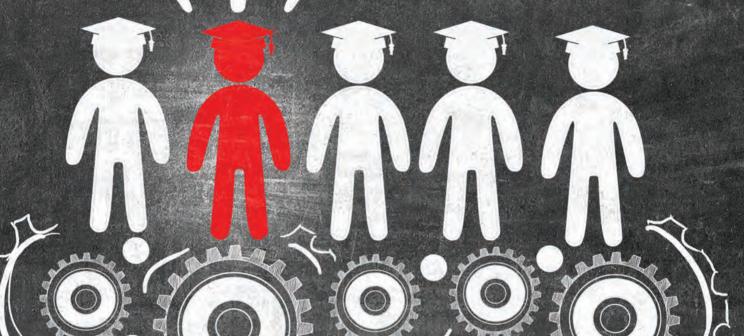
KENTUCKY'S BUSINESS URCE FOR 32 YEARS OCTOBER 2017

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GROWING ENGINEERS TO GROW MANUFACTURING

Kentucky's surging engineering enrollments and graduate numbers must keep growing to fulfill industry demand Page 32

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Kentucky's engineering schools are expanding to meet the growing demand in industry and especially advanced manufacturing for engineers of all types.





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PERSPECTIVE

KEEP IT SIMPLE: JUST CUT TAXES

Higher wages, GDP growth will help U.S. move forward

BY PAT FREIBERT

OTHER Nature in all its fury recently visited Houston, the entire state of Florida, mid-Atlantic states and Puerto Rico, creating widespread devastation. Besides loss of life, the hurricanes, storms and floods created massive loss of services and destruction of infrastructure that will take months or years to restore.

Nevertheless, the images of Americans helping each other out are truly inspiring – local citizens rescuing by boat helpless children, elderly people, family pets and farm animals; police, firefighters, National Guard and other first responders helping others to safety. Rescuers included neighbors and volunteers from local communities and other states who willingly committed acts of kindness and downright heroism. These wholesale rescue efforts of bravery serve as a graphic lesson about humanity.

Kentucky, like numerous other states, acquitted itself beautifully with its help in sending its National Guard, energy workers to restore power and first responders for first aid. University of Kentucky basketball coach John Calipari used his energy and popularity to raise significant funds to help victims of the disaster. Evangelist Franklin Graham of North Carolina also vigorously took on the challenge to successfully raise funds to help victims. Disasters many times bring out the best in us and can call forth our humanity - neighbor helping neighbor. If only this display of spontaneous action would spread to Congress to attack the nation's most urgent problems, Americans could experience more hope for changes to benefit the entire society.

It is now October – the year is three quarters gone – and Congress has barely touched the critical issues facing the nation. Repeal and replace Obamacare as promised? Energy? Tax reform and cuts? Illegal immigration? Yet, Congress took a longer August break away from Washington than in most other modern years. Foreign affairs and national defense issues are merely simmering, going nowhere. America's foes notice things like that.

On the paramount issue of tax reform, three of the president's notable

advisers on tax policy – Steve Forbes, Larry Kudlow and Stephen Moore – are urging Congress "to keep the debate focused on three simple reforms: (1) Cut tax rates for large and small businesses to 15 percent to make America competitive and to create jobs. (2) Repatriate \$2.5 trillion of money held by American companies back to the U.S. at a 10 percent tax rate. (3) Double the standard deduction for every family and individual filer."

These three well-known economic experts say "stop there" – no border tax, no carbon tax, no surtax on rich people. No end of popular tax deductions. Keep it as a jobs bill that cuts taxes. According to a recent *Investors Business Daily* poll, 55 percent of voters support the 15 percent business tax rate, 66 percent support repatriation. Polls also show majority support for a tax cut. Similar tax-rate cuts under Ronald Reagan and JFK resulted in job creation and revenue growth. These

... the Congressional Budget Office concluded that more than 60 percent of the gain from a business tax cut goes to workers in the form of higher wages.

experts believe the business tax cut is a middle-class tax cut – since the Congressional Budget Office concluded that more than 60 percent of the gain from a business tax cut goes to workers in the form of higher wages.

Basically, the advice from these three experts is: "Don't try to rewrite the 80,000-page tax code. Cut taxes now. Then build political momentum for a tax reform and simplification agenda in 2018 and 2019."

After the Reagan tax cuts, the economy jumped to 4 percent growth. That sounds like a good plan and one that can be enacted.

In the spirit of helping Americans restore a healthy economy with better pay for workers, Congress should get to work and take the necessary steps to help American workers' real income rise. "Keep it simple," says Moore. Just cut taxes for now and move forward. Like the neighbors, officials and first responders in Houston, Florida and the mid-Atlantic States, Congress can do something that will help neighbors and fellow citizens.



Pat Freibert is a former Kentucky state representative from Lexington. She can be reached at editorial@lanereport.com.

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Kentucky's Business News Source for 32 Years

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FAST LANE

A compilation of economic news from across Kentucky

STATE: CHURCHILL DOWNS & KEENELAND PROPOSE PLAN TO BUILD 2 NEW KENTUCKY HORSE RACING FACILITIES



Renderings of the proposed Churchill Downs/Keeneland facilities in Corbin (above) and Oak Grove.



HURCHILL Downs Inc. and Keeneland Association Inc. have partnered on a proposal to build two new racing facilities in Kentucky.

One of the facilities would be located in Corbin (Knox County), in the southeastern portion of the state, with the other sited in Oak Grove (Christian County), in the southwestern part of the state. Both proposed facilities would feature live horse racing and historical racing machines.

Churchill Downs and Keeneland are working closely with the state tourism, arts and heritage cabinet as well as other state and local officials on a number of incentives and other infrastructure improvements needed to bring the plans to fruition.

"Horse racing is a \$4 billion industry in the commonwealth that creates thousands of jobs, strengthens our statewide economy and attracts millions of visitors from around the globe," said Churchill Downs CEO Bill Carstanjen said. "Churchill Downs and Keeneland share a deep commitment to making Kentucky's horse racing industry the very best version of itself, and the new racing facilities in Corbin and Oak Grove will help us achieve this by generating much-needed funds to increase purses and breeders' incentives."

Each facility is contingent on receipt of an initial pari-mutuel racing license by the Kentucky Horse Racing Commission. Churchill Downs and Keeneland filed their applications with the commission in mid-September.

LEXINGTON: KY STARTUP MAKETIME TEAMS WITH TECH, INDUSTRY GIANTS ON INNOVATIVE MACHINING PROGRAM

AKETIME, a Lexington-based tech company, has partnered with five tech and industry giants on a new program designed to advance the U.S. manufacturing supply base by making technology, hardware and business services more accessible.

MakeTime, which launched in 2014, works to match manufacturers who need certain machines with others who have those machines but aren't utilizing them all the time. Renting out blocks of time to use



the machines results in a win-win for both parties, creating revenue for those with the machines and greater efficiency for those in need of the machines.

Now the company has partnered with **Autodesk**, a 3D design software company; **Sandvik Coromant**, a leading supplier of cutting tools and tooling solutions; **Dell**, a computer technology company; **Transportation Impact**, a supply chain cost-reduction company; and **Manufacturers Capital**, a manufacturing financing partner, to create the MakeTime Shop Advantage Program.

Through the Shop Advantage Program, which is the first program of its kind in the country, machine shops through the United States will be able to access cutting tools, CAD/CAM software, and computer hardware, as well as financing for CNC (computer numerical control) machine tools and manufacturing equipment. Any machine shop in the U.S. is eligible for the program by creating a free account with MakeTime.

"MakeTime's mission has always been to refuel U.S. manufacturing," said Todd Pritts, chief product officer for MakeTime. "We started by building technology that makes it easier for manufacturers to get parts made with American suppliers. Now we can go one step further and provide American suppliers access to the tools they need to get ahead, and stay ahead, of the technology curve in the global manufacturing climate."

BARDSTOWN: **NEW DISTILLER DOUBLING ITS CAPACITY TO MEET RISING DEMAND**

HE **Bardstown Bourbon Co.** is expanding its capacity to allow production of up to 6 million proof gallons – a move that it says will make it one of the largest bourbon distilleries in the world.

With an annual production capability of nearly 100,000 barrels, BBCo will be able to provide needed capacity for customers who are part of its collaborative distilling program, take on a select few additional customers and still meet the needs of its own brands. The expansion is expected to be complete by July 2018.



BBCo's collaborative distilling program is a service that provides craft distillers, nondistilling brand owners and existing brand owners the ability to work side-by-side with BBCo's production team to create their own whiskey, bourbon and rye products.

Within months of announcing the collaborative distilling program in 2016, BBCo sold out all of its original 1.5 million proof gallon capacity. In 2017, the company doubled capacity to 3 million proof gallons, which is currently sold out through 2018.

"We've exceeded all expectations," said BBCo Master Distiller Steve Nally. "Our custom production program has attracted some of the best brands from across the country and the world, and we are proud to be producing some of the finest bourbon for them."

In addition to its collaborative distilling program, BBCo is also developing a destination experience with a Napa Valley-style estate featuring an educational experience, visitors center, event space, vintage spirits and whiskey library, bar and full-scale restaurant. The company also plans to develop a boutique hotel and convention center on the property.

BBCo expects the upcoming expansion project to be complete by July 2018.

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FAST LANE

BUSINESS BRIEFS

BEAVER DAM

■ WPT Corp., a family-owned company that produces nonwoven fabrics used for items ranging from landscape fabric to telecom cable wrap, plans to open a second plant in Ohio County to increase production capacity for materials used in hygiene and filtration products. The company is investing \$6 million to locate its new operation in the 60,000-s.f. space that previously served as the Nestaway plant. The company was founded in 2008 and despite an expansion in 2015, is nearing capacity at its existing location. The new facility will add 40 jobs to the current 57-member staff.

CAMPBELLSVILLE

■ Campbellsville University has a total economic impact from its operations of more than \$106 million in Taylor County, according to a new study recently completed by Younger Associates of Jackson, Tenn. The study shows that the university supports a total of 1,509 jobs, more than 13.26 percent of all jobs in Taylor County.



COVINGTON

■ RiverHaus, a new high-end residential and commercial development project being built by Flaherty & Collins Properties in Covington's Mainstrasse neighborhood, will be the first new-construction project in Kentucky to use an Energy Project Assessment District to finance energy-efficient construction. In 2015, the Kentucky General

Assembly passed legislation that allowed local governments to establish EPAD districts to finance energy-efficient improvements on commercial, industrial and multi-family properties. These districts allow Property Assessed Clean Energy financing to pay for the improvements. PACE financing will allow Flaherty & Collins to incorporate more than \$4 million in energy-efficient windows, lighting, heating and cooling systems, and wall and roofing insulation into the RiverHaus project.

DANVILLE

■ Denyo Manufacturing Corp. is investing \$8.7 million to expand its facilities and operations in Danville. The company plans to build a 63,000-s.f. facility on its Danville campus for the fabrication of sheet metal components used in generator and air compressor assembly. The expansion, which is expected to be complete by October 2018, will add up to 90 jobs to Denyo's 145-member staff.

EASTERN KENTUCKY

■ Booth Energy has closed nine mining and mining-related businesses and facilities located across Floyd, Johnson and Martin counties. The closings include the Matrix Energy, Eagle Coal Co., Beech Fork Processing, Long Fork Development Co., Pinnacle Processing, Coal Transport, Collins Creek Services and Marco Mine Supply. The closings eliminate 217 jobs.

ERLANGER

■ Two **speculative buildings** totaling more than 1.7 million s.f. are planned for a site in Erlanger near the intersection of Interstates 75 and 275. Construction on Building 1, totaling 779,922 s.f., will begin in 2018. Planned features include 36-foot clear height, an ESFR sprinkler system and cross-dock configuration. It will offer 159 trailer storage spaces and 350 spaces for auto parking. The project is being lead by Dallas development company **Hillwood** and Cincinnati-based developer and design-builder **A1. Neyer**.

LEXINGTON

■ The University of Kentucky College of Law has broken ground on a new \$56 million building renovation and expansion project. The renovation will add a 185-seat moot courtroom, 11 new classrooms and a third floor with three



classrooms that can be converted into a large multipurpose room. Construction is expected to be complete by fall 2019.

STATE: EXPECT FEWER OPTIONS, HIGHER PRICES FOR HEALTH INSURANCE IN 2018

S open enrollment for healthcare insurance begins Nov. 1, Kentuckians who purchase healthcare insurance through the federal individual marketplace will once again experience significant changes in premiums resulting from the volatility precipitated by the Affordable Care Act, according to the latest information released by the Kentucky Department of Insurance.

Though the exact change will depend on a number of factors, including an individual's plan type, age and place residence, prices will be higher and options more limited than prior years.

In early September, **Anthem** announced plans to reduce its coverage area in Kentucky. As a result, Anthem plans will only be available in 59 of Kentucky's 120 counties. Ohiobased **CareSource** will offer insurance plans in areas not covered by Anthem. (Anthem's group plans and **Medicaid/Medicaid Advantage** plans are not impacted by changes.)

Coverage from either company will come at a steep price, however. Anthem's rates are increasing 41.2 percent over last year, while CareSource premiums will be 56 percent higher.

The rate increases will affect some 79,000 Kentuckians who purchase their insurance through the federal market exchange. The rate hikes do not necessarily apply to those who receive their health insurance from an employer plan, Medicare or Medicaid, although those rates may increase as well.

"The damage caused to hardworking Kentuckians under Obamacare is evident in the rate increases that are required each year to sustain the healthcare market and the decrease in insurer options," said Department of Insurance Commissioner Nancy Atkins. "The uncertainty in the marketplace and Obamacare mandates are making it harder and harder for Kentuckians to access affordable healthcare insurance each year."

BULLITT COUNTY: PUBLISHERS PRESS SOLD TO LSC COMMUNICATIONS

Publishers Press, a family-owned printing company headquartered in Lebanon Junction, has been sold to Chicago-based



LSC Communications for an undisclosed price.

Publishers Press has been in operation for more than 150 years and has grown to be one of the nation's largest publication printers. The company was the first to use a complete computer-to-plant process for magazine production and also one of the first to offer an in-house distribution system. The majority (96 percent) of the company's business involves magazine printing, with *The Lane Report* being one of its many clients. Publishers Press currently employs a staff of approximately 1,200 at its 700,000-s.f. facility in Lebanon Junction and had sales of \$191 million in its most recent fiscal year.

In comparison, LSC had 2016 sales of \$3.7 billion, of which 45 percent is attributed to magazines, catalogs and retail inserts. The company has more than 20,000 employees across 41 production facilities throughout the United States and eight international manufacturing plants.

The acquisition brings an end to the family stewardship of Publishers Press, which has been operated since 1866 by five generations of the Simon family. Prior to the acquisition, Publishers Press was led by Michael J. Simon, who assumed the role following the death of his brother, Nicholas, in 2016.

LOUISVILLE: FRAZIER MUSEUM TO HOUSE NEW BOURBON TRAIL WELCOME CENTER



Visitors to the planned Kentucky Bourbon Trail Welcome Center in the Frazier Museum will find interactive experiences that delve into the history that has shaped Kentucky's bourbon industry.

HE Frazier History
Museum and the Kentucky Distillers' Association have finalized a
partnership to mutually develop a Kentucky Bourbon Trail Welcome Center & Exhibit that will be located at the Frazier along Louisville's famed Whiskey Row.

The center will become the "Official Starting Point of the Kentucky Bourbon Trail Experiences" when it opens in August 2018, showcasing

the iconic members of the Kentucky Bourbon Trail adventure and its **Kentucky Bourbon Trail Craft Tour**, which features the state's micro distilleries.

The interactive experience will include Kentucky bourbonrelated historical exhibits and educate visitors on why the Bluegrass has the perfect mix of water, climate, corn and natural conditions that make it home to America's only native spirit. Frazier President Penny Peavler said the center will focus on all aspects of the bourbon category and culture, from the farming community and pioneer distilleries to today's bourbon barons, families and everyday distillery workers.

A main feature will be a Kentucky Bourbon Trail concierge service located in the museum's new entrance that will help visitors plan their trip to the distilleries, as well as navigating Louisville's growing bourbon culinary and nightlife scene. There are currently 11 distillery experiences open, under construction, or in the planning stages in Louisville.

"We get dozens of calls every day from visitors around the world who are planning their Kentucky Bourbon Trail journey and asking where to start," KDA President Eric Gregory said. "Now, we'll have the perfect answer – The Kentucky Bourbon Trail Welcome Center at the Frazier History Museum."

STATE: LIGHTWEIGHT MANUFACTURING JOBS EXCEED PRE-RECESSION LEVELS

MPLOYMENT levels for workers in advanced light-weight metal manufacturing occupations have exceeded pre-recession levels, with over 285,000 Kentucky workers employed in the field as of the second quarter of 2017, according to a new report from **Lightweight Innovations** For Tomorrow.

The report also states that demand for workers in the commonwealth remains strong, with 42 percent more online job postings than four years ago.

"Our state has hit a milestone as advanced manufacturing employment levels have surpassed pre-recession levels; levels we haven't seen since 2001," said Mary C. Breeding, president and CEO of **Kentucky Foundation for Industry**. "Keeping up with demand, as it's projected to continue growing, will fall largely on building and preparing a resilient, qualified workforce through education and industry collaboration."

The top in-demand lightweighting-related occupations in Kentucky in Q2 2017 were: laborers and freight, stock and material movers (1,160 postings), maintenance and repair workers (1,039 postings), production workers (544 postings), first-line supervisors of production and operating workers (362 postings), and production, planning and expediting clerks (276 postings).

BUSINESS BRIEFS

LEXINGTON

■ Keeneland's September Yearling Sale ended on Sept. 22 following a 12-day run that saw gross receipts rise above \$300 million for the first time since 2008. Thirteen horses were sold for prices in the seven-figure range while the median price was \$57,000, up 42.5 percent over last year's median price of \$40,000.



- Lexington-based electrical contractor Amteck LLC has acquired the assets and operations of Consolidated Electrical Contractors & Engineers Inc. of Dothan, Alabama, and Proformance Group Inc. of Greenville, South Carolina. Amteck CEO Daren Turner said the company wanted to create a stronger presence in the Southeast in order to meet market demands, and a previous professional relationship with CECE made the acquisition a logistical next step. Adding PGI allows Amteck to immediately begin working on complex process systems such as automation controls, control paneling fabrication, system integration and a wide variety of automation process systems.
- The Lexington metro area's unemployment rate which has been at or below 4.1 percent for 31 consecutive months is well below the unemployment rate for both the commonwealth and the nation, according to information released by the Federal Reserve Bank of Cleveland's Cincinnati branch. Employment grew in the Lexington metro area in 2016 in most industry sectors, with job growth in two sectors construction and trade and transportation and utilities outpacing both the commonwealth and the nation.



■ A new Blue Grass Stockyards facility opened in September near the Kentucky Horse Park following a devastating fire in January 2016 that completely destroyed its building near downtown Lexington. The new 232,000-s.f. facility includes exhibit space

and 40,000-s.f. of office and retail space as well as a regional marketplace that includes a broker, a local meat market, a restaurant, a clothing store and other services to meet the needs of cattle farmers.

LOUISVILLE

- Allegiant has announced plans to begin offering nonstop flight service between Louisville and Las Vegas' McCarran International Airport. The flights will operate twice weekly on Thursdays and Sundays beginning Nov. 16.
- Louisville-based **Papa John's International** has signed a development agreement with franchisee **PJ Western** to open restaurants in Kazakhstan, Kyrgyzstan and Poland. The agreement calls for 16 restaurants to open over the next five years in Kazakhstan and six locations in Kyrgyzstan over the next three years. Twenty-three restaurants are scheduled to open in Poland beginning later this year. PJ Western also operates Papa John's restaurants in Russia and Belarus.
- Bellarmine University has completed a \$100 million capital campaign through more than 44,000 gifts that have helped construct or renovate 11 campus facilities in addition to funding 29 endowed scholarships, creating five named or endowed professorships, and



providing the means to add a number of new academic programs. The capital campaign has also expanded international study opportunities, added programs for first-generation college students, and expanded student health services. The new opportunities created by the campaign have helped fuel a 46 percent increase in Bellarmine's student body since 2005.

FAST LANE

BUSINESS BRIEFS

LOUISVILLE

- Texas Roadhouse is working with West Louisville kitchen incubator Chef Space through a partnership by which the Louisville-based restaurant chain will utilize the space for food innovation, product testing and recipe development while also sharing best practices with current Chef Space members and area residents. Chef Space houses more than 30 first-stage entrepreneurs, providing equipment, training and support along with technical assistance and other resources to help startups secure their own business location.
- Louisville foodservice company Creation Gardens has acquired Bluefin Seafood, a company that has been serving Greater Louisville chefs and restaurants for 26 years. The acquisition is the third this year



for Creation Gardens; earlier this year the company acquired **Joe Lasita and Sons Produce** in Cincinnati and **Coe Catanzaro & Sons Produce** of Springfield, Ohio. The Bluefin acquisition will further strengthen Creation Garden's presence in the Kentucky, Indiana and Ohio markets.

- Kentucky Telco Credit Union has been rebranded and is now operating as Transcend Credit Union. "We found that the name 'Kentucky Telco Credit Union' resulted in some confusion about eligibility to become a member," said CEO Richard Reese when asked what inspired the rebranding effort. "Anyone who lives, works, worships, volunteers or attends school in 25 nearby Kentucky counties can benefit from becoming a member at Transcend Credit Union. It's imperative that our brand reflect that inclusiveness." The Louisville-based credit union operates six locations in the Louisville area and one each in Lexington and Owensboro.
- Construction is now underway for a new **Waterfront Botanical Gardens** attraction in Louisville on the 23-acre site of a former landfill. Phase 1A of the project will include educational gardens, fountains and exploration woodland, as well as a building with a large flexible space that can host a range of activities for children and adults alike. The \$7.9 million attraction is expected to open in 2019.



- Brown-Forman is investing \$45 million to modernize its cooperage in Louisville, where it crafts more than 2,500 barrels per day for the aging of spirits such as Jack Daniels, Woodford Reserve and Early Times. The modernization will improve efficiency but will result in the elimination of 70 hourly positions once the project is fully implemented in early 2019. The cooperage will continue to employ approximately 205 workers.
- The University of Kentucky's College of Design is hosting its first satellite studio in West Louisville, where it will work to create an experience that immerses UK architecture students in a "targeted yet underdeveloped community." Studio Louisville will enable UK students to physically work in the environment while engaging with residents and community organizations to address the needs of the area. Future plans are to migrate to new cities with a need for community transformation and incorporate the college's other programs in the efforts.
- Louisville-based Malone Workforce Solutions, one of the state's oldest recruiting companies, has completed its acquisition of Illinois-based staffing agency AllStaff. The addition of AllStaff will nearly double Malone's estimated annual revenue to over \$330 million and will increase its locations to 71 offices servicing clients in more than 40 states. The acquisition is the second this year for Malone; earlier this year the company acquired Lexington-based Omnisource Staffing.
- The Louisville Urban League has been selected to develop a \$30 million indoor track-and-field facility on a 24-acre site in West Louisville that was previously slated for the development of the West Louisville Foodport. The new sports complex will be designed to host a variety of sporting events potentially sponsored by organizations such as USA Track and Field, the National College Athletics Association, colleges and universities, and local and regional public and private schools. The facility also will feature retail space and related amenities.

LOUISVILLE: CONSTRUCTION BEGINS ON NEW \$28M ARTS & CULTURAL DISTRICT

groundbreaking ceremony was held in early September for a new \$28 million arts and cultural district in Louisville's Paristown neighborhood.

The project is co-anchored by Louisville Stoneware, The Kentucky Center and Goodwood Brewing Co. and will



A new Kentucky Center for the Performing Arts venue being built in Louisville's Paristown neighborhood will be able to accommodate a wide range of performances.

create new jobs as well as a variety of restaurant and entertainment options for the historic neighborhood.

Louisville Stoneware is planning a \$6 million renovation of its buildings, which are listed on the National Historic Register. The renovation will create nearly a dozen full-time jobs and support community outreach programs aimed at engaging disadvantaged children in pottery classes.

The **Kentucky Center for the Performing Arts** is planning to build a new \$12 million standing-room, general admission venue for national touring bands, regional arts organizations and collaborative projects, new works and nontraditional performance experiences. The new venue also will give The Kentucky Center the ability to host a wider range of artists, events and performances and will support a variety of stage and audience configurations.

Goodwood Brewing Co. plans to build a \$1 million brewery and tap room to focus on its barrel-aged products.

The district will knit together five distinct neighborhoods – downtown, NuLu, Smoketown, Germantown and the Highlands – that are experiencing significant redevelopment, including substantial new residential and commercial projects, public art, workforce development and green infrastructure and neighborhood beautification.

LOUISVILLE: GENERATION TUX ACQUIRES COMPETITOR MENGUIN IN \$25M DEAL



ENERATION Tux, a Louisville online suit and tuxedo rental company created by Men's Wearhouse founder George Zimmer, has acquired one of its competitors in a \$25 million deal.

Zimmer said **Menguin**'s digital marketing and entrepreneurial leadership sparked his interest, and it soon become clear "that we could do more together than apart."

The acquisition announcement comes at a time when Menguin has experienced three years at an 800 percent compound annual growth rate.

A press release announcing the acquisition said the Menguin purchase "is part of Generation Tux's larger e-commerce strategy to strengthen its technological foothold and establish clear market dominance in the yet nascent industry of online tux rentals."

The two companies will continue to operate as separate brands under the Louisville-based holding company, Gen Tux Inc.



FAST LANE

BUSINESS BRIEFS

LOUISVILLE

■ Louisville-based Epic Insurance Solutions has been acquired by Fifth Third Bancorp for an undisclosed price. Epic was founded in 2013 and primarily focuses on commercial and personal property insurance and casualty, employee benefits and HR consulting services. Epic recently reached an agreement to



acquire Louisville human resources company Integrity HR Inc. Both transactions are expected to close this fall.



■ ZirMed, a Louisville-based healthcare revenue cycle management company, has signed an agreement to merge with

Navicure, a Georgia company that provides integrated cloud-based medical claims management and patient payment solutions. The combined company will serve more than 400,000 healthcare providers and organizations and will maintain its existing locations and teams in Duluth, Georgia; Louisville; and Chicago. Financial details of the transaction have not been released.

MORGANTOWN

■ Real Alloy has announced that it is restarting its UBC recycling operation in Morgantown as a result of increasing customer demand and a new contract. The facility was idled in December 2015. The restart is expected to begin this month and will bring approximately 30 people back to work.

NORTHERN KENTUCKY

■ Duke Energy Kentucky is requesting approval from the Kentucky Public Service Commission to increase its rates to help fund infrastructure invest-



ments in its electric generation and delivery systems. If approved, electric rates for the company's 140,000 customers across Boone, Kenton, Campbell, Pendleton, Grant and Gallatin counties would increase approximately 17.4 percent for residential customers and around 13.7 percent for commercial and industrial customers, depending on their size. It is the first base rate increase the company has requested in 11 years.

OWENSBORO

■ Automotive frame manufacturer Metalsa Structural Products Inc. has launched a \$36.5 million expansion of its Owensboro facility to produce a new line of stamped and welded components. The expansion will add 113 jobs at the Owensboro plant. Metalsa currently employs approximately 2,700 people at its three vehicle-frame facilities in Kentucky, located in Owensboro, Hopkinsville and Elizabethtown.

■ The *Lexington Herald-Leader* is re-establishing a reporting bureau in Pikeville next year as part of a partnership aimed at providing deeper news coverage in the coalfields of Eastern Kentucky and southern West Virginia. The Lexington newspaper is joining West Virginia Public Broadcasting and the Charleston Gazette-Mail to partner with the Galloway Family Foundation and The GroundTruth Project's new "Report for America" initiative to establish three year-long fellowships in 2018 for emerging journalists.

STATE

■ Sales of \$96 million in August were the second-highest in **Kentucky** Lottery history, thanks to a \$758 million Powerball jackpot that



month. "The jackpot run helped Powerball sales exceed budget by \$9.5 million," said Kentucky Lottery President and CEO Tom Delacenserie. "With the exception of our Five Card Cash game, every

one of our products is selling better that they did at the same time last year. We're really firing on all cylinders now.

STATE: MORE COMPANIES APPLYING FOR **WORKFORCE OPPORTUNITY TAX CREDITS**

HE Kentucky Career Center issued nearly 54,000 Workforce **Opportunity Tax Credits** (WOTC) to Kentucky employers during fiscal year 2017, a 30 percent increase over the prior year, potentially saving those employers a total of more than \$205 million in federal taxes.

WOTC benefits employers who hire people classified in select target groups who have consistently faced significant barriers to employment. (See box at right for criteria.) Tax credit incentives range from \$1,200 to \$9,600 and are used to reduce the federal tax liability of private, for-profit employers.

"It is encouraging to see more Kentucky employers taking advantage of the Workforce Opportunity Tax Credit to hire new employees

Kentucky Workforce Opportunity Tax Credit

To receive the Kentucky Workforce Opportunity Tax Credit, employers must hire an individual who meets the criteria of at least one of the following target groups:

- Unemployed veterans and veterans with disabilities
- Recipients of public assistance such as temporary assistance to needy families (TANF) and food stamps
- Former felons
- Residents of an empowerment zone, renewal community or rural renewal county
- Vocational rehabilitation referrals
- Long-term unemployment insurance recipients
- Eligible summer youth employees
- Qualified recipients of supplemental security income (SSI)

because it helps them reduce taxes and it assists people who have historically faced difficulty getting a job or re-entering the workforce," said Beth Kuhn, commissioner of the Kentucky Department of Workforce Investment.

Prior to claiming the tax credit with the **IRS**, an employer must request and receive certification from the KCC Tax Credit Unit stating the new hire is a member of at least one of the WOTC target groups.

Michelle DeJohn, Employer Customer Services branch manager, said part of the reason the WOTC program has seen increasing success is due to a new automated application process.

"It's a five-step process that involves creating a user account with the Kentucky Online WOTC system to submit applications and receive email updates on WOTC program changes," DeJohn said. "We hope more employers will use the program."

For more information, contact the Kentucky Tax Credit Unit at (502) 782-3465 or wotc@ky.gov.

STATE: ADDICTION TREATMENT CENTERS TO OPEN IN LOUISVILLE AND PADUCAH

OURNEYPURE, a Nashville-based provider of addiction treatment services, plans to open outpatient facilities in Louisville and Paducah in the coming weeks as part of a significant expansion that includes the addition of eight outpatient centers across Tennessee, Kentucky and Florida.

The company currently operates six inpatient facilities across those states – including one in Bowling Green – along with numerous sober-living homes and outpatient clinics.

The new outpatient addiction treatment centers will be located near existing JourneyPure inpatient facilities to provide a smooth transition and continuity of care.

"Patients who have completed detoxification and a residential or inpatient program can benefit from the services of these new centers," said Dr. Sam MacMaster, co-founder, executive vice president and chief clinical officer of JourneyPure. "Outpatient programs can help these individuals maintain progress so that the threat of relapse is significantly reduced."

WILMORE: KY TAPS ASBURY KNOW-HOW TO TRAIN WORKERS FOR FILM INDUSTRY



ENTUCKY has partnered with Asbury University on a workforce development initiative to train more Kentuckians for jobs in the film and entertainment industry.

Nearly 20 film projects were shot in Kentucky last year with another 17 already filmed so far this year, with several more planned.

"The film industry continues to grow in our state," said **Tourism, Arts and Heritage Cabinet** Secretary Don Parkinson. "This will allow us to build skilled crew in Kentucky to meet both current and future demand in the industry."

The new Kentucky Film Certification Program will offer tracks in film-specific areas, including audio, camera, grip, electric, production and set construction, among others. The program will offer two levels of certification. One will be online courses taught by Hollywood professionals, with hands-on classes led by leading industry professionals.

Asbury is well known for its communication arts program and currently offers online master's degree program in film and television production, screenwriting and digital storytelling. Asbury graduates have worked on more than 230 theatrically released films that have received over 90 Oscar nominations and more than 480 network television production that have garnered more than 130 Emmy Awards.

BUSINESS BRIEFS

STATE

- The **Kentucky Community and Technical College System** recorded 16,146 graduations for the 2016-17 academic year, up 9 percent over the previous year. The previous record of 15,958 was set in 2013-14. KCTCS President Jay Box noted that the achievement was particularly significant in light of the fact the increases occurred during a period of lower enrollment, due to lower unemployment and other economic factors.
- Construction of a statewide high-speed internet network is moving forward, with approximately 68 miles of underground conduit laid and six miles of aerial cable hung. Though obtaining pole attachment agreements with companies that own the utility poles proved to be an



obstacle in the beginning, 90 percent of the agreements have now been reached. The goal of the **KentuckyWired** project is

to lay more than 3,000 miles of fiber-optic cable to help boost the state's economy, enhance education opportunities and facilitate greater coordination between first responders in emergency situations. Early delays have pushed the completion date past the original target of 2018, but a new date has not yet been forecast.

■ Kentucky Agriculture Commissioner Ryan Quarles was part of a **United States Meat Export Federation** delegation that traveled to Japan in early September to advocate for Kentucky farmers. Quarles, along with members of the **Kentucky Cattlemen's Association** and the **Kentucky Corn Promotion Council**, met with importers, distributors, retailers and processors interested in purchasing U.S. products. Last year, Kentucky had \$108 million in exports to Japan, with the top products being purebred horses (\$54 million) and distilled spirits (\$44 million).

AMERICA PLACE OFFICE PARK





ART INSPIRED OFFICE SPACE

- Located within River Ridge Commerce Center; this Class AA+ Office building offers 26,000 SF of Museum Quality space where Culture meets Commerce.
- Architect Kulapat Yantrasast is world renowned and recently designed the addition and renovation of the Speed Art Museum.
- Located just minutes from Downtown Louisville, and easy access to I-64, I-65, I-71, and I-265.

COMING SOON TO SOUTHERN INDIANA!

AMERICA

INTERSTATE LANE

Business news from Indiana, Ohio, Tennessee and West Virginia

BUSINESS BRIEFS

INDIANA/OHIO

■ 20/20 Custom Molded Plastics, an Ohio-based custom structural form molding manufacturer, is investing more than \$27 million to purchase and equip a 170,000-s.f. facility in Bluffton, Ind., to expand its production capacity. The company expects to hire 155 workers by 2020.

■ First Financial Bancorp and MainSource Financial Group have signed a definitive merger agreement



under which MainSource will merge into First Financial in a transaction valued at approximately \$1 billion. Upon closing, shareholders of Cincinnati-based First Financial will own approximately 63 percent of the combined company and shareholders of Greensburg, Ind.-based MainSource will own approximately 37 percent. The merger will create the sixth largest bank in deposit market share in the state of Indiana and the fourth largest in the Greater Cincinnati area. Through a recent acquisition by MainSource Bank, both companies will fulfill their plans to expand in the Louisville, Kentucky market. The transaction is expected to close in early 2018.

оню

■ Amazon.com has announced plans to open two fulfillment centers in Ohio, creating 3,000 new jobs. The new facility in North Randall, Ohio, will create 2,000 full-time positions that will generate more than \$55 million in annual payroll. The center in Monroe will create 1,000 new jobs, creating \$26.7 million in annual payroll.

TENNESSEE

■ Tyson Foods is investing \$80 million to expand its operations in Union City, Tenn., and plans to add more than 300 new jobs as part of the expansion. The project involves adding 25,000 s.f. and new production lines,



effectively doubling its output capabilities. Tyson's Union City complex supplies chicken for a national foodservice customer. The company also operates facilities in Goodlettsville, Newbern and Shelbyville, employing about 5,000 in Tennessee. The Union City expansion is expected to be operational by mid-2019.

- Philips, a global leader in health technology, plans to open a new "center of expertise" in the Nashville area that will create 800 new jobs. Functions that will be housed within the center include commercial operations, customer service, finance, human resources, information technology, marketing, procurement, and quality and regulatory operations.
- Gränges is investing \$110 million to expand its aluminum rolling operations in Huntingdon, Tenn. The expansion, which will create approximately 100 new jobs, will help meet growing demand for light-gauge foil and automotive heat exchanger materials in addition to heating, ventilation and air conditioning applications. The expansion will take approximately two years to complete.



- Monogram Refrigeration plans to add 210 jobs at its manufacturing plant in Selmer, Tenn., to support a \$9.3 million expansion. The expansion will add 120,000 s.f. to the existing plant and in addition to starting a new line of column-style refrigerators and freezers, will create space to begin manufacturing a line of commercial heating and cooling products.
- NFI, one of North America's largest logistics providers, is investing more than \$7 to open a new distribution facility in Smyrna, Tenn. The company plans to add 170 new jobs to staff the new facility. NFI, head-quartered in Cherry Hill, N.J., provides end-to-end supply chain solutions across the United States and Canada. The new Smyrna location will serve as a distribution and fulfillment center for customers throughout the Southeast region.

OHIO: POST HOLDINGS TO ACQUIRE BOB EVANS FARMS FOR \$1.5 BILLION

EREAL-maker Post Holdings Inc. has announced an agreement to acquire Bob Evans Farms Inc. in a deal valued at \$1.5 billion.

Bob Evans, headquartered in New Albany, Ohio, is a leading producer and distributor of pork sausage; refrigerated potato, pasta and vegetable-based



Bob Evans' line of side dishes and pork sausage complement Post Holdings' extensive list of breakfast cereals.

side dishes; and other refrigerated and frozen convenience foods sold under the Bob Evans, **Owens**, **Country Creek** and **Pineland Farms** brands. The company also has a growing foodservice business that represents approximately 35 percent of its volume. The foodservice business sells a range of products such as sausage, sausage gravy, breakfast sandwiches and side dishes that are made to match individual customer specifications.

Adding Bob Evans complementary portfolio of brands and products will enhance Post's refrigerated side dish offerings, provide Post with a presence in the breakfast sausage segment, and supply Post with a leading position in the higher-growth perimeter sections of grocery stores.

The acquisition will also strength St. Louis-based Post's presence in commercial foodservice and enhance its current position as one of North America's largest packaged food companies.

INDIANA: COOK GROUP TO EXPAND LIFE SCIENCES INDUSTRY IN BLOOMINGTON

HE Cook Group, a Bloomington, Ind., company with a diverse portfolio of business holdings, has signed an agreement to sell its Cook Pharmica business to Catalent and will purchase the former GE Appliances refrigerator plant in Bloomington, where it plans to add some 500 new jobs as part of an expansion of its medical device business.

The \$950 million sale of Cook Pharmica to New Jersey-based Catalent will expand Catalent's capabilities by adding more drug substance and drug product expertise and capacity to serve patients worldwide. With Cook Pharmica's available space and expertise, Catalent plans to invest aggressively in Cook Pharmica and create a biologics development and manufacturing center of excellence in Bloomington.

Cook Group's purchase of the former GE plant will allow the company to address immediate space needs at its **Cook Medical**'s global headquarters, said Pete Yonkman, president of Cook Group and Cook Medical.

"We need more space to accommodate our growth and to enable us to expedite modernization and transformation of our manufacturing process," said Yonkman. "The flexibility that the GE space provides will allow us to purpose build for efficiency in our production lines. The GE site is one of the only existing buildings in Bloomington that can meet our needs, and its close proximity to our global headquarters allows us to expand our west side campus."

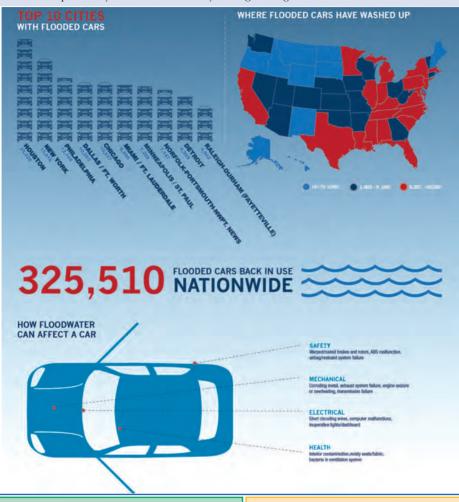
The 70-acre GE site was built 50 years ago to manufacture refrigerators and includes 33 manufacturing buildings that total nearly 877,000 s.f. GE closed the plant last year, citing a drop in demand for the side-by-side refrigerators produced there.

KENTUCKY INTELLIGENCER®

A sampling of business and economic data

WATERLOGGED VEHICLES FLOOD USED-CAR MARKET

New research from Carfax suggests that there are now more than 325,000 vehicles on U.S. roadways that have experienced previous flood damage – a 20 percent increase over 2016 figures and a stark reminder to consumers to do their due diligence when shopping for a used car.* Vehicles reported as flood damaged by a state's Department of Motor Vehicles and insurance companies have washed up in every state, with Kentucky having among the most in the nation with a estimated 16,000.



*In the wake of Hurricane Harvey and Hurricane Irma, Carfax is letting consumers check for flood damage free of charge at carfax.com/flood.

Source: Carfax

WHO DO YOU TIP?

Coffee shop barista

Restaurant host/hostess

Wedding photographer

Tour guide

Flight attendant 4%

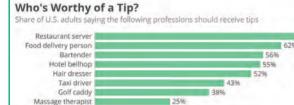
Family doctor 2%

Dentist 2%

Grocery store cashier 3%

Tailor 6%

In the United States, tipping is pretty much the norm in the hospitality and service industries. A recent survey conducted by YouGov asked respondents which professions they deemed most worthy of tips.



24%

22%

Source: YouGov/Statista

HAS YOUR I-PHONE OUTLIVED ITS SUPPORT?

With the release of Apple's latest mobile operating system, millions of Apple users were eager to get their devices up to speed. As the technology housed within iPhones and iPads has advanced significantly over the years, so have the demands of the software running them. As a consequence, Apple has to leave some users behind every year. This year it's the iPhone 5 and the fourth generation iPad (both released in 2012) that didn't make the cut.



CORPORATE MOVES

New leadership for Kentucky businesses

ADVERTISING/MARKETING

■ Stephen Childress has joined Louisvillebased advertising agency Scoppechio as chief experience officer.

ARCHITECTURE/ENGINEERING

■ Adrian Elder has joined architecture and planning firm Lord Aeck Sargent as a designer in the firm's Lexington's office.

ASSOCIATIONS & ORGANIZATIONS

- Ryan Watts has been named executive director of the Kentucky Oil and Gas Association.
- Lee Lingo has been named executive director of the Kentucky Association of Manufacturers. He succeeds Greg Higdon, who has retired.



Watts

BANKING

- Lisa Burns Morley has been named vice president of human resources for Clarksville (Indiana)-based First Savings Bank.
- Community Trust Bank has named Michael Blount as Williamsburg market president.

BUSINESS DEVELOPMENT

■ Shawn Rogers has been named director of the Bluegrass Small Business Development Center.



Lisa Burns

Michael Blount

CONSTRUCTION

■ Casey Dunn has been named vice president, operations and insurance for Lexington-based Denham-Blythe Co.

EDUCATION

■ Melissa Lowe has been promoted to vice president of human resources for the Sullivan University System.



■ Cameron Brown has joined Louisville-based ARGI's new financial advisory office in Elizabethtown.



Lowe

FOOD/SPIRITS/HOSPITALITY

- John Hargrove has joined The Bardstown Bourbon Co. as executive director of distillery operations. Hargrove succeeds Tom Crume, who has retired.
- Craig Greenberg has been named chief executive officer of Louisville-based 21c Museum Hotels. Greenberg, who has served as president of the company since 2012, will now serve as president and CEO. He succeeds 21c co-founder Steve Wilson, who will continue to serve as chairman of the board.
- Dan Bermann has been appointed general manager of The Crowne Plaza Louisville Airport. Everett Christensen has been named executive chef of the hotel.

GOVERNMENT

- Edwin King has been named executive director and chief executive officer of the Kentucky Housing Corp.
- Melinda M. Hill has been named chief of staff for the Kentucky Finance Cabinet.
- C. Jane Becker has been named deputy commissioner of the Kentucky Department of Revenue.
- Damon Preston has been appointed as Kentucky's public advocate. The Department of Public Advocacy provides legal representation to low-income clients accused of crimes, fulfilling their constitutional rights to an attorney and to a fair trial.
- Russell Coleman has been named United States attorney for the western district of Kentucky.
- William C. "Chris" Biddle has been named executive director of the Kentucky Public Employees Deferred Compensation Authority's board of directors.
- Rhonda Copley has been named commonwealth's attorney for the 32nd judicial circuit of Kentucky.

HEALTHCARE

■ Dr. Jonathan Becker has been named chair of the University of Louisville Department of Family and Geriatric Medicine. Dr. Charles Woods has been named as chair of the university's Department of Pediatrics.

■ Trey Grayson has joined Frost Brown Todd's Florence office as a member. He will also serve as a principal in the firm's government relations subsidiary, CivicPoint.



■ Michelle Browning Grayson Coughlin and Daniel P. **Reed** have joined the Louisville office of Wyatt, Tarrant & Combs.

- Justin Clark has joined DBL Law as of counsel. Clark is a partner at Top Shelf Lobby, a Kentucky government relations firm.
- Andrew Poltorak has joined Stites & Harbison's Covington office.
- Thomas Travis has joined Wyatt's Lexington office.

MANUFACTURING

- Robert Rogers has been named vice president of sales for Louisville-based GE Appliances.
- Bhaskar Rao has been appointed executive vice president and chief financial officer for Lexington-based



Robert Rogers

Tempur Sealy International. Rao succeeds Barry A. Hytinen, who is stepping down from the position to pursue an opportunity outside of the bedding industry.

DEPARTURES

- R. Stanley Eckenberg has announced plans to retire as president of Paducahbased Computer Services Inc. (CSI) in June 2018. David Culbertson, who currently serves as the company's chief operating officer, will succeed Eckenberg and will serve as both president and chief operating officer.
- Carl Rollins is retiring as director of the Kentucky Higher Education Assistance Authority and the Kentucky Higher Education Student Loan Corp., effective Dec. 31.

MEETINGS & CONVENTIONS

■ MeetNKY, the Northern Kentucky Convention and Visitors Bureau, has announced the following promotions: Bridget Johnson, director - finance; Carla Quercioli, director - destination services; and Mary Watkins director - bureau operations.

■ Ashley Carter has joined United Way of Southern Kentucky as director of community impact.

REAL ESTATE

■ Nick Keyes has been named director of project management for the Ohio and Kentucky markets of Cushman & Wakefield, a Cincinnati-based real estate services firm.



Nick Keyes

TECHNOLOGY

- C-Forward, a Covington information technology services firm, has announced the following promotions: Brian Ruschman, president; Mike Grout, senior vice president and chief operating officer; **Kevin Stiverson**, vice president of projects.
- Shawn Mangold has joined Lexingtonbased SIS as managed solution center director.

WORKFORCE DEVELOPMENT

■ Robert Boone has been named as the first president and CEO of the South Central Workforce Development Board.

- **Caroline Boeh Baesler** has been named client and operations manager for Lexingtonbased Foundations Human Resources Consulting.
- Taylor Bramlage has been promoted to public relations and digital marketing coordi-



Raesler

nator for Harshaw Trane, a Louisville company that specializes in the design, manufacture and installation of building systems.

Announcements for the Corporate Moves and On the Boards sections of The Lane Report can be submitted to editorial@lanereport.com. Due to space restrictions, announcements for the Corporate Moves section are generally limited to upper management positions. Photos to accompany announcements are welcome. High-resolution images (minimum 300 dpi) are required in order to reproduce well.

ON THE BOARDS

Kentuckians named to organizational leadership roles

BIG BROTHERS BIG SISTERS

Brian
Fields and
William A.
Jones have
been elected
to the 20172018 board
of directors
for Big
Brothers Big
Sisters of





Brian Fields

William Iones

Kentuckiana. Fields is director of operations and engineering for Samtec Inc. Jones is plan president for WellCare of Kentucky.

FARMERS NATIONAL BANK

■ Jacob Tamme has been named to the board of directors for Farmers National Bank in Danville. Tamme, a professional player with the National Football League, owns and operates a farm in Boyle County.



Jacob Tamme

KENTUCKIANS FOR Tamm BETTER TRANSPORTATION

■ Kentuckians for Better Transportation, a nonprofit statewide trade association, has elected the following individuals to its 2017-2018 executive committee: Chair – Crissy Fiscus, Dean Dorton; First Vice President – Phil Annis, Mountain Enterprises; Second Vice President – Rod England, Scotty's Contracting and Stone; Treasurer – Mark Day, Blue Grass Airport; Immediate Past Chair – Morgan Judy, Judy Construction. Grant Gabbard, The Allen Co., will serve as board member at-large.

KENTUCKY AUTHORITY FOR EDUCATIONAL TELEVISION

■ Gary Dan Griffith, Mary Bartlett Broecker and Melissa Chastain have been appointed to the Kentucky Authority for Educational Television. Griffith, of Owensboro, is chief executive officer for the Owensboro Symphony Orchestra. Broecker, of LaGrange, is an active community volunteer and chairperson of internal affairs for the Oldham County Chamber of Commerce. Chastain, of Anchorage, is an associate dean at Spalding University.

KENTUCKY BOARD OF EXAMINERS OF PSYCHOLOGY

■ Justin Gilfert has been appointed to the Kentucky Board of Examiners of Psychology. Gilfert, of Crestwood, is an attorney.

KENTUCKY BOARD OF HOME INSPECTORS

■ Michelle Diane Penque has been appointed to the Kentucky Board of Home Inspectors. Penque, of Cold Spring, is a senior business project analyst at Great American Insurance Co.

KENTUCKY COUNCIL ON POSTSECONDARY EDUCATION

■ Kristi Poore Nelson and Kimberly Halbauer have been appointed to the Kentucky Council on Postsecondary Education. Nelson, of Union, is an attorney. Halbauer, of Fort Thomas, is a wealth assessment management director at Fifth Third Bank.

KENTUCKY FINANCIAL INSTITUTIONS BOARD

■ Michael Douglas Wilson has been appointed to the Kentucky Financial Institutions Board. Wilson, of Irvine, is president of Citizens Guaranty Bank.

KENTUCKY HERITAGE LAND CONSERVATION FUND

■ Richard Kessler has been appointed to the Kentucky Heritage Land Conservation Fund Board. Kessler, of Campbellsville, is a professor at Campbellsville University.

KENTUCKY HIGHER EDUCATION ASSISTANCE AUTHORITY

■ Shelley Park, Olivia Davis and Teresa Trimble Hail have been appointed to the Kentucky Higher Education Assistance Authority board of directors and the Kentucky Higher Education Student Loan Corp. board of directors. Park, of Richmond, is a retired executive director for retention and graduation at Eastern Kentucky University. Davis, of Lexington, is an assurance and audit manager for PricewaterhouseCoopers. Hail, of Somerset, is president of DC Trimble Inc.

KENTUCKY INFRASTRUCTURE AUTHORITY

■ Charles Ronald Lovan has been appointed to the Kentucky Infrastructure Authority. Lovan, of Union, is president and CEO of Northern Kentucky Water District.

KENTUCKY RETIREMENT SYSTEMS

■ David Michael Gallagher and Matthew Monteiro have been appointed to the board of trustees of the Kentucky Retirement Systems. Gallagher, of Fulton, is head football coach for Fulton County High School and a former Fulton County judge-executive. Monteiro, of Louisville, is vice president of finance and treasurer of Farm Credit Mid-America.

KENTUCKY STATE BOARD OF ACCOUNTANCY

■ Robert Patterson and Mary Kelly have been appointed to the State Board of Accountancy. Patterson, of Louisville, is founder and president of Patterson & Co. CPAs. Kelly, of Crestwood, is an accountant at LG&E and KU Energy.

KENTUCKY STATE BOARD OF MEDICAL LICENSURE

■ Richard Whitehouse and Kenneth Payne have been appointed to the Kentucky State Board of Medical Licensure. Whitehouse, of Louisville, is executive director of the Kentucky Dental Association. Payne, of Louisville, is an obstetrician/gynecologist at Norton Ob/Gyn Associates.

KENTUCKY TRAUMATIC BRAIN INJURY TRUST FUND

■ Mary L. Varga has been appointed to the Kentucky Traumatic Brain Injury Trust Fund Board. Varga, of Louisville, is a fitness instructor and certified personal trainer.

LEXARTS

■ LexArts, a nonprofit community organization that works for the development of the arts in central Kentucky, has elected four new members to its board of directors: **Anna**

Hess, Central Kentucky Youth Orchestras; Greg Padgett, Padgett Construction; Jon Stewart, Kentucky Employers' Mutual Insurance; and Frank X. Walker, poet, professor and playwright.

LOUISVILLE/JEFFERSON COUNTY TOURIST AND CONVENTION COMMISSION

■ David Greene has been appointed to the Louisville/Jefferson County Tourist and Convention Commission. Greene, of Simpsonville, is general manager of the Louisville Marriott Downtown

PUBLIC ADVOCACY COMMISSION

■ Janice Powe, Joseph Lambert and Kenneth "Gregory" Haynes have been appointed to the Public Advocacy Commission. Powe, of Frankfort, is a volunteer community advocate. Lambert, of Lexington, is an attorney and former chief justice of the Kentucky Supreme Court. Haynes, of Pewee Valley, is an attorney.

ROTARY CLUB OF LEXINGTON

■ The Rotary Club of Lexington has announced its executive committee for 2017-2018: President – Stephanie Wurdock Lindsey, Sturgill, Turner, Barker & Moloney; President-Elect – Stephanie Schulte, University of Kentucky; Treasurer – Brandon Gardner, Mountjoy Chilton Medley; Secretary – Corbin Smith, Mountjoy Chilton Medley; Professional Development Chair – Ryan Knott, Fifth Third Private Bank; Community Service Chair – Langdon R. Worley, Sturgill, Turner, Barker & Moloney; Membership Chair/Immediate Past President – Meg Sutton, Hilliard Lyons.

SOUTHERN KENTUCKY PERFORMING ARTS CENTER FOUNDATION

■ The Southern Kentucky Performing Arts Center Foundation has announced its officers for 2017-2018: Kirk Pierce, Franklin Bank and Trust; Elizabeth Sigler, Bell Orr Ayers & Moore; Ruthie Bale, South Central Bank; and Jim Bohannon of JB Distributors. SKyPAC has also added five new board members: Rosalie Padilla, Kent Guthrie, Rick Starks, Gerri Combs and Debbie Thornton.

SPALDING UNIVERSITY

■ Spalding University has announced its board of trustees for 2017-2018. Chair − Paul M. Ratterman; First Vice Chair −



Paul Ratterman



James Morris

James A. Morris; Second Vice Chair – Angela Leet; Secretary – Brian B. Reynolds. Trustees: Rick Blackwell, Neveille Blakemore, William A. Blodgett Jr., Ishmon Burks, Al Cornish, Tony Disser, M. Serra Goethals, Nicholas Harshfield, Rose Howard, Dana Jackson, Melissa Lowe, Craig L. Mackin, John P. Malloy, Mary C. Osbourn Wolford, James Rissler, Perry E. Sangalli, Kellie Sheryak, Gene M. Smith, H.I. Stroth Jr., Andrew Trager-Kusman, Carter Vance and Jean West.

LANE ONE-ON-ONE

Kentucky's leaders express their opinions



Travis Cobb

Travis Cobb is the senior vice president network operations Americas for DHL Express, including the global super hub at Cincinnati/Northern Kentucky International Airport. Cobb joined DHL in 2004 as director of ground line haul operations. During the restructure of the USA operations, he had direct management responsibility for implementation of the network changes to support an international-only business model. In addition to overseeing day-to-day network operations throughout the Americas, he is a member of DHL's global hub steering group and the Americas senior management team. Prior to joining DHL, Cobb held various positions within the transportation/express industry at McClane, Emery Worldwide and UPS. Cobb holds a bachelor of science in business administration from the University of Florida.

E-COMMERCE'S RAPID EXPANSION IS CHANGING EXPRESS DELIVERY

DHL Express settling in for long-term and further growth of its super hub at CVG, Senior Vice President Travis Cobb says

BY MARK GREEN

Mark Green: Please cover for us briefly why DHL came to Cincinnati/Northern Kentucky International Airport (CVG) first in 1983, left for Ohio in 2005, but then returned to CVG in 2009 and appears to be sinking its roots there for the long run. Travis Cobb: We've had a longstanding relationship with the Cincinnati/Northern Kentucky International Airport authorities at CVG airport. We opened our first hub anywhere in the world at Cincinnati back in 1983, a manual-sort facility. Because of growth and expansion, we built the current CVG facility in 2001 and started operations there in 2003. We remained in that facility until late 2005.

During that timeframe, we acquired a large domestic delivery company, Airborne Express, which operated its central U.S. hub in Wilmington, Ohio. After an evaluation as to which facility was better suited or required less investment to handle the DHL international and Airborne domestic volumes, we decided to go to Wilmington in late 2005. We remained there until the summer of 2009.

In late 2008, we exited the domestic business in the U.S. Another evaluation looked at what was the better go-forward facility for our international network. Cincinnati had been our long-term hub operation, and we were excited to relocate back into CVG in June 2009. A couple of years ago we announced a new, 30-year lease and plan to maintain our capabilities at that Cincinnati hub for the long-term.

MG: Tell us about the expansions that DHL has had at CVG. What is its total investment, and how many employees do you have now?

TC: Since re-establishing operations in 2009, we've made eight major investments there totaling \$281 million. They have included ramp extensions,; additional warehousing and expanded space, significant advancements to our material handling equipment; a complete refresh of our IT infrastructure; etc. We've invested that amount for the long haul and see a bright future at the Cincinnati airport. We're currently housing more than 4,000 employees there, and we see that continuing to grow.

MG: Does DHL have other Kentucky presence?

TC: DHL Express is part of a family of companies underneath the Deutsche Post DHL umbrella. Our sister divisions, DHL Supply Chain, DHL Global Forwarding, and our e-commerce division, all four form the company of Deutsche Post DHL. So for DHL Express, our hub at the airport is by far our largest presence or facility in Kentucky.

We have three other service center locations, one in Northern Kentucky, one in Louisville and one in Lexington, that house pickup and delivery operations. In our other divisions, DGF also has a presence in Cincinnati. The e-commerce division also has a hub right down the street in Hebron, Kentucky. DHL Supply Chain I'm not sure about.

MG: What is the annual budget of DHL's Kentucky operations?

TC: We maintain confidentiality around that. It's significant; I'll say that.

MG: Prior to our conversation today, I inquired about Amazon and how much DHL Express is at liberty to discuss regarding its collaboration on the \$1.5 billion Amazon Prime Air hub announced for CVG across the street from DHL. I received a one-paragraph statement:

"DHL has been contracted to provide a range of services to Amazon at its DHL hub at the Cincinnati/Northern Kentucky Airport, including sorting operations and ground handling for the Amazon air network. DHL is handling the Amazon operations with a new daytime shift. The DHL operations will continue at night as usual. We look forward to further supporting this global customer."

Are we able to get into that in any further degree?

TC: Well, it depends on what the question is. What I would say is that Amazon has had a longstanding relationship with DHL; they've been a customer of ours for nearly 30 years. We've been supplying small-parcel services to Amazon. And we're happy to support them with the services arrangement that we have in Cincinnati. Any big supplier and customer relationship has quarterly business reviews and annual business reviews. The Prime Air hub collaboration came out of one of those sessions, and we're happy to support them.

MG: Lots of change is happening in the commercial world and the way people are buying and selling, especially a shift to e-commerce. What are some of the new issues other customers are asking you to address?

TC: A lot of this is being driven by e-commerce and the explosion of e-commerce in the industry. DHL operates in 220 countries and territories around the world, and as companies that have historically been operating only in a domestic arena are looking to expand cross-border, they look to DHL to provide that regulatory and customs expertise that allows them to expand their business at a rapid rate, but be fully compliant with each government's regulatory policies and procedures. We have invested in our capabilities

and our teams in supporting customers as they take advantage of what's going on within e-commerce.

The other way e-commerce has changed our industry is that it's placed a much larger percentage of our deliveries at a residential address instead of a business address. We have heavily focused on making it easier to achieve a successful residential delivery and developed a system called DHL On Demand Delivery. ODD allows us to very nimbly communicate with the end consumer to create the most flexible and optimal delivery times and locations for them to successfully receive the shipment they've ordered online.

MG: Is the CVG freight operation mostly outgoing, or is there a lot of incoming volume as well?

TC: Cincinnati has three purposes: CVG is the largest import gateway for the United States that DHL Express has. It's the largest export gateway that the U.S. organization has. But it also serves as a transit point location for us globally. We run intercontinental, wide-body aircraft – 747-gauge, 777-gauge aircraft – from Europe to Cincinnati, and from Asia to Cincinnati, and we transit through Cincinnati hub to our gateways in Canada, our gateways in Mex-

ico, down through our Miami facility that then connects the Caribbean as well as all of Central and South America.

So you've got import operations for the U.S., export operations for the U.S., and transit operations for beyond-U.S. countries in the Americas region of the world.

MG: What are the main products that ship through DHL's hub at CVG?

TC: We certainly have everything from financial and legal documents up through small parcel and anything that our customers are ordering online with our major customers like the Amazons, the iHerbs, the Borderfrees, etc. And then it goes much larger than that as well. So we have a lot of nonconveyable or heavyweight type of shipments, things that fit on a forkliftloaded pallet, or things that are much larger in size. One of our biggest customers in the United States is the Department of Defense. So we're shipping military supplies and mail back and forth to Afghanistan and the Middle East for our troops abroad. Anything or any size or shape that people want to ship globally.

MG: What portion is B-to-B?

TC: It's different by every country. Globally, e-commerce represents about 20 percent of our business these days.

MG: Is there a point in size or weight at which an item of cargo shifts from being a good candidate for air freight and instead goes to ocean-container shipping?

TC: Size or weight isn't necessarily what depends on whether a customer will ship something ocean freight or air express. It's really the time-sensitivity. If they've got an urgent need to send something around the world in two or three days, that drives an air-express type solution that DHL Express provides. If they've got an inventory system that's set up for a 30- or 45-day cycle, they can optimize their supply chain network by utilizing ocean freight.

So it's really a time-driven requirement. In regards to size and weight, certainly we can handle any size, anywhere, anytime, but we certainly are more conducive with the design of our network to handle documents and conveyable-type shipments not to exceed 30 kilos (66.14 pounds) per piece or, in total, a shipment of over 300 kilos. Now, we will handle shipments greater than that weight, it's just at a different price point. There is no restriction—it's just that we're in a different commercial arrangement.

MG: Do your rates vary dynamically with seasonal demand?

TC: Historically, DHL Express has not

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MG: There are now more than 4,000 employees in Northern Kentucky. Is DHL able to find the workforce skills and the numbers of people that it needs for its operations at CVG? Is this region's personnel market different (if at all) from other areas?

TC: We have been very pleased with the capabilities of the employable market in Northern Kentucky to meet our needs, which are vast with the 4,000 jobs we have there. This is something that we meet about regularly with Gov. Matt Bevin and his staff. I hosted Gov. Bevin in our facility along with several cabinet members three months ago, and this is one of the topics that we spoke about. We have active discussion not only with the state but with the local community. We regularly meet with the superintendents and principals and guidance counselors in the various schools along with the universities in the local market to highlight the fact that DHL Express is a top employer. It's a great place to work; we've received external recognition from organizations that highlight that. We take a lot of pride in providing very competitive salaries and benefits and creating an employee-centric culture there in Cincinnati.

MG: How STEM-intensive are most of the jobs now? Do DHL workers need math, robotics or computer programming skills yet?

TC: We've got a variety of professional as well as front-line logistics and warehousing positions at the hub - everything from IT professionals, finance professionals, supervisors and operations management professionals, engineering, clearance, administrative, as well as the aircraft handling, maintenance and front-line warehouse and logistics professionals. It depends on an individual's profession as to whether the skill sets inclusive of math or robotics or computer programming would be applicable or really position them to compete for one of those jobs.

MG: What are your worker retention rates in Kentucky, and overall?

TC: We're pretty happy with them. We do a lot of benchmarking in this area with like-for-like companies in the industry, and they're in line with the industry and the market. Always room to improve, and that's what we're continuing to focus on, with our engagement with employees and active leadership with our supervisors and management team to improve that.



MG: We get occasional news releases about some of the unique jobs you've had, like delivering a giraffe. What are some of the ongoing, perhaps more unique supply chain solutions DHL offers in the U.S. and Kentucky, that people might not know about?

TC: I don't remember the giraffe, but we've moved panda bears to China, we've moved tigers to Australia. When the Cincinnati Zoo has some need to move an exotic or a protected animal around the world, they look to DHL Express and trust us from a security and a capabilities perspective to support them. We're not specialized in one thing or another. Whether it's live specimens out of Central America that travel through the Cincinnati hub, or providing samples the next morning for testing in a lab environment in Indianapolis, we've got urgent, time-sensitive shipments. Our slogan here is, we want to be the last out of the market and the earliest to deliver in the market. For customers in that Northern Kentucky catch-basin, no other company in the world can offer them the latest pickup times available for their shipping requirements or needs. Perhaps that's manufacturing, allowing them to run a full second-shift operation and still produce those goods, have the DHL courier pick them up and check them into our Cincinnati hub operation, and five or six hours later they're on a plane to Europe, Asia, Mexico, Canada or down into Central America. That latest pickup capability is something we pride ourselves on, as well as the import requirements of shipments that come in. We pride ourselves on making the earliest possible delivery. We want to do that to meet customer expectation and what their delivery requirements are the next morning.

MG: With retail trends moving increasingly to online shopping, that means growing demand for last-mile delivery. Might DHL Express move back into that sector in the U.S.?

TC: DHL Express provides last-mile delivery today for all of our international shipping coming into the United States, so we're already in that business. And we also make pickups for our customers who need

to export shipments out of the United States. If your question is would DHL ever go back into the domestic business in the United States, I would say no. We have no plans, either short-term, medium-term or long-term, to re-enter that domestic business in the United States.

MG: How much is big data, cloud computing and the "internet of things" transforming the air freight/shipping/ fulfillment/delivery business?

TC: We've been in business for 48 years. When you look at some of the classical sectors that utilize air express services aerospace, medical/life science, technology, automotive is another big one for us - it has taking those sectors nearly 50 years to grow to the size of the businesses that they are today. E-commerce has grown to be similar in size in a far less period of time. While it's taken these historical sectors nearly 50 years, e-commerce has grown to that same size in the last five years.

That has changed the express-delivery business. It has shifted more of our focus to residential delivery capability and connecting with the end consumer, utilizing tools we've created for that on-demand delivery. That has changed the last-mile delivery piece of the business.

Regarding big data, as an industry we're taking advantage of the data available today versus what was available 10 years ago to optimize our supply chain and network development. Maybe that is helping our courier go out and deliver his route in the most optimal manner; we're seeing benefits there. We're seeing benefits in aircraft utilization and utilizing data from a historical and from a forecasting perspective to optimize and to plan out the size and the expansion capacity required of our air network as well as the size and the capacity requirements of our service centers and gateways and even a location as big as the Cincinnati hub. As data has become more readily available and usable, that has helped us to be more nimble and reactive and proactive to the demands of this fast-growing e-commerce industry.

MG: How active is DHL in implementing sustainable resource use practices? Is this a priority?

TC: We place a significant focus on standardization. DHL Express has an acronym called GSOP, Global Standard Operating Procedures. You'll find the process is the same whether you're shipping from New Zealand, Japan, the United States, Ecuador, Brazil, South Africa or somewhere in Europe. Go into a service center in any one of those countries and you will see a very similar setup, the exact same processes taking place to gather the information we need off the commercial invoice and shipping document so that as that shipment moves through the network and arrives at an import country or an import gateway operation, we have all of the required data and information to clear that shipment, meet all the regulatory requirements and make that full last-mile delivery. What's great about this is, if there's a new better way of doing something that the guys in Japan or the guys in New Zealand or the guys in the United States think about, we will not only implement it in that country. We'll make that a part of our standard where it gets implemented in all 220 countries around

the world and all 4,000 service centers and all 300 gateways or all 21 of those hubs, so that the entire network, the entire DHL Express platform, benefits from that best practice. It doesn't matter what part of the world any good idea that provides service improvement or optimization into our platform comes from, we're going to standardize that and move it across the entire DHL network.

MG: What are the key opportunities for others in the Northern Kentucky region to do business with DHL currently?

TC: We've invested \$281 million or so the past eight years at the Cincinnati hub facility. That growth, that expansion, has created significant business opportunities for other companies. We've got a large aircraft maintenance operation there, and you're seeing companies pop up in the Cincinnati airport providing aircraft maintenance. We've done a significant amount of the material handling installations and upgrades, so you've seen companies grow that specialize in material handling on the backs of those investments that have been made under the DHL Express umbrella. We fly nearly 50 aircraft a day in and out of there. While our people down in Florida are dealing with hurricanes, guys up in the

Midwest are getting ready for winter operations and de-icing aircraft, so we've attracted companies into the Northern Kentucky airport that specialize in de-icing aircraft that without our presence wouldn't be there. Our presence brings economic development to the entire region. We do all of our training in Cincinnati. Any new hire anywhere in the U.S. is brought to Cincinnati so they can experience the hub and see how impressive it is. That adds commercial air traffic into Cincinnati, fills hotels and restaurants in Cincinnati and Northern Kentucky.

For any business looking to expand their business internationally and overseas, DHL Express is the international specialist; no company operates and does what we do all around the world. We're there, local, and we're eager to support that company's aspirations to expand their capabilities and their business model anywhere in the world. So take advantage of it.

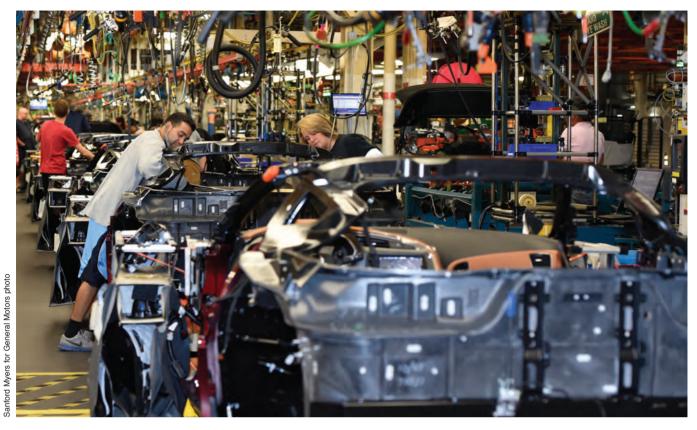


Mark Green is executive editor of The Lane Report. He can be reached at markgreen@lanereport.com.



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AUTO MANUFACTURING



'Lightweighting' Strengthens State Auto Sector

Shift to fuel-saving aluminum components bringing Kentucky billions more in investment

BY ESTHER ZUNKER

UTO manufacturers, their hundreds of suppliers and many dozens of dealerships provide a prominent driving force in Kentucky's economy, especially the past three decades. The past few years alone, billions more has poured into major expansions and new facilities across the commonwealth. Lesser known. however, is that demand for more fuelefficient vehicles is a chief reason the good news is happening.

To meet federal guidelines to increase fuel economy, manufacturers are using more aluminum parts to create lighter weight, more fuel-efficient vehicles with increased capability and performance.

To fuel development of these vehicles, Toyota, Ford and GM are investing billions of dollars in new factories, expansion projects at existing facilities and thousands of new jobs.

"One of the major ways auto makers are trying to improve their vehicles' fuel mileage is by 'lightweighting,' " said Jack Mazurak, communications director for the Kentucky Cabinet for Economic

Chevrolet Corvette assembly Friday, Oct. 14, 2016, at General Motors Bowling Green Assembly in Bowling Green, Kentucky.

Development. "You reduce the weight of the vehicle, and it becomes more efficient. Consequently, a lot of the part suppliers are also moving to lighter

weight parts."

Kentucky has a distinct advantage over many other states in that it is one of the world's major aluminum-production centers, with more than 150 metal facilities employing over 18,000 people. The commonwealth also has an auto-parts supplier network of more than 500 facilities.

For the Bluegrass State, aluminum companies -

Jack Mazurak. . Communications Director. Kentucky Cabinet for Economic **Development**

many of which are automotive-related announced 93 new-facility or expansion projects since the beginning of 2014, according to the Kentucky Cabinet for Economic Development. Those projects total more than \$2.72 billion in corporate investment in fewer than four years, well above the approximately \$1 billion announced from 2001 to 2013.

Earlier this year, Toyota spent \$1.3 billion to make the 8.1 million-s.f. assembly plant in Georgetown, Ky., the first to receive its Toyota New Global Architecture update so it can produce lighter, stronger and more efficient vehicles.

A recent industry report found this growth is creating more than 2,800 full-time jobs, surging the aluminum industry's employment beyond 20,000 people in Kentucky, Mazurak said.

"The automotive industry in Kentucky continues to experience significant growth, buoyed by the recent substantial investments being done or planned by our three OEMs in the state," said Dave Tatman, executive director of the Kentucky Automotive Industry Association. "Our state is seeing not only substantial growth from our existing



Dave Tatman, Executive Director, Kentucky Automotive Industry Association

automotive manufacturing plants, but very significant investments being made as companies choose to locate new facilities throughout the commonwealth."

With that in mind, let's take a closer look at some of the biggest automobile plant expansions across the Bluegrass in the last year:

Toyota

In April, the Japanese company announced a record \$1.33 billion would be invested in Georgetown-based Toyota Motor Manufacturing, Kentucky Inc. It is the most any automaker has invested in a Kentucky plant, and the second largest in history.

TMMK is receiving a new paint shop and already has completed comprehensive equipment and technology upgrades to produce vehicles on a new platform, making them lighter, stronger and more efficient.

"Toyota New Global Architecture (TNGA) is about exciting, ever-better



vehicles for our customers as it will improve performance of all models, including increased fuel efficiency, more responsive handling and a more stable, comfortable feel while driving," said Jim Lentz, CEO of Toyota Motor North America, in a news release.



Jim Lentz, CEO, Toyota Motor North America

In late September the company announced it is bringing hybrid powertrain production to the U.S., which will include a \$121 million expansion of 2.5-liter engine production at TMMK.

This year's two projects added to a \$530 million investment at the plant announced in 2013, in part to support the addition of Lexus production. This brings Toyota Kentucky's investment in the last four years to approximately \$1.98 billion.

At 8.1 million s.f., TMMK is the automaker's largest plant in the world, employing 8,200 team members. Last year, TMMK produced nearly a quarter of all Toyota vehicles produced in North America – over 500,000. The plant has produced more than one-third – 11 mil-

lion – of all Toyota vehicles manufactured in North America since 1986.

More than 130 Japanese-owned automotive-related facilities now operate or plan to locate facilities in Kentucky, mainly due to TMMK. The plant began producing the all-new 2018 Camry in June 2017, the first TMMK vehicle on the TNGA platform. Since its first vehicle rolled off the line in 1988, TMMK has produced more than 10 million Camrys.

Ford

In June 2017, Ford announced it will invest another \$900 million into its Louisville-based Kentucky Truck Plant to support production of the 2018 aluminum-alloy-bodied Lincoln Navigator and Ford Expedition. The new-generation SUVs' move to high-strength aluminum-alloy bodies cuts weight and increases capability, performance and fuel economy.

That investment follows a \$1.3 billion investment and 2,000 new jobs announced in December 2015 that prepared KTP for production of a new generation of aluminum-alloy-bodied 2017 F-Series Super Duty Trucks. The latest expansion brings KTP's employment to 7,850.

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AUTO MANUFACTURING



Ford announced in June 2017 it is investing another \$900 million at its Kentucky Truck Plant in Louisville to update the build on the Lincoln Navigator and Ford Expedition.

The 2017 Super Duty trucks used an all-new high-strength steel frame and high-strength, military-grade, aluminum-alloy bodies for the first time, a move that followed the company's switch in 2014 to aluminum bodies on its top-selling F-150 pickups – saving up to 350 pounds per vehicle.

"With the introduction of the all-new Ford Super Duty, America's best-selling heavy-duty pickup, we expect to continue growing our truck leadership," Joe Hinrichs, Ford president of The Americas, said in a 2015 release. "Through this investment, we are continuing to show our com-



Joe Hinrichs, President of The Americas, Ford Motor

mitment to Kentucky and city of Louisville, as well as bringing to customers industry-leading trucks to help them take care of business and earn a living."

KTP opened in 1969 and currently produces F-250 to F-550 Super Duty pickup and Chassis Cab trucks, as well as the Ford Expedition and Lincoln Navigator SUVs. Ford's LAP plant opened in 1955 and produces the Lin-

coln MKC car and Ford Escape compact SUV. The company's Kentucky relationship dates to 1913 when it opened a plant in Louisville to assemble the Model T.

GM

General Motors has also announced substantial investments in its Kentucky plant over the past few years. In June 2016, the company said it would spend \$290 million to upgrade its Bowling Green Assembly plant to modify its Corvette assembly operations with new technologies and processes.

"We are making technology investments that will continue to improve our manufacturing processes and ultimately the quality of our vehicles," said North American Manufacturing Manager Arvin Jones. "We are putting Corvette customers first by building upon our world-class manufacturing process."



Arvin Jones, North American Manufacturing Manager, General Motors

GM previously announced in December 2015 it would invest \$44 million in the plant beginning in early 2016 and would add 36 jobs to increase capacity thanks to demand for its high-performance Z06 model. The investment came on the heels of \$439 million in upgrades announced in May 2015 that included a new paint shop.

Corvette production began in 1981 in Bowling Green following assembly first in Flint, Mich., and then St. Louis. Each location has been an exclusive home of the Corvette, contributing to its distinction as the world's longest-running, continuously produced passenger car.

Why Kentucky?

While companywide fleet fuel economy standards at the federal level are driving upgrades at major automobile plants across the nation, Kentucky in particular has been a choice for corporate investment and expansion, especially among metal producers and manufacturers.

Just this year from January to August 2017, there has been \$3.9 billion invested in Kentucky locations and expansions in the automotive industry, resulting in more than 3,100 new jobs. This already far exceeds the total 2016 investment of \$934.5 million.

Of major significance, there has been more than \$7 billion invested in new Kentucky locations and expansions across all major industry sectors so far in 2017, and the automotive industry accounts for more than half of that. State investment announcements set a new annual record before the end of May.

The first reason for the growing health of this sector is that the Bluegrass State already has a large automotive industry with well-established supply lines; its more than 500 facilities employ over 100,000 full-time workers.

And Kentucky has major advantages from a geographic, logistics and distribution standpoint.

"If you think about Kentucky's position geographically, we're a gateway between the Midwest," Mazurak said. "We're between Michigan and Ohio, which have been the traditional automotive hotbeds, and the South, which in the past 20 years has taken off with foreign auto plants."

As a result, many companies have decided to locate or expand in the Bluegrass State since being a supplier in the center of these automotive regions makes shipping auto parts to all the other plants both easy and efficient.

Kentucky has also set itself apart by the improvements it has made to its manufacturing workforce, which has been a focus of Gov. Matt Bevin's administration. Through new and expanded apprenticeship programs, the state has concentrated on creating and growing a pipeline of skilled employees to better serve the automotive industry for generations to come.

"Companies are getting a reliable supply of well-trained employees," Mazurak said. "When companies in other states see that, they may feel they would be better Since June 2016, General Motors has invested \$290 million to further upgrade the technologies and processes at its Bowling Green Assembly plant, where the iconic Corvette sports car is built.

served being located the middle of the two automotive hotbeds.'

Finally, Bevin and the state General Assembly have been working to improve Kentucky's business climate, making it more effective from a cost standpoint.

Early this year the General Assembly passed and Gov. Bevin signed right-towork legislation that put Kentucky into the running for additional new projects.

Very quickly such an opportunity arose: In April Bevin and industrialist Craig Bouchard announced Braidy Industries would build a \$1.3 billion aluminum rolling mill near Ashland in northeast Kentucky. The 550-job mill is expected to create 1,000 construction jobs and drive economic growth in Eastern Kentucky, where the need is greatest.

"Our industry enjoys significant advantages in our state that have made us the envy of many other states engaged with the automotive sector," said Tatman. "Our exceptional workforce, low cost of



energy, highway systems, logistics providers, and geographic location all work to our advantage. However, we must continue to focus on improving the overall climate for business here that has attracted these new investments."

Tatman noted that chief among the challenges moving forward is the availability of qualified workers for the thousands of job openings in Kentucky's automotive industry. Other issues include maintaining its transportation infrastructure, as well as developing a tax structure that works to address the issues of the state, while delivering the best tax consequences for the state's business partners.

"The Kentucky Automotive Industry Association will continue to work on behalf of our 500 or so automotive operations and their 90,000-plus employees to achieve these goals," Tatman said.

Esther Zunker is a correspondent for The Lane Report. She can be reached at editorial@lanereport.com.

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TOURISM



Modernizing
Ky.'s State Parks

ROI for limited improvement budget showing promise, but there is \$200 million more to do

BY DEBRA GIBSON ISAACS

ONSIDER this true business scenario: Your assets include 49 properties with 1,800 buildings on 45,000 acres spread throughout Kentucky. Each of the properties has its own brand. Some include swimming pools and golf courses. All offer a multitude of indoor and outdoor events.

On the liability side of the ledger, your properties were designed and built in the 1960s, long before today's online, technology-driven culture. The last big initiative to upgrade the properties was in 2004-05. Needed upgrades to bring your properties to today's standards

total approximately \$240 million. Recently, you received \$18 million to address these \$240 million in needs.

Welcome to the world of Kentucky state parks and Commissioner Donnie Holland. It is no secret the system of state parks and resorts Holland oversees has been in

need of repairs and refurbishing for decades. But it is also no secret that the competition for state funds is always intense, even more so today with the

Donnie

Holland,

Kentucky

State Parks

Commissioner,



Workers paint the exterior of the Carter Caves State Resort Park lodge as part of the Kentucky State

state's worst-in-the-nation unfunded pension liability crisis looming.

Determining how to address the situation has been "an interesting process," Holland said. He has chosen to address it from multiple perspectives, making changes not just in the physical properties but also in pivotal areas such as marketing, the parks' online presence, and personnel.

Safety and geography first

"Our first priority is safety and aesthetics," Holland said.

This work includes repairing railings and roofs, replacing cracked and uneven sidewalks and walkways, and re-doing swimming pools. Aesthetic improvements – mostly exterior and interior painting – are underway as well. The campgrounds at various parks also got some attention.

"These are basic things," Holland said, "but they are also very important to increase the curb appeal of the parks and to make the parks safer."

Geography also played into the decisions on what to do where.

"We spread the money evenly across the state," Holland said, "but we put a lot into the big resorts. All the communities were pleased. It was equitable."

There are 133 projects completed or underway. Approximately half of the \$18 million was committed to safety and

aesthetics, and much of that work is already done.

Of the 133 projects, 88 are being competitively bid for construction, according to LaDonna Miller, director of marketing and sales for Kentucky State Parks. State construction crews are completing the remaining work.



LaDonna Miller, Director of Marketing and Sales, Kentucky State Parks

Going online

In addition to the renovations, Holland is making other changes. Online booking is proving to be among the most significant.

"One of biggest drawbacks for our sales force and for guests was that we did not have an adequate online booking service that allowed us to compete like other hotels," Miller said. "We had a system before, but it didn't work well. An online reservation system was a very important tool. In the spring of 2015 we put Natural Bridge on Expedia.com. That went exceptionally well. By August or September we had migrated all the parks."

In 2015, the state booked \$1.3 million online, according to Miller. During the 2016-17 season, that more than tripled to \$4.95 million.

"The online system not only helped us increase revenue online," Miller said. "We were exposed to new people. We're hearing from our frontline staff that a lot of the people checking in now are first-time visitors.

"I was in Western Kentucky for the solar eclipse. The majority of license plates were out-of-state. People were shocked at how nice our park system is. The quality surprised them. They also remarked on the hospitality and attention they got there. They had a great experience."

Online also has become an important factor in marketing. Miller could not offer a precise marketing budget, saying only that "the marketing budget is a lot less than you would think." However, she said the Department of Parks is now doing a lot of marketing using Facebook, Instagram and other online methods.

But even with all the gains, technology remains the biggest issue the Parks Department must address.

"We are making improvements there to many parks," Holland said,

Refreshing the Finest

The "Refreshing the Finest" campaign to update safety and appearance includes these projects, and many others.

- Painting exteriors of buildings (Carter Caves State Resort Park, Pennyrile Forest State Resort cottages, Kenlake State Resort Park tennis center, Pine Mountain State Resort Park cottages)
- Concrete walkway repairs (Lake Cumberland State Resort Park, Rough River Dam State Resort Park, Natural Bridge State Resort Park)
- Siding repair (Lake Barkley Convention Center)
- Swimming pool repairs (Cumberland Falls State Resort Park)
- Campground improvements (bath houses and electrical upgrades)
- Electrical repairs (General Butler State Resort Park)



Most of Kentucky's state park facilities were built in the 1960s and 1970s and are going through maintenance updates to improve their appearance and safety.

"but Wi-Fi is the single biggest issue. At Lake Barkley, we have added repeater towers and brought internet into the park. We have a plan in place, but the parks are so scattered we have to deal with individual providers. AT&T has given us a lot of help in that regard, but it is a catch-22. The farther out in the wilderness the park is, the better people like it, but the farther out into the wilderness it is, the harder it is to get good (internet) coverage."

Alcohol sales boost business

Another recent plus is the addition of alcohol sales at parks in "wet" counties where alcohol can legally be sold at restaurants.

"We began alcohol sales at five parks in wet counties," said Gil Lawson, public information officer for Kentucky State Parks. "It has grown steadily every year." (See chart on next page.)

"It is another amenity we can offer our guests," Lawson said. "People used to





TOURISM

Kentucky State Parks Alcohol Sales \$600,000 p



bring alcohol for use in their rooms. Having a license allows us to do upscale booking for weddings and business retreats. Typically, they are out-of-town guests. We can provide the whole array of services."

Being able to sell alcohol has particularly helped at the parks with golf courses, Lawson said.

The park managers have also used this new asset creatively to increase bookings. Many have created Friday- or Saturdaynight events such as music concerts on their patio where people can listen to music and have a drink.



Gil Lawson, Public Information Officer, Kentucky State Parks

Learning from the pros

Personnel are always a key factor in business success, no less so when the business is run by the state.

"We brought in hotel professionals and put them in key positions," Holland said.

Miller elaborated: "As with any industry, when positions come open, as resort park managers retire, we have been looking to fill those positions with hoteliers. Managers at the state parks have to know more than just hotel management; they have to know golf courses and restaurants and alcohol sales. This is a newer skill set, but these individuals will help us move to the next level."



Workers repair a retaining wall at Rough River Dam State Resort Park near Leitchfield.



Experience the Parks for Yourself

Fall and winter offer many opportunities at the state parks. Here are two seasonal events at the state parks.

Nature Watch Weekends

Each year thousands of sandhill cranes make Barren River Lake a stop as they congregate to migrate. The lake's exposed mud flats in winter provide the birds with a perfect spot to rest, socialize and eat.

Barren River State Resort Park

Jan. 20-21 Jan. 27-28, 2018

Registration is \$45 per adult and \$30 per child 8-12 years old (must be at least 8 years old to go on van tours). The fee includes an educational session, a box lunch and a T-shirt. For more information call (800) 325-0057.

Elk Tours

Naturalists scout the area every year to determine where the elk are gathering, and the park provides a van to go to the various locations to see these magnificent animals.

Jenny Wiley State Resort Park at Prestonsburg

September to Dec. 2. Tours resume in January. \$30 per person or \$15 per child, 12 and under. Includes transportation by van to the viewing sites and a continental breakfast. Guests should register for the trips.

Call (606) 889-1790 for information and reservations. For a list of dates, visit parks.ky. gov/calendar/details/appalachian-elk-viewing-tour/21209/.

Overnight tour packages available that include lodging, dinner and an elk tour with continental breakfast for \$160 per couple. Special group and business tours are available.

Economic perspective

Hank Phillips is now president of the Kentucky Travel Industry Association, an industry trade group of which the Department of Parks and the Department of Tourism are members. Phillips served for five years as the deputy commissioner of the Kentucky Department



Hank Phillips, President, Kentucky Travel Industry Association

of Travel and Tourism, and had several roles with the National Tour Association, including the association's president.

Phillips said the spectrum of assets for Kentucky includes bourbon visitor experiences; horses and all things equine-related; outdoor adventure and recreation; and culture, history and the arts.

"Although Kentucky's spectrum of tourism assets is very diverse, the parks continue to be an important part of that diverse spectrum," Phillips said. "The parks are not just attractions in their own right but also reflect some of the most important assets Kentucky has and some of the most important drivers of visitation to Kentucky."

Back in Frankfort, Commissioner Holland hopes to commission a new economic impact study this year to demonstrate just how important the parks are to attracting tourism dollars. The last study, done 2½ years ago, showed that the system had an \$889 million annual impact.

Sales grew last year. In fact, the parks sold 10,000 more rooms this year last, according to Holland.

"A lot of our other food sales are coming along with that, he said. "Our customer service scores improved nearly 90 percent."

Meanwhile, Holland plans to ask the General Assembly to appropriate more funds to continue refurbishing the parks.

"Our priority continues to be the refreshing process," Holland said. "We don't have any plans to expand the parks system until we get what we have under control. We aren't planning any expansions."

Debra Gibson Isaacs is a correspondent for The Lane Report. She can be reached at editorial@lanereport.com.

WORKFORCE DEVELOPMENT



The High Value of the Right Skills

Kentucky-based AMTEC brings together industry and education to increase profitability

BY DEBRA GIBSON ISAACS

OMPANIES averaged a savings of \$400,000 annually per technician, or six times a technician's average salary, when they employed "preci-

sion maintenance technicians and engaged precision maintenance practices, according to a recent report from the University of Tennessee Knoxville-Reliability and Maintainability Center (UT-RMC). Additionally, these advanced technical maintenance skills and prop-

erly trained technicians helped avoid about 50 percent of human-error-generated issues.

It's no secret that a skilled workforce can make a significant difference in profitability. It sounds simple and obvious, but in reality hiring truly qualified candidates is anything but easy or automatic. Research on the impact of properly trained employees is also scarce.

Enter Danine Alderete-Tomlin, executive director of the Automotive Manufacturing Technical Education

Collaborative housed at the Kentucky Community and Technical Colleges System (KCTCS) office in Versailles. She is intent on helping companies increase both the number of highly skilled technicians as well as the extent of research done on the subject.

Alderete-Tomlin spends her fastpaced days at AMTEC, which is a National Science Foundation ATE Center of Excellence, working with partners – companies are industry partners; community and technical colleges, universities and secondary schools are education partners. She and her colDerek Albertson became a 2015 graduate of the AAS Industrial Maintenance Technology program at Somerset Community Technical College. AMTEC, based at the Kentucky Community and Technical College System headquarters in Versailles, developed the model for the precision maintenance technology training program.

leagues are the middle in which both ends of a variety of partnerships meet. AMTEC helps industry define and refine the set of skills needed to perform each job. Simultaneously, it shares this data with educators, helping them tweak curricula to prepare students who will ultimately fill those jobs.

Originally AMTEC focused solely on better preparing highly skilled mechatronics technicians for automotive manufacturers. Today AMTEC also works with other industries, although the automotive industry remains the primary client.

The final product is two-fold: industry-vetted maintenance certification assessments that pinpoint the precise range of skills needed for a variety of jobs and college curricula aligned to industry-led skills standards.

The early years

Back in 2005 when AMTEC began, neither was available.

"A small group of college presidents came together, including Dr. Keith Bird, who was then chancellor of KCTCS," Alderete-Tomlin said. "They found that technicians were not graduating with the right skill sets. They weren't coming out skilled enough to handle industry demands."

Likewise, industry knew the general skills

needed but had not refined a list of the particular skill sets needed to succeed in each job.

AMTEC then formally began with a planning grant to establish if colleges and companies across state lines would come together to benefit the development of the future automotive manufacturing workforce. There was enough interest during the first year that the National Science Foundation (NSF) awarded AMTEC a three-year project grant. AMTEC facilitated collaboration that occurred college-to-college, college-to-industry, and industry-to-industry.

AMTEC was granted a one-year extension in 2009 to complete its objectives,



Danine
AldereteTomlin,
Executive
Director,
Automotive
Manufacturing
Technical
Collaborative

WORKFORCE DEVELOPMENT



The skilled industrial technicians who graduate from training programs created by the Automotive Manufacturing Technical Education Collaborative were shows to save their employers \$400,000 annually, according to a study by a University of Tennessee professor. As a liaison between educators and private industry, AMTEC developed the adaptable training model after setting up in Versailles in 2005.

and on Sept. 15, 2009, AMTEC became a National Center for Excellence in Advanced Automotive Manufacturing.

This was before other programs were developed.

"Before there was Kentucky FAME, before the Toyota AMT model, we were convening partners to research apprentice models and pathways," Alderete-Tomlin said. "We had toured General Motors, researched, and overviewed current programs and apprentice models."

A lot has changed since then.

"We are all now speaking the same language. Educators don't have to guess anymore," Alderete-Tomlin said. "Colleges can build their own degree tracks or certificates. Everything is still flexible enough. We just accelerate the colleges' ability to ramp up the offerings in technical specialties."

For the companies AMTEC works with, there are four overarching needs:

- Uniquely trained employees.
- Increasingly flexible and lean manufacturing to meet fluctuating customer demands.
- A growing focus on green and sustainable manufacturing.
 - Rapidly changing technology.

Toyotetsu in Somerset is a good example.

Just over a year ago, Richard Snowden, skilled trade training specialist for Toyotetsu America, hired AMTEC to do assessment testing for maintenance and engineers.

"They are finding where our training gaps are and developing focused training for individuals, groups and engineering teams in North America," Snowden said. "We have more than 19 categories and themes in different locations. They are providing focused training – online, written and hands-on."

Snowden said the result has been "wonderful."

"Competition is tough, and technology is growing so rapidly that we need the best of the best," he said. "There are a lot of good vendors that do what AMTEC does, but AMTEC is automotive-focused. We get great benefit from that because we're automotive, and everything is based for automotive manufacturing.

"Somerset Community and Technical College, by chance, also uses AMTEC for skilled training in industrial maintenance and applied maintenance. That makes for a natural partnership with us."

What stands out for Snowden, however, is the way AMTEC does business.

"They are always asking what we need," he said. "Others are saying, 'Here is what we offer. If it's not in the package, sorry.'

"Every year there are two or three significant changes in the gear used in automotive manufacturing," he said. "Programmable logic controllers were a recent one. Different companies use different brands. AMTEC offers us a chance to train on the exact brands and products we use. This year we are building a plant in Mexico. Ninety-nine percent of the people there speak Spanish. AMTEC offered to translate the assessment-testing portion in Spanish for a low, low cost."

Potential employees also benefit from their association with AMTEC, according to Snowden.

What AMTEC Offers

- Industry-led maintenance certification assessments available through NOCTI Business Solutions
- Industry-validated online competency-based college curriculum aligned to nationally researched skills standards in 2016
- National analytics in an ongoing continuous improvement environment within AMTEC
- Industry-grade professional development for college instructional staff
- Shared best practices and educational models among colleges and industry partners
- Flexible career pathways instruction and dissemination to fit the unique needs of students, employees, and employers
- Consultative services

"In July, AMTEC rolled out a prescreening program for us in machine maintenance," he said. "We know exactly what skills we need and where our gaps are. This makes it fair and consistent for all the applicants to get through recruiters. The pre-screening has 187 questions and can take up to three hours. It generates great reports. In just a few minutes, we can see if a person is good, just average, or if he bombed. It is very fair and consistent for applicants, too. We aren't swayed by personality or what's on a resume. Anyone can put anything on a resume."

On this morning, Alderete-Tomlin and several colleagues are meeting with executives from Amazon. The questions and answers fly back and forth across the table like mental badminton birdies as both teams learn about each other's needs and resources. You can almost watch the possibilities of collaboration start to gel in each person's mind as the conversation continues. Amazon is growing exponentially - including a planned first-ever Amazon Prime distribution hub in Northern Kentucky - necessitating the need to refine its employment process. AMTEC has become a leader in delivering truly competency based, nationally standardized modularized curriculum

This discussion mirrors how AMTEC grew.

"Education used to be 'siloed' into categories," Alderete-Tomlin said. "Now we are hearing that employers need numerous skill sets in one graduate. We are building the kinds of courses that industry needs."

AMTEC goes to high school

AMTEC is now also working with high schools.

A new partnership in Washington state gave students the opportunity to work in a local industry for \$15-\$21 an hour.

"These are inner city kids," she said. "More than 85 percent live in poverty, and 10 percent are homeless. They never had access to these types of jobs before the partnership with AMTEC."

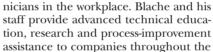
In fact, Alderete-Tomlin said, this student success is what she is most proud of.

"I could do back flips," she said. "For example, at Somerset Community College the first graduate of the AMTEC collaboration bought his first car and his first house. He is esteemed by industry partners. This will have a positive impact on their lives forever.'

Research also matters

Meanwhile, AMTEC pursues its second goal of increasing research on the tie between training and company profitability.

AMTÊC hired Dr. Klaus Blache at the University of Tennessee Knoxville-Reliability and Maintainability Center (UT-RMC) to research and find an answer to the impact of skilled maintenance tech-



world. They also work with maintenance technicians, plant engineers and manufacturing leaders to educate and improve manufacturing, technical and engineering processes. The UT-RMC team conducted this research from their large database and project records.

"The findings are quite surprising, unscripted and provide solid evidence for the economic and educational impact that investments in advanced technical education have made for our manufacturing industry," Alderete-Tomlin said. "A community college, technical college or university that graduates 15 highly skilled precision maintenance technicians a year has the ability to positively impact their industry by \$6 million dollars a year on the high end or \$450,000 on the low end of the study range."

That is a bottom line that industry and educators can agree on, but not one that will remain static. As Alderete-Tomlin said: "We are constantly making changes. We are always questioning when something needs to be updated and vetted. This is a continuous improvement process." ■

Debra Gibson Isaacs is a correspondent for The Lane Report. She can be reached at editorial@lanereport.com.



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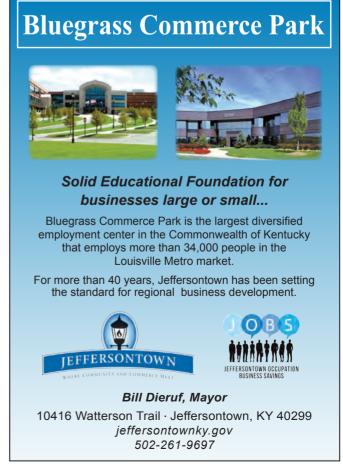
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COVER STORY

Growing Engineers to Grow Manufacturing



Kentucky's surging engineering enrollments, graduate numbers must keep growing to fill industry demand

BY GREG PAETH

ASED on a long list of projections by people who get paid to predict where Kentucky's economy will be soon, the commonwealth's major engineering schools need to crank out more and more graduates who can help establish the state as a leader in manufacturing.

A long list of corporate announcements earlier this year about plans to build multimillion-dollar manufacturing plants and shipping facilities translates to thousands of new jobs in the state, especially for the relatively small pool of electrical, mechanical, chemical and computer engineers critical to huge corporations that demand state-of-theart plants, equipment and talent.

Since the beginning of the year, explosively growing Amazon has announced it will create some 2,700 jobs in a \$1.5 billion Amazon Prime Air Hub at the Cincinnati-Northern Kentucky International Airport in Boone County. Toyota has invested \$1.33 billion on a tune-up for the ages at its massive 8.1 million-s.f. Georgetown manufacturing plant, which has a payroll of 8,200. Braidy Industries made huge headlines in April unveiling plans to create 550 advanced manufacturing jobs in Greenup County when it completes work on a \$1.3 billion aluminum rolling mill.

Gov. Matt Bevin drove home his message about the state's booming economy and the need for more engineering graduates when he addressed the Gov-

The BMES members of the University of Kentucky, Ahmed Bahrani, Sridevi Thyagarajan, Sarah Thomas, Nicholas Kohrs, Alex Chen, Iman Shogaei, and Amir Najarzadeh attended this conference and participated in many activities including workshops, informative talks, and poster presentations.

ernor's Conference on Postsecondary Education Trusteeship in Louisville in mid-September. He urged top officials at Kentucky universities to find a way to dramatically increase the number of engineering graduates and – if necessary – jettison some programs that



Matt Bevin, Governor, Commonwealth of Kentucky

don't produce people who have 21stcentury job skills.

"I challenge you to say to yourselves, 'If we're graduating 250 people out of our engineering school ... why is it 250 and not 1,000? And what are we going to do between now and 2030 and a whole lot sooner to make sure it's 1,000?' " news reports quoted Bevin saying.

"He (Bevin) has talked about his vision for Kentucky to be the go-to state if you're going to design, engineer and manufacture the best products," said Hal Heiner, the secretary of Bevin's Cabinet for Education and Workforce Development.



Hal Heiner, Secretary, Cabinet for Education and Workforce Development

The governor wants business leaders from all

over the country to "think first of Kentucky," Heiner said, "and obviously the key thing in all of that is workforce and engineers – not only at the bachelor and graduate level but also engineering at the applied science level."

Right now, Kentucky's two major engineering schools at the University of Kentucky and the University of Louisville are graduating about 870 people each year, a number just barely adequate to meet the demand for 4,400 engineers over the next five years, said Heiner, whose comments reflected recent state studies on employment trends.

Dr. Sean Bailey, left, associate professor in the Department of Mechanical Engineering at the University of Kentucky, focuses on directing research with a student who is studying aeronautical engineering. UK mechanical engineering degrees require 130 credit hours.

"If you're projecting 4,400 jobs and were graduating about 4,400 with bachelor's degrees in five years, (you may ask) do we need to increase? But if you look at the economic development successes and the technical nature of those wins and you combine that with the fact that Kentucky is under-producing engineers when we want to be the hub of engineering excellence," he said, "it's time to continue that growth (of engineering programs). We have a one-to-one match, but that doesn't mean that those graduates will all stay in Kentucky and take jobs."

Western Kentucky University also has an engineering program that dates to 2001 and produced its first graduate in 2004, but it is small in comparison to UK and UofL. As of July 1, the WKU computer science, engineering and architectural and manufacturing science programs were merged to create the School of Engineering and Applied Science, said Stacy Wilson, the director of the school.

On a per capita basis, the entire country graduates about 100,000 engineers per year, which means the state should be producing somewhere between 1,300 and 1,400 engineers per year just to keep up with U.S. averages, the cabinet secretary said.

"When you talk to the Amazons of the world and ask them if (the U.S. economy) has plateaued from a technology standpoint, they say, 'No, if anything, technology is advancing at a faster rate than ever,'" Heiner said. "If we're just barely there (with some 870 graduates per year), we need to at least meet the national average, if not exceed it."

In the most recent academic year, UK and UofL awarded just over 1,000 undergraduate degrees (631 at UK; 377 at UofL), which exceeds Heiner's graduation numbers but falls far short of the 1,300-1,400 rate needed for Kentucky to pace the national average.

Another 107 grad students at UK received advanced degrees in the discipline while 253 graduate degrees were awarded at UofL's J.B. Speed School of Engineering.

Western Kentucky conferred under-

graduate degrees on 78 students in the electrical, mechanical and civil engineering programs for the most recent academic year, about 20 percent fewer than the previous year but an increase of about 20 percent from 2012-13, according to Wilson. Current enrollment stands at about 640 with nearly 290 of those students in the mechanical engineering program that is critical to manufacturers, she said.

Heiner's lower figures accurately reflect data gathered a couple of years ago for the Kentucky Future Skills Report, which covers 2010-14, according to Ross Barrett, an analyst who studies education and workforce statistics for the state.

There's no question that there's an engineering shortage in the state, according to Bridgett Strickler, who is based in Louisville and works as the director of network engagement for a national organization called The Graduate Network.

"Employers are having a hard time finding engineers," Strickler said by email, referencing her organization's survey of hundreds of Kentucky employers. "Eighty-three percent of respondents said engineering positions were



In July, the UK Solar Car Team competed in the annual Formula Sun Grand Prix (FSGP) at the Circuit of the Americas (COTA) in Austin, Texas. Eighteen teams from the contiguous U.S., Canada and Puerto Rico made the trek to Austin to compete in FSGP. The team came in seventh place with a total of 80 laps on track. For Gato V, this is the highest finish it has achieved in its four-year lifespan.

COVER STORY



The Engineering Garage at UofL Speed School of Engineering is a maker space for freshmen students to physically build devices themselves.

somewhat difficult or very difficult to fill. Engineers are among the top three most difficult jobs to fill in Kentucky." The other two are high-skill medical and skilled trade jobs.

Based on state data that she's reviewed, she believes graduating 1,000 engineers per year could meet the demand in Kentucky.

But the shortage results because only 54 percent of STEM (science, technology, engineering and mathematics) graduates from Kentucky universities wind up working in the state, said Strickler, whose data was from 2015.

Larry Holloway, interim dean of the UK College of Engineering, and his counterpart at the University of Louisville, interim dean Gail W. DePuy, agree with Heiner and Strickler that there is a rapidly growing demand for more engineers in Kentucky and that out-of-state migration is likely a factor in the supply-demand equation.

"There is data that shows that on a per capita basis, Kentucky is behind a number of our neighbors (nearby states) in the number of engineering graduates," said Holloway.

A graduate of Pittsburgh's Carnegie Mellon University, one of the top engineering schools in the country, Holloway took a job at UK in 1991 around the time the university created its Center for Manufacturing, which was restructured as the Institute for Sustainable Manufacturing in late 2009. Interest in cutting-edge manufacturing

was a primary reason for his move to Kentucky, Holloway said.

Other states' numbers are much bigger

A spot check of nearby states supports observations by Heiner and Holloway about the state's relatively low engineering graduation rate.

Purdue University in West Lafayette, Indiana, has more than 8,900 undergraduates and nearly 3,600 graduate students in an engineering school that routinely ranks among the best in the country. Purdue conferred nearly 1,700 bachelor's degrees – more than the total for UK and UofL for the 2016-17 academic year – when nearly 1,000 people received graduate degrees in engineering from Purdue.

Ohio State had about 8,200 engineering students in the fall of 2016 and graduated nearly 1,500 engineers in the summer of 2015 and the fall of 2016, according to its engineering department's annual report for last year.

Virginia Tech had nearly 10,000 students in its undergraduate and graduate engineering programs for the 2016-17 academic year. Nearly 1,400 students received bachelor's degrees and 464 completed graduate work last year from a university that has a stellar reputation in engineering.

DePuy said manufacturers typically need mechanical and industrial engineers, while electrical and computer engineers also would be critically important on the production line. Holloway was hesitant to talk about any discipline being more important than another, but he did say nearly every manufacturer needs mechanical and electrical engineers and that chemical and biosystems engineers might be next on the "must hire" list.

"Engineering is more than anything else a way for students to learn how to solve problems and to think rigorously," Holloway said.

Both Holloway and DePuy said their schools are growing quickly in an effort to meet a demand that has risen substantially in recent years for a variety of reasons, including the strength of Kentucky's manufacturing sector.

At UK, the number of undergraduates has more than doubled from about 1,600 in 2007 to about 3,450 last fall, and the number of bachelor's graduates has increased by 38 percent since 2009. UK awarded 631 undergraduate degrees last year and another 107 received postgraduate degrees.

"For most of our engineering graduates, there are opportunities that are out there in manufacturing, and certainly manufacturing is an important part of the economy of Kentucky," Holloway said.

It pays well, and they like it

Besides the prospects of finding a job after graduation, there are other reasons why engineering schools are filling their classrooms.

"Students are exposed to so much technology that a lot of them have a lot of comfort with it and are very excited about it. I think the economics are very appealing to students when they find out that they can graduate and have a starting salary that's very, very healthy," Holloway said. "Almost every survey you read in terms of the top starting salaries almost always are full of engineering and computer science majors."

UK engineering offers degrees in both computer science and computer engineering.

The UK College of Engineering website makes it clear that some of the students make projections about their future checking-account balances. The boldest type on the first page of the website is reserved for the number \$61,245 – said to be the average starting salary after graduation.

The college's growth plan, Holloway said, calls for at least 1,000 undergraduate degrees annually in the near future and 1,300 a year by 2025.

At Louisville, interim Dean DePuy said the 377 undergraduates who received degrees last academic year is a school record – that will be broken by the next graduating class. Just six years ago the Speed School number was 276.

There are now about 2,100 Speed School undergraduates and about 600 grad students on campus, an increase of roughly 40 percent since the 2011-12 school year, she said.

"We are certainly growing dramatically," said DePuy. "All engineering schools are seeing their number of applications go up. We're sort of riding the national wave. In terms of why the university is interested in increasing our numbers: There is a demand for our graduates...

"I believe the growth in the kind of industry that we are trying to attract – and frankly, the kind of industry every other state is trying to attract – would all require engineers. We as a state have to be able to demonstrate that we can support those industries as we're trying to attract additional auto manufacturing and distribution centers and aviation manufacturing and healthcare firms. They all need engineers," she said.

Many of the jobs that are opening up have been held by baby boomers who are at or near retirement age. Other jobs are new, created by the expansion of existing businesses or companies that are new to the state, DePuy said.

DePuy said she hopes the presence of the J.B. Speed School of Engineering is one factor that led Louisville to be named the top city in the country for manufacturing growth. A June story in *Forbes* magazine said manufacturing in Louisville and Jefferson County has increased by 30 percent since 2011. The well-regarded business publication said 83,300 people work for manufacturers in the metropolitan region and the growth rate was the highest in the country.

Toyota Motor Manufacturing Kentucky, which has the capacity to build 550,000 vehicles per year in Georgetown, is an existing business that's always looking for engineers "because we want to have a great pipeline" of talent, said Kim Menke, manager of community and government relations for Toyota in North America.



Menke, an environmental engineer from WKU who went to work for the automaker when it broke ground in Georgetown 30 years ago, said he couldn't estimate how many of the company's 8,200 employees in Georgetown are engineers. But he did say that a stand-alone operation in Georgetown, the Northern American Production Engineering Campus, employs "600 or so engineers who work there and support our operations across North America."

Like Heiner, Menke stressed the importance of other people who do engineering work – engineering technicians and technologists – who do what is often described as applied engineering rather than the more theoretical engineering that is the focus of most four-year university programs.

University of Louisville students from the computer, electrical, mechanical and industrial engineering programs formed a team to participate in NASA's University Student Launch Initiative. In addition to a rocket lifting a payload to exactly 1 mile, teams are assessed for technical writing, presentation, education outreach and website professionalism.

"With advanced manufacturing, we have (many) skill sets that are necessary. It kind of raises the bar for everybody. You need a broad range of folks – those four-year degree engineers, two-year technicians. You need them in the pipeline," Menke said. "We all have to compete for talent, and so I would anticipate huge demands out there. The more qualified engineering graduates we can produce the better."

Greg Paeth is a correspondent for The Lane Report. He can be reached at editorial@lanereport.com.



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EMERGING LANE

Kentucky's young professionals and creatives



"I hope to stay with CMTA long-term. I'd love to be able to say I worked for the same company my entire career. I see me moving up further into management and being an integral part of the future success of this company."

Zachary Schneider



"It is a great story we love to tell. We are able to come in and replace these systems with new state-of-the art systems that greatly improve the building, and the project all gets paid for through the reduction in the energy usage."

Jeremy Kelly

project all gets paid for through the reduction in the energy usage as a result of the project."

Kelly is appreciative of winning the "40 Under 40" award for the credibility it gives him when competing for other companies on projects.

"It also helps me relate to a lot of the engineers we recruit and hire because CMTA has a ton of young engineering talent," he said. "Like many businesses, our biggest asset by far is our people and we look for the best and brightest. Successful people are drawn to other successful people."

Many of the younger engineers at CMTA who are a few years removed from school want to learn and grow and be given responsibility and accountability.

"We make it a point to nurture that," Kelly said. "That is what happened with me. It wasn't that I was smarter or better at anything than anyone else, but I probably cared more than most about trying to be the best. We want them to keep that drive because that is what keeps pushing the company forward."

Zachary Schneider, company principal, joined CMTA as an intern in August 2002, and became a full-time electrical engineer in 2005. He designs and oversees the mechanical-electricalplumbing (MEP) systems for healthcare and K-12 buildings.

"A lot of people don't realize this MEP engineering exists," he said. "They assume that architects are the only ones who design buildings."

In his industry, the principles of power and electricity haven't changed much, but Schneider has seen big advancements in lighting technology, from incandescent (which is still being used in certain places), then fluorescent T-12 to T-8 to T-5 and now only LED lighting is used in CMTA buildings.

"The thing I love most about my job is the vast array of the project types I have been able to work on," he said, citing schools, hospitals, churches and stadiums on a long list. His favorite, and largest, project so far has been a 550,000-s.f. high school in Alvin, Texas.

"I hope to stay with CMTA longterm," Schneider said. "I'd love to be able to say I worked for the same company my entire career. I see me moving up further into management and being an integral part of the future success of this company."

— Kathie Stamps

Building a Strategy for Success

Louisville engineering co-workers win '40 Under 40' honors

HEN Consulting-Specifying Engineer magazine listed its "40 Under 40" best young engineers in North America for 2017, two of them were from the same Kentucky company. Mechanical engineer Jeremy Kelly and electrical engineer Zachary Schneider work for CMTA Energy Solutions, a company headquartered in Louisville with offices in Lexington and Jeffersonville, Indiana, as well as Cincinnati, Houston and two cities in Virginia.

Jeremy Kelly is on the 14-person management team of the firm. He is a certified professional engineer (PE), certified energy manager (CEM), certified healthcare facility design professional (HFDP) and a LEED-accredited professional (LEED AP). He joined the company – whose initials once stood

for the founders' names – in 2001 while he was still at the University of Kentucky, and then left CMTA for a few years to work for an HVAC manufacturer before returning in 2012, making him a "boomerang" employee.

That was when he and another engineer started a new division at CMTA that has grown from two to 38 people. They renovate schools and other state-owned buildings that have old and outdated infrastructures but no money to replace heating and cooling systems, lighting or plumbing.

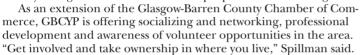
"What we do is really cool, and it is a great story we love to tell," Kelly said. "We are able to come in and replace these systems with new state-of-the art systems that greatly improve the building, especially classrooms for students, and the



In May, the Glasgow-Barren County Young Professionals had more than 40 people at its first meeting. It is an extension of the Glasgow-Barren County Chamber of Commerce.

Young Professionals in Glasgow

EFORE starting her own marketing agency, Visibly You, this past spring, Erica Spillman traveled around the state and noticed other Kentucky counties offering organizations for young professionals. She set out to make it happen in Glasgow. In May, the Glasgow-Barren County Young Professionals had over 40 people at its first meeting.





Erica Spillman

Inspiration, motivation and practical tips are brought to the table at each monthly luncheon at a local venue. "We want to grow the leaders that we have," Spillman said. Intentional networking is built into the end of each monthly meeting, to "build a community within a community."



Bourbon heads to the movie theaters, thanks to young Lexington talent.

'NEAT: The Story of Bourbon'

HAT'S the name of a new documentary celebrating America's only native spirit and the humble, hardworking people in the industry. Featuring native Kentucky actor Steve Zahn, the movie was produced by a trio of Kentuckians: film composer AJ Hochhalter and businesspeople Corey Maple and Gannon Diggs. Hochhalter and Maple are also co-founders of The Livery, an events venue in Lexington.

"This film was a statement for us," Hochhalter said. "That statement is, 'This is why we make films in Kentucky. These are the sights, sounds and characters that make it such a special place.'"

The movie had its hometown screening Sept. 7 at the Kentucky Theatre in downtown Lexington and the filmmakers are in talks with distribution companies for broader release. "Just like bourbon is crafted and cared for in Kentucky and then propelled out into the world," Hochhalter said, "we hope that Kentucky films can earn that same reputation over time."

YP in Totality

Brooke Jung is a trained pastry chef and corporate event planner. For 2016-17 she added quite the memorable title to her resume, that of solar eclipse marketing and events consultant for the city of Hopkinsville. She was involved with planning 20 festivals and welcoming and



Brooke Iui

estimated 116,500 visitors to the community. Hopkinsville became known as "Eclipseville," as it was in the path of totality of the Aug. 21 solar eclipse and designated by NASA as the point where the moon's axis was closest to the earth – meaning totality lasted longest there. Officials from Christian County and the City of Hopkinsville estimated a \$28.5 million in economic impact to the community.

Lexington a Top City for New Grads

SmartAsset, the web-based financial advice and data company, has ranked Lexington No. 7 on its 2017 list of Top-10 cities for recent college grads, based on an index of three measures: jobs (unemployment rate and earnings, among other factors), affordability (rent and cost of living) and fun (entertainment and dining).

New Events Venue in Lexington

Lexington fans of chef and restaurateur Jeremy Ashby, who has ownership stakes in Azur and Brasabana restaurants and Dupree Catering, will have another spot to visit this fall when Mane on Main opens on the 15th floor of Chase Tower, at Main and Martin Luther King. Formerly the First Security Bank building, the first top-floor tenant of the Chase building was the Lafayette Club, a membership-based private dining club that operated from 1973 to 2007. The new Mane on Main will be a reservation-based event center with Dupree Catering at the helm.

Kentucky Health Drink

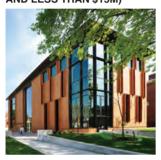
The crowdfunding world is getting crowded with options, and new businesses love it. Kickfurther is one of the newer crowdfunding platforms, and Baqua, a new company in Kentucky, has been chosen by Kickfurther to be connected with individual investors, with inventory funding and Amazon distribution. Baqua is a health drink infused with ancient grains, available in four flavors – apple ginger, blueberry pineapple, cherry lime and lemon mint. Baqua is headquartered in Lexington; the Kentucky Proud product is manufactured and bottled in Louisville.

THE LANE LIST

KENTUCKY'S BEST NEW ARCHITECTURAL STRUCTURES

diverse group of projects was recognized for Excellence in Architectural Design by the Kentucky Society of Architects, a chapter of The American Institute of Architects, at a ceremony Sept. 27, 2017, during AIA Kentucky's annual convention. The jury weighted 56 entries individually, not in comparison, and was free to select any projects it determined worthy of recognition for having successfully met the scope of challenges with which the architect was presented.

HONOR AWARD **NEW CONSTRUCTION** (GREATER THAN \$5M **AND LESS THAN \$15M)**



The Owsley Brown II History Center at The Filson Historical Society Campus, Louisville

Architect: de Leon & Primmer Architecture Workshop, Louisville

Owner: The Filson Historical Society

HONOR AWARD ADDITIONS/RENOVATIONS/ **RESTORATION (LESS**



Paris-Bourbon County Public Library, Paris

Architect: EOP Architects, Lexington

Owner: Paris-Bourbon County **Public Library**

MERIT AWARD **NEW CONSTRUCTION** (GREATER THAN \$15M)



University of Pikeville Health Professions Education Building, Pikeville

Architect of Record: Trivers Associates, St. Louis

Associate Architect: Ayers Saint Gross, Baltimore

Owner: University of Pikeville

MERIT AWARD **NEW CONSTRUCTION** (LESS THAN \$5M)



LuigART Makers Spaces, Lexington

Architects: NOMI Design, NoLi CDC, Emerge Contracting/ ReContained, Prajna Design, Lexington

Owner/Developer & Designer: North Limestone Community Development Corp. (NoLi CDC)

MERIT AWARD

ADDITIONS/RENOVATIONS/ **RESTORATION (GREATER** THAN \$5M)



Northern Kentucky University Campus Recreation Center, **Highland Heights**

Architect of Record: Omni Architects, Lexington

Other Architect: CannonDesign, Grand Island, N.Y.

Owner: Northern Kentucky University

CITATION

NEW CONSTRUCTION (GREATER THAN \$5M AND LESS THAN \$15M)



Bourbon Cellar, Loretto Architect of Record: Hubbuch & Co., Louisville

Owner: Maker's Mark Distillery Inc.

CITATION

ADDITIONS/RENOVATIONS/ RESTORATION (GREATER THAN \$5M)



Germantown Mill Lofts, Louisville

Architect of Record: Pimsler Owner: Underhill Associates

CITATION

ADDITIONS/RENOVATIONS/ RESTORATION (LESS THAN \$5M)



KMAC Museum, Louisville

Architect of Record: Christof:Finio Architecture New York

Other Architect: K. Norman Berry Associates Architects, Louisville

Owner: KMAC Museum

SPECIAL AWARD FOR COMMUNITY **ENGAGEMENT** SMALL PROJECT AWARD (LESS THAN \$1M)



Shelby Park/Sobro Bus Stops, Louisville

Architect of Record: Luckett and Farley, Louisville

Design and Fabrication Partner: Haptic Design Lab LLC, Minneapolis

Owner: Louisville/Jefferson County Metro Government

THE JURY

- Roger Neuenschwander, FAIA, executive chairman, tvsdesign, Atlanta (Chair)
- Thomas W. Ventulett III, FAIA, design advisor, tysdesign, Atlanta
- Jay Thomson, AIA, principal, tvsdesign, Atlanta
- Scott Marble, AIA, principal, Marble Fairbanks Architects, New York

SPOTLIGHT ON THE ARTS



Creating a Market for Art

Kroger murals connect business to artists and neighborhoods

BY TOM MUSGRAVE

HEN Kroger reopened its store on Lexington's Euclid Avenue in 2015 with three murals created by Lexington artists, the grocery chain's CEO, Rodney McMullen, posed the question, "Why aren't we doing (murals) in all our stores?"

So, they did.

The Euclid location's reopening was a reopening in the academic sense. There had been a store there before, but it was torn down to make way for the new store, a revolutionary space that included a parking lot on the roof, but that was not it's only unique feature. At a cost of \$45,000, Kroger commissioned three murals – two interior murals for \$10,000 each and an exterior one for \$25,000 – to adorn the Euclid Avenue store.

Kroger worked with LexArts to issue the call to artists and select finalists for the murals, and when the mural program began in Louisville, Kroger engaged Louisville Visual Art. Using those partnerships as models has been crucial, said Tim McGurk, Kroger regional director of corporate affairs, especially since the mural program has expanded across 35 states.

"The Kroger team is very good at opening and operating grocery stores," McGurk said. "We rely, however, on local arts organizations to help us connect with artists and to make sure the artwork reflects the neighborhood and community. We need their expertise."

One important feature of the murals is what observers will *not* see in the murals, McGurk said.

"Something that was very important to us in the design of these murals was that they never have a Kroger logo in them or a reference to our stores," he said. "We wanted to be sure that they are never perceived as advertisement."

In Kentucky, there are now 35 murals in 28 stores, with more planned in the future. Interest among artists has grown as well

"We've watched the numbers grow from a dozen artists for the first couple of murals we commissioned to 40, 50 or 60 artists for murals today," McGurk said. "Our stores see an average of 20,000 to 30,000 customers each week, so they realize the exposure their work will gain by being on display. They also realize the commissions we give are pretty generous, and we're proud of that."

Liz Swanson has done murals at two Lexington Kroger stores, Euclid Avenue and Leestown Road. Swanson, a University of Kentucky associate professor of architecture, has also been commissioned to complete a mural at the newly renamed Kroger Field football stadium. That mural will be unveiled Nov. 25 as UK closes its season against the University of Louisville.

"I've found one of the wonderful things working with Kroger has been that they've given us, as artists, such creative freedom," Swanson said. "I have submitted proposals to them, and I've felt, as an artist, that they respect my perspective. They know they're hiring me to do something that I do well."

This mural initiative has risen to the level of such importance that Kroger has hired an art project manager, Bo Wachendorf, to help curate the murals.

"I'm working with over 30 local arts organizations to find artists who not only have experience with large-scale graphic and mural work, but who have deep ties to their cities and want to be part of this unique opportunity," Wachendorf said in an article that appears on the company's website krogerstories.com. "Not every city or suburb is lucky enough to have public art, so I'm proud to be able to help artists find work, and to have that work improve the experience our customers have with our stores."

McGurk said that other companies that are on the fence about commissioning original art for their business locations should consider what it has meant for Kroger.

"In our opinion, this has proven to be one of the most powerful ways to connect with your local communities and local neighborhoods," he said. "These murals can add a sense of pride for your associates and your customers."

Tom Musgrave is communications director of the Kentucky Arts Council.



The Kroger mural at Leestown Road in Lexington. The piece was designed by artist Liz Swanson, with contributions from students at Meadowthorpe Elementary School.

EXPLORING KENTUCKY





practices such as beekeeping and organic gardening; costumed docents sharing a peek into Shaker culture; fun annual festivals, such as Well Crafted, a June day of toe-tappin' live music and craft beer; and of course, scrumptious

The Centre Family Dwelling building at Shaker Village of Pleasant Hill is one of 34 original structures at the Central Kentucky property, which is the state's largest National Historic Landmark.

order that settled and developed this land, the present village continues to expand, preserve and educate, thanks to its worker bees - farmers, chefs, naturalists, painters, archivists, craftsmen and storytellers. All contribute to the expanded experience here, linking the Shakers' original ideas with contemporary technology to provide folks even more reasons to visit and keep coming back. Cases in point are its new mobile app, user-friendly website and a blog chocked with info. Plus, the 1815 Carpenters' Shop has undergone a facelift to morph into a welcome center.

So if you think that since you've been to Shaker Village, you've seen it all, think again. Following is a sampling of diverse options for visitors during the winter months.

Culinarily speaking, the Fresh Food Adventures program is a tasty draw. You can broaden your belly and your mind on Nov. 11 at a family-style quail supper while learning about the village's Northern Bobwhite preserve. On Jan. 13, executive chef Jonathan Searle of Lexington's Lockbox at 21c rustles up locally sourced Bluegrass culinary treats,

Old Meets New at Shaker Village

Events abound at Pleasant Hill during the fall and winter

BY KATHERINE TANDY BROWN

'N 1805 a group of Shakers began a village in Central Kentucky called Pleasant Hill. During its heyday, curious outsiders came to marvel at the sect's frenzied spirit-filled dancing, or shaking. The community's population reached 500 and its land burgeoned to more than 4,000 acres of farmland. Though Kentucky Shakers no longer exist, their legacy is the stuff of legend - architectural wonders, lush landscapes, and guidance for the rest of us in community, ingenuity and sustainability.

Now spreading across 3,000 acres of original countryside, Shaker Village of

Pleasant Hill is Kentucky's largest National Historic Landmark and the nation's most extensive private collection of original 19th-century buildings, a total of 34 historic structures. Restored prairies, woodlands, fields, canebrakes, sheer cliffs and diverse plants and critters cover and roam 2.000 of its acres. Trails for hikers, horseback riders, carriage drivers and bicyclists meander through the property.

Here you'll find fascinating Shakerera dwellings and fine handcrafted furnishings; traditional craft demonstrations and classes; workshops



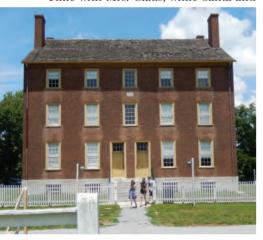


This marvelous destination just keeps winning prestigious awards, the most recent being named a top hidden travel destination by BBC News. All reason enough for the attraction to rest on its laurels. But like the work-oriented religious while on Feb. 24 chef Bruce Ucan of the Mayan Café in Louisville keeps with the old-meets-new theme to bring luscious Mayan delights to the Trustees' Table.

You'll want to reserve ahead for these delectable dinners.

For the rest of October, daily to-dos include riverboat rides, wagon rides and hayrides. Friday and Saturday evenings feature live music, food tastings, behind-the-scenes looks at rarely seen spaces, yard games and night hikes. Creep along through the cemetery on guided, ghostly Spirit Strolls and take a Hallow-een Boo! Cruise on the Kentucky River, followed by toddies and music. On Oct. 27-28, bring the kiddos in costume for spooky Halloween fun.

Round out your Thanksgiving weekend with Saturday's annual Blessing of the Hounds, when sleek horses and their riders, all suited up in black and "pink" jackets, gather round as a priest blesses the foxhounds for the hunting season. The holidays shine with Illuminated Evenings – candlelight tours, extended evening hours (think twinkle, twinkle everywhere) – and Tea Time with Mrs. Claus, while Santa and



The East Family Dwelling building, as with all Shaker housing structures, has separate sides for men and women because the religious sect was celibate.



the elves finish their present prep. Three on-site shops are filled with crafty ideas for everyone on your holiday list. Maybe a signature oval wood box, apiary honey or a copper lantern. Amaze your friends by creating their Christmas morning surprise at a Shaker Maker workshop, perhaps a hand-tied broom, beeswax candles and soap, or delicate reed stars.

Ring in 2018 with a Shaker Village New Year's Eve Package Dec. 29 through Jan. 2. Or tuck in your napkin for a February maple syrup breakfast.

In addition to loads of intriguing ways to keep guests busy, this treasure of ongoing historic preservation is a corporate retreat extraordinaire. A vanguard of hospitality for more than 200 years, the village features 72 guest rooms, suites and private cottages throughout 13 historic buildings. The rural surroundings and historic traditions guarantee a peace-filled atmosphere conducive to a specific matter-at-hand retreat focus.

Participants can bring their families, as opportunities abound to connect with nature for traversing trails, kayaking and exploring the river on a paddle wheeler, or simply inhaling the fresh

Shaker furniture is valued for its clean, simple, functional design. This bed and chairs are on display in the Centre Family Dwelling at Shaker Village of Pleasant Hill, a nearly 3,000-acre community that had its heyday in the 1800s.

country air from a porch rocker. Customized group events include marshmallow roasts and hayrides, bourbon tastings, picnics and private tours. Shaker-style teambuilding can include craft-making competition and seasonal outdoor activities.

Meeting planners – and family vacation planners – can rack up big points here from the food alone. In an average month, 80 of those lemon pies leave the village kitchen. One slice just might have your name on it!

Add a bit of Shaker to your life. Visit shakervillageky.org; follow VILLAGE@ WORK projects at blog.shakervillageky.org; download the new mobile app; call (800) 734-5611; or just hop in the car, head toward Harrodsburg and embrace the adventure.

Katherine Tandy Brown is a correspondent for The Lane Report. She can be reached at editorial@lanereport.com.



PASSING LANE

Commentary on Kentucky

Ky. Lawmakers Explore Telehealth to Improve Care for Veterans

N the heart of the Daniel Boone National Forest, a rural Kentucky community is creating a unique program that could help solve the nationwide problem of veterans having a hard time getting in to see a doctor.

"I understand what we are introducing to you today is probably the first of its kind in the whole country," Rep. Marie Rader, R-McKee, said while testifying Sept. 15 before the Interim Joint Committee on Veterans, Military Affairs and Public Protection. "Maybe no other community has this opportunity."

What Rader introduced is an initiative that will allow veterans to use video communication technology at the Jackson County Public Library to receive medical care from Veterans' Administration doctors, a practice broadly known as clinical video telebealth

"I think it will provide incredible access and allow for the VA to enhance our delivery of that healthcare to our veterans who need it, especially in the rural areas of Kentucky," said Dr. Tuyen T. Tran of the Lexington VA Medical Center. "It's Face-Time taken a notch higher."

The closest VA medical center for the estimated 650 veterans in Jackson County is about 70 miles away, Rader said. There is no hospital of any kind or even a long-term care facility in the county of about 13,000.

Tran described technology that allows doctors to remotely listen to their patients' hearts and lungs. A high-definition camera can be used to examine ailments such as skin lesions. He said the technology is so good that doctors are able to treat the president with it instead of having to travel with him at all times.

"There is not very much that I can't do remotely that I have to do in person," said Tran, who is the medical center's associate chief of staff specializing in virtual care.

He said patients would still have to come to an outpatient satellite clinic like the one set to open on Oct. 1 at the library in Jackson County.

"But it is still a heck of a lot better than driving all the way to Lexington or Louisville for their care," Tran said. "The library seems to be a nice place. They can offer us a room in



Veterans Administration physicians are finding that the use of telehealth means that veterans can receive healthcare in their own communities without having to travel far distances.

the back so we can have some privacy. Patients and veterans don't have any anxiety about walking into a library."

Sen. Jimmy Higdon, R-Lebanon, said he likes the idea of the service being offered in libraries.

"The libraries are working very hard to remain relevant with the way things are changing," Higdon said.

Rep. Rob Rothenburger, R-Shelbyville, also suggested offering clinical video telehealth for veterans at local health departments, pointing out that all counties have a health department.

Tran said the major obstacle for the VA to implement the program statewide was broadband access. And Rader said her community would not be able to take advantage of clinical video telehealth if it was not for the investment made in broadband by the Peoples Rural Telephone Cooperative in McKee.

"If you can do this is a rural county like mine, this can be done anywhere in the state of Kentucky," Rader said.

Small Businesses Encouraged to Apply for Grants to Expand International Sales

ENTUCKY small businesses are being urged to apply for a portion of a \$530,000 State Trade Expansion Program (STEP) grant to help companies begin exporting or boost current international sales.

"Small businesses are the backbone of Kentucky's economy, and we are excited to see the doors of opportunity that these funds will open," said

Gov. Matt Bevin. "This is the largest sum Kentucky has ever received from STEP and I encourage every small business owner to apply for a chance to use this money to continue introducing high-quality Kentucky products and services to markets around the world."

The grant was received through the U.S. Small Business Administration.

Applications to receive STEP funding are now available, and the grant period will last until Sept. 29, 2018. Funds will be distributed on a first-come-first-served basis.

STEP is designed to encourage and boost international trade among Kentucky's small businesses and help give companies the resources, connections and

knowledge necessary to begin exporting. The grant also increases the volume of exports for Kentucky companies already in the international marketplace.

"STEP has been an incredibly useful tool for the Cabinet and the state in our efforts to assist small businesses in finding ways to expand into the international marketplace," said Terry Gill, secretary at the Cabinet for Economic Development. "The program has given Kentucky companies an opportunity to make connections and create additional sales that support jobs and families in our communities across the state."

STEP grants help to lower costs for small businesses to encourage participation in international trade missions, sales trips and subscription services provided by the U.S. Department of Commerce. Funds also assist companies with international market research, export trade show exhibit costs, training workshops, travel expenses, translation services and product compliance testing.

With a 3.9-percent increase in exports this year through June compared with the same period last year, the commonwealth's growth in exports ranks it among the nation's leaders.

To learn more about the STEP program and apply, visit http://bit.ly/STEPfaq.

VA photo

Reduce Screen Time to Avoid Eye Damage



OST people know that exposure to ultraviolet (UV) light can damage the eye and surrounding skin, but what about the high-energy visible (HEV) light being emitted from your smart phone or high-definition TV?

Current research suggests that prolonged exposure to HEV blue-violet light from artificial light sources has damaging effects to the retina that resemble early stage agerelated maculopathy.

HEV light is all around us. Outdoors, we are exposed to HEV light in the sun's rays, and some blue light exposure is essential for good health, boosting alertness, memory and mood. That dose is compounded, however, when our eyes receive HEV light emitted from indoor sources such as fluorescent bulbs and light-emitting diode (LED) screens – LED TVs, iPhones and computer screens.

"The longer a person is exposed to HEV the greater the risk," said Patrick A. Scott, an optometrist with University of Louisville Physicians and assistant professor in the UofL Department of Ophthalmology and Visual Sciences. "Children are at higher risk because the crystalline lens within the eye is completely clear, whereas adults have some degree of yellowing of the lens, which helps to absorb HEV light and prevent damage to the retina."

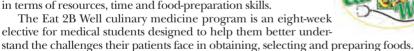
The effects of HEV blue light can be combated by eating a healthy diet rich in anti-oxidants, daily supplementation with Vitamin C and E, and reducing time spent looking at cell phones, laptops, and TV screens.

Individuals who spend a great deal of time looking at electronic devices and screens can protect their eyes from excessive HEV light with special filters available for smartphones, tablets and computer screens that prevent significant amounts of blue light from reaching the eyes without affecting the visibility of the display. Another option, said Scott, is to filter out high-energy blue light with a coating added to eyeglasses or using special filtering non-corrective lenses.

Culinary Medicine Program Offers a New Approach to Healthcare

new program at the University of Louisville School of Medicine is incorporating the expertise of chefs and dietitians to help future doctors understand the issues their patients face in terms of resources, time and food-preparation skills.

provide instruction for the food preparation portion of the class.



Each Eat 2B Well class includes instruction on practical nutrition, disease association and food preparation from a team that includes a registered dietitian/nutritionist, a professional chef and a member of the medical school faculty. Local chefs

Joining the medical students in the classes are students from the culinary track of YouthBuild Louisville, an education, job training and leadership program for low-income young adults ages 18-24. Classes include discussion of issues associated with

food insecurity and the health problems resulting from poor nutrition. Class groups will then prepare meals utilizing cost-conscious ingredients readily available at grocery stores and markets in West Louisville, and prepared with equipment available in low-income homes.

"Many of the chronic health problems that burden the commonwealth, such as obesity, diabetes and cardiovascular disease, can be prevented through good nutrition," said Jon Klein, vice dean of research for the School of Medicine. "The goal of Eat 2B Well is to equip UofL medical students with the real-world practical knowledge of nutrition and healthy cooking so that they can best help their future patients."

Eat 2B Well Celebrity Chefs

- Eneitra Beattie, Brown Forman Corporation, Bourbon Street Café
- Bobby Benjamin, Butchertown
 Grocery
- Kathy Douglas, Fresh Chef Experience
- Tina Lee, Fresh Stop Market, Dare to Care
- Lorita Rowlett, Fresh Stop Market
- Anoosh Shariat, Anoosh Bistro, Noosh Nosh
- Gabe Sowder, Wiltshire Pantry
- Andrea Wells, Farm to Baby Louisville



Discover Kentucky's Fall Foliage with ColorFall Program

HE Kentucky Department of Tourism and the Kentucky Department of Parks have launched the 32nd year of ColorFall, a Kentucky program that tracks the best places to see the bright colors of the autumn season across the commonwealth.

The ColorFall website, kentuckytourism.com/seasons/, highlights peak foliage viewing areas along with the many special events scheduled each fall in communities throughout the state.

Kentuckians and visitors are also encouraged to use the hashtag #kycolorfall to upload their photographs of fall scenery that can be found while they are traveling the scenic roads of the Bluegrass.

"ColorFall is a very useful travelplanning tool," said Kristen Branscum, commissioner of the Kentucky Department of Tourism, "in that it allows you to track the colors by region. You can travel the entire state and have a truly unique experience with the vibrant fall colors as your guide."

The ColorFall website, kentuckytourism.com/seasons/, features a state map that shows where fall colors can be viewed by region and reports on the state of leaf changes. The color changes usually begin as early as September in the higher elevations of the eastern mountains and gradually progress to the west during October.

For more information, visit kentucky-tourism.com.



KENTUCKY PEOPLE

HIGHLAND HEIGHTS: U.S. BANK AND NKU EXTEND CYBERSECURITY PROGRAM



U.S. Bank has announced a three-year partnership with Northern Kentucky University to extend its U.S. Bank Cybersecurity Scholarships and has awarded the scholarships to three students in the NKU College of Informatics. Pictured here at the scholarship awards presentation are (left to right) Kevin Kirby, dean of NKU's College of Informatics; scholarship recipients Chinedu Asinugo, James Lingrosso and Justin Widanski; Marcia Peters, U.S. Bank; Jason Witty, chief information security officer for U.S. Bank; and Lorenzo Formosa, U.S. Bank.

LOUISVILLE: **HEAVEN HILL TEAMS WITH SIMMONS ON CHARITABLE PARTNERSHIP**



Heaven Hill Brands and Simmons College of Kentucky have formed a charitable partnership that will donate student scholarships, support the West Louisville Forum (a monthly meeting that addresses the issues and concerns of the West Louisville community) and fund a new food service program for students. Pictured here at the partnership amnouncement are (left to right) Louisville Mayor Greg Fischer, Simmons College President Kevin Cosby, Heaven Hill Brands President Max Shapira and scholarship recipients Terri Turner and Martious White.

LOUISVILLE: ANDREA WILSON HONORED FOR LEADERSHIP IN BOURBON INDUSTRY



The Bourbon Women Association and the Kentucky Distillers' Association recently honored Andrea Wilson with the fourth annual Lois Mateus Networking Award for her years of leadership in Kentucky's bourbon industry. Wilson, who currently serves as executive vice president and general manager of Michter's Distillery, first joined the KDA board of directors in 2005 and in 2009 became the first woman to serve as chair of the KDA board of directors. Pictured here at the award presentation are (left to right) KDA President Eric Gregory; Wilson; Bourbon Women President Susan Reigler; and Bourbon Women founder Peggy Noe Stevens.

BARDSTOWN: KENTUCKY BOURBON HALL OF FAME ANNOUNCES NEW INDUCTEES, AWARDS







The Kentucky Bourbon Hall of Fame recognized four Kentuckians on Sept. 13 for their contributions to the state's bourbon industry. This year's inductees into the Hall of Fame were Chris Morris, Brown-Forman Corp.; Harry J. Shapira (deceased), Heaven Hill Brands; and Jerry Summers, Beam Suntory. Bill Samuels Jr., former president and CEO of Maker's Mark, became only the third-ever recipient of the Parker Beam Lifetime Achievement Award. Pictured here at the awards presentation are: (above left, left to right) John Hayes, Brown-Forman; Kentucky Distillers' Association President Eric Gregory; and Elizabeth McCall, Brown-Forman. Hayes and McCall accepted the award on behalf of recipient Chris Morris. (Above center, left to right) Eric Gregory with award recipients Bill Samuels and Jerry Summers. (Above right, left to right) Eric Gregory with Judy Shapira and Cynthia Torp. Shapira and Torp accepted the award on behalf of Shapira's late husband, Harry.



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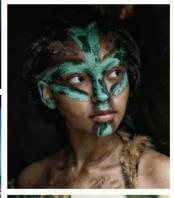




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Our energies go to:

offering more solar options for

customers.

Opportunities are growing for customers who are interested in solar energy – from helping businesses install solar at their facilities to offering a subscription-based Solar Share program. Recognized as a top utility leader in the U.S. for economic development, LG&E and KU are committed to providing customers with a variety of energy options. Our energies go to serving you.



lge-ku.com/solar