

# TECH READY APPRENTICES FOR CAREERS IN KENTUCKY – DR. SCHNEIDER AUTOMOTIVE SYSTEMS RUSSELL SPRINGS, KY



MANUFACTURING



INSTRUCTIONAL ALIGNMENT: FULL  
PROGRAM ARTICULATION: FULL

## BACKGROUND

### Overview

Tech Ready Apprentices for Careers in Kentucky (TRACK) is a joint statewide initiative of the Kentucky departments of Education and Labor to establish a pipeline of secondary students into registered apprenticeship programs. Since 2013, employers and educators from local schools and area technical centers have partnered to create TRACK programs, which function as two-year pre-apprenticeships that fully articulate with registered apprenticeship. This summary focuses on one local TRACK program, Dr. Schneider Automotive Systems (Dr. Schneider) that is illustrative of how TRACK operates in the state.

#### Program Snapshot


- Participants (2015–16): 4
- High school graduation rate (2015–16): 100 percent

Dr. Schneider, a German-owned automotive parts manufacturer located in Russell Springs, Kentucky, has partnered with the Lake Cumberland Area Technology Center (Lake Cumberland) to offer a TRACK program in three pathways: industrial maintenance technician, injection mold setter, and mechatronics. Students participating in each two-year program earn 2,000 on-the-job training hours from Dr. Schneider and a minimum of 288 classroom hours of related technical instruction at Lake Cumberland. They also have the option of earning relevant industry-recognized credentials and a trip to Dr. Schneider's headquarters in Germany. Upon earning their high school diploma, students have the option to continue into a three-year, competency-based registered apprenticeship sponsored by Dr. Schneider, as well as the opportunity to continue their postsecondary education to earn an associate of applied science degree.

### History

The introduction of the TRACK initiative closely aligns with Dr. Schneider's location in the area. The 90-year-old German plastic injection molding company, which also has production facilities in China, Spain, Poland, and elsewhere in the United States, opened its manufacturing facility in Russell Spring in August 2013. The first cohort of TRACK students at Dr. Schneider began their two-year pre-apprenticeship in the 2014–15 school year. High school students attend Lake Cumberland, one of 53 area technology centers operated by the Kentucky Department of Education, to receive their technical education instruction. On-the-job training is offered at the Dr. Schneider plant.

Dr. Schneider's interest in the TRACK program is both cultural and self-interested. Due to its German roots, where such apprentice programs are common, company leaders were familiar with the apprenticeship model and its value in training workers. The company also has experienced considerable growth, with the Russell Springs plant employing 180 employees at the start of 2016, and a planned expansion of an additional 200 employees by the end of the year. Consequently, TRACK is seen as an important component of the company's workforce recruitment strategy,



and plans are currently underway to recruit more experienced employees to become TRACK mentors.

In spring 2014, the state TRACK coordinator presented on the program at a regional economic development meeting. It was here that leaders from Dr. Schneider heard about and expressed interest in participating in the program; they were subsequently introduced to Lake Cumberland administrators by the TRACK coordinator, who facilitated initial program planning efforts. Partners relied heavily on guidance from the Kentucky Department of Education and the state Labor Cabinet to design a course sequence and pre-apprenticeship training program that satisfied both state CTE program requirements and apprenticeship needs. Agency staff also helped the partners navigate youth labor laws and design competency and performance-based models.

■ **"Sometimes you've just got to think outside the box. We've not been in the box for a couple of years now. . . We're doing more than your old conventional CTE programs. We're trying to expand the curriculum so that it benefits these students."**

*Jeff Adams, principal, Lake Cumberland Area Technology Center, Kentucky*

## PROGRAM STRUCTURE

The organization of the Dr. Schneider program closely parallels that of the TRACK program structure employed statewide. Employer sponsors, in collaboration with a partnering high school or an area technology center, choose a four-course CTE sequence (at a minimum) and identify at least one industry certification. This gives employers the flexibility to align classroom instruction to the needs of their workplace, while ensuring that the program meets the state's CTE program quality standards and definition of a CTE program for federal *Perkins* reporting.<sup>41</sup>




TRACK also leverages the state's competency-based education policy that allows K–12 credit to be measured based on performance, not instructional time.<sup>42</sup> This means that the program at Dr. Schneider is largely competency-based. With assistance from the state apprenticeship office, leaders at Dr. Schneider created a defined list of competencies that students must master as they progress through the program. These competencies also form the basis of their CTE coursework in the manufacturing pathway.

The Dr. Schneider TRACK program offers students three career pathways: industrial maintenance technician, injection mold setter, and mechatronics. Dr. Schneider staff work with participating students to choose four courses from Lake Cumberland's class schedule each semester that align to each student's selected TRACK pathway. Freshmen and sophomores who are considering participating in TRACK are encouraged but not required to take introductory courses in the manufacturing pathway, which address cross-pathway foundational skills, such as blueprint reading and basic troubleshooting. This exposure helps to provide students with an understanding of the field, which can inform their decision to participate, as well as ensure that those who enter the program possess a common base of skills. Students apply during their sophomore year and officially enter the program at the beginning of their junior year.

During their junior and senior years, students split their days between Dr. Schneider and Lake Cumberland. They attend classes at Lake Cumberland in the morning and then work at Dr. Schneider from 10:30 a.m. to 4 p.m., four days a week. The fifth day is spent entirely at Lake Cumberland. During the summer months, students work full time at Dr. Schneider. This program structure has evolved over time. During the first project year, students were scheduled to attend school on Friday and work Monday through Thursday. However, the partners mutually agreed to shift this plan to better accommodate students' learning needs and the school's regular calendar. This change allowed more contact time between the teachers and students.

<sup>41</sup> See [http://education.ky.gov/CTE/ctcr/Documents/TRACK%20Agreement%20ATCs-Final\\_Form\\_distributed.pdf](http://education.ky.gov/CTE/ctcr/Documents/TRACK%20Agreement%20ATCs-Final_Form_distributed.pdf).

<sup>42</sup> See [KRS 156.108](#) and [160.107](#) (House Bill 37, enacted 2012).



To ensure that students meet academic and technical course requirements for graduation, Lake Cumberland offers flexible and alternative schedules and delivery systems for instructional content. For example, students complete academic and technical requirements through a tailored blend of in-person and online coursework. Students also receive dual credit for coursework in the manufacturing pathway at Somerset Community and Technical College (Somerset). Upon completion of TRACK, the company sends those students who transition into the full apprenticeship program to visit its German headquarters and broaden their understanding of the company.

### On-the-Job & Classroom Instruction

TRACK participants earn 2,000 hours of on-the-job training while working at Dr. Schneider. This amounts to roughly 20 hours per week during the school year and 40 hours per week during the summer. All participants are paid on a graduated wage scale, starting at \$8.50 an hour—30 cents higher than the state's minimum wage. By the third year of the apprenticeship, students accepted into the program make \$11 an hour.

Each student works under the supervision of a mentor, who is a journey-level worker at the company. A mentor must have the required technical expertise and a willingness and ability to teach, and agree to invest up to eight hours per day directing the work of their apprentice. Currently, the size of the TRACK program is limited to the number of available mentors, though the company hopes to train more mentors in order to take on more students.

Treated as a regular employee, each high school apprentice is given different assignments throughout the work day, with the difficulty progressing as students gain more experience and demonstrate mastery of competencies. Ultimately, students rotate through all tasks required on their chosen pathway's competency list. During work hours, students must complete paper-based daily logs of their experience and progress. Mentors sign off on the logs to affirm that students have demonstrated competency. They also assign quarterly progress grades for each student for the four CTE courses in which the student is enrolled at Lake Cumberland. Grades are submitted back to Lake Cumberland to be included on the student's transcript.

### Curriculum & Assessment

Employer-developed competencies form the basis of the curriculum for both the school-based coursework and the workplace training offered for each of the three pathways. Each semester, Dr. Schneider mentors select the four most relevant CTE courses from the Lake Cumberland course catalog for each student based on their program progress. Course content is broadened by a blended learning platform used throughout the school district, which allows students to complete required academic courses at their own pace. Additionally, Lake Cumberland uses a manufacturing-specific online curriculum to help supplement students' technical learning. In addition, Dr. Schneider provides the students on-the-job access to industry-specific online content through Paulson Training Programs, Inc.

Students are assessed each semester on their progress toward mastery of the competencies defined for that term. Once students transition into the registered apprenticeship, they must pass a final assessment at the end of their third year, which grants them their journey-level certificate.

### Program Funding

The Dr. Schneider TRACK program leverages existing educational funding to support program operation. At Lake Cumberland, support for program administration and instruction is provided through state and local funding. In addition, as an approved CTE program through the Kentucky Department of Education, the program is able to access federal Perkins funds. Dr. Schneider pays students wages and offers in-kind support by investing staff time in defining program competencies and mentoring students in the workplace.



## KEY PARTNERS

By design, TRACK requires each partner to have a shared vision for the program and invest time and resources to deliver on their agreed-upon responsibilities. These basic roles and responsibilities are laid out in the state's work-based learning manual.<sup>43</sup>



### Employers

Leaders at Dr. Schneider have dedicated significant time and resources to the development of the local TRACK program. This includes creating a new employee policies handbook for TRACK participants to adequately address issues that include youth labor laws; training current employees to be mentors; and creating strong support for the program across the company, including from its human resources department.

Leaders at Dr. Schneider said that, as a company, they are not seeking an immediate return on investment. The company recognizes the contribution that TRACK can make in worker recruitment, and as such, expects program benefits to increase over time as the apprentices progress through their training and become full employees.

■ **"Apprenticeship is not a burden, it is an investment for our future. That's what I always say. You can't measure it, but it's clear that it's very successful."**

■ *Torsten Langguth, plant manager, Dr. Schneider Automotive Systems, Inc.*

### Postsecondary Institutions

Somerset is the postsecondary partner for the Dr. Schneider program. The college offers dual credit options for pre-apprentices according to the chosen apprenticeship pathway. Once accepted into the full registered apprenticeship, students are eligible to earn their associate of applied science degree at Somerset, which is paid for by Dr. Schneider.

## STUDENT RECRUITMENT AND SUPPORTS

### Entrance Requirements

Recruitment for TRACK begins during the spring of students' sophomore year, with marketing taking place through school announcements, flyers, and class presentations. Dr. Schneider and Lake Cumberland share the recruitment responsibilities. Lake Cumberland helps recruit interested students to attend an information session explaining the details of the program, and Dr. Schneider arranges for them to tour the facility to learn more about the three apprenticeship pathways. In mid-April, students complete an application developed by Dr. Schneider. Completed applications, along with student transcripts, are provided to Dr. Schneider's human resources department for evaluation. Top candidates are brought in for a competitive interview. Selection for the program hinges on student performance, with Dr. Schneider staff having the ultimate say on who is accepted.



■ **"[TRACK] has helped drive such a change in our high school and our whole philosophy—away from this college-for-all mentality to now, the new rock stars on our campus, are the kids doing CTE."**

■ *Allan Reed, superintendent, Adair County Schools*

After being hired as pre-apprentices, the school principal, CTE instructors, and guidance counselors assist students with rearranging their schedules and completing all of the necessary paperwork. The Dr. Schneider human resources department and mentors pick the fall semester manufacturing courses for each student, which is based on the apprenticeship pathway that they enter.

<sup>43</sup> See <http://education.ky.gov/cte/cter/pages/wbl.aspx>.



## PROGRAM BENEFITS

High school students who complete their two-year pre-apprenticeship program earn their high school diploma, as well as 2,000 on-the-job hours and 288 classroom hours, which are awarded as advance credit toward Dr. Schneider's three-year registered apprenticeship.



Students accepted into Dr. Schneider's registered apprenticeship program complete a total of 4,000 hours of work experience and a minimum of 576 hours of classroom instruction by the end of their apprenticeship training. They also earn a Somerset certificate and their journey-level certificate. Though not a requirement of the statewide TRACK initiative, the registered apprenticeship at Dr. Schneider includes a company-sponsored associate of applied science degree at Somerset that is specific to the pathway the student chose.

## STATE SUPPORT

TRACK began as an interagency venture of the Kentucky Department of Education's Office of Career and Technical Education and the Kentucky Labor Cabinet. Since TRACK was intentionally designed to be embedded into the state's existing CTE and apprenticeship infrastructures, the program's creation has placed no additional cost on the state. In addition to Dr. Schneider, the state TRACK program has agreements with the manufacturing industry and is currently piloting programs in the carpentry and electrical fields. Across the state, more than 200 students participated in TRACK programs in the 2015-16 school year. Additional TRACK programs are being developed with employers in health sciences, welding, and information technology.



### Administrative

The two state agencies have devoted considerable staff time and resources to develop the TRACK program. Serving as intermediaries, state staff provide support for local employers and K-12 institutions interested in participating. They broker relationships, facilitate meetings, and act as interpreters for employers and educators. TRACK works with local economic development and workforce systems to identify and recruit prospective employer partners. The state CTE office has developed a suite of resources, which they use to help employers and educational partners navigate the most efficient path to establishing such programs. The Labor Cabinet has developed sample task lists to help employers translate their workplace requirements into measurable competencies, and also works with employers to register their apprenticeships with the state, which is a requirement to participate in TRACK.


**"For the employer, though, it's about making sure textbook meets real world. That's where TRACK makes the difference, because what they're learning in the classroom ensures that they understand how to use it on the production floor or in a real world concept. That's the value of TRACK."**

*Melissa Aguilar, executive director of the Kentucky Workforce Innovation Board*

TRACK, which serves as a student's CTE program, was designed to fit seamlessly into the state's K-12 accountability system that awards points to school districts based on whether a student meets requirements to be college-ready, career-ready, or college- and career-ready. Since the TRACK program also counts as a student's CTE program, school districts, in turn, are incentivized within the state's accountability system to encourage CTE concentration and completion. As time goes on, the state will have the ability to track progress and outcomes because TRACK has been embedded in the state's K-12 accountability and registered apprenticeship systems, thus allowing staff to evaluate the impact and adjust the program as needed.

The state has also leveraged its existing relationship with Adecco, a national staffing agency, to address employer concerns about insurance and liability, issues for employees under 18. Under the state's Youth Employment Solutions (YES) program, Adecco manages the administrative and legal elements of work-based learning, including TRACK.





According to the state, the YES program has helped remove barriers for some employers, and as a result, they have agreed to participate in TRACK. Adecco also helps recruit employers and prepare students with the professional skills they will need to be successful in the workplace.<sup>44</sup> However, Dr. Schneider did not choose to use the YES program, as all TRACK students are hired directly through the company's human resources department.

### Financial

Kentucky uses its *Perkins* reserve fund to implement new pathways aligned to high-need industries. Though not exclusively set aside for the TRACK initiative, emerging TRACK programs are eligible for these implementation funds because they are recognized by the Kentucky Department of Education as CTE career pathway.

## OUTCOMES

Regarding the Dr. Schneider program, four students (two seniors and two juniors) participated in the 2015–16 school year, the program's second operational year. In May 2016, the two seniors transitioned into Dr. Schneider's full apprenticeship upon graduation, and the two juniors continued their participation in the following school year.



Across the state, more than 200 students participated in TRACK programs in the 2015–16 school year. However, outcomes are not available for those students in programs that are in the state's pilot phase, such as the carpentry and electrical TRACKs. The manufacturing TRACK is the only program with available outcomes at this time. In 2014–15, the statewide TRACK program had 14 participants in its manufacturing program. It had a 100 percent high school graduation rate, and a placement rate of 25 percent in apprenticeships, 38 percent in postsecondary education, and 37 percent in the workforce or military.

## LESSONS LEARNED

Program staff and partners identified some lessons learned, which include the following:



- Collaborate across state agencies to leverage resources, create capacity, and most importantly, create opportunities for innovation.
- Embed the program into existing state infrastructures. This helps to create efficiencies, reduce duplication of effort, and target resources to accelerate replication of programs.
- Create a common statewide model that also allows employers to have flexibility, which helps create a win-win for employers, the state, and students.
- Provide opportunities for students to learn beyond the traditional school day and setting, which allows for increased learning time.
- Collaborate across education and employment systems to build to a common set of competencies that enables student learning and future success.

<sup>44</sup> Advance CTE (2016). "Removing Legal Barriers around Work-based Learning."  
[https://careertech.org/sites/default/files/WBL\\_casestudy\\_Legal\\_2016.pdf](https://careertech.org/sites/default/files/WBL_casestudy_Legal_2016.pdf)