

PURDUE EXTENSION

**ALL in a
DAY'S
WORK**

2018 Annual Report



Purdue Extension offices may not be open 24/7. But the work we do to transform lives and livelihoods across Indiana resonates in every hour of the day.



You see our work when an Indiana farmer smiles at supper, after another productive day of putting our one-on-one tips about innovation, diversity and sustainability into action.

It's in the satisfaction of a third-shift worker, who has achieved her dream of that big promotion with what she learned from our occupational training programs.

Our work is in the racing heart of a kid on a county-fair morning, demonstrating the skills she learned in our Indiana 4-H program and hearing the crowd roar.

And it's in the proud eyes of a parent on the afternoon drive home who has never heard his child this excited about school — the result of our positive strategies to strengthen families.

In the 2018 Annual Report, you'll see just how much Purdue Extension helps the people of Indiana throughout the day, every day. You'll also get a glimpse of what's coming in the days ahead.

Quality communities. Strong families. Thriving agriculture. Talented leaders.

When it comes to Purdue Extension, these are all in a day's work.

I hope you enjoy our 2018 annual report.

Jason Henderson

Director, Purdue Extension

Associate Dean, Purdue College of Agriculture

2018

PURDUE EXTENSION

Purdue Extension helps Indiana build vibrant communities, strong families and profitable businesses on its Main Streets and at its farm gates. Our team — including campus Specialists and Extension Educators in all 92 counties — connects Indiana communities to world-class Purdue University research and a network of experts on agriculture, community, families, health and youth development. As part of the Cooperative Extension service, we're funded by a partnership between federal, state and county government and are part of a network of colleges, universities and the U.S. Department of Agriculture.

- 9:30 am **Bringing job training to Indiana producers**
- 10:30 am **Learning to love reading**
- 11:00 am **UAVs for field diagnosis**
- 11:30 am **Mental health matters**



Bringing job training to Indiana producers

Many Indiana farmers have years of experience and land managed by multiple generations. But all producers need to stay up-to-date on new technologies and skills or refresh their expertise. Summer field days at the eight Purdue Agricultural Centers across the state offer workshops for producers and crop and livestock advisers in farm management, crop production and land use.

At 9:30 one morning in August, more than 200 participants at the Pinney Purdue Field Day in LaPorte County broke out into five repeated workshops on topics ranging from weed and insect control to cash rent options to operating equipment with awareness of blind spots.

Some of these sessions fulfill requirements for pesticide training: the **Private Applicator Recertification Program (PARP)**. Permits are current for five years, and during that time, applicators must attend three recertification programs (which include online modules) or take a certification exam.

Extension Educators and staff help publicize field days, present many of the training topics and sign off on PARP credits.

After lunch, participants can visit sponsor exhibits and the Purdue Digital Ag Trailer to learn more about unmanned aerial vehicle use in agriculture. Field days offer the latest farming updates and ongoing certification while building community among neighbors and fellow producers.

Extension Specialist Bill Johnson, professor of botany and plant pathology, updates producers on the "war on weeds" at the 2018 Pinney Purdue Field Day.



6,390
private applicators
attended PARP
training in 2018.



Learning to love reading

It's 10:30 a.m. when the door opens to Charla Cummings' kindergarten classroom at Brush Creek Elementary School in Jennings County. The children's eyes light up, smiles crossing their faces.

It's reading day — one of their favorites, as visitors to the classroom bring books and stories to share.

Reading Made Fun makes these books and read-aloud days possible. From January to May, Atina Rozhon at Purdue Extension – Jennings County organizes volunteers who come to the classroom each month. Readers break the class up into small groups. The children cuddle up on the floor with blankets while the guest reads aloud, engaging the children with questions, dialogue and activities.

A copy of the book to keep goes home with each child.

Brush Creek is a Title 1 school, with a high number of students considered low-income. "They just haven't had the opportunities that other children have to have books read to them and have books in their hands," Cummings says.

Teacher Charla Cummings looks on as a volunteer from the Reading Made Fun program reads to her kindergarten students at Brush Creek Elementary School in Jennings County.



The program, funded by grants and donations, quickly spread from Brush Creek Elementary School to all seven elementary schools in Jennings County.

So far, over 12,000 books have been given to 2,450 young readers. For children who have never had the chance to take a book home — one they can truly call their own — the opportunity can be life-changing. The books can be used for school work and can be read repeatedly at home.

But most importantly, *Reading Made Fun* helps children develop a love of reading — which will stay with them the rest of their lives.

12,000+
books were given to
2,450 Jennings
County children.

UAVs for field diagnosis

Purdue alumnus and grower Mike Beard acknowledges that he is less technology-savvy than his children — also Purdue alumni — and especially his grandkids, who are Purdue students. But through Extension, Beard has become aware of the benefits of using **unmanned aerial vehicles (UAVs)** in his corn and soybean operation in Clinton County.

During field days at the Purdue Ag Centers this summer, Extension's Quad Squad, or drone team, demonstrated the ease of use, precision of data and long-term positive impacts of UAVs for producers and ranchers of all ages. Beard, who serves as president of the Indiana Corn Marketing Council, tried his hand at a mid-morning demonstration at Purdue Extension's corn showcase. He says Extension has responded well to growers' curiosity statewide: "The people I've heard were knowledgeable and did a nice job communicating the values of using a drone."

Beard's grandson used drone-produced footage in educational videos for visitors to his Meadow Lane Farms. Beard also uses UAVs to check conditions on his 1,900 acres of crops following weather events. "You can save an awful lot of steps out in the field," he says. "If the crop image shows it to be healthy, there's little reason to troop that area. If you have a problem, you get a GPS location and can go directly to it."

Extension Educators who have become certified to fly UAVs are collecting preliminary data to create case studies that can help develop best practices for producers using UAVs for crop production, animal agriculture, marketing and farm resource management.

Extension Specialist Bob Nielsen, professor of agronomy, guides Mike Beard, president of the Indiana Corn Marketing Council, in using a UAV to identify problems in a field.



Learn more at extension.purdue.edu/uav.

11:00 AM





Mental health matters

It's 11:30 a.m. and two coworkers sit down to lunch. One confesses he is going through a divorce and is struggling to cope. After strategic questions and lots of listening, his coworker suspects he may be suffering from depression. She reassures him that it's common to have these feelings during major life changes and encourages him to spend time with supportive friends and seek professional help.

She isn't a mental health professional, but the support she offered her coworker was based on what she learned in **Mental Health First Aid**. CPR and first aid courses are commonplace, but guidance on how to help a loved one, coworker or friend experiencing anxiety, depression or substance abuse issues is in short supply.

The eight-hour Mental Health First Aid course, offered by Purdue Extension Educators throughout Indiana, fills that void. Participants learn to identify signs of crisis, what they should and shouldn't say, and where to point someone for help.

The course is helpful for anyone — law enforcement, healthcare providers and professionals, school personnel, faith-based leaders, farmers, veterinarians and concerned family members and friends.

Linda Hiatt, for example, lives on a farm near Muncie with her husband. Her father was a farmer. She knows the pressures. "With everything like it is now, prices, weather, lending institutions — many farmers suffer from depression," she says, including her own relatives.

Hiatt wants to be prepared moving forward. "I need to know what the signs are, and what I can do to be helpful."

By attending Mental Health First Aid, Hiatt learned what questions to ask to start a dialogue. Most important, she says: "Just be a good listener. Don't tell someone you know how they feel. Sympathize, tell them help is available and there is hope."



197 Hoosiers participated in Mental Health First Aid courses in 2018.





Setting an abundant table

- 12:00 pm **Setting an abundant table**
- 1:00 pm **Ready for the INterview**
- 1:30 pm **Nourishing relationships**

In 2017, 13.5 percent of people in Indiana lived at or below the poverty line. Many families earning above that level still struggle with food insecurity. Across Indiana, Purdue Extension Nutrition Education Program (SNAP-Ed) staff and programs work to address this need, supplying produce to food pantries, reducing food waste and providing an oasis in Indiana’s food deserts.

- To help increase access to healthy food at food pantries, farmer’s markets in Hendricks, Huntington, LaGrange, Marshall and Vanderburgh counties collect change from customer purchases. The change was used to buy 1,908 pounds of produce, donated to six food pantries in those five counties.
- An estimated 22 million food items are discarded annually from Indiana schools. Food waste rescue programs, such as **K-12 Food Rescue**, offer solutions to reduce the number of unopened food items discarded, instead donating them to local food pantries or caring agencies that serve limited-resource clientele. Since 2017, more than 41,000 unused/unopened food items have been donated from more than 31 school cafeterias. Rescued food items included milk, juice, applesauce, cheese and unpeeled fruit.
- Community gardens are a popular way to provide fresh food in places where it is difficult to find or unaffordable. Master Gardeners work with Nutrition

Education Program staff who provide Supplemental Nutrition Assistance Program Education to address food insecurity, increasing access to fresh fruits and vegetables through the community gardening program **Growing Together**. Working with Extension Community Wellness Coordinators, they facilitate production and distribution of locally grown foods to food pantries and other agencies. In 2018, 12 counties participated in Growing Together and provided over 9,980 pounds of produce to 38 food pantries with potential reach to 13,133 limited-resource individuals. To make this possible, 268 volunteers from 77 partner organizations provided over 4,200 volunteer service hours. \$63,000 of in-kind donations of labor and resources supported these projects. In addition to Growing Together gardens, many other community gardens thrived throughout Indiana. At Branchville Correctional Facility in Perry County, for example, inmates and staff produced and donated approximately 10,000 pounds of produce to the local community.

- Protein-rich eggs are a frequently requested item at food banks, but are usually in short supply. Community Wellness Coordinators in Boone, Putnam and Hendricks counties have partnered with **HATCH for Hunger** and local grocers to provide eggs to local food pantries. From these efforts, an average of 1,650 dozens of eggs are being donated to 22 local food pantries each month.

Students participating in the K-12 Food Rescue program gather unused and unopened food items to donate to local food pantries and caring agencies.



Ready for the INterview

On Fridays after lunch, students in the Intro to Agriculture class at South Knox High School gained lessons well beyond their textbook. As part of the **INWork — INnovate, INvest, INspire — Skills for Tomorrow's Workforce** program from Purdue Extension, they learned practical behaviors and skills necessary for success in the job application process.

These skills will help them fill the one million new or replacement job openings the Indiana Department of Workforce Development anticipates by 2025. South Knox administrators partnered with Purdue Extension – Knox County to bring the program to their school.

Visiting instructors gave students pointers on career goal-setting, résumé writing, teamwork, time management, use of social media and leadership skills. They also walked students through the job interview process. Students learned how to dress (including a tutorial on tying a necktie), ask productive questions and communicate effectively during an interview.

"The skills that we learned helped tremendously," said Mykayla Couchenour, a junior at South Knox. "Some kids would never have that training, including what to wear."

Topics included etiquette, how to put mobile phones away and pay attention, and interacting with new acquaintances. Couchenour says that while some of the messages seem simple, "These are the things that stick with you." She came away with multiple skills that she can apply.

92%

of youth in the INWork program recognized the importance of being on time for work and trusted by their employer, doing their job well, and respecting colleagues.

South Knox students practice how to dress for interviews, including how to tie a tie, as part of INWork workforce training.

Nourishing relationships

After summer lunches, kids at the Boys & Girls Club of Morgan County in Mooresville learn more about where their food comes from — and how to grow some of their own.

Members of the **Morgan County Master Gardeners** volunteer once a week at the Boys & Girls Club, teaching kids about gardening and growing vegetables, fruits, herbs and flowers.

“The focus is on eating healthy and sustainable foods,” says Chris Tann, executive director of the Boys & Girls Club. Master Gardener Beckie McGuire also stresses the opportunity to engage children to enjoy the outdoors.

The children who participate are exposed to different types of gardening. They learn about raised beds, container gardens and aquaponics systems, where water used for aquatic animals is then recycled as nutrients in hydroponics (cultivating plants in water without soil), which in turn purifies the water for the system.

190 Master Gardener hours volunteered to the program with the Boys & Girls Club of Mooresville.



Volunteers from the Morgan County Master Gardeners share lessons on gardening and preparing food with children from the Boys & Girls Club in Mooresville.

Members of the Boys & Girls Club have a hand in growing foods start to finish and taste foods they may never have tried before — foods like peppers, squash and radishes. They learn about nutrition and preparing food such as salsa, pickles and lavender cookies.

The club recently moved to a new location with improved outdoor space. With three times the garden area, Tann says it will be more like a small version of a community container garden.

“We’re coming up with some great ideas to use the space,” he says.

But food isn’t the only thing being grown and nourished, Tann says. He is most proud of the relationships that are developed between the children and Master Gardeners.

“The neat thing for me is the mentoring that happens,” Tann says. “It’s a perfect example of volunteers working with kids to share some content and have some fun.”





Electric go-karts get the green light

2:00 pm	Electric go-karts get the green light
2:30 pm	Nature is the best teacher
3:00 pm	Hands-on STEM
3:45 pm	Teenagers lead the class

It was crunch time for the **Wayne County 4-H** motorsports team. They'd gotten a late start building their electric go-kart for the May 2018 evGrand Prix.

So, the 4-H team took a few shortcuts: "We kind of skipped some of the safety steps," admits Jack Albright, a senior at Seton Catholic High School in Richmond. During the first test, team members held their breaths for the flashing green light that would indicate their vehicle was running correctly. "We saw the green light, and that was the turning point where we thought we might get it done," Albright says.

Then sparks flew and the motor blew off.

The 4-H team learned, regrouped and rebuilt in time to take second place in the competition, held at the Indianapolis Motor Speedway during the Indianapolis 500 festivities.

evKarting is a K-12 STEM program (science, technology, engineering, math) with a motorsports platform. It grew out of the MSTEM³ collegiate electric karting program founded at Purdue to engage university students in STEM disciplines.

4-H Educators Jonathan Ferris and Alicia Criswell and adult volunteer Nathan Criswell coached the team. Albright, who had focused on technical projects in 4-H, was one of eight 4-H members who split into three groups to meet the requirements of building, marketing and presenting their project. He credits their unexpected success to collaboration across these groups.

"More than the physical aspects of how it mechanically worked, the point was to get everybody to work as one function," he says. "This was my most memorable experience out of the whole 4-H program."

2nd
Wayne County 4-H's overall event placement in the 2018 evGrand Prix.

The Wayne County 4-H motorsports team participated in the 2018 evGrand Prix at the Indianapolis Motor Speedway.

Nature is the best teacher

Third-grade teacher Jamie Hooten says **The Nature of Teaching**, an educational program designed by Purdue Extension, has energized the school day at Lincoln Elementary School in Bedford. Many afternoons, it brought nature into her classroom, gave direction to her school's garden club and sparked students' excitement for science. It also has been a catalyst for community partnerships and competitive grant funding.

The Nature of Teaching has three programs — wildlife, health and wellness, and food waste. Each provides free lesson plans that are classroom-ready for grades K-5 and that align with Common Core (similar to Indiana academic standards) and Next Generation Science Standards. Extension offers professional development workshops where teachers learn firsthand how to use them.

Students who used to groan when instructed to open their science books now get excited when Hooten announces a Nature of Teaching activity. "All of the assignments for the kids are hands-on," she says. So, while her class is outdoors on a nature hike and scavenger hunt, her students are having too much fun to notice how they're sharpening their powers of observation and learning about science.

Lessons in gardening inspired the 21-year teaching veteran to develop local partnerships and secure grants that helped establish the school courtyard garden and



Third-grade students at Lincoln Elementary in Bedford maintain school garden beds, an orchard and a butterfly habitat while participating in The Nature of Teaching program.

an active student garden club, the Green Thumbs. Students then helped set up and maintain 48 additional raised boxes, an orchard and a monarch butterfly habitat.

"Our school was interested in getting the kids out into nature," Hooten says. The result has been stronger academics and a positive school atmosphere. "The Nature of Teaching sparked all this," she adds.

82

teachers from nine counties in Indiana and 11 counties in Maine attended The Nature of Teaching workshops.





Hands-on STEM

Science. Technology. Engineering. Math. There's broad agreement about the critical importance of STEM education. But words and acronyms are static; engaging kids is another matter. Enter the **after-school STEM Club**.

Offered for the last two years by Purdue Extension – Spencer County, the program gives third- through sixth-grade students hands-on opportunities to see STEM in action. For six weeks, they meet once a week to experiment with virtual reality; program robots, 3D pens and 3D printers; and construct model buildings. The operative word is fun.

At the end of the school day, Jennifer Mayo, Indiana 4-H Youth Development Extension Educator, and a volunteer bring a treasure of science gadgets and tools geared to the participants. They set them up in stations at the David Turnham Education Center in Dale. In groups of four, all 30 participants spend introductory time at each station and can then choose which they like the best to spend more time there.

Numbers gathered from surveying the kids indicate that the program is a big success: 92% said they were more excited about science and 100% said they learned something new.

Those are the numbers, but they can't tell the whole story. For 12-year-old Jace Duttlinger, his favorite part of the program was the robots. "We programmed and checked if our program worked or not," he says with excitement. "We programmed them for obstacle courses and to do funny stuff like dance or play the xylophone."



Students in Spencer County enjoy a virtual reality experience at the after-school STEM Club.

92%
**of students in the
STEM Club said they
were more excited
about science after
participating.**

Teenagers lead the class



A lecture is probably not the most engaging way to teach healthy habits. How about a physical demonstration of how much sugar is in a variety of popular drinks like soda or energy drink?

Elementary students across Indiana are learning from fun lessons like this one — and the instructors are teenagers.

They're part of the burgeoning **Teens as Teachers** program, open to freshmen through seniors. Participants learn to teach a subject and receive materials to conduct their own classes. Subjects have included biosecurity, biotechnology, computer coding, healthy living and leadership.

Teens are assigned an adult mentor, but are responsible for leading their classes. They teach in teams, so they learn to collaborate. They also help teach other teens to run their own courses. To date, more than 600 teenagers have participated in the program.

Elizabeth Tedder, now a senior in agricultural and biological engineering at Purdue, was in the first cohort of teen teachers. She led a 10-week program in schools near her hometown of Hope, in Bartholomew County, that included modeling DNA using pipe cleaner models. "We also covered making things with soy — ice cream, ink, plastic and soap," she says.

Elizabeth Tedder of Bartholomew County was one of the first participants in the Teens as Teachers program — and modeled DNA for her students using pipe cleaners.

The experience guided her career choice. "It made me realize I like kids," she says. "But I don't think I could ever be a teacher."

During her teacher training, Bernie Tao, professor of agricultural and biological engineering and food science, made a big impression as a guest speaker. "He talked about his research and I realized this is something I could see myself doing."

And how did students like her class? "Oh my gosh," she says. "They loved it so much they even wrote letters. 'We love you and 4-H!'"



600+

More than 600 teenagers have participated in Teens as Teachers. In 2019, grant funding will expand healthy habits training with 120 new teachers.



3:45 PM



4:00 PM

Stephanie Lober of Covington participated in the Digital Ready Business course offered by the Purdue Center for Regional Development to help her develop the online component of her real estate business.

Eliminating Indiana's digital divide

The digital divide — the gap in online expertise and access between some communities and others — represents a major obstacle to community economic development in Indiana. Roberto Gallardo of the Purdue Center for Regional Development (PCRD) and his team are working to help close that gap.

At 4 p.m., Gallardo teaches a segment of the **Digital Ready Business** course in Fountain County. This program, funded in part by USDA Rural Development, provides small rural businesses practical ways to make the most of their online presence, from planning a website to showing up in web searches to social media marketing. Creating an effective online presence can help rural businesses compete in the increasingly digital economy.

Stephanie Lober, who is opening a real estate business, is surprised during class: She thought social media had made email marketing obsolete.

“Roberto put a different spin on it,” she says. “He showed me the stats. Forty-eight percent of customers say they benefit from email marketing.”

In addition to providing best online business practices, Gallardo and Purdue Extension are working to address a major issue: how lack of online access, particularly to broadband, presents obstacles to Indiana businesses and households. Gallardo studies and quantifies the access problem to help community leaders address the issue. The numbers are eye-opening. For example, Gallardo found that in the Southern Indiana Development Commission's five-county service area, 9,000 households with children have no or only one option for internet service. Lack of broadband creates a “homework gap” for kids in school.

Armed with those numbers, Extension and leaders throughout Indiana are working with utilities, internet service providers and government entities to develop ways to bridge the gap.

17 PCRD/
Extension
staff have
been trained in the
Digital Ready Business
curriculum.

- 4:00 pm **Eliminating Indiana's digital divide**
- 4:30 pm **Making dollars for homeless services go farther**
- 5:00 pm **Caring comes first**

Making dollars for homeless services go farther

It's 4:30 p.m. and Robert Roe, the lone maintenance staff member for LTHC Homeless Services, puts away his tools after fixing some flooring at an LTHC housing unit. Next, he takes out another tool: his cell phone. He taps an app and enters details about the repair.

It's a small act, but cumulatively, Roe's maintenance records at LTHC's five residential buildings provide a powerful management tool. Before implementing the app, "We had no information," says Michael Cruz, a volunteer and chairman of LTHC's facilities committee. "It was crisis of the day. We needed to get a better handle on how our resources were being allocated."

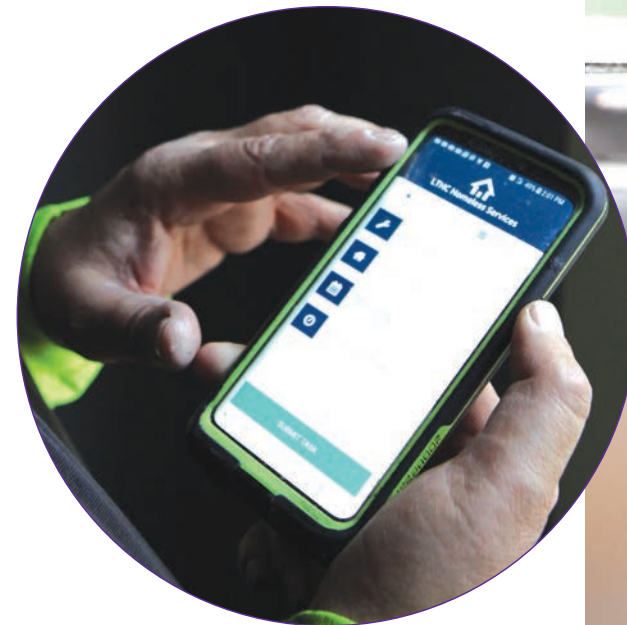
Thanks to Purdue's **Technical Assistance Program (TAP)** and **Manufacturing Extension Partnership (MEP)**, that's all changed.

TAP connected Cruz to Tyler Wright, web designer and developer for the Purdue Center for Regional Development. "He put together an app I consider very professional, very simple and excellent," says Cruz.

He and staff now monitor maintenance data online. They've been using it daily since August 2018, and Cruz says it's already provided useful data. For

example, though family homes represent the smallest proportion of their housing stock, data showed that a disproportionate 55 percent of maintenance was on those homes.

Insights like that will grow even more valuable when LTHC adds 40 more housing units next year. "This app will help us to be smart about where we spend our money," Cruz said, adding, "We couldn't be happier."



19,000

TAP has assisted approximately 19,000 organizations and trained more than 50,000 employees since the program began.

Robert Roe uses an app developed through Purdue's Technical Assistance Program to help track maintenance issues at LTHC Homeless Services units.

Caring comes first

Purdue Extension educators statewide are preparing children and youth to be ambassadors for animal agriculture. During the 2018 4-H program year, Extension reached 19,540 members through the 4-H **Youth for the Quality Care of Animals (YQCA)** program.

YQCA focuses on producer food safety, animal well-being and character development in teaching those aged 8 to 21 about quality assurance for different livestock species. Starting in 2018, Indiana youth had to be YQCA-certified to exhibit animals at the Indiana State Fair or a county fair.

Extension professionals nationwide developed the annual program for 4-H and other groups in collaboration with the livestock industries. A 2017 grant from the Indiana State Department of Agriculture enabled Extension to pilot the learning modules in Indiana and provide early input.

Now youth can complete the one-hour program online or in training sessions conducted by Extension educators in every Indiana county. More than two-thirds of participants so far chose in-person instruction, which allowed Extension to creatively build other activities around it.

19,540 Indiana
4-H members were trained in the
YQCA program's first year.



In Perry County, for example, YQCA was incorporated into an animal science day camp over spring break. But the camp wasn't just for livestock exhibitors, says Indiana 4-H Youth Development Educator and YQCA instructor Cathy Boerste, who taught the course with Agriculture and Natural Resources Educator Sara Dzimianski. Extension educators hoped to spark interest in 4-H among the less experienced third-through sixth-graders who enjoyed sheep shearing, goat milking, walking a feeder calf, or bottle-feeding a special care lamb.

"We did some really cool hands-on activities to supplement the YQCA PowerPoint," Boerste says. "Doing the activities makes the program more interesting for the kids."



Perry County students participate in team-building exercises and sheep shearing as part of their 4-H Youth for the Quality Care of Animals training.





6:00 PM

Making family communication a habit

6:00 pm	Making family communication a habit
6:30 pm	Converting challenges to healthy community changes
7:00 pm	From desert to garden
2:00 am	Ready for the next emergency

Michelle and Saun Schultz want to be the best parents they can be. So for seven weeks in spring 2018, they took their 11-year-old daughter, Hannah, out of her comfort zone to attend the inaugural **Strengthening Families Program: For Parents and Youth 10–14** in Tippecanoe County.

One evening each week at 6 p.m., they joined a group of other families with youths in the same age range. They shared dinner and separated into groups for an hour of skills development and parenting tools. Parents and children would then come back together, do a small project and reflect on the lesson.

The goal of the program is to improve communication, which in turn helps delay the onset of adolescent substance abuse, lowers levels of aggression in youth, increases resistance to peer pressure, reduces behavioral issues in school and improves parenting skills and the relationships between parents and children.

Michelle said their family was quick to institute the idea of a family meeting, a time when they can each check in, sharing thoughts, feelings and any concerns that arise with Hannah. "The number one thing was just time together, to get ideas on how she feels and how we feel," Michelle says.

Hannah was initially a bit reticent, fearing she was somehow in trouble. But as the class proceeded, she became more comfortable, opening up.

Now all topics are open at family meetings; respect and rules are shared by all. Michelle feels empowered by the experience. "We're kind of like a 'knowledge is power' family," she says. "I highly recommend the class."

236%
increase in the number of youth in the program participating in family meetings at the program's conclusion.

Michelle, Saun and Hannah Schultz learned the value of family meeting times in the Strengthening Families Program. The Unfinished Block P is a special site for the family, since Michelle's aunt and uncle Rita and Rick Hadley are the artists who created it.

Converting challenges to healthy community changes

According to the Centers for Disease Control, obesity rates in the U.S. have tripled in the past 30 years, and research shows that more than 20% of annual U.S. medical spending is for obesity-related illness. In 2016, the CDC recruited local partners in Indiana through Purdue Extension to address these challenges.

Tim Gavin, professor and head of health and kinesiology at Purdue, received a \$1.15 million grant and worked through Purdue Extension in Jackson and Lawrence Counties. The Purdue team helped build community health coalitions so that local participants could identify, implement and sustain efforts to address health issues in their communities.

These county coalitions chose interventions that worked to increase knowledge and availability of healthy foods, from offering healthy concession snacks to establishing community gardens. In 2018, fitness got a boost in both communities. Live Well Lawrence County – Mitchell Chapter created the Bluejacket Trail, connecting 2.6 miles of sidewalks and trails, installed new benches and bike racks, and established Friendship Park — a popular place to meet friends in the evening.

“Purdue Extension walked us through the process and helped us out tremendously with getting all the exercise

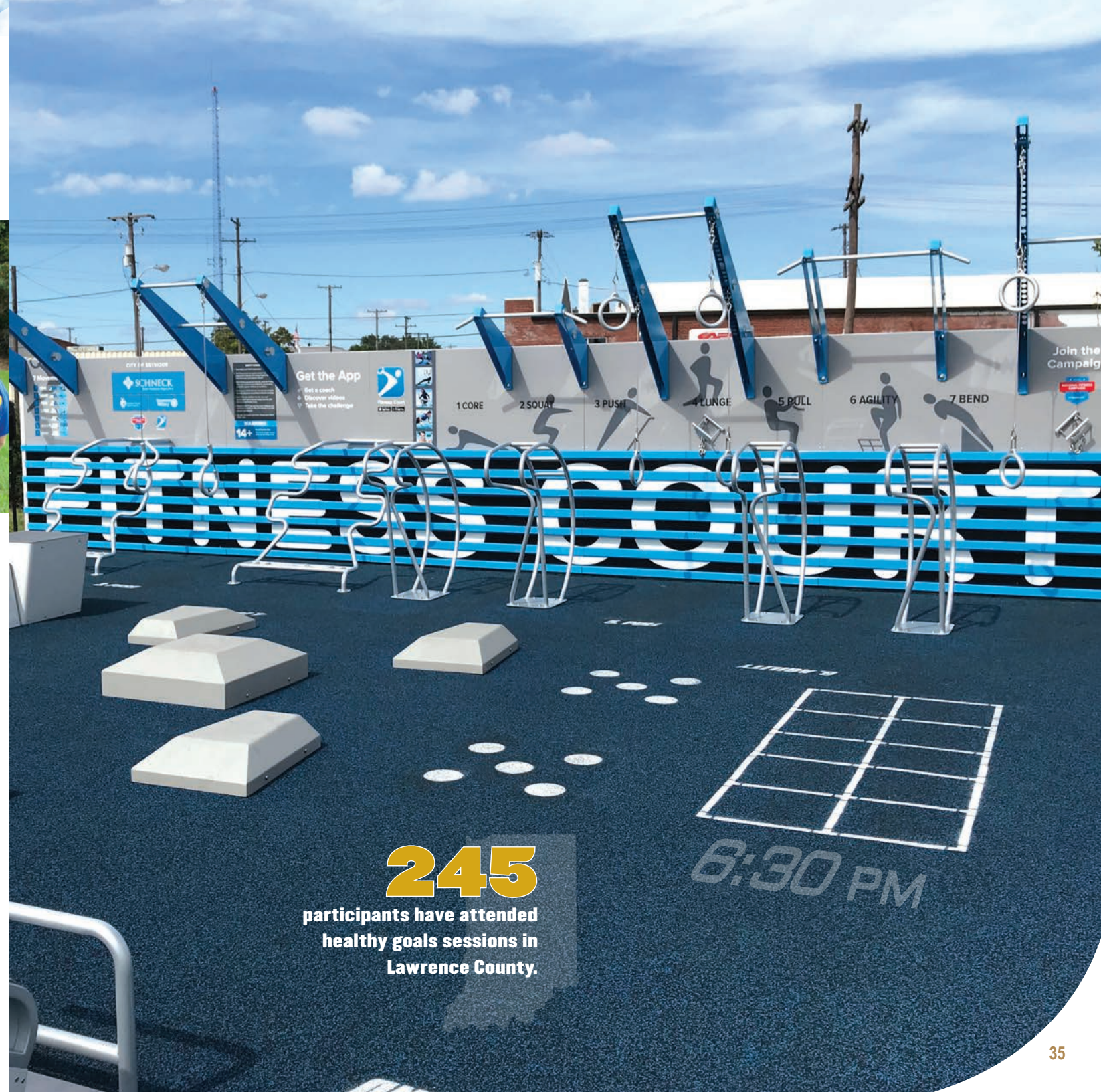


The fitness course in Seymour, Jackson County (right), was built with funds from a variety of sources, including the CDC grant. The Bluejacket Trail (above) in Lawrence County connects 2.6 miles of sidewalks and trails.

equipment and signage for our Bluejacket Trail,” says John D. England, mayor of Mitchell in Lawrence County.

In Jackson County, paint and signage marked new bike lanes and trails, and a fitness court opened in Seymour. The Boys & Girls Club established an indoor playground for kids aged 6 months to 5 years old in the morning. The space can also be used by older youths for a ninja warrior course when it’s not in use for younger children.

“If it weren’t for the coalition, Healthy Jackson County, and the CDC grant through Purdue Extension, I’m not sure we would have made these changes as quickly,” says Ryon Wheeler, executive director of the Seymour Boys & Girls Club in Jackson County.



245
participants have attended healthy goals sessions in Lawrence County.

From desert to garden

Spring and summer mornings usually find Danielle Guerin watering a formerly overgrown plot at 4033 North Temple Avenue on Indianapolis' near northeast side. In the early evenings, she weeds and tends a variety of robust vegetable plants, as well as plans their harvest and distribution. In between, she works at her full-time job.

Over this winter, Guerin will use the information she gained at **Purdue Extension's Urban Agriculture Certificate** course to plan next year's crop. New knowledge in hand, she is confident the garden will be even more productive and can engage the community, especially its youth.

She started the community/market garden, known as Temple Gardens, in spring 2018 in an area the city has identified as a food desert, where residents lack access to fresh fruit, vegetables and other whole foods. Temple Gardens' mission is to improve the availability of healthful food by donating or selling vegetables at low cost.

Purdue Extension designed the yearlong curriculum to prepare city-based agriculture leaders like Guerin for success in urban organic crop production. In its third year in Marion County and its first in Allen County, the program attracted for-profit and nonprofit market farmers and gardeners, community garden organizers, school garden leaders and urban homesteaders.

The course provides a roadmap for each participant to clarify their project's mission and to build community partnerships for stronger impact. The students learn to think like an enterprise to achieve economic sustainability.

"My project grew as I went to the class," Guerin says. "I'm excited to have a plan for April to November and fully follow it through next year."

Danielle Guerin plans her 2019 garden on the near northeast side of Indianapolis with knowledge gained from Purdue Extension's Urban Agriculture Certificate course.

69

participants in Marion County have completed an Urban Agriculture Certificate.



Ready for the next emergency

Being called out at 2 a.m. to save lives is normal for firefighters in Kosciusko County. But they needed a nudge to take care of themselves.

They enrolled in **Be Heart Smart**, a program offered by Jaclyn Franks, the county's Health and Human Sciences Extension Educator. Heart disease is the leading cause of death among men and women in Indiana. Be Heart Smart aims to help adults ages 30 to 55 learn how they can make positive lifestyle changes that can reduce their risk. In Warsaw, 25 firefighters completed the program.

Firefighters work in frantic, uneven shifts of 24 hours on and 48 hours off. "You go from zero to 110 in split seconds — all that stress combined," says Rob Barker, firefighter and battalion chief. Jumping into action quickly requires firefighters to be in good mental and physical condition. The skills they learned in Be Heart Smart helped the firefighters make the connection between preserving their own personal health and their ability to continue assisting others in their community.

Barker found the education on heart-healthy nutrition, physical activity and stress management eye-opening. In a job where much day-to-day activity isn't structured, firefighters can exert some control over these three factors.

Barker learned the effects of stress on heart health and overall well-being and techniques to reduce and manage that stress. "That was one of my big take-aways: balancing all that stress," he says.

He has also taken steps to lower his cholesterol and his salt intake and to closely monitor his risk factors. "I can control it," he says, "or I could be one of those guys on the other end of the cot."

92%

of Be Heart Smart participants said they would monitor controllable risk factors such as blood pressure and cholesterol after the program.



Rob Barker, battalion chief of the Warsaw-Wayne Township Fire Territory, prepares a healthy meal at the station. He learned some ways to reduce his risk of heart disease in the Be Heart Smart program.



Looking toward the future

Purdue Extension is always looking ahead to anticipate the ways it can help Indiana work even better. In 2019 and beyond, you'll see our efforts in:

- A new **food-safety training center** in Knox County at the Southwest Purdue Agricultural Center in Vincennes.
- Additional promotion of **Indiana 4-H in Spanish-speaking communities**. Xiomara Díaz Vargas, Indiana 4-H Youth Development Extension Educator in Marion County, recently shared many ways children can grow through 4-H programs with Telemundo Indy.
- **International outreach in agriculture and natural resources training**. Purdue Extension staff are sharing their expertise while learning from colleagues in partner countries around the globe.
- Strengthening our successful Community Development Extension program — **Enhancing the Value of Public Spaces** — with a new "Creating Healthy Communities" curriculum. This helps leaders and decision-makers see how public spaces promote community-wide health and wellness.
- **Workforce development** through the reintroduction of short courses in the agricultural and green sectors. The first two courses in February 2019 cover controlled environment agriculture and landscape management.
- **Combating the opioid crisis** with a free webinar series sharing information and best practices on preventing opioid misuse and abuse, while creating health literacy and leadership on this issue.



▶ DATA SUMMARY



Learning Event Sessions

11,455

Structured educational programs offered to the public in person or via technology



Direct Educational Contacts

316,281

Participants in Extension learning events



Social Media Statistics

Engagements: 9,369
(likes, comments, shares)

New followers / likes: 12,649



Website Statistics

New and returning users: 448,461
Page views: 2,613,547

Learning event and direct contact statistics reflect county Extension Educators only. Statistics are current as of 1/11/19. Extension website metrics provided by Google Analytics and Extension social media metrics provided by Hootsuite.

4-H By the Numbers

Indiana 4-H Youth Development empowers young people to grow into the next generation of leaders and meet the diverse issues our country faces through education and activity in civic education; healthy living; and science, engineering, technology and math.

In 2018:

59,000+ Indiana 4-H members engaged in 4-H club experiences.

>12,000 served as active 4-H volunteers.

The Indiana 4-H Foundation — which seeks to create and enhance growth opportunities for Indiana 4-H youth and their leaders — distributed:

244 scholarships at a value of **\$143,351**. Learn more about the



Indiana 4-H Foundation at www.in4h.org/.

2018

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