.

Prior to joining Halff+Marlar, James provided design and CE&I services for the Arkansas Department of Transportation as a senior leader of an engineering and architecture firm. He has worked on many notable roadways in Arkansas, including I-40, I-55, I-540, I-49, Highway 67, Highway 412, Highway 65 and the Springdale Northern Bypass.

"As an engineer, I enjoy partnering with communities and state governments to maintain, improve and expand their transportation networks," Barr said in a press release. "Efficient transportation systems are imperative to reducing congestion and building prosperous communities."

Barr earned his Bachelor of Science in Civil Engineering from the University of Arkansas. He is a licensed professional engineer in six states.



**Barr**

## Former ASPE president Plunkett passes

Bill Plunkett II, a former ASPE president, died Nov. 9 at age 70.

The native of North Little Rock spent more than three decades in telecommunications with Southwestern Bell, AT&T, Lucent Technologies, and Sempra Energy. His career took him to St. Louis, New Hampshire, Kansas City and Dallas, and allowed him to travel to five continents. Afterwards, he moved back to Little Rock and spent 14 years



**Plunkett**

working for Habitat for Humanity. A committed Christian, he measured his work by the number of lives he touched helping hundreds of families in central Arkansas have a stable place to call home.

Plunkett graduated from North Little Rock High School in 1965 and met his wife, Susan, at the University of Arkansas. After he graduated in 1971, they moved to Little Rock. He had two children and five grandchildren.

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# How to pay for pavement?

The governor is making highways a top priority. The most likely route would be a ballot issue in 2020. But details, including funding mechanisms, have yet to be determined.

**By Steve Brawner**  
**Editor**

What do you do when the state needs to close a \$4.8 billion highway funding gap? If you're Gov. Asa Hutchinson, you might start by asking people to continue paying a tax they're already paying.

Hutchinson told reporters Nov. 13 that extending the half-cent sales tax that's now funding the highway-widening Connecting Arkansas Program (CAP) would be "one of the key foundational ingredients" of a potential highway program presented to voters. Voters approved the tax in 2012 with more than 58 percent support and by majorities in 68 counties. The tax is due to expire in 2023.

The tax generates \$170-\$180 million a year, so extending it would fill only part

of the highway funding shortfall. The Arkansas Department of Transportation says it has \$9.3 billion in funding needs but only \$4.5 billion in available revenues over 10 years – numbers confirmed by a state legislative audit, which found the state needed \$478 million a year.

That extra money would cover ongoing maintenance needs as well as needed widening projects, but it would not include the long-desired I-49 extension down the state's western edge, or I-69 across southern Arkansas.

Voters would not be asked to consider a highway plan until 2020, and an extension of the half-cent sales tax would not begin generating new funding until the current version funding the CAP expires in 2023.

Still, the governor's strong support for a highway program represents a new direction for his administration. In his first term, he focused on other priorities, but during his re-election campaign he made it clear that highways would have his attention during the upcoming legislative session. Other priorities include reducing the top tax rate from 6.9 percent to 5.9

percent, reorganizing state government to reduce the size of his unwieldy cabinet, and raising minimum teacher salaries.

What the highway program would look like has not been decided. Hutchinson told reporters that a consensus is possible but doesn't exist yet.

"It might take some time," he said. "It might not be before the legislative session begins, but we all know what the end goal is, and there's an incredible amount of support for it in the public and in the industry, in mayors and counties, but the Legislature has got to figure out the exact way to fund the highway program."

Hutchinson said any proposal must have broad popular support, which is why he discussed it during the campaign. Furthermore, the proposal must include not only maintenance but also new construction. He has specifically mentioned I-49, I-69, and extending Highway 412 across the northern part of the state – projects not included in ARDOT's \$4.8 billion shortfall.

"The public ... they know the need for a maintenance plan, but you've got to have new investment and new roads," the

governor told the Good Roads Foundation Nov. 13.

Legislators could simply pass a highway program on their own, but that seems unlikely. Robert Coon, a political consultant with Impact Management who works with the ACEC/A, said he would be surprised if legislators cast such a politically perilous vote. However, legislators previously have been willing to give voters the choice of raising their own taxes. He said it's "probably more likely than not" that a vote by the people will happen.

"I think it's moving in that direction, but I think there's still probably quite a bit of details to work out to see whether or not it's something that people want to go for. And I'm sure there'll be extensive research to see what exactly they would go for," he said.

#### **Sen. Hendren: Must have reforms**

Sen. Jim Hendren, R-Sulphur Springs, the incoming Senate president pro tem-

pore, said legislators know highways are a good investment for the state. Arkansas can't attract industry without a good transportation infrastructure.

"There's overwhelming consensus that there be a way to improve our highway system," he said. "The hard part is, how do we pay for it? Do we divert dollars that are currently going somewhere else? Or do we find a new revenue stream, which means new taxes? Or do we cut spending somewhere else and take those dollars? That's where it gets complicated, and I think the consensus is a little bit further away on that part of the question."

Hendren said any highway proposal probably must include reforms that would ensure more efficiency and accountability. Among issues to consider are changing the state's bonding process, which results in too much interest being paid; the allocation of funding between the state, cities and counties; and the balance between maintaining the Highway Commission's constitutional indepen-

dence and the need for legislators to have oversight.

"If there's going to be political heat brought for the revenue that comes, then (legislators) certainly ought to at least have some ability to monitor how those dollars are being spent," he said.

Hutchinson said he had hoped Congress and the president would pass a federal infrastructure bill. Since it did not happen when one party controlled both branches, it is unlikely to happen now that Democrats control the House. Arkansas, like other states, must "forge our own future," he told the Good Roads Foundation.

"If you want to innovate in highways, if you want to have an effective highway program, you can't wait on the federal government," he said.

Others are not certain that no additional money is coming from Washington, D.C. At the ACEC/A Arkansas Industry Update Nov. 7, Randy Zook,

*Continues on next page*

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Arkansas State Chamber of Commerce president and chief executive officer, said he thought it was “very likely or possible at least that the president strikes some kind of a deal with the Democrats on an infrastructure program.”

### ARDOT's many challenges

As he has often in the past, ARDOT Director Scott Bennett, P.E., spelled out his agency's funding challenges during ACEC/A's Industry Update. Arkansas has the nation's 12th largest highway system – bigger than California's, New York's, or Florida's. But the state is 42nd in revenue per mile. Arkansas last increased its fuel tax in 1999, when it enacted a 3-cent gas tax increase and a 4-cent diesel tax increase, while the last federal fuel tax occurred in 1993. Neither the state nor the federal taxes are indexed to inflation. Bennett said highway revenues composed 14.4 percent of all state revenues in 1980. Today they are 6.6 percent. Had they maintained that earlier percentage, annual revenues today would be \$931 million – about what ARDOT and legislative auditors say is needed. While overall state government employment has grown from 30,000 in 1980 to 58,651 in 2018, ARDOT employment has fallen from 4,070 to 3,698. Meanwhile, Arkansas has been increasingly relying on the federal government, which funded 36 percent of highway needs in 1993 and 54 percent today. The national average is 25 percent. Electric vehicles, hybrids and natural gas vehicles are another concern because they pay zero or reduced fuel taxes.

Meanwhile, costs have increased. In 1995, \$10 million could overlay 200 miles. In 2017, it would only overlay 54 miles. But overlaying is still a bargain, costing \$100,000 per lane mile to fix an interstate in fair condition versus \$1.5 million for reconstruction.

A working group appointed by Hutchinson in 2015 set a long-term goal of increasing highway funding annually by \$400 million. Bennett said raising that amount would require a 28.4 cent fuel tax hike, a wholesale 16.67 percent sales tax on fuel, a \$208 vehicle registration fee increase, or a 1.16 percent general sales tax increase.

“How many of you think that you're going to get all of that from any one of

## Other issues: QBS, licensing and ... tort reform?

Along with highways, engineers will be watching other proposals during the 2019 legislative session.

Those include reforming the state's procurement processes, which was debated in 2017. The engineering community strongly opposed that bill, fearing it could weaken the state's commitment to the qualifications-based selection process.

Robert Coon, a political consultant with Impact Management who works with ACEC/A, said an outside consultant hired by the Legislature has since thoroughly examined the issue and recommended QBS as a best practice.

“I think the good news for the industry is that the Legislature has been receptive to that,” he said. “I think there's some consensus about leaving that in that same form and fashion that it is today.”

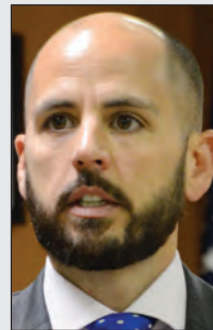
Likewise, engineers will be watching legislative efforts to end unnecessary licensing requirements in many professions. As with procurement, engineers have sought to ensure that changes, some of which are needed, do not affect engineering or public safety.

Coon said engineers also will be watching for an attempt to require them to consider PVC pipe in water project proposals. He said engineers should continue to be allowed to use their professional judgment.

“If you're having to force it in statutorily, you're suggesting that the engineers either don't know what they're doing, that they're lazy and don't want to learn new things, or that they're biased for certain products,” he said. “And I don't think that the engineering community really is any of those three things. And I think that ultimately the burden is on the PVC industry, if they have a product

that's suitable in circumstances where it's not being utilized currently, to demonstrate its worthiness.”

Engineers will also be affected by whatever tax cuts come out of the session. Gov. Asa Hutchinson wants to reduce top income tax rates from 6.9 percent to 5.9 percent. Meanwhile, a legislative task force is proposing other changes. There could be a tug of war between competing priorities, Coon said.



Coon

Another issue that could affect the engineering community: Will legislators try to send to voters another tort reform proposal? In 2017, legislators referred Issue 1, which limited lawsuit damages and attorneys' fees while also giving themselves power over Supreme Court rules and procedures. After supporters and opponents had spent millions of dollars on the campaign, the state Supreme Court threw the issue off the ballot saying it tried to combine too many elements into one amendment.

Coon said those who support trying again will have to decide what the most important pieces will be. A narrower proposal might be more palatable to voters and better able to withstand judicial scrutiny. The coalition that supported Issue 1 may have been too broad.

“I think what we saw in the last session, what they put out was kind of a combination of things that was health community-driven, nursing home-driven and business-driven, and not all of those groups are seeking the same thing,” he said.

those sources? It's not going to happen,” Bennett said. “It's too big an impact from any one source, so you know that if we're going to get there, you've got to have a combination of sources.”

One alternative is a bond issue, which would spread the cost over time. However, interest costs can be high. For the Interstate Rehabilitation Program passed by voters in 2011, the state paid \$187.5

million in interest on a \$762.5 million program, or 24.6 percent. For the Connecting Arkansas Program, the state is paying \$151.3 million on a \$620.2 million program, or 24.4 percent.

"So bonding is really not the answer," Bennett said. "Yes, it gives you more revenue upfront, and it can counteract a little bit of the inflation over time, but in the end, that's another \$300-plus million that we could have been spending on highway contracts that we need to spend on financing because of the way those issues were structured."

Raising diesel taxes is another option. The Arkansas Trucking Association supports a diesel gas tax increase of 5 percent, or 10 percent if the funding is tied to improving freight routes.

Hutchinson all but ruled out another potential source of revenue: using existing taxes from the sales of road user items such as cars and car parts. He said a \$400 million transfer would divert 7 percent of the current budget to highways. When

he proposed a 1 percent across-the-board cut when he was first elected governor, the Legislature reversed parts of it. The governor in 2016 supported using \$50 million in general revenues so the state would be eligible for \$200 million in federal funding. But he doesn't intend to go farther than that.

"I don't see how that would work," he told reporters Nov. 13. "In fact, I've said very clearly we should not be dipping into general revenues to fund highways."

Other realities complicate the situation. Bennett said if legislators simply refer a tax increase to the voters, it will have to be connected to a bond issue unless it's in the form of a constitutional amendment. That's because lawmakers cannot refer questions to voters that they have the authority to answer themselves.

Then there's the traditional allotment of 15 percent of highway revenues for cities and 15 percent for counties. Because of those and other funding requirements, ARDOT receives only 64.8 percent of

current revenues, or \$455 million. Taking the city-county numbers into account, the state would need to raise an additional \$592 million a year in order to generate \$400 million for highways, Bennett said. Hutchinson told the Good Roads Foundation he has indicated to cities and counties that he is OK with continuing the traditional split so long as the money is used for roads and bridges.

The good news is the public seems to understand the state has serious highway needs. An ARDOT survey that drew 5,000 responses found 77 percent aren't satisfied with the condition of the state's highways, and 74 percent would support new revenue sources. The most popular funding mechanisms were transferring existing highway-related sales and use taxes to highways, which had 62 percent support, and increasing the diesel tax, which had 45 percent support. Another 32 percent would support increasing registration fees, while 29 percent supported increasing the gas tax.

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## ACEC/A Industry Update

# Forecast: Growth to continue, then slow

At ACEC/A's Arkansas Industry Update, Dr. Michael Pakko says economy should grow about 2 percent the next two years

By Steve Brawner  
Editor

Arkansas' economy will grow almost 2.5 percent in 2019, about what is expected nationally, but then the growth will slow by the end of 2020.

Moreover, growth is occurring unevenly, and Arkansas' low unemployment rate is partly reflective of declining labor force participation.

That analysis was offered Nov. 7 at the ACEC/A Arkansas Industry Update by Dr. Michael Pakko, chief economist and state economic forecaster at the University of Arkansas at Little Rock's Institute for Economic Advancement.

The annual Update featured government agency leaders and others who spoke about topics of interest to engineers.

Pakko gave engineers a sneak preview of his annual forecast, which he presented two days later at the Clinton Presidential Center.

He said the state will see growth of about 2 percent over the next couple of years. Near-term personal income growth will total 5.2 percent, or about 3 percent after inflation. Arkansas' unemployment rate, currently a record low 3.5 percent, will remain in the 3.5-4 percent range for the foreseeable future.

The U.S. economy will reach its 10th year of expansion in June. Growth has averaged about 2.3 percent annually, and during the last couple of quarters it has exceeded that amount. "Most recently, all the numbers are positive and accelerating," Pakko said.

Furthermore, he said, "The good news is that economic expansions don't die of old age. There's really no reason to suspect that this expansion can't keep plugging along at the modest pace that it is. What we really need to be concerned about is if we see imbalances growing in the economy or some unexpected adverse event to shock the economy. Those



**DR. MICHAEL PAKKO** told engineers that the economy's overall numbers are "positive and accelerating." However, not all of them are as positive as they might seem. For example, many parts of Arkansas aren't growing economically or in population. Also, the state's record low unemployment rate is partly reflective of declining labor participation.

are kind of hard to predict, but I don't really see any kind of imbalances presently."

The federal government's "fiscal stimulus" policies – federal tax cuts along with deficit spending – will continue to boost the economy over the next six to eight quarters. But the Federal Reserve's interest rate increases will slow growth

in about 2020. Pakko said that while the fiscal stimulus is helping drive growth, deficit spending cannot continue forever.

"That's the situation that simply cannot be maintained," he said. "It's an unsustainable path, and when things are unsustainable they will stop, one way or another."

Arkansas' growth has been slower than the nation's during the expansion. The state actually experienced a recession in 2012 and saw flat economic growth in 2012-13. Arkansas' real gross domestic product growth was slower from 2014-17, and it's still trailing the nation's.

### Tide not lifting all boats

Growth has been uneven statewide. The Fayetteville metropolitan statistical area is up 40 percent from a decade ago, while the Jonesboro area is up 18 percent. But the Little Rock area's economy has grown only 0.3 percent. Hot Springs has had zero growth, while other metropolitan areas have seen negative growth.

Likewise, about 34 counties have seen positive employment growth over the past decade. The Fayetteville MSA has seen 24 percent growth, while Jonesboro is up about 20 percent and the Little Rock MSA is up 4 percent. The other major metropolitan areas have fewer people working than 10 years ago.

Arkansas' income growth has closely mirrored the country's: 4.2 percent here versus 4.3 percent nationally over the past 10 years. However, the growth has been unevenly weighted toward upper-income individuals. Wages and salaries (the income earned most often by workers) accounted for 49.4 percent of income growth nationally, but in Arkansas it's been only 37.9 percent. Meanwhile, the state has seen income growth of 7.8 percent in dividends, interest and rent (the kind earned by wealthier individuals), compared to 6.2 percent in the U.S.

That slower growth in wages and salaries has had a negative effect on consumer spending. Moreover, people are spending less on goods and more on services, so they are paying less in sales taxes.

Pakko believes the state's disparity will level out in the coming months, with wages and salary disbursements increasing 4.6 percent, while growth in dividends, interest and rent will slow to what he said are more reasonable levels.

### Manufacturing jobs leaving

Meanwhile, Arkansas is seeing a major transformation in the jobs that are being created – one whose shift was noticeably marked in 2012. Here, construction and manufacturing have lost 30,000 jobs since a decade ago, but those losses have been counteracted by growth in service jobs in professional and business services, education and health, and leisure and hospitality. The decline in manufacturing jobs had been happening before the Great Recession began, but U.S. manufacturing employment rebounded after the recession ended and has risen since. Arkansas experienced a second downturn from 2011-13, and the sector didn't pick up until 2014.

The decline in manufacturing jobs has been caused by globalization and, more importantly, automation. Some jobs could be brought back to the United States from overseas, but, he said, "You can't put toothpaste back in the tube

*Continues on next page*

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when it comes to automation and technology.”

“Automation in manufacturing has just created huge leaps in productivity, and so we’re still producing lots of stuff nationwide and in Arkansas,” he said. “But we’re doing so with far fewer employees than it used to be the case, so manufacturing simply isn’t the job growth engine that it once was.”

### Record low unemployment?

At 3.5 percent, Arkansas’ unemployment rate is at a record low and is less than the national rate.

But those numbers are somewhat deceiving because the labor force is also shrinking. The unemployment rate measures workers who are either working or are looking for a job, not those who have left the labor force entirely. Labor force participation rates have fallen nationally from 66 percent to 62.7 percent since 2007, and from 63 percent to 57.4 percent in Arkansas. The percentage of working women stopped increasing around 2000, while the baby boomers are retiring, and young people are staying longer in school. In Arkansas, the big decline occurred in 2012 during that second dip of the double dip recession, when manufacturing in Arkansas fell. Moreover, many people who have left the labor force are in their prime working years of ages 45-65.

“You think about a 3.5 percent unemployment rate,” he said. “That seems like a pretty small number, but 5 percent of the population of Arkansas has simply dropped out of the labor force altogether. That’s a pretty significant decline. Whether or not those people are going to come back, or we just have to wait for demographics, I suspect the latter, that it’s going to be a long haul before we see that number rise.”

At the same time, Arkansas’ population is growing at a slower pace than the rest of the country. Pakko forecasts Arkansas’ population to increase half a percent, compared to three-fourths of a percent nationally

Moreover, many parts of the state aren’t growing. From 2010-17, only 23 of the state’s 75 counties grew. In 2016-17, 37 counties grew. Most of the growth occurred in Benton and Washington counties in the state’s northwest corner.



**INDUSTRY UPDATERS.** Also speaking at the Arkansas Industry Update were, top row, Scott Bennett, P.E., Arkansas Department of Transportation director; Brandon Guillot, Federal Aviation Administration Safety Team; and Ryan Benefield, Arkansas Natural Resources Commission deputy director. Middle row, Lance Jones, P.E., chief engineer, Arkansas Department of Health Engineering Section; Tab Townsell, Metroplan executive director; and Bob Blanz, Ph.D., P.E., Arkansas Department of Environmental Quality chief technical officer. Bottom row, A.J. Brown, contracting officer for the U.S. Army Corps of Engineers’ Little Rock District; and Randy Zook, Arkansas State Chamber of Commerce president and chief executive officer.

## Kamarunas named new sales director for RP Power

Caleb Kamarunas has been named director of sales for North Little Rock-based RP Power.

Previously a regional sales manager, Kamarunas will lead a sales staff of eight. He has been with the company 4.5 years.

The North Little Rock native earned an engineering degree from Vanderbilt University and then served 4.5 years in the Navy. He was the ordnance and anti-terrorism officer on the USS Thatch, a frigate, and then was a navigator on the USS Mobile Bay, a cruiser. That ship saw duty in the Arabian Gulf in 2012-13.

RP Power sells Kohler power equipment, including diesel generators, transfer switches and switchgear.



Kamarunas



**DESIGN BUILDERS.** Brian Rohlman, P.E., president of Crow Construction, right, and Project Manager David Watkins, PLA, attended the Design-Build Institute of America's certification training workshop.

## Crow Construction's Rohlman, Watkins train for design-build

Crow Construction President Brian Rohlman, P.E., and Project Manager David Watkins, PLA, attended the Design-Build Institute of America (DBIA) design-build certification training workshop in St. Louis in September.

Rohlman and Watkins will sit for the DBIA's Certification Exam, which will

qualify them as designated design-build professionals.

According to the DBIA, design-build is the fastest growing method used to deliver construction projects in America. Design-build allows for the designer and contractor to work together from the beginning, providing unified project recommendations to fit the owner's schedule and budget.

Rohlman said, "Design-build is an advantageous delivery method for an owner for a multitude of reasons. By continuing to educate our engineering and project team members through the DBIA certification program, it allows our firm to stay sharp and on the cutting edge of this delivery method".

Crow Construction is a full-service construction firm headquartered in Morilton, and an industry partner member of the DBIA. It provides design-build, construction management, and general contracting services for a diverse range of clients across multiple divisions.

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---

+ For more information, contact: **Mike Griffin, PE** | Director of Aviation | [MJGriffin@GarverUSA.com](mailto:MJGriffin@GarverUSA.com) | 501.376.3633