

Pennsylvania Career and Technical Education: Dropout Prevention

June 2014, Revised June 2018



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
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www.education.pa.gov



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Introduction

Finishing high school matters. The payoffs of graduating are great and the drawbacks of dropping out are far-reaching. Statements made in the opening pages of *Transforming Career Counseling: Bridging School to Career in the Workforce of the Future*¹ support the importance of high school graduation:

"The U.S. economy and workforce landscape have changed dramatically over the past half-century. In 1950, 80 percent of U.S. jobs were unskilled. Today, just six decades later – 85 percent of U.S. jobs are skilled...in 1970, workers with a high school diploma or less represented 74 percent of the middle class. By 2007, fewer than 40 percent of workers had a high school diploma or less. By 2020, nearly 70 percent of jobs will require at least some postsecondary education and training (e.g., one-year certificate, associate degree or bachelor degree). (Center on Education and the Workforce)"
All sectors of Pennsylvania's education system focus on helping students complete high school in order to be prepared for skilled employment, postsecondary education, workplace training, apprenticeship programs or military service.

This report, created at the request of the Pennsylvania Department of Education (PDE) Bureau of Career Technical Education (BCTE), provides information about graduation rates and strategies to address at-risk behaviors and prevent students from dropping out of school. Further, it draws on examples from career and technology centers (CTCs) across the state to illustrate how these strategies connect with and are supplemented through career and technical education (CTE).

High School Graduation and Dropout Rates in Pennsylvania

Pennsylvania's high school graduation rate rose to 85 percent in 2015, an increase from 83 percent in 2010.² This increase tracks with a national trend in which the high school graduation rate reached 84 percent in 2015, the highest rate yet. However, despite these increases, racial, ethnic and socioeconomic achievement gaps persist. "Although students of color and low-income students are graduating at higher rates, we must be mindful that there are still significant gaps for historically underserved students which

¹ L. Reddy, J. Rauschenberger, P. Hurt, and J. Bray (2015). *Transforming Career Counseling: Bridging School to Career in the Workforce of the Future*. Retrieved from SME: [Link to Article](#)

² As stated on their website, the Pennsylvania Department of Education "compiles statistical information covering the 4-year, 5-year, and 6-year Graduation Requirements...cohort graduation rates are a calculation of the percentage of students who have graduated with a regular high school diploma within a designated number of years since the student first entered high school." [Pennsylvania Department of Education](#) (accessed April 12, 2018).

translate into lost potential for our communities and our country,” said John B. King Jr., who served as United States Secretary of Education from 2016 to 2017.³

Percent of Students									
State	Total	American Indian/ Alaska Native	Asians/ Pacific Islander	Hispanic	Black	White	Econ. Disadvantaged	Limited English Proficiency	Students with Disabilities
Nation	84	72	91	79	76	88	78	67	66
PA	85	77	91	73	73	91	78	63	74
DE	86	90	91	81	82	88	76	73	67
MD	88	82	95	77	84	92	79	48	67
NJ	90	83	97	83	82	94	83	75	79
NY	80	68	87	68	69	89	73	38	53
OH	84	70	87	73	67	88	72	50	70

TABLE 1. Public high school 4-year adjusted graduation rate, by race/ethnicity, for Pennsylvania, contiguous states, and the United States, 2015-2016⁴

The Alliance for Excellent Education⁵ points out the impact of an increase in the graduation rate: the 2.8 percentage point increase in the Pennsylvania high school graduation rate from 2011 to 2012 may have resulted in gains of up to \$940 million in increased lifetime earnings and \$3.2 million in annual state and local tax revenues. A higher secondary graduation rate also leads to the generation of new jobs, increases in home and auto sales and increases in the gross state product.

America’s Promise Alliance cited multiple data supporting the importance of a high school diploma from a national perspective:⁶

- If the graduation rate increased to 90 percent for just one cohort of students, the country would see a \$7.2 billion increase in annual earnings and a \$1.1 billion increase in federal tax revenue.
- High school graduates are more likely to be employed, make higher taxable income and aid in job generation.
- High school graduates earn a national average of \$8,000 more annually compared to high school dropouts.

³ U.S. High School Graduation Rates Rise to New High (2017, December 4), Washington Post. Retrieved from [The Washington Post](#)

⁴ National Center for Education Statistics: [NCES](#)

⁵ Alliance for Excellent Education: [Read the fact sheet here](#)

⁶ America’s Promise: [Ending the Dropout Crisis](#)

- High school graduates are less likely to engage in criminal behavior or require social services.
- High school graduates have better health and longer life expectancy.
- High school graduates are more likely to vote. During the 2012 presidential election, four percent of people who left high school without graduating voted compared to 24 percent of youth with only a high school diploma and 37 percent with a college degree.
- Only students with a high school diploma (or GED) may enlist in the military.

Given the importance of graduating high school, even one high school dropout is too many. Pennsylvania Department of Education data indicates that in school year 2015-16, 13,506 students dropped out of school:⁷

	Male Dropouts	Female Dropouts	Total Dropouts	Dropout Rate
School Districts	6,128	4,208	10,336	1.41%
Comprehensive Career and Technical Center	37	32	69	0.94%
Charter School	1,529	1,572	3,101	4.71

TABLE 2. Public high school dropout rate by gender for Pennsylvania, 2015-2016

Why Do Students Drop Out?

Understanding the reasons that students leave school may help shape practices designed to increase retention and graduation rates. *The Silent Epidemic: Perspectives of High School Dropouts*, a 2006 report funded by the Gates Foundation, offer insight into this topic. Researchers surveyed high school dropouts across the United States and concluded that "...while some students drop out because of significant academic challenges, most dropouts are students who could have, and believe they could have, succeeded in school."⁸

Gates Foundation survey respondents identified the following factors as the top five reasons for leaving school:⁹

1. Classes were not interesting (47 percent).
2. Missed too many days of school and could not catch up (43 percent).
3. Spent time with people who were not interested in school (42 percent).

⁷ Pennsylvania Department of Education: [Data and Statistics](#)

⁸ *The Silent Epidemic: Perspectives of High School Dropouts*. Gates Foundation: [Link to Article](#)

⁹ Ibid.

4. Had too much freedom and not enough rules in their life (38 percent).
5. Were failing school (35 percent).

A 2013 report¹⁰ based on a survey of over 600 students shared similar findings and also identified several additional reasons students dropped out of high school:

- Did not like school (37 percent).
- Did not feel they belonged there (20 percent).
- Could not get along with teachers (25 percent).
- Could not work at the same time (22 percent).
- Got a job (28 percent).

In a December 2017 interview with NEA Today, Deborah Feldman, co-author of *Why We Drop Out: Understanding and Disrupting Student Pathways to Leaving School*, emphasized how very few of the students she and her co-authors interviewed “recalled having any official interventions for truancy, or interventions from parents or the school. They seemed to be forgotten by the schools or consciously ignored.”¹¹

When asked to describe a common reason for dropping out, Ms. Feldman replied: “There were very distinct patterns we see with kids starting to pull away usually in middle school. The through line in many of their stories was some kind of academic challenge that undermined their faith in themselves as learners, that then led to helplessness and hopelessness about their ability to be a student, which was their primary job in life.”

Research cited in *Dropout Risk Factors and Exemplary Programs: A Technical Report*¹² identified 25 significant risk factors for school dropout, including the following:

1. Has a learning disability or emotional disturbance.
2. Is a parent.
3. Works a high number of hours.
4. High-risk social behavior or peer group.
5. No extracurricular participation.
6. High family mobility.
7. Family disruption.
8. Sibling has dropped out.
9. Low contact with the school.

¹⁰ Jonathan Jacob Doll, Eslami Zohreh, and Lynne Walters (2013). *Understanding Why Students Drop Out of High School, According to Their Own Reports*. SAGE: [Link to Article](#)

¹¹ NEA Today: [Why Students Drop Out of School](#)

¹² National Dropout Prevention Center: [Link to Article](#)

Research indicates that students drop out of high school for a variety of complex reasons and often for more than one reason. In many cases, high school dropout is the culmination of a long process of disengagement from school.

CTE and High School Completion

The National Dropout Prevention Center has identified and categorized 15 strategies that make a positive impact on the dropout rate¹³ and CTE is among them:

Foundational Strategies

1. Systemic Approach
2. School-Community Collaboration
3. Safe Learning Environments

Early Interventions

4. Family Engagement
5. Early Childhood Education
6. Early Literacy Development

Basic Core Strategies

7. Mentoring/Tutoring
8. Service-Learning
9. Alternative Schooling
10. After-School/Out-of-School Opportunities

Managing and Improving Instruction

11. Professional Development
12. Active Learning
13. Educational Technology
14. Individualized Instruction
15. Career and Technical Education

According to the Association for Career and Technical Education¹⁴ (ACTE), the nation's largest education association dedicated to CTE:

“High school students involved in CTE are more engaged, perform better and graduate at high rates.

¹³ National Dropout Prevention Center: [Link to Article](#)

¹⁴ ACTE: [Visit their website](#)

- Taking one CTE class for every two academic classes minimizes the risk of students dropping out of high school.
- The average high school graduation rate for students concentrating in CTE programs is 93 percent, compared to an average national freshman graduation rate of 80 percent.
- 91 percent of high school graduates who earned 2-3 CTE credits enrolled in college.”

Students who entered high school at a normal or younger age had a decreased risk of dropping out of high school as they added CTE courses to their curriculum, up to the point where they were taking one CTE course for every two academic courses, according to a 2005 report by the National Research Center for Career and Technical Education. The intensive nature of Pennsylvania’s CTE programs comes close to replicating the conditions of the research study. The report suggests that the greater relevance of the CTE programs gave students a broader array of experiences and helped them identify a meaningful career objective.¹⁵

High-risk students enrolled in a CTE program were eight to 10 times less likely to drop out in eleven and twelfth grades, and a high quality CTE program could reduce a school’s dropout rate by as much as six percent, according to a University of Michigan study.¹⁶

Additional research on the role of CTE in dropout prevention and student engagement is cited in a 2018 ACTE factsheet:¹⁷

- CTE reduces dropout and increases on-time graduation, particularly CTE courses taken in grades eleven and twelve.
- The more students participate in career and technical student organizations, the higher their academic motivation, academic engagement, grades, career self-efficacy, college aspirations and employability skills.
- Students attending CTE high schools have demonstrated higher rates of on-time graduation and credit accumulation and a greater likelihood of successfully finishing a college preparatory mathematics sequence.
- Eighty percent of students taking a college preparatory academic curriculum with rigorous CTE met college and career readiness goals, compared to only 63

¹⁵ Plan, Stephen, Stephanie DeLuca, and Angela Estacion (2005). *Dropping Out of High School and the Place of Career Technical Education*. University of Minnesota, St. Paul, Minnesota: National Research Center for Career and Technical Education.

¹⁶ Kulik, James, *Curriculum Tracks and High School Vocational Students* (1998). University of Michigan, Ann Arbor, Michigan.

¹⁷ ACTE: [CTE Fact Sheet](#)

percent of students taking the same academic core who did not experience rigorous CTE.

- CTE students were significantly more likely than their non-CTE counterparts to report developing problem solving, project completion, research, math, college application, work-related communication, time management and critical-thinking skills during high school.
- The average high school graduation rate in 2012 for CTE concentrators was 93 percent, compared to the national adjusted cohort graduation rate of 80 percent.
- Work-based learning (e.g., job shadow, internship, apprenticeship) helps students apply and extend classroom learning, gain motivation and understanding, explore careers and develop a critical understanding of the work environment.
- Students who take advanced CTE courses in high school see higher earnings including a 3.2 percent wage increase for CTE concentrators.

The Methodology of CTE

CTE naturally blends with and integrates other strategies that the Dropout Prevention research correlated with increased student success. The following table explains how CTE in Pennsylvania addresses a selection of dropout prevention strategies:

Dropout Prevention Strategy	How CTE addresses this strategy
Systemic Approach	PDE, BCTE, and local school administrators employ strategic planning and continuous quality improvement techniques to build high quality CTE programs.
Active Learning	Students learn and apply technical knowledge and skills in authentic workplace settings through projects, teacher questioning and hands-on learning.
After-School Opportunities	Career Technical Student Organizations (CTSOs) are a critical component of high quality CTE programs, giving students opportunities to participate in regional, statewide and national competitions; hone technical skills and knowledge; practice public speaking; and build leadership skills.
Alternative Schooling	While career and technology centers are considered extensions of the student's home high school, in effect, they serve as an alternative school.
Educational Technology	Technology is an integral part of the CTE experience.

Family Engagement	CTE educators make an effort to engage parents in multiple ways. The decision to attend a CTC itself requires a level of buy-in by students' parents/guardians.
Individualized Instruction	CTE programs are driven by a clear set of technical and employability skills that students are expected to attain over the course of the program. A student-driven, competency-based approach that maximizes individual support and flexibility is utilized.
Mentoring/ Tutoring	Business volunteers may act as mentors with individual or small groups of students. CTE students often spend half or more of every school day with their CTE instructor who may also be considered a mentor.
Professional Development	Pennsylvania educators are required to engage in continuous learning. Professional development activities are offered at the school, regional (Intermediate Units) and state level.
Safe Learning Environments	Anecdotally and through school surveys, CTE students reportedly feel successful and emotionally and physically safe. Further, the curriculum of every PA CTE program includes safety lessons.
School-Community Collaboration	Multiple opportunities for school-community collaboration take place: employer volunteers serve on program-specific Occupational Advisory Committees; members of business and industry act as coaches or judges in skills competitions; and members of business and industry provide work-based learning opportunities for students.
Service-Learning	CTE students engage in acts of community service through CTSOs (e.g. building houses for low-income residents, volunteering in hospitals and clinics, providing support for public events). Students operate school-based enterprises that are opened to the public (e.g., restaurant, bakery, collision repair, cosmetology services).

Student Engagement and Dropout Prevention Strategies Practiced in Pennsylvania

The following schools implement practices designed to address and eliminate the barriers that may prevent students from completing their CTE programs and ultimately graduating from high school.

Lawrence County Career and Technical Center

Strong academic support and a rigorous admission process contribute to Lawrence County Career and Technical Center's (LCCTC) high graduation rate, according to

Director Leonard Rich. "We want to make sure students who come to our school are able to succeed." Potential students must have completed a minimum of four credits in core academic areas and have favorable attendance, discipline and achievement records as well as the support of their parent or guardian. Once enrolled, students have access to ongoing support on an as-needed basis (e.g., tutoring, counseling, scheduling flexibility, credit recovery programs).

Greater Altoona Career and Technology Center

Programs at Greater Altoona Career and Technology Center (GACTC) operate on a half-day schedule for students in grades 10 through 12. Students in grade nine may attend GACTC provided they are admitted after a review process. Sending district counselors are welcome to recommend freshmen students who they believe will benefit from early admittance at GACTC. Students' grades, attendance and behavior records are reviewed by GACTC administration to determine whether or not a student is granted early admission. GACTC administration contends that the ninth grade enrollment option may significantly contribute to success for some students and ultimately prevent them from dropping out of school.

Clarion County Career Center

The At-Risk Program is open to students in grade nine who meet specific criteria (e.g., academically challenged, retained one or more grades, low standardized test scores). Once in the program, students enroll in a CTE program based on their interest and program availability. (A limit of one at-risk student per program is in place.) At-risk students receive instructional aide support provided by the CTC as well as regular contact with the Special Needs Coordinator, who closely monitors their academic performance and adjustment to the CTC. Students meet with the Special Needs Coordinator and/or their CTE program instructor eight times during the year.

To remain in the program, students must earn passing grades (above 70 percent), maintain an attendance rate above 85 percent and have minimal discipline referrals. The Special Needs Coordinator is alerted through a multi-tier support system when a student drops below a certain grade level; this often results in additional one-on-one support from the instructional aide.

The At-Risk Program is considered to be successful, and administrators want to expand it. Approximately 50 percent of the at-risk students historically complete the ninth grade program. Of those who were unable to do so, all have re-enrolled at the CTC the following year as tenth grade students. Given that every student presents a unique set of circumstances, less restrictive eligibility guidelines are being explored.

SUN Area Technical Institute

Students who attend SUN Area Technical Institute (SUN Tech) are required to wear uniforms and appropriate safety gear, a common practice in CTE. Unfortunately, this sometimes presents a financial hardship for students and could lead to CTC dropout. Administrators established a non-profit foundation in 2011 to provide financial support to students who are unable to afford uniforms, safety equipment and/or tools or certification fees for their CTE programs. "No one is turned away because they cannot afford these," according to Director Jennifer Hain.

SUN Tech provides targeted support to students who have Individualized Education Plans (IEPs)¹⁸ to help them make sound educational choices, achieve success and stay in school. For ninth grade students with IEPs, SUN Tech hosts small group tours of the CTC rather than including these students in the larger tours attended by their grade level peers. Special education coordinators at SUN Tech's sending districts identify students who may benefit from this arrangement and coordinate the tour with SUN Tech staff. Educators from the sending districts and the CTC believe that a smaller tour puts students with IEPs at ease, allowing them to pose questions they might otherwise be hesitant to ask.

To find the best program fit and thereby increase program completion, SUN Tech faculty members conduct a "situational assessment" for prospective students with IEPs in grades ten and eleven. Students spend a full or half day in a SUN Tech program of their choice. During this time, the CTE instructor assigns written and performance tasks in order to evaluate students' learning skills, interpersonal skills, professionalism and career skills. The CTE instructor also makes a list of what he or she believes to be the students' strengths and needs. This information is presented at students' IEP meeting and used to help faculty, the student and parents/guardians identify a good CTE program for the student. (Although SUN Tech is a senior-year only CTC, students with IEPs may attend for two years. However, they must attend a different program each year.)

Middle Bucks Institute of Technology

The Student Assistance Team closely monitors students' attendance, discipline and grades and meets monthly to discuss how they might support at-risk students. Led by the Middle Bucks Institute of Technology (MBIT) CTE Supervisor, the team includes special education teachers, the guidance counselor, school security officer and the school nurse. Administrative Director Kathryn Strouse explained that the goal of the team, which formed in 2009, is "to make sure students are successful." Team members,

¹⁸ The Individualized Education Plan, or IEP, annually guides the educational programming for all students with identified disabilities in grades kindergarten through grade twelve.

she added, regularly contact their counterparts at students' sending districts and make referrals to appropriate assistance programs at those schools when needed. MBIT staff also utilizes a formal truancy plan; attendance data is shared with sending districts on a daily basis, and CTC staff contacts parents/guardians of students who have three unexcused absences. This early contact helps to identify and resolve some attendance issues before students are considered truant or decide to drop out of school.

Indiana County Technology Center

Administrators established the Strategic Student Intervention Process (SSIP), a three-tiered plan to identify and assist students who are struggling academically. Based on the Pennsylvania Response to Instruction and Intervention (RtII) framework, which focuses on identifying and addressing academic and behavioral difficulties prior to student failure, this program proactively identifies and provides support to struggling students.

A centralized records system monitored by counselors and learning facilitators serves as the foundation for the program. Instructors may access the records system, enter comments relating to student behaviors and refer a student for support. A referral in the SSIP triggers an immediate response resulting in the formation and meeting of an intervention team, including program staff (teacher and support professional), the ICTC principal, guidance personnel and, depending on the situation, the ICTC learning facilitator and/or the student. A signature page is circulated at each SSIP session to indicate agreement with recommended interventions.

Eastern Westmoreland Career and Technology Center

Members of a Retention Team that includes teachers, administrators and support staff meet every Thursday to discuss and identify supports for students who are exhibiting at-risk behavior (e.g., decrease in academic performance, inconsistent attendance, social or behavioral issues).

Following Thursday's meeting, Retention Team leaders share any lingering student concerns at the Student Assistance Program (SAP) meeting held every Friday. Through this process, about 10 students per year on average are identified as needing additional support. Principal Chris Campbell finds the entire process effective in addressing student challenges in large part because the Retention Team and SAP meetings are held on consecutive days. This schedule allows for information to be communicated and acted upon in an efficient manner.

Schuylkill Technology Center South Campus

The School Climate Initiative¹⁹ was implemented at Schuylkill Technology Center (STC) in 2016; it is based on the work of the National School Climate Center (NSCC).²⁰ Creating a supportive learning environment that addresses the needs of all students is its primary purpose. Assistant Principal Stacey Minahan spearheaded the adoption of the School Climate Initiative, and STC's North and South Campuses both participate. Faculty and administrators view the initiative as a powerful tool to increase student engagement and prevent students from dropping out of school. The School Climate Team, consisting of about 20 staff members, guides the School Climate Initiative implementation process. A mid-year and a comprehensive action plan are developed to identify the following:

- Objectives and sub-goals of the initiative;
- Student, parent, staff and community needs;
- Ways in which progress/success in meeting the objectives and sub-goals will be measured;
- Strategies for meeting the objectives and goals; and
- Specific tasks to be implemented for each strategy.

Student focus groups and an annual survey of key stakeholders are used to identify needs and guide action planning. For example, a goal to improve communication and positive relations with all stakeholder groups was implemented in the 2016-17 school year based on survey results. Four domains are addressed in the survey: social-emotional learning; student support; high expectations for academic rigor and challenge; and safe and respectful school climate.

STC implemented several strategies that focus on developing student-to-school connections and social-emotional learning through the work of the initiative. The strategies aim to keep students connected to the school community, motivated to learn and in school. For example, a Positive Norms Campaign, the foundation of the school's cultural shift, kicked off the 2017-18 school year in an effort to increase student and faculty relations and build a positive school culture. In addition, STC also created an online tool so that students may anonymously communicate concerns related to bullying and other social-emotional needs.

Tyrone Area High School

Project Safeguard provides early intervention that may keep at-risk students from dropping out of school. As Principal Thomas Yoder states, "It's all about timing" and

¹⁹ For more information about the School Climate Initiative at STC and to see a copy of their action plan, visit: [PACTE Resources](#)

²⁰ For additional information, visit the [National School Climate Center](#)

early intervention. All students participate in Project Safeguard through a daily advisory period (one hour for freshmen and 25-minutes for upperclassmen) designed to identify and help those who are exhibiting at-risk behaviors. Teachers file a weekly report with the Project Safeguard Committee documenting students' concerning behaviors. Committee members (administrators, counselors, social worker, special education director, and several teachers) meet weekly to review teachers' reports and develop intervention strategies for students who exhibit two or more at-risk behaviors.

Tyrone Area High School's Graduation Initiative aims to support at-risk students through a focus on coordinating school- and community-based services for students and their families. Graduation Initiative Team members (a counselor, school coordinator and case manager) meet weekly to monitor student performance using 11 indicators of at-risk behavior across academic, behavioral and social areas. Interventions are developed for identified students; these include but are not limited to the following actions:

- Students' families receive ongoing communication from the Graduation Initiative Team in an effort to establish stronger connections and possibly to support the pursuit of mental and behavioral health services with their child.
- Students and teachers engage in "walk and talks," an opportunity to informally connect and perhaps plan an intervention. For some students, this occurs at a scheduled time and for others, it takes place as needed.
- Students accelerate earning credits via cyber courses.
- Creative scheduling is offered to accommodate students' needs (e.g., later start time, multiple periods in the classrooms of preferred teachers).

Three of four students identified in the initiative's first year did graduate; one was the first in his family to do so. Year two of the initiative is soon ending; 27 students were identified and received intervention and only one is considered unlikely to graduate.

Lehigh Career and Technical Institute

The full-day Career Academy Program (CAP) at Lehigh Career and Technical Institute (LCTI) serves up to 130 students in grades 10 through 12 who are at risk of dropping out of school. Students receive in-depth support and an individualized approach to learning.

Sending district personnel recommend students who are credit deficient and/or are not integrating into the traditional high school environment. Admission to the program requires potential students and their parent/guardian to meet with the CAP administrator and agree to the program's academic goals and requirements.

CAP Principal Darin Van Norman communicates a strong message to students: their primary goal is to graduate and their secondary goal is to develop a skill to make them employable. CAP students attend both academic and CTE courses at LCTI and choose from several CTE programs:

- Applied Horticulture;
- Auto Specialization Technology;
- Building Trades Maintenance;
- Graphic Communications (starting in the 2018-19 school year);
- Electrical Technology;
- Health Occupations; and
- Office Systems Technology.

Several dropout prevention strategies and resources are implemented through CAP. For example, class sizes are usually kept below 15 students. In addition, a unique course schedule is believed to increase students' level of engagement: students receive one day of academic instruction followed by two days of instruction in CTE. An online credit recovery option further supports academic achievement and graduation. Finally, CAP academic and CTE classes take place in a designated area of the school and with a dedicated staff who motivate, guide and encourage students to develop a sense of purpose for their learning. In addition to CTE and academic teachers, CAP staff members include special education teachers, a social worker, a behavioral interventionist and an administrator. The CAP structure promotes relationship building and a positive culture among CAP students and staff, and potential distractions taking place in other parts of the large CTC are avoided.

Community service plays a key role in CAP. Recent CAP student projects include updating electrical services on a nonprofit farm and building a ticket booth for the Lehigh Valley Zoo. CAP Principal Van Norman emphasizes the importance of community service projects believing that they help students develop self-esteem, a sense of social responsibility, and life and technical skills.

Many students are successful in CAP. Eighty-six percent of CAP seniors graduated in 2016, and 90 percent graduated in 2017. Equally impressive, the attendance rate in the 2016-17 year was 81 percent despite the fact that almost 80 percent of incoming CAP students had habitual attendance issues at their previous school.

Conclusion

Pennsylvania's CTE educators demonstrate the importance of implementing multiple strategies to directly or indirectly address dropout prevention. For many students, these

strategies lead to interest in and intention to pursue postsecondary education and training.

Administrators at all of Pennsylvania's career and technical centers are encouraged to draw from the examples in this report and renew their focus on implementing these and related strategies.