Like all FIRST teams, we at FIRST Team 461, Westside Boiler Invasion (WBI), want to make a difference and inspire others to love STEM (Science, Technology, Engineering, and Math) as much as we do. This, by definition, cannot be done alone, so we took the initiative to bring people together. We teach the mindset that cooperation can accomplish much more than people working on their own. In the FIRST spirit, we called this Working Beyond Individuals, which coincidentally shortens to WBI. Our connections to individuals in our community, other FIRST teams, and organizations around the country all illustrate this simple idea.

This idea starts in our immediate community, where we have created a platform on which individuals with shared interests can unite to spread the love of STEM. We've done this for a long time and have every intention of continuing this impact in the future.
Every year for the past 16 years, we have invited children from our school and community to our shop for a series of technology-based summer camps. For the most part, we focus on the design process by having kids build their own FLL and FTC robots for friendly competitions. This last year, we added an extra week of camps in order to expand into the realm of programming. This was a hit, and we hope to continue growing our program based on the students' interests. Through these camps, we encourage kids to stick with STEM and gain standing within our community.
The reputation that we gained from our camps has allowed us to reach out further into our community. Throughout the year, we bring our robot to various events around our area to introduce FIRST's values. We've attended fun celebrations at local churches, after-school programs at community centers, and Purdue Day at the Indiana State Fair. One of our stronger partnerships is with our local library, where we present information about robotics and show off our robots from previous years. Because we do this so often, we've created relationships with the families who attend and have seen their interest in STEM grow. One of our other favorite events benefits our students as much as the participants. For this event, we visit a local retirement home to present about our robot and FIRST to a group mostly composed of former STEM professors. They are always thrilled to see how technology is changing the world, and our students benefit from the advice that the retirees so willingly give.
Our team acts as the basic platform for bringing a variety of people together not only in demonstrations but also as active members of FIRST Team 461. We do our best to incorporate students with many different passions, which brings us new ideas and fresh perspectives. Due to our positive influence, our team members excel academically and pursue further education in STEM. This is a long-standing tradition whose effects can be seen in our alumni's accomplishments. They are still active in FIRST, so we see them at competitions when they volunteer, mentor new teams, or support us from the stands. These alumni are a final step in inspiring others to embrace STEM as they continue the cycle and Work Beyond Individuals in their own lives.

Cooperating with other FIRST Teams is the most obvious way that we magnify our impact. After seeing how beneficial FIRST was to our own kids, we decided to introduce more levels of robotics to our school district. We currently support 11 FLL teams and 2 FTC teams by providing them parts, funding, and students as mentors. These younger kids learn the value of technology

and teamwork and then smoothly transition to the next level of FIRST. In the next year, we want to round out our program and add Jr. FLL Teams. Our own students can be found at every local competition volunteering and encouraging the younger kids.
In our town, the FIRST program doesn't stop with FRC; we include college students through a unique partnership with Purdue University. What started out as a generous sponsorship grew into a student-run organization called Purdue FIRST Programs (PFP) with our team's help. As a part of their leadership class, their members run competitions, participate in our outreach programs, and mentor area teams. We benefit from having aspiring engineers as our mentors because they, like us, are still learning so we understand each other well.
As our team grew and split off into teams at all of the area high schools, PFP expanded their support. Now we meet up throughout the year to share designs, unveil our robots, and travel to competitions. Over the years, we've become pretty close, and the constant exchange of information has benefited everyone involved.
Our leadership experience within PFP taught us how to work alongside other FIRST teams. In the past few years, we've started attending various events around the state with other teams. This past year, we presented at STEM days at Conner Prairie, played Ariel Assist at Celebrate Science, and explained FIRST to tech gurus at an Internet2 convention. With multiple teams, our impact became more substantial. The range of presentations we do has given us a reputation of helpfulness and enthusiasm around our state. The connections that we make between both new and veteran FIRST Teams has helped the teams individually and our state as a whole because together we Work Beyond Individuals.

To round out our community contributions, we partner with numerous organizations who also want to create a better future. When we make these connections, we make a lasting commitment.
We proved this when we approached the Boy Scouts of America and created a series of workshops around their Robotics Merit Badge. From the first presentation for a local troop, this has been an opportune way to inspire scouts and meet the shared goal of preparing them for the future. Word of our workshops spread, and now we do presentations across the Midwest, awarding over 500 badges every summer. We wanted to share the love, so we created an instruction manual that we share around the FIRST community. This year, we expanded and debuted a computer programming workshop at The Space Day Jamboree in Illinois.
Our other partnerships include our school system where we work to create permanent changes both in and out of the classroom. Over the years, we have teamed up with numerous clubs and groups who work to better the lives of students and the community. Our robot has become quite popular with clubs around the school, including the local chapter of Best Buddies. We host a fun and robot-filled day for them every year, and in 2012, they used the theme of RoboBuddies which gave us more chances to be involved. We bring the entire school into the equation with fun charity events. For two years now, we've organized food drives in our music and world language departments, playing off good-spirited rivalry to help the Ronald McDonald House Charities. Then, during the spring, we simultaneously encourage competition and philanthropy with a dodge-ball tournament to fight cancer. Students from around our school love this event,

and it helps to promote our team. The profit from this event is matched by our team and sent to the Purdue Center for Cancer Research.
We manage to stay even more active on the academic side of school system. Through our summer camps, we met an enthusiastic 3rd grade teacher and set about implementing new, exciting STEM activities in his classroom. His students now design and manufacture science projects on 3-D printers and use FLL robots and Ozobots to learn programming. Once or twice during the year, we bring our competition robot to demonstrate the future possibilities of the FIRST program and inspire younger generations.
In our high school, we made wider changes in curriculum. Our technology education department switched over to a more hands-on curriculum when we added Project Lead the Way (PLTW) classes. These classes teach everything from basic design to architecture to teamwork. With these changes, our students have more opportunities to earn technical honors before they graduate and learn skills they can apply in the real world.
After seeing the success of these two programs, we were motivated and started discussing how to make it better. This meant long term goals of a STEAM (Science, Technology, Engineering, Art, and Math) center where any student from any school in our corporation can work on independent or school projects. This meant collaborating between all three schools and all the related robotics teams, FLL through FRC. This meant giving every student the opportunities we only dream of. All of this work pays for itself when the students learn that their unified efforts are priceless, because they have the means to change their world when Working Beyond Individuals.

Our attempts to pursue FIRST's goals have been valiant and heartfelt; however, after many years, we've discovered that one team is just that, one team, and, where an individual falls short, a goal can be accomplished with a unified effort. In short, we Work Beyond Individuals.