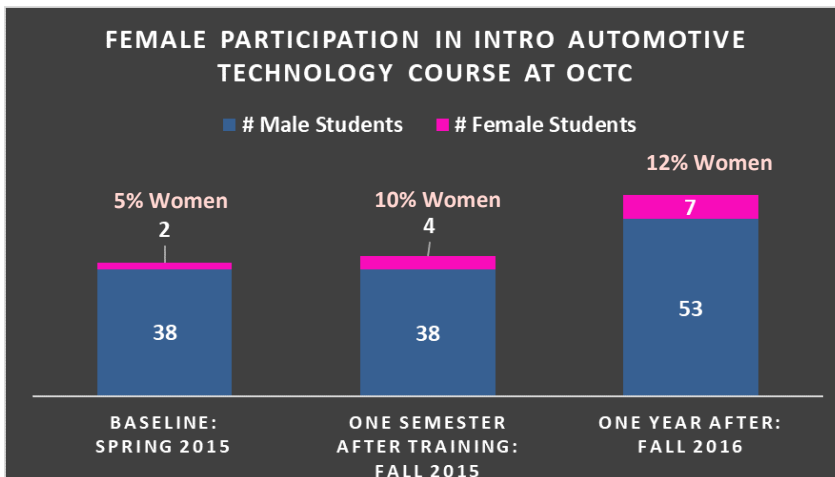


Boosting Female Enrollment in Auto Technology in a Year

How a Rural Automotive Technology Course Increased Female AND Male Enrollment

SUMMARY

Owensboro Community & Technical College (OCTC) went from only **2 female students to 7** in Automotive Technology, in the year following their participation in a WomenTech Educators Online Training—a significant increase for a field in which only 2% of the workforce is women. Male enrollment also increased from 38 to 53 male students, so the **program grew overall while increasing female participation**. How did OCTC—in rural Kentucky—do this in one year?



KEY ACTIVITIES:

- ☑ Female role models incorporated into all outreach activities
- ☑ Outreach materials completely redesigned to include 50% female role models
- ☑ In-reach at the college and more targeted approach with high school students



OWENSBORO COMMUNITY & TECHNICAL COLLEGE
Owensboro, Kentucky (Rural Area)
Automotive Technology

RECRUITMENT RESULTS

- ☑ Targeted Course: Introductory Automotive Technology Alternative Fuels
- ☑ Female enrollment increased from 5% to 12%—2 women at baseline to 7 female students
- ☑ Male enrollment increased from 38 to 53 male students



“Before the WomenTech Educators Training, we had our own ideas about how to recruit more women, but they weren’t successful. The training helped us learn how to better recruit female students, so we were able to go from **2 to 7 female students** in our introductory Automotive Technology courses. **There were 3 big things I got from the WomenTech Educators Training:**

- 1) The training helped us change our emphasis from working with elementary schools to working with students we could recruit now, so we could see immediate results.
- 2) We started making sure any pictures in our recruitment materials were diverse and included women.
- 3) The best thing we learned was how to find and recruit female role models.

The training also helped on the retention side because I had talking points I could use when I would sit down and talk with female students about, ‘What are you struggling with?’ If they weren’t sure about opening up, I knew what to say and that was a big help.”

~ Lewis Nall, Former Coordinator & Instructor of Automotive & Diesel Program, Owensboro Community & Technical College, KY

CHALLENGES

Only 2% of Automotive Technicians are female in the U.S., which initially made it very difficult for OCTC to identify female role models in Automotive Technology to assist with outreach.

OCTC is in rural Kentucky in a traditional community and OCTC's Automotive and Diesel Program Coordinator became very disheartened when many female high school students wouldn't even talk with him about the program. The young women he spoke with repeatedly told him, "That's not for me; I can't do that." It made him wonder: How could he change the culture and overcome this massive barrier to recruitment?

OCTC has a very robust Co-op Program: 95% of the Automotive students acquire field experience before they graduate. The father of one very committed female student asked his local auto repair shop if they would consider giving his daughter a summer co-op and he was told, "We don't hire girls here because they cause problems." This father came to the Program Coordinator and asked him, "Is my daughter going to school and then not going to be able to get a job?"

ACTIONS THAT MADE THE DIFFERENCE FOR OCTC

- ✔ **WomenTech Educators Online Training**
- ✔ **Developing a Recruitment and Retention Plan**

It started when Lewis Nall, the Coordinator of the Automotive and Diesel Program and a Master Automotive Technician since 1989, put together a team from OCTC to participate in a 2015 WomenTech Educators Online Training held by the National Institute for Women in Trades, Technology & Science (IWITTS). This was the beginning of the college's effort to meet their National Science Foundation (NSF) grant goals to increase female participation in Automotive Technology for their Advanced Technological Education (ATE) Grant "Preparing Vehicle Technicians for Advanced Transportation" (DUE-1400422).

The WomenTech Training required OCTC to participate as a team, so that faculty and staff could collaborate, step back to take in the bigger picture, and develop a deliberate plan for recruitment and retention. OCTC had a team of 6 connected to their grant (see sidebar). According to Donna Milgram—IWITTS's Executive Director, trainer, and coach, "The critical, first step schools take in the WomenTech Training is to figure out which courses they're going to target and look at baseline numbers in our WomenTech data dashboard. After the training, they are now set up to track how they are doing each semester."

The semester-long WomenTech Online Training combined 8 asynchronous modules with virtual real-time coaching by Donna Milgram. Each team



"I think role models are one of the most important strategies when you're trying to recruit female students into a nontraditional field because they need to hear from somebody that's already

been there, that's already done it, that's already been through it, and seen the carrot at the end. They need someone who can answer the question, 'Is there a place for me once I've completed the training and moved into that field?'

~ *Lewis Nall, Former Coordinator & Instructor of Automotive & Diesel Program, Owensboro Community & Technical College, KY*

INSTITUTIONAL SUPPORT: WOMEN IN AUTOMOTIVE LEADERSHIP TEAM

Participating in teams ensures that all the key stakeholders are represented and invested. Here are the job titles of the 6 Leadership Team members:

- Key Leader – Christy Ellis, Alternative Fuels Grant Coordinator (Preparing Vehicle Technicians for Advanced Transportation Fuels NSF ATE Grant DUE-1400422)
- Co Leader – Lewis Nall, Coordinator & Instructor of Automotive & Diesel Program
- Director of Academic Affairs
- Business Development Manager
- Team Manager, Career and Professional Development
- Admissions Advisor



Figure 1. Female Role Model and Automotive Technology Student at OCTC

met weekly to work on development of their WomenTech Recruitment and Retention Plans from templates and the Personal Encouragement and Welcoming Conversation talking points. Following the training, the team received 2, hour-long Plan Feedback Calls from Donna, and Coaching Support for Implementation. At 6 months, all the school teams presented their outcomes to each other. OCTC had access to the 2 downloadable tools every WomenTech Training participant receives: The Women in Technology Outreach Kit and the *WomenTech Classroom eBook: A Treasure Trove of Hard-to-Find Women in STEM Resources for Educators*.

RECRUITMENT STRATEGIES

☑ Infusing Female Role Model Content into all Outreach Activities

Changes OCTC made to ensure outreach and recruitment efforts appeal to female students:

- **50% female images** in outreach materials: 7 marketing pieces were updated
- Incorporated **female role models** into recruitment events
- Touched on how **Automotive Technology can help others in recruiting language**

The OCTC team realized they needed to change how they spoke to prospective female students, so they shared more career information and female role model stories that would help women see themselves in a successful career as an Automotive Technician.

Lewis' advice to others: "First, don't get discouraged. It takes a little bit of time. If you can't find a female role model within your discipline, then find a woman from a related field or a male role model to talk to prospective female students. My first female role model was actually a mechanical engineer. She wasn't even a technician. She didn't work on cars, but she talked about her experience going into the engineering field when there were so few women in it."

☑ Personal Encouragement Conversations

Lewis came to realize—during a WomenTech Coaching session—that any presentations to prospective female students needed to include female role models if possible. Fortunately, he was able to get started right away because one of his 2 female students was willing to help with outreach. Lewis also realized that he needed to follow a set of steps to successfully recruit more women: 1) use female role models to engage female students during group presentations; 2) have female students fill out More Information interest cards; and 3) follow up one-on-one with interested students.

Initially, Lewis was discouraged when only a small number of female students expressed interested, but he turned that around by focusing more energy on the 10 or so female students that were interested.

OCTC PERSONAL ENCOURAGEMENT CONVERSATION SCRIPT EXCERPT:

Lewis (Instructor): Have you thought about the Automotive Technology field?

Haley (Prospective): Not sure. I didn't think it was for me.

Lewis: See this girl here, she helped finish the COBRA you're looking at.

Haley: Wow! So how many girls do you all have and what do they do in class? I don't know anything about cars or tools.

Lewis: You don't have to know anything about tool or cars. That's what we will teach you—everything you need to know about tools and the cars you will use them on. You will do all kinds of things your first semester. You will get to learn about engines and rebuild them as well. You will learn and work on the climate controls of the car. [...]

Haley: How long will it take to get the degree and what kind of jobs are out there? Is the pay good?

Lewis: Two years if you take a full load. There are all kind of jobs in this field: mechanic, service writer, parts person. (Explain each one and see where her interest is and spend some time there.) [...] (Explain that students that have graduated are making \$25,000 to \$35,000 fresh out of school and in 2 years make \$50,000 to \$75,000.)

Figure 2. Excerpt from OCTC Team's Personal Encouragement Script

He discovered that he needed to spend around 30 minutes with a prospective female student using the Personal Encouragement Conversation the team developed from a template in the WomenTech Training (see Figure 2).

Lewis said he had always enjoyed talking with prospective students, but after the training, he and his team had the tools and talking points to recruit more women to Automotive Technology.

☑ Recruiting from a Pre-existing High School Event: College Experience Day

OCTC had a College Experience Day for high school students that required all students to spend 10 to 15 minutes rotating through the classrooms of ALL of the programs. According to Donna Milgram, “This is key because when given a choice most female students will almost always opt out of visiting the automotive program or other traditionally male career pathways.” Before the WomenTech Training, the Automotive Program was not able to recruit any female students at this event. **After the training, they recruited 2 female students from the College Experience Day.** Here are the changes the team made that made that possible:

☑ College Experience Day After WomenTech Training (2 female students):

- A female role model helped the team greet students coming off the bus and directed them to the Automotive program.
- The team passed out female-friendly outreach materials and played a recruitment video featuring female role models.
- The team held female-focused Personal Encouragement Conversations with prospective female students.

☑ In-reach to students at OCTC: Presentations to Classes

Before the WomenTech Training, the Automotive Program had not tried to recruit female students from OCTC’s internal student body who were unsure of their career pathway. After the WomenTech Training, in-reach became an important focus in the team’s Recruitment Plan and it yielded 2 female students. According to Lewis, “That worked really well since these students were already at the college.”

☑ In-reach (2 female students):

- 1 female student enrolled after Lewis presented to her English class. According to Lewis, “We looked for classes with the most undeclared students—one was English because everybody has to take it. I would go into the English classes and talk about opportunities in all the technical fields, but I would really promote Automotive Technology.”



“It is also possible as a male instructor to hold recruitment conversations with female students and to successfully encourage them to enroll. I’ve found that it is important to be honest, be

open. It can be a little intimidating at first. As a male, I don’t totally understand what it’s like to come into this field as a woman. I have done a few things in my life that were completely out of my comfort zone, so I do understand that discomfort. Honestly, the talking point that has worked great for me is just saying, **‘Hey, I believe this is going to be an awesome experience for you.’** I try to remember that, in education, for me the big thing is about changing lives. **We are making a difference in people’s lives.”**

~ Lewis Nall, Former Coordinator & Instructor of Automotive & Diesel Program, Owensboro Community & Technical College, KY



Figure 3. Lewis Nall and Students

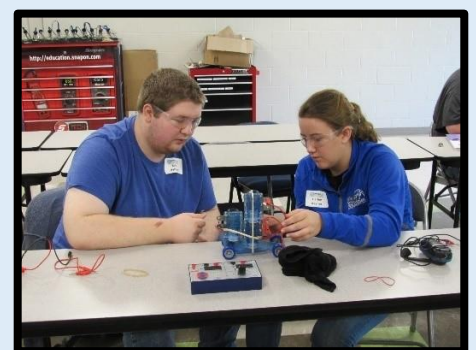


Figure 4. Interactive Automotive Activity

- 1 female student came from the GED program after seeing the flyer with female role models. “One of the students was at a decision point in her life and had some real tough times, and she saw one of those flyers. She contacted me, later became one of our student workers and got paid to work with us when she wasn't in class and has done phenomenal. She has since graduated, got her life together, married, and found employment with a local company.”

✔ Outreach to the Community: Free Local Press

The WomenTech Training teaches how to get free local press for a school's female-focused recruitment campaign and includes examples from other schools. OCTC was successful in getting an article in the local paper and it resulted in the enrollment of one female student.

- ✔ **Local Press** (1 female student): 1 woman got in touch after seeing an article about the program in the local paper. According to Lewis, “In the article we talked about how Automotive Technology wasn't just for men anymore. It's inclusive for all genders. She loved it, came, met up with us and enrolled.”

WORKING WITH EMPLOYERS

According to Lewis, “We had to do some training within the automotive industry. It's kind of like everything else, you have to get 1 female in there to start. What my employers found out when they hired a female, is that that often lifts everybody else up.”

One of our diesel students graduated and went to work in a large diesel shop, which is a tough environment to walk into—they're very traditional—so there were some things she had to deal with, but the employer noticed she was working very hard, doing a great job and total output in the shop began to come up because she was shaming the guys a bit. I had one shop that I had to go to the owner because they were saying they didn't hire girls, and I said I'm here to help you. I explained how other employers had found having female mechanics a plus for their shop, work environment and productivity.”

THE NEXT CHAPTER: LONGER-TERM STRATEGIES

In addition to the successful recruitment strategies that resulted in more women in Automotive Technology in a year, the OCTC team also introduced some longer-term pipeline recruitment strategies, one of which was a COBRA Summer Academy for high school students. Lewis explained, “We brought in high school students and they spent a week with us. We did a lot of fun, hands-on automotive and alternative fuel projects. It was amazingly diverse.”



Tip for Finding Female Role Models from Lewis:
“If you're a teacher and you go for training, take your iPad with you. I went to a training out in California and met a female Automotive Technology instructor, so I interviewed her with just an iPad. You can find female role models.”

You might just have to be a little creative and get out of your box a little bit.”

~ Lewis Nall, Former Coordinator & Instructor of Automotive & Diesel Program, Owensboro Community & Technical College, KY



Figure 5. Female Students Working Together in a Summer Academy



Figure 6. Long-term Recruitment Strategy: Summer Academy

We had a lot of female students come to the Academy and we were able to recruit some to the college in Automotive and other programs.”

After the WomenTech Training, Lewis spent 60% of his recruitment effort on his internal audience at the college, 35% on high school students, and 5% on elementary school students. This was a shift from prior to the WomenTech Training when 100% of his recruitment efforts were aimed at secondary schools.

TRANSFERRABLE RECRUITMENT STRATEGIES

Lewis is now an Automotive Instructor of Technologies at Calhoun Community College in Tanner, Alabama and he has taken his recruitment strategies with him. **His first class at Calhoun had 4 female students, his current one has 6:** “In my new position I've already recruited 2 female role models. One does a lot of service writing at a Nissan dealership and the other one is a technician at a very large Ford dealership. I've met with both of them, they've agreed to do an interview with me, and we're going to develop a role model video to send out to the high schools about what we're doing here. We also are in the process of putting together our outreach materials, which will, of course, feature female role models.”



Figure 7. Automotive Students at Calhoun Community College in Tanner, Alabama

ABOUT IWITTS: CREATOR OF WOMENTECH EDUCATORS TRAINING SYSTEM

The Institute for Women in Trades, Technology & Science has been helping educators nationwide close the gender gap for women and girls in technology since 1994. IWITTS provides tools, resources, and professional development for educators to help them broaden female participation in STEM and CTE programs where they are underrepresented.

To discuss what type of professional development would be the best fit for your school, region, or state please [Contact Us](mailto:contact@iwitts.org). Visit our website at: www.iwitts.org



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