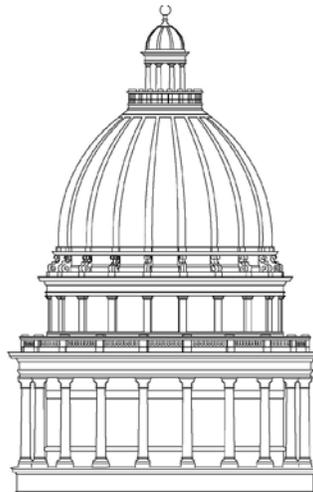


REPORT TO THE  
**UTAH LEGISLATURE**

Number 2015-09



**A Review of CTE Coordination  
and Program Duplication between  
Public Education and UCAT**

September 2015

Office of the  
LEGISLATIVE AUDITOR GENERAL  
State of Utah





STATE OF UTAH

# Office of the Legislative Auditor General

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JOHN M. SCHAFF, CIA  
AUDITOR GENERAL

September 2015

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **A Review of CTE Coordination and Program Duplication between Public Education and the Utah College of Applied Technology (UCAT)** (Report #2015-09). A digest is found on the blue pages located at the front of the report. The objectives and scope of the audit are explained in the Introduction.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

John M. Schaff, CIA  
Auditor General

JMS/lm



# Digest of a Review of CTE Coordination and Program Duplication Between Public Education and UCAT

## Chapter I Introduction

Career and technical education (CTE) is an important element of a secondary student's education. The purpose of CTE is to provide students with the technical skills and academic knowledge needed to prepare them for future employment and/or a successful transition to post-secondary education. Secondary students are required to earn at least one credit hour of CTE in order to graduate.

Secondary schools and the Utah College of Applied Technology (UCAT), which is comprised of eight regional applied technology colleges (ATCs), provide CTE to Utah's secondary students. Both entities have an important role in providing secondary students with CTE options to further their education and develop job skills. This audit addresses how effectively LEAs coordinate and cooperate with ATCs to provide CTE opportunities for secondary students while avoiding duplication of effort and unnecessary costs.

## Chapter II CTE Coordination Appears Adequate

**Utilization of ATCs Varies by LEA.** LEAs' usage of ATCs is different throughout the state. There are many reasons why some districts utilize the ATCs more than others do. Some LEAs have higher utilization than other LEAs because of the proximity of the ATC and/or because their class schedules are better aligned with the ATCs' schedules. The way LEAs and ATCs are able to coordinate to overcome those barriers is discussed later in this chapter. First, we discuss some factors that may affect the use of ATCs by secondary students. These factors include:

- Programs available at secondary school
- CTE funding practices and incentives
- ATC classes' capacity

**Local Coordination Helps Students Overcome Barriers.** Local coordination of CTE between LEAs and ATCs is helping secondary students overcome barriers to attending ATCs. Travel distance can be an obstacle for students who live far from an ATC and scheduling can be an obstacle if the ATC and secondary school class times conflict. In

areas where distance and scheduling obstacles are mitigable, coordination between the LEAs and the ATCs is occurring.

**Program Articulation Agreements Demonstrate Coordination Is Occurring.**

Articulation agreements are another good example of coordination taking place between the LEAs and ATCs. Program articulation agreements minimize duplication by limiting repetition of previously completed coursework. Regional non-credit articulation agreements allow ATCs to apply secondary school credit toward their CTE programs so secondary students may pursue career and technical objectives without repeating coursework.

**Local Scheduling Issues with ATCs Differ Among LEAs.** Some LEAs and ATCs have coordinated their class start times better than others have. This may be one of the most difficult areas to coordinate since ATCs and LEAs can have different morning start times for classes. Further, LEAs in the same region may be on a trimester or a traditional semester schedule. In addition, secondary schools have A and B days with different class schedules.

## **Chapter III Duplication of Effort Is Not Widespread**

**Wasteful Duplication Requires the Existence of Multiple Elements.** CTE stakeholders agree that effective use of limited resources is important, and that wasteful duplication of effort should be avoided. In order to identify potential duplication between secondary schools and ATCs, we examined (a) program and course offerings, (b) available capacity, and (c) how far secondary students travel to participate in ATC offerings.

**Articulation Agreements Help Identify Potential Duplication.** Regional career pathway agreements (articulation agreements) facilitate the continuation of CTE through post-secondary education. The main purpose of articulation agreements is for ATCs to recognize classes already completed by secondary students so they do not have to repeat work they have already done.

**Some Overlap of CTE Offerings Is Inevitable.** While secondary schools and ATCs both serve secondary students, only ATCs serve post-secondary (adult) students. ATCs will duplicate most introductory CTE foundation courses offered in secondary schools because they are required for the progression of adult students toward certificates. Certificates offered through ATCs prepare students for employment and are approved (or pending) by UCAT's accrediting body. CTE stakeholders are aware of concerns about wasteful duplication of effort and strive to minimize such duplication between secondary and ATC programs.

# REPORT TO THE UTAH LEGISLATURE

Report No. 2015-09

## **A Review of CTE Coordination And Program Duplication between Public Education and UCAT**

September 2015

Audit Performed By:

Audit Manager	Richard Coleman, CPA, CIA
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# Chapter I

## Introduction

Career and technical education (CTE) is an important element of a secondary student's education. The purpose of CTE is to provide students with the technical skills and academic knowledge needed to prepare them for future employment and/or a successful transition to post-secondary education. Secondary students are required to earn at least one credit hour of CTE in order to graduate.

Secondary schools and the Utah College of Applied Technology (UCAT), which is comprised of eight regional applied technology colleges (ATCs), provide CTE to Utah's secondary students. Both entities have an important role in providing secondary students with CTE options to further their education and develop job skills. This audit addresses how effectively LEAs<sup>1</sup> coordinate and cooperate with ATCs to provide CTE opportunities for secondary students while avoiding duplication of effort and unnecessary costs.

### **Both Secondary Schools and ATCs Provide Career and Technical Education**

A wide variety of CTE programs are provided by the secondary schools as well as the ATCs for secondary students to choose from. The Utah State Office of Education (USOE) approves all CTE programs taught in the school districts, which provide most of the CTE delivered to secondary students. However, ATCs also provide CTE to secondary students who decide to attend their region's ATC in addition to taking CTE at their secondary schools. Because adult students cannot go to secondary schools but high school students can go to ATCs, coordination occurs to facilitate the use of ATCs by secondary students and the recognition of high school credits in the ATC system upon enrollment.

Coordination between LEAs and ATCs is important to ensure the effective use of limited resources. In addition to regular weighted pupil unit (WPU) funding, LEAs receive CTE add-on funds from the

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<sup>1</sup> LEA means a local education agency, including local school boards/public school districts and charter schools.

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**Secondary students can enroll in CTE classes at ATCs while in high school.**

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Legislature for secondary students taking CTE at secondary schools and federal Perkins funding for CTE. Figure 1.1 shows funding amounts for fiscal year 2014.

**Figure 1.1 Statewide CTE Funding for all Secondary Students Comes from Multiple Sources.** In fiscal year 2014, it cost over \$165 million to provide CTE to secondary students.

Funding Source	Amount for Secondary CTE
Basic WPU	\$ 81,881,000
CTE Add-On	77,879,500
Federal Perkins (portion)	5,622,572
<b>Total</b>	<b>\$165,383,072</b>

LEAs receive the basic WPU funding even if secondary students go to the ATC instead of their high schools for CTE. All of these funds are to be used to help cover the costs associated with CTE programs.

**CTE Includes Wide Variety of Programs**

USOE divides CTE into eight different areas of study that have sixty-one different pathways, providing students with a plethora of CTE choices to help them explore different fields of study, which in turn should help students determine whether to go on to an ATC, higher education, or the workforce. The eight areas of study consist of:

- Agriculture education
- Business education
- Family and consumer science education
- Health sciences education
- Information technology education
- Marketing education
- Skilled and technical sciences education
- Technology and engineering education

A pathway is a sequence of courses within a student’s area of interest. A CTE pathway connects high school through college for a specific degree and/or career. The CTE curriculum standards are course

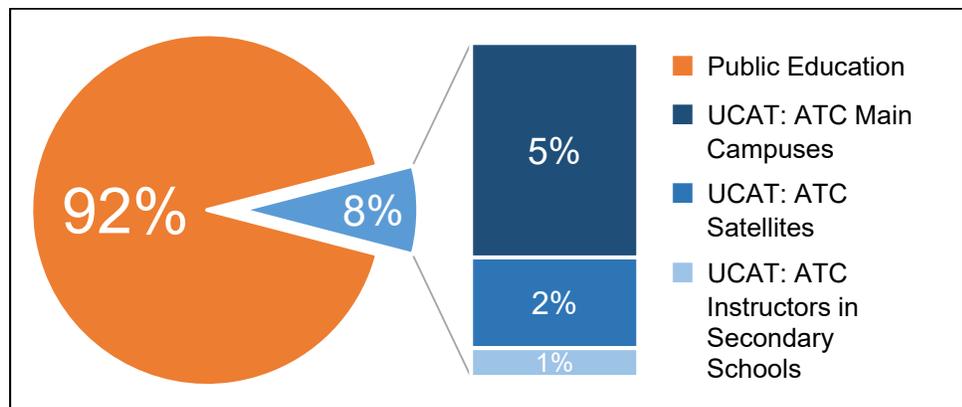
specific and focus on academic standards and occupational specific skills to provide a pathway to accomplishing students' educational and career goals.

Both secondary schools and ATCs are working together to provide CTE to high school students, with public education providing a significant portion of CTE to secondary students.

### Secondary Schools Deliver Most CTE To Secondary Students

The state's secondary schools provide the majority of CTE instruction to secondary students. The LEAs within the 8 ATC service areas (see Appendix) taught 92 percent of all CTE to secondary students at high schools. Figure 1.2 shows that, for the academic school year 2014, 92 percent of CTE was taught in the secondary schools for grades 9 through 12.

**Figure 1.2 Most CTE Taught to Secondary Students Is Provided by Secondary Schools.** For the 2014 academic school year, the majority of CTE was taught at the public high schools, with 8% of CTE taught to secondary students by the ATCs.



Source: Auditor Analysis of UCAT and USOE data  
Note: This analysis excludes school districts not statutorily assigned to ATCs, including: Canyons, Carbon, Emery, Grand, Granite, Jordan, Juab, Millard, Murray, North Sanpete, Piute, Salt Lake City, San Juan, Sevier, South Sanpete, Tintic, and Wayne school districts (see Appendix).

Most CTE courses available at the secondary schools are introductory in nature, which allows students the opportunity to determine if the areas are something they would like to pursue as a career or field of study. Students who take one-and-a-half credit hours in a specific pathway area are designated as high school pathway concentrators; students who take three credit hours are called high school pathway completers.

## **ATCs Offer Additional CTE Choices**

The UCAT system is another viable option for secondary students to earn CTE credits and further their education and career goals. UCAT is required to provide access to all secondary students as directed by *Utah Code* 53B-2a-102(g):

...Ensure that secondary students in the public education system have access to career and technical education through the Utah College of Applied Technology college campuses.

The mission of the Utah College of Applied Technology (UCAT) is to meet the needs of Utah's employers for technically skilled workers and promote local and statewide economic development by providing market-driven technical education to secondary and adult students.

The main goal of ATCs is to prepare students for employment. The programs ATCs offer are geared towards specific careers; ATCs do not offer the same breadth of programs secondary schools offer. However, the programs that are offered at the ATCs provide more depth than would be provided at secondary schools. For these reasons, not all secondary students will be interested in attending an ATC unless it meets their educational goals.

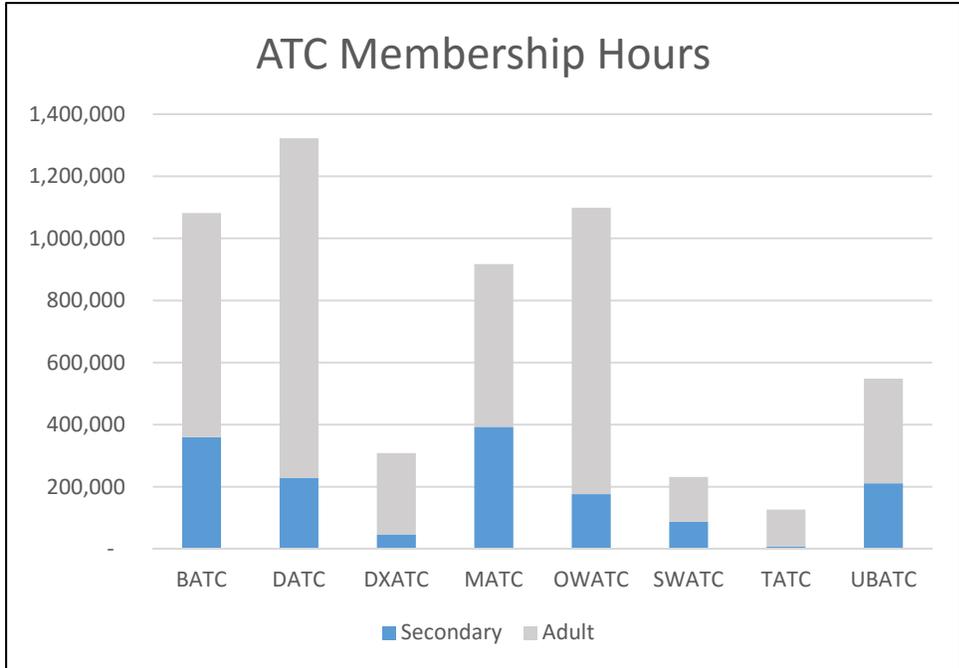
Figure 1.3 shows the membership hours for secondary students who attend the ATCs compared to adult students who attend the ATCs. In 2014, the membership hours totaled 1.51 million for secondary students in grades 9 through 12 in regions served by an ATC.

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**ATCs provide secondary students with additional CTE choices.**

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**Figure 1.3 2014 ATC Membership Hours for Secondary Students and Adults.** Secondary membership hours are different at all eight ATC campuses. Secondary students took a total of 1.51 million hours of CTE in 2014.



Source: Auditor Analysis of UCAT data

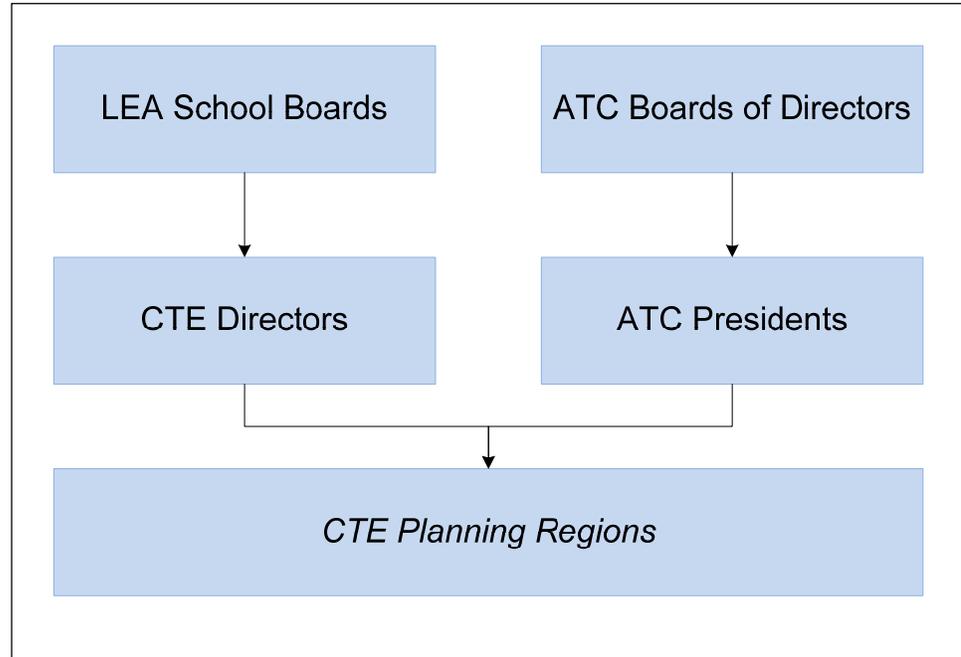
**Use of ATCs by secondary students varies by regions.**

Figure 1.3 shows that the utilization of ATCs is different in each region. Regional attendance varies for a number of reasons. Some LEAs have coordinated with ATCs and share resources, so certain types of classes are only taught at the ATCs. For example, in the Iron County School District, the ATC teaches all of the following courses for the secondary schools that are close by: health sciences, automotive, wood shop, and welding. Some LEAs have established programs and do not use ATCs as much as others.

### **CTE Coordination Involves Many Stakeholders**

Coordination and collaboration in CTE planning and instruction involve many education stakeholders at the state, regional, and local levels. Figure 1.4 illustrates the entities that are involved at the ATC and LEA levels.

**Figure 1.4 CTE Stakeholders at the Local LEA Level.** The local level is where LEA school boards and ATC board of directors provide policy that is implemented by CTE directors and ATC presidents.



The CTE director at USOE oversees CTE programs that are being implemented across the state. In addition, the director ensures that CTE best practices are being shared with LEAs' CTE directors, and notifies and/or provides training to LEA CTE directors on any additions or changes in CTE legislation, policy, or requirements.

CTE coordination at the region level is the critical area where CTE is actually planned, coordinated, and implemented between LEAs and ATCs. Local CTE directors' decisions are based on policy that comes from their LEA school boards. In addition, ATC presidents receive their direction from their ATC boards and in order for LEAs and ATCs to coordinate CTE they must both work together.

The eight regions appoint local representatives from the following entities:

- CTE directors from districts
- CTE director(s) from ATCs
- CTE director(s) from higher education
- Liaisons from USOE

- Pathway Coordinators from CTE planning regions

It is at the region coordination meetings where the individuals listed above meet to discuss issues, plan, and coordinate. They meet regularly during the year to coordinate CTE in their local areas.

## **Audit Scope and Objectives**

This audit was requested to review the coordination of career and technical education between public education and UCAT for secondary students. In addition, we were asked to determine if program duplication or overlap of effort occurs between UCAT and secondary schools. Specifically, our audit objectives were as follows:

1. Determine whether there is adequate coordination between secondary education and UCAT stakeholders to ensure effective use of CTE resources.
2. Determine whether program duplication or overlap of effort is occurring between UCAT and secondary schools.

We met with many CTE stakeholders in the UCAT system as well as the secondary education system. We reviewed various CTE programs in both the secondary education and the UCAT systems.

Chapter II focuses on the coordination and collaboration of CTE occurring between the LEAs and the ATCs. This audit specifically focuses on the coordination of CTE that occurs between UCAT and secondary public education. It should be noted that 16 school districts were not reviewed because their post-secondary CTE programs are provided by USHE institutions instead of ATCs. Chapter III focuses on duplication of resources that may occur between secondary education and the ATCs.

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## Chapter II

# CTE Coordination Appears Adequate

Coordination of career and technical education (CTE) appears reasonable between local education agencies (LEA) and the applied technology colleges (ATC). The extent to which LEAs rely on ATCs to help deliver CTE to their students varies throughout the state and depends on local needs and conditions. Some LEAs bus high school students to ATC campuses or have ATC instructors provide instruction on high school campuses. In contrast, students in other LEAs with robust CTE programs tend to use ATC programs less often. Since many of the decisions concerning CTE occur at the LEA level, the coordination between ATCs and LEAs depends on the local needs of the area.

Regional career pathway agreements between LEAs and ATCs are a good example of the coordination that is taking place. These agreements provide a way for students to receive ATC membership hours for courses taken in high school and reduce the need to repeat coursework at ATCs. State and local education boards and UCAT Board of Trustees should also ensure procedures are created and in place to provide high school credit to students who take summer or night classes at ATCs.

Local class scheduling is another area that requires coordination between LEAs and the ATCs. Most LEAs and ATCs have done a reasonable job of aligning their class schedules as much as possible so that scheduling is not a cause that would prevent a secondary student from attending an ATC.

Secondary schools (high schools and charter schools) deliver the bulk of CTE. The ATC is a good option for those students who are interested in CTE, earn more than the one credit hour required for graduation, and want to continue their education with additional CTE. It is for this group that the coordination between the secondary schools and ATCs is critical.

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**CTE coordination between secondary education and the ATCs appears reasonable.**

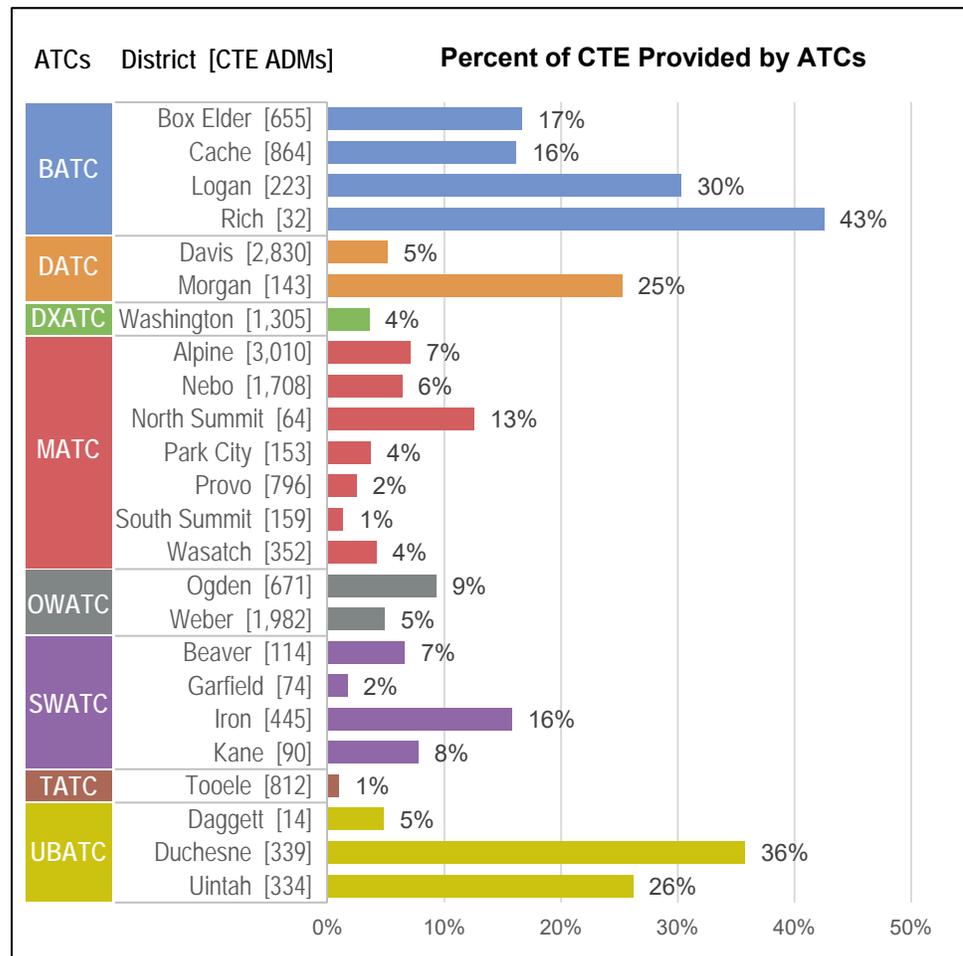
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## Utilization of ATCs Varies by LEA

LEAs' usage of ATCs is different throughout the state. Figure 2.1 shows school districts' use of ATCs for the 2013-2014 academic school year. Rich School District had the highest percent utilization; Bridgerland ATC (BATC) provided 43 percent of the CTE received by its students. In contrast, an ATC provided just 1 percent of the CTE received by two other districts' students.

**Figure 2.1 Utilization of ATCs by Individual School Districts for School Year 2013-1014.** School districts vary in the use of ATCs in their areas. The percentages represent the amount of CTE provided by ATCs in each school district.

LEAs' use of ATCs varies and depends on local needs.



Source: Auditor Analysis of UCAT and USOE data  
 Note: ADM = Average Daily Membership

There are many reasons why some districts utilize the ATCs more than others do. Some LEAs have higher utilization than other LEAs because of the proximity of the ATC and/or because their class

schedules are better aligned with the ATCs' schedules. The way LEAs and ATCs coordinate to overcome those barriers is discussed later in this chapter. First, we discuss some other factors that may affect the use of ATCs by secondary students. These factors include:

- Programs available at secondary schools
- CTE funding practices and incentives
- ATC classes' capacity

To help understand these issues, we compared LEAs' use of ATCs with the level of ATC capacity used by secondary students. Figure 2.2 shows that information for each ATC. The column showing the percent of secondary students' CTE provided by an ATC uses data shown in Figure 2.1, but it is a weighted average of the LEAs assigned to each ATC. The right column shows the percent of each ATC's total membership hours provided to secondary students in academic year 2013-2014.

**Figure 2.2 LEAs' Utilization of ATCs Varies for Each Region for School Year 2013-1014.** Secondary students' overall use of ATCs may be low at ATCs when compared to total student population; the actual overall capacity of the ATCs is significant at some of the ATCs.

ATC Regions	Percent of Secondary Students' CTE Provided by an ATC	Percent of ATCs' Total Membership Hours Dedicated to Secondary Students
BATC	19%	33%
DATC	6	17
DXATC	4	15
MATC	6	43
OWATC	6	16
SWATC	12	38
TATC	1	6
UBATC	30	39
<b>Weighted Average</b>	<b>8%</b>	<b>27%</b>

Source: Auditor Analysis of UCAT data

Figure 2.2 shows that all the ATCs combined provided 8 percent, on average, of the CTE received by secondary students in their regions, and that 27 percent of ATC capacity was used. However, the way percentages vary between the two columns is somewhat inconsistent. For example, MATC only provided 6 percent of the secondary student

ATCs' usage by secondary students varies by region.

CTE in its region. Yet, 43 percent of MATC's capacity was devoted to secondary students.

Many factors affect the use of ATCs by LEAs. Before we discuss some of the ways LEAs and ATCs coordinate to enable secondary students to use ATCs, the rest of this section discusses some of the factors affecting either the need for or ability of ATCs to serve secondary students, including program availability, funding practices, and capacity limitations.

### **Some LEAs Have Robust Introductory CTE Programs**

Larger school districts often have enough CTE offerings to satisfy student graduation requirements through introductory courses; however, they still need ATCs for students who want to advance beyond foundational coursework. For example, the Davis School District CTE director told us their programs offer most introductory CTE that students are interested in, but that students need DATC for advanced courses like injection molding, diesel automotive, and dental hygiene. Even though students in the district are relatively close to DATC, Figure 2.1 shows that Davis School District's secondary students use the ATC for only 5 percent of CTE.

The Tooele School District is another example of a district offering most of the CTE classes their students pursue. The Tooele CTE director told us that they provide all the introductory or foundation classes for their secondary students and if the students want to continue with CTE after graduation, they can take the more advanced classes at the ATC.

Overall, the school districts' utilization of the ATC depends on students' needs. Students are prone to stay in secondary schools that offer the CTE classes they desire. High school counselors told us that the students decide if they want to go to an ATC or not. Counselors said they try to point students in the right direction to further their career pathway and keep them on track for graduation.

### **Funding Practices May Hinder ATC Utilization**

The method of funding CTE programs may hinder secondary students' use of ATCs. LEAs receive CTE add-on funding for

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**LEAs provide many introductory CTE courses.**

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secondary students who enroll in classes at their high schools. ATCs receive funding from adults who pay tuition (dedicated credits) and receive funding each year from the Legislature.

**LEAs Depend on CTE Add-On and Federal Perkins Funds for CTE Programs.** CTE add-on funding pays for CTE programs provided by LEAs. For academic school year 2014, all LEAs were funded \$77.9 million for secondary CTE programs. In addition, \$5.6 million (of \$11.5 million) federal Perkins funds were also available to LEAs for secondary CTE programs in the 2014 academic school year.

Under this funding model, when secondary students take CTE classes at the ATCs, LEAs do not receive the CTE add-on or Perkins funding (although they still receive the basic WPU funding). LEAs benefit by keeping students in their own programs. Davis School District’s CTE director maintains that the district needs to keep its students in its programs to pay for its existing CTE teachers. Other CTE directors acknowledged that funding is a reason some LEAs may not wish to use ATCs more than they currently do; we agree that funding does play a role in decisions concerning CTE utilization.

**ATCs May Favor Adult Students Who Pay Tuition Over Secondary Students.** ATCs generate funds from adult students who pay tuition when they enroll in classes. By statute, ATCs may not charge secondary students for tuition. Under the current funding model, ATCs are incentivized to favor tuition-paying adults over secondary students. Figure 2.3 shows the amount of revenue that adult students’ tuition generated in the 2013–2014 academic school year.

**Figure 2.3 In the 2014 Academic School Year, Tuition-Paying Adults Generated More Than \$7 Million in Revenue for ATCs.** Secondary students cannot be charged tuition for their ATC classes.

Students	Membership Hours	Percent of Membership Hours	Tuition (Dedicated Credits)
Adult	4,123,007	73%	\$7,156,500
Secondary	1,511,558	27	—

Source: UCAT Data

In 2014, ATCs received \$7,156,500 in revenue from tuition charged to adult students. Since the bulk of the student population at

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**Current funding models play a role in LEAs’ use of ATCs.**

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**The majority of UCAT’s membership hours are from adult students.**

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ATCs is tuition-paying adults and one of the main goals of ATCs is to educate adults for employment, it seems reasonable that ATCs would favor adult students over secondary students.

### Capacity Affects Course Availability

The number of ATC classes available to secondary students affects LEAs' utilization of ATCs. Some popular courses reach capacity faster than other courses, leading ATCs to cap enrollment for secondary students. The capacity issues can change every year, depending on the demand from adult students. The following are some of the capacity constraints found for the 2014 academic school year.

- The DATC limited secondary student enrollment for its cosmetology, pharmacy tech and diesel programs.
- The OWATC limited secondary student enrollment for its cosmetology program.
- The MATC limited secondary student enrollment on its dental assisting program.

DATC administrators told us they limited cosmetology program enrollment to ensure that their program does not compete with private-sector cosmetology programs. In order to give secondary students a fair chance to enroll in the cosmetology program, DATC created Golden Tickets, which Davis School District created a lottery system to distribute to students. Figure 2.4 shows an example of a ticket a lucky student might receive if selected.

**Figures 2.4 Some ATCs Have Established Limits on Secondary Students' Enrollment in Some Classes.** Davis School District uses a lottery system to select interested students for available slots allocated by the DATC for classes with capacity limits.



Source: Davis School District

Some classes offered by ATCs have enrollment limits for secondary students.

The district CTE director told us that using a lottery to assign a ticket to a student was the fairest way they could think of to give each student an equal chance for one of the limited slots in the program.

## Local Coordination Helps Students Overcome Barriers

Local coordination of CTE between LEAs and ATCs is helping overcome barriers that exist for secondary students to attend ATCs. Travel distance can be an obstacle for students who live far from an ATC and scheduling can be an obstacle if the ATC and secondary school do not start classes at the same time. For some areas in the state, distance will always be an issue that is difficult to resolve; however, in areas where distance and scheduling obstacles are mitigable, coordination between the LEAs and the ATCs is occurring. For example, a few LEAs bus their secondary students to the regional ATC. Figure 2.5 shows the distances secondary students must travel to reach the nearest ATC or ATC satellite campus.

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**Barriers exist that may prevent secondary students from attending ATCs.**

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**Figure 2.5 Miles from High Schools to the Nearest ATC Campus or Satellite Campus.** Distance can be a barrier to some students' attendance at an ATC campus in their regions.

		Distance to Area ATC (miles)					
Number of Schools		0-5	5-10	10-15	15-20	>20	Total
ATC SERVICE AREA	BATC	3	3	1	-	1	8
	DATC	2	2	4	-	1	9
	DXATC	3	1	-	-	1	5
	MATC	11	10	4	-	-	25
	OWATC	5	3	-	-	-	8
	SWATC	2	-	-	-	8	10
	TATC	2	2	-	-	2	6
	UBATC	1	1	-	1	4	7
<b>Total</b>		<b>29</b>	<b>22</b>	<b>9</b>	<b>1</b>	<b>17</b>	<b>78</b>

Source: Auditor Analysis

Most secondary schools are more than five miles away from an ATC; students provide their own transportation unless the LEA offers busing. As one district CTE director said, if students cannot provide their own transportation to the ATC, they do not go or they can attend evening or summer classes.

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**Travel distance can be a major barrier for secondary students.**

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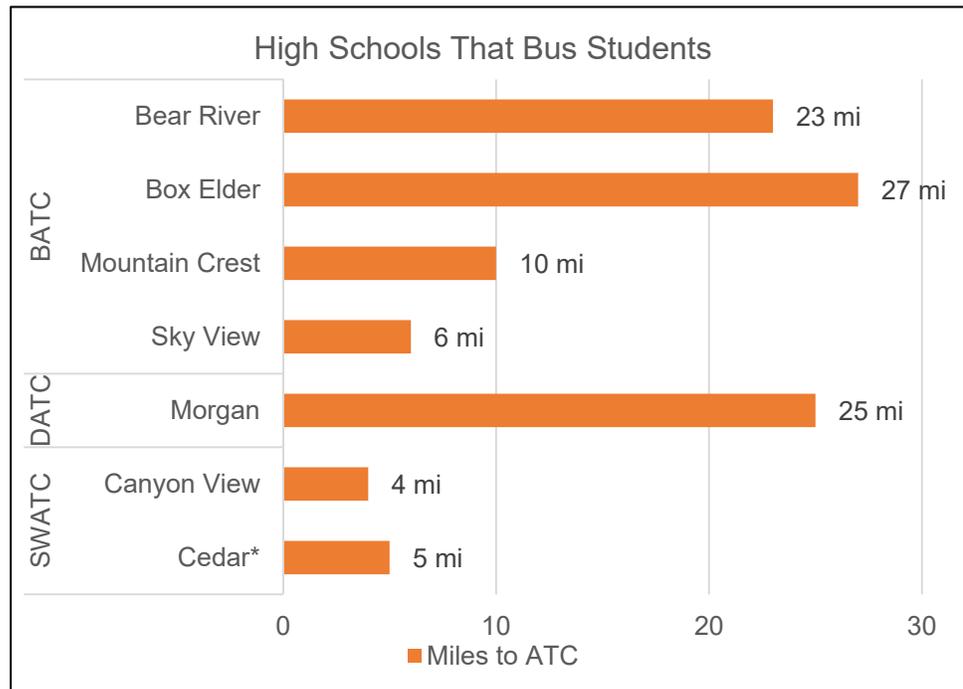
As will be discussed below, some LEAs and ATCs have coordinated their class schedules to accommodate secondary students who are bused to the ATCs.

### Busing Provides ATC Access

Seven high schools from four LEAs coordinated with their regional ATCs to bus secondary students to and from the ATCs in the 2014 academic school year. Figure 2.6 lists the high schools that provided busing for their students. The figure shows the distances for a one-way trip to the ATC main campus in their regions.

**Busing students to the ATCs helps reduce the distance barrier.**

**Figure 2.6 Some School Districts Are Busing Their Students to the ATCs.** To help reduce the distance barrier, some school districts bus their students to their regionally assigned ATC.



Source: Data provided by CTE Directors  
 \* Cedar High School buses students to an ATC automotive program that is not located at the SWATC campus

These districts use a variety of transportation options. Some districts transport students just once a day to and from the ATC. One district transports students to the ATC for every class period. The LEA can do this because the ATC has coordinated with them and aligned their classes with the secondary school schedule to facilitate students' attendance at the ATC.

Providing transportation to the ATCs gives students more education options and makes the ATC accessible to more students. Another benefit of providing transportation is students' safety. One CTE director commented that they look at the importance of giving options to students but indicated that safety is another factor they consider.

Ogden School District does not bus its students to OWATC but provides students with UTA bus tokens for travel to and from the ATC. Box Elder School District buses its students to BATC's Logan campus. Students must arrive at school early to take the bus to the ATC, which starts at 8:00 a.m. The district also provides an afternoon bus for students taking afternoon classes. Another school district has a policy that offers busing if at least ten students want to go to the ATC.

Providing transportation to secondary students depends on local needs. In addition, the costs of transportation need to be a part of the decision.

### **ATC Instructors at Secondary Schools Increase ATC Access**

Providing ATC instructors in the secondary schools is one way to remove the distance barrier and share resources. During the 2014 academic school year, 17 LEAs had ATC instructors teaching courses in their secondary schools. Other LEAs might consider this option to increase student access to additional CTE courses in their own schools, thus eliminating the distance barrier. Figure 2.7 shows the number of secondary schools with ATC instructors in their classrooms.

**Figure 2.7 LEAs and ATCs Avoid the Distance Barrier by Having Instructors Teach at the High Schools.** Many secondary students can earn ATC membership hours at their own high schools.

Description	Count
School Districts with ATC Instructors	17
Secondary Schools with ATC Instruction	27
Programs Taught	20
Number of Students	1,802
Membership Hours	134,260
ADMs	136

Source: UCAT

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**LEAs use different travel solutions in order for students to attend ATCs.**

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**ATC instructors in the high schools benefit students, LEAs, and ATCs.**

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**ATC instructors teach many different CTE classes.**

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ATC instructors may teach the same CTE class multiple times during the day. This cooperative approach has been beneficial for both entities. School districts in areas of the state where it is difficult to hire teachers can use ATC instructors as an additional resource. In many instances, the LEAs and ATCs provide equipment and supplies for the CTE classes and ATCs pay the instructors' salaries.

Rich High School, in a rural area, is an example of a high school utilizing ATC instructors to provide needed CTE courses. For the 2014 academic school year, ATC instructors taught 11 different courses at the high school. ATCs benefit from this relationship as well because it allows them access to high school students who otherwise might not have attended the ATC. This relationship also allows the ATC to expand its programs. For example, at Parowan High School (20 miles from an ATC), an ATC instructor teaches all the health science classes at the high school. Though the ATC is too far away for students to attend, by working together, the LEA brings the ATC to the students.

### **Distance Learning Could Be Beneficial**

Where busing or bringing ATC instructors to the high school may not be feasible, providing distance learning may be a viable option for LEAs. While distance learning may not work for many ATC courses, it may be worthwhile for some courses. LEAs should consider coordinating with regional ATCs to determine whether distance learning is achievable. Statute requires ATCs to make their facilities available as best they can. *Utah Code* 53B-2a-106(1)(d) states that each campus shall "...maximize the availability of instructional facilities within the geographic area served by the college campus." Both the LEAs and the ATCs should explore all reasonable avenues available to them to maximize educational opportunities for secondary students.

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**When feasible, distance learning is another way to reduce the distance barrier.**

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We sent a survey to ATC presidents regarding the feasibility of providing distance learning. The following are some of the comments about courses that might be possible to teach via the internet.

- Courses that do not have associated labs or equipment could be taught synchronously via video or asynchronously in a full online environment, or a hybrid of the two. In most cases, these would be foundation introductory courses. Courses such as medical terminology, anatomy and physiology, introduction

to a specific program, safety, geometric tolerances and dimensions are examples of courses that may work.

- Introduction to health science, medical terminology, computer literacy, welding math, medical math, workplace relations, and job-seeking skills could be taught via distance learning.

A few high schools are using distance learning with higher education institutions. It seems reasonable that ATCs could accomplish something similar. Since most ATC classes are competency based, the number of classes that would work in this medium may be fewer than ones that would work for higher education. Nevertheless, this medium could benefit rural areas in the state where distance learning is possible. Kane School District currently teaches some parts of its automotive class via the internet. In addition, Cache School District will be starting a robotics course this fall with the Bridgerland ATC via distance learning. Bridgerland ATC also offers a medical terminology course that is available online.

Some LEAs we contacted expressed interest, saying that this might be a good option for them because they are in a rural area. One CTE director, whose high school is 30 miles from an ATC, said he believes distance learning is an area where his students could receive the biggest gains. LEAs and ATCs need to explore distance learning to determine when this option could help reduce the distance barrier for students wanting to access CTE.

## **Program Articulation Agreements Demonstrate Coordination Is Occurring**

Regional career pathway agreements or articulation agreements are another good example of coordination taking place between the LEAs and ATCs. Articulation agreements minimize duplication by limiting repetition of previously completed coursework. Regional non-credit articulation agreements allow ATCs to apply secondary school credit toward their CTE programs so secondary students may pursue career and technical objectives without repeating coursework.

Even though articulation agreements exist between the ATCs and LEAs, formal guidance is needed for the creation and scope of such agreements. The State Board of Education and the UCAT Board of

Trustees should develop policy concerning the creation and updating of regional articulation agreements to guide local LEA officials.

### **Articulation Agreement Policy Is Lacking**

Unlike concurrent enrollment articulation agreements, which are handled on a statewide basis through annually negotiated contracts with colleges and universities, non-credit articulation agreements between LEAs and ATCs are handled on a local basis through regional CTE coordinators.

Several articulation agreements between secondary schools and ATCs were found to be outdated. Some existing agreements included obsolete information and had not been updated since 2007. While the standard practice is to recreate articulation agreements every two years, there is no written policy regarding how often articulation agreements should be created, updated, or reexamined.

Utah's concurrent enrollment program, which allows students to receive college credit for completed secondary coursework, requires annual review of articulation contracts between LEAs and USHE as required in *Administrative Rule R277-713-9*. There is not a similar rule or policy between USOE and UCAT to ensure that the articulation agreements are regularly reviewed and updated if necessary.

### **Articulation Agreements Should Include Evening and Summer Classes**

Some school districts do not award credit to secondary students who take evening or summer CTE classes at an ATC. Secondary students should receive school credit for the CTE classes successfully completed in the evening or during the summer.

Articulation agreements provide a mechanism for secondary students to receive ATC membership hours for CTE classes taken at their high schools. These agreements should also provide for secondary students to receive high school credit for evening or summer classes taken at an ATC. Responses to a survey of CTE directors showed that just two mentioned that their district's secondary students do not receive credit for summer or evening classes. It seems reasonable that a student who takes a CTE class at the

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**Policy guiding review and renewal of articulation agreements is lacking.**

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**Some students do not receive credit for classes taken at the ATCs during the evening or summer.**

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ATC during the summer or in the evening should receive credit for it. The State Board of Education, UCAT Board of Trustees, and LEAs' boards of education can establish coordinated policies to ensure that secondary students receive high school credit for classes taken during the evening or summer at the ATC.

## **Local Scheduling Issues with ATCs Differ Among LEAs**

Some LEAs and ATCs have coordinated their class start times better than others have. This may be one of the most difficult areas to coordinate because ATCs and LEAs often have different morning start times for classes. They also begin the school year on different dates and may have different holiday breaks. Further, LEAs in the same region may be on a trimester or a traditional semester schedule. In addition, secondary schools have A and B days with different class schedules as well as different days for shortened schedules and assemblies.

In many ATC regions, the ATCs and LEAs have similar start times, attributed to good coordination between the two entities. For example, in the Uintah School District classes start at the same time and have the same duration as UBATC, making it easy for secondary students to attend the ATC. The Iron County CTE director indicated that class schedules for secondary schools near SWATC completely align with the ATC's schedule.

In another example, the CTE director at the Washington School District stated that the school district and the Dixie ATC coordinated in creating a morning STEM program (started in 2013) specifically for high school students. They offer information technology, EMT, CNA, and construction management. The two-hour classes start an hour before secondary schools, allowing secondary students the opportunity to attend the ATC with minimal impact on their schedules. The CTE director said this program has been a great option for students in the area.

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**Aligning schedules between the ATCs and LEAs can be complicated.**

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**Figure 2.8 High Schools in the UBATC Region Have Differing Class Schedules.** Secondary school schedules often vary within LEAs, adding to the complexity of trying to align schedules between high schools and ATCs.

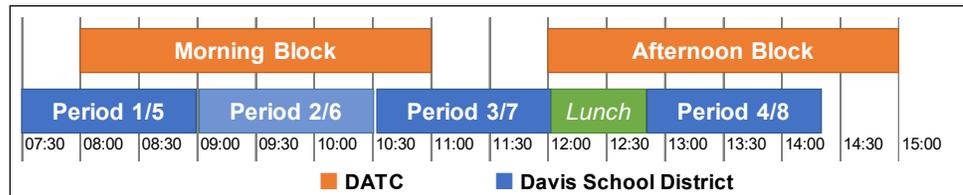
School District	Periods/Day	Term Length	Schedule
Duchesne	5	18-week semester	A/B alternating
Uintah	5	12-week trimester	Daily
Daggett	7	18-week semester	Daily

Source: UBATC

Figure 2.8 shows that all three school districts in the ATC region have different schedules. Even though the LEAs and ATC have been able to coordinate their schedules to accommodate secondary students, this figure is a good illustration of the challenges LEAs and ATCs face when trying to coordinate schedules.

We found that, among all ATC regions for the 2014 academic school year, the DATC has the biggest difference in starting times (8:00 a.m.) compared to secondary schools' 7:30 a.m. start times. Figure 2.9 shows that DATC's morning class block is for three hours.

**Figures 2.9 Davis ATC and Davis District Start Times Do Not Align.** The different start times at each entity make it difficult for students in Davis School District to attend ATC morning classes.



Source: Davis School District

If a secondary student from Davis School District wants to attend the ATC, the student will miss an hour of regular class. The Davis District CTE director said this is problematic because only students who are ahead on credits can attend the ATC in the morning block without risking falling behind and jeopardizing graduation. Before 2012, the DATC schedule was similar to that of Davis School District; the ATC said it changed its schedule to accommodate post-secondary adult students. Having two different entities align their schedules can be a difficult issue because of different schedules. For the 2015 academic school year, the DATC changed their policy to allow secondary students to attend classes at the DATC starting at 7:30 AM. This

allows both entities to have schedules that better align and helps to reduce barriers that prevent secondary students from attending the ATC.

## **Recommendations**

1. We recommend that the State Board of Education and the UCAT Board of Trustees encourage the LEAs' boards of education and the ATCs' boards of directors to explore opportunities to increase secondary students' utilization of ATCs by:
  - a. Having ATC instructors in the secondary school teaching programs that ATCs specialize in
  - b. Aligning schedules where possible so that secondary students can better utilize the ATCs
  - c. Providing distance learning to secondary schools
2. We recommend that the State Board of Education and the UCAT Board of Trustees develop policies for renewing articulation agreements.
3. We recommend that the State Board of Education and the UCAT Board of Trustees create policies to ensure that secondary students receive credit for CTE classes taken in the evening or during the summer at ATCs.

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## **Chapter III Duplication of Effort Is Not Widespread**

One audit objective was to determine whether wasteful duplication of effort exists between secondary schools and applied technical colleges (ATCs). Potential duplication exists when (a) offerings, (b) capacity, and (c) locations align; however, some overlap is inevitable and not necessarily wasteful.

While potential for duplication exists, duplication of effort between secondary schools and ATCs is minimal. Career and Technical Education (CTE) stakeholders are well aware of concerns regarding duplication and generally strive to effectively use limited resources through coordination.

A review of alleged duplication in the Davis ATC (DATC) and Tooele ATC (TATC) service areas raised questions about how these areas may avoid potential duplication and more effectively use available resources. CTE coordinating groups in these areas should work to reduce duplication through more effective cooperation and coordination, as discussed in Chapter II.

### **Wasteful Duplication Requires The Existence of Multiple Elements**

CTE stakeholders agree that effective use of limited resources is important and wasteful duplication of effort should be avoided. In order to identify potential duplication between secondary schools and ATCs, we examined (a) program and course offerings, (b) available capacity, and (c) how far students need to travel to participate in CTE offerings.

- A. Similar Offerings.** Offerings are vital to determining whether wasteful duplication exists. CTE programs consist of various courses that ultimately prepare students for well-paying, skilled positions in high-demand industries. While ATCs offer a number of more advanced-level courses not offered in secondary schools, many introductory CTE courses are offered at both secondary schools and ATCs. Because course titles and

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**Potential duplication may occur where similar offerings, available capacity, and close proximity are aligned.**

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curriculum vary by school, it is difficult to identify duplicate curriculum between similar courses offered by secondary schools and ATCs. Such identification requires qualified individuals in education to review curriculum on a course-by-course basis. Therefore, we reviewed examples of possible duplication provided by school officials, as well as courses listed in regional career pathway agreements (discussed in Chapter II).

**B. Available Capacity.** Capacity is critical to consider because it leads to discovery of duplicated courses. A secondary student may not be able to take a desired course at an ATC (instead of at a secondary school) if the ATC's course is at capacity enrollment. Nevertheless, when one or both establishments have partial capacity for similar courses, additional examination is necessary because duplication may exist. It should be noted that ATCs are in a unique position because they can serve both secondary students and adults, while secondary schools can only serve secondary students. Therefore, available capacity for similar courses at ATCs is especially important for our analysis.

**C. Close Proximity.** Many secondary students do not have access to personal transportation to travel to ATC campuses. Furthermore, few local education agencies (LEAs) provide transportation (busing) for students to attend ATCs. Additionally, travel to off-site CTE courses disrupts students' schedules and raises concerns about risks and liability. While a secondary school and ATC may have capacity to offer similar courses, distance may prevent a student from attending the ATC. Therefore, we examined proximity of available offerings.

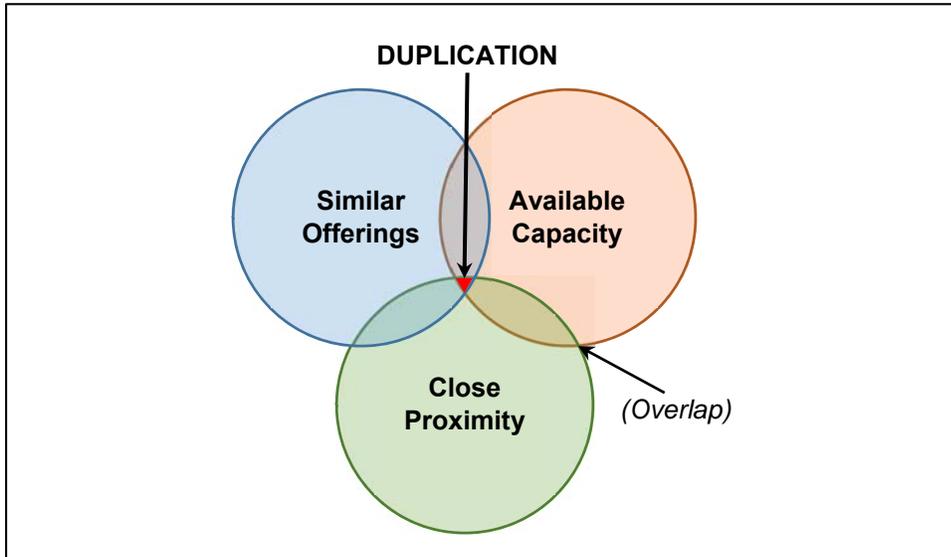
Figure 3.1 illustrates areas to consider when examining potentially wasteful duplication. Similar offerings between secondary schools and ATCs tend to raise the most concern regarding duplication; however, capacity and proximity must also be considered in determining whether those resources could be used more effectively.

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**As discussed in Chapter II, few LEAs provide transportation for students wishing to obtain CTE off-site.**

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**Figure 3.1 Duplication Occurs Where Similar Offerings, Available Capacity, and Close Proximity Align.** Potential for more effective use of resources exists when nearby, partially filled courses are the same.



Three conditions help identify potentially wasteful duplication.

While attempting to identify similar offerings by reviewing programs and course offerings throughout the state, we determined that course names and curricula vary so significantly that only educational experts could conduct an exhaustive review to determine whether courses are the same. Given these circumstances, we focused our attention on examples provided by school officials and courses included in regional career pathway agreements (articulation agreements). CTE stakeholders we spoke with generally expressed concerns about the Davis and Tooele CTE areas. Certified Nurse Assistant (CNA) programs at Davis School District and DATC raise questions about whether available resources could be used more effectively. Likewise, similar offerings, unfilled capacity, and close proximity between Tooele School District and TATC also raise questions about effective use of resources in that area.

### **Davis School District and DATC Both Offer CNA**

Davis School District used to rely on DATC for CNA instruction. In 2010, DATC changed the admission policy for its program. The new policy limited enrollment to seniors who would turn 18 before completing the program. DATC officials explained that regional employers at the time would only hire CNAs who were 18 years old,

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**Davis School District created CNA programs to meet student demand after DATC changed its enrollment policy.**

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despite Utah *Administrative Rule* R432-45-5(6)(a) stating that “UNAR [Utah Nursing Assistant Registry] shall admit a student who is 16 years of age and older on or before the first day that the student begins class.” DATC limited enrollment by age in response to input from local employers.

In order to meet demand for a CNA program by secondary students excluded from DATC’s program by the policy change in 2010, Davis School District (DSD) started its own CNA program in 2011. The district started with one high school and then developed three more programs. DSD now offers CNA programs in four of its eight high schools. DATC maintains its CNA program for adult students and modified its policy in 2011 so that secondary students who are seniors or second-semester juniors may enroll in the CNA program.

During the 2014 academic school year, 354 DSD secondary students took CNA. DSD’s CNA program operated at 75 percent capacity, serving 315 secondary students. DATC, on the other hand, operated at 34 percent<sup>2</sup> capacity, serving 39 secondary students from DSD. Davis High School’s CNA program, which is within walking distance of DATC, operated at 93 percent capacity, serving 56 secondary students during the 2014 academic school year.

**Most Secondary Students Enrolled in DATC’s CNA Program Attended Evening and Summer Courses.** Secondary students attending DATC for CNA rather than programs offered through DSD raise concerns about potential duplication of effort; however, 50 of 54 students (93 percent) attended outside of regular secondary school hours. Both DSD and DATC offer CNA programs, with capacity for additional students and limited travel concerns for many students in the area. Figure 3.2 shows that 54 secondary students from the four DSD high schools offering CNA programs attended DATC for CNA.

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<sup>2</sup> Data provided by DATC.

**Figure 3.2 High School Students Enrolled in DATC’s CNA Classes for the 2014 School Year.** This figure shows the number of students by high school and when they took classes.

High School	Day	Evening	Summer
Davis	-	2	15
Northridge	-	6	8
Syracuse	1	2	8
Viewmont	3	7	2
Total	4	17	33

*Auditor analysis of USOE and UCAT data*

Only 4 of the 54 students took CNA courses during school hours at the ATC. The other 50 students (93 percent) took CNA classes during evenings or over the summer. In these cases, the availability of CNA at DATC provided students with the option to take CNA on their own time. It should be noted that CNA is a relatively short program, taking anywhere from 80 to 135 hours to complete through an ATC.

**Davis School District Students Bypass DATC to Attend District Schools.** Four high schools in Davis School District (DSD) do not have CNA programs. Students at these schools may attend DATC or a district magnet<sup>3</sup> school for CNA. In 2014, 30 students from Layton High School travelled to other high schools to participate in CNA programs. Figure 3.3 shows the number of Layton students who traveled to other schools for CNA.

**Figure 3.3 High School Students from Layton Enrolled in CNA Classes for the 2014 School Year.** Some students traveled an extra 20 miles to Viewmont High School instead of going to the DATC, which is 10 miles closer to Layton High School.

Grade Level	Northridge	Viewmont	DATC
11	1	2	-
12	7	19	1
Total	8	21	1

*Source: Auditor analysis of UCAT and USOE data*

**Twenty-one Layton High School students drove ten miles beyond a CNA program with available capacity to take CNA classes at Viewmont High School.**

<sup>3</sup> Magnet schools draw students from other schools in the district for specialized courses (like CNA), and include Davis, Northridge, Syracuse, and Viewmont High Schools in the Davis School District.

Eight students travelled three miles to Northridge High School, which was only able to accept eight students before filling its program. Twenty-one students travelled fourteen miles to Viewmont High School (Bountiful), and one travelled four miles to DATC. It is concerning that 21 Layton High School students travelled 14 miles to Viewmont High School to take CNA courses when DATC (4 miles from Layton High) also offers a CNA program with available capacity.

When asked why Layton students were bypassing DATC to attend Viewmont for CNA, the DSD CTE director explained that Viewmont employs a full-time CNA instructor with CTE funding. Viewmont hired this instructor to meet demand after DATC changed its policy. In order to use this instructor most effectively, DSD encourages counselors and students from other schools to fill any vacancies.

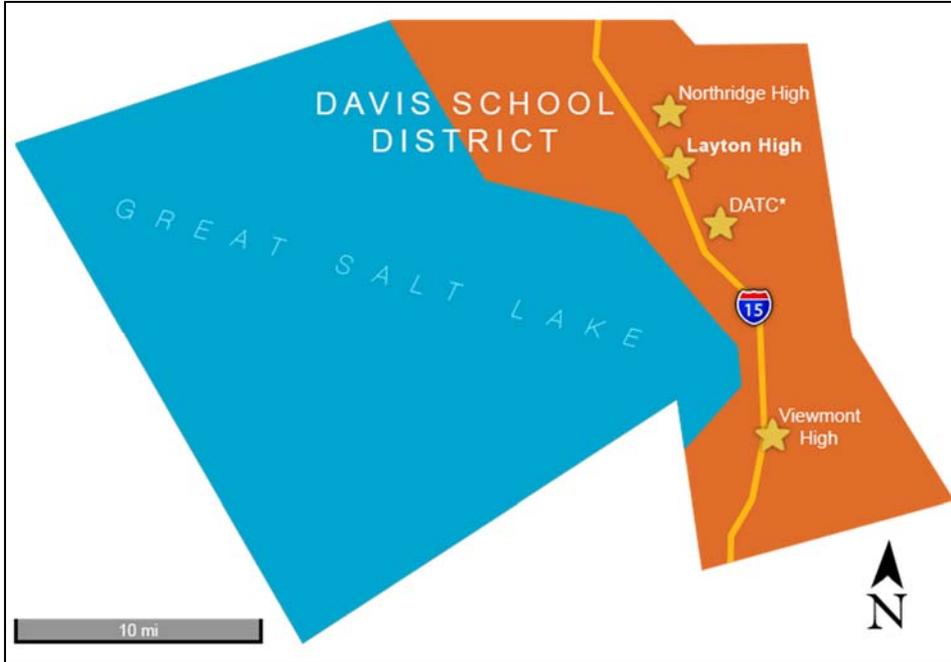
The DSD CTE director further explained that Viewmont usually has some room for additional students in its CNA program because there is currently less demand in southern Davis County (compared to northern Davis County, where Davis High School has a higher demand, but a part-time CNA instructor). The DSD CTE director added that Layton and Viewmont high schools' schedules align, while DATC's does not (as described in Chapter II), which may affect students' decisions about where to take CNA. While Layton students may ultimately choose whether to attend Viewmont or DATC, the district encourages students to use district schools. Figure 3.4 illustrates the distances between the high schools mentioned and DATC.

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**Davis School District encourages students to participate in district CTE programs.**

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**Figure 3.4 Layton Students Traveled Farther than Necessary in Order to Attend a District School.** Layton High School students traveled past DATC to attend Viewmont High School for the CNA program.



*\* DATC is in close proximity to Davis High School, which also has a CNA program.*

Students traveling ten miles beyond an available program is concerning. Because students are responsible and liable for their own transportation to these programs, there are inherent risks when students are driving themselves to school. Davis School District should reevaluate whether it is in the best interest of Layton students to encourage participation in Viewmont’s CNA program rather than similar programs available at Northridge High School and DATC.

**Davis High School Has a Part-Time Instructor for Its CNA Program.** Davis School District’s CTE director said there is more demand for CNA in northern Davis County, and that Davis High School, which currently has a part-time instructor, would benefit from a full-time CNA instructor. DATC, which is located just down the street from Davis High School, also offers a CNA program that is available to secondary students.

As mentioned earlier, DATC’s CNA program operated at 34 percent during 2014 and Davis High School’s program operated at 93 percent. Davis High School and DATC’s neighboring CNA programs raise concerns about duplication of effort; Davis School District Board

**Davis School District students are responsible for their own transportation to off-site CTE programs.**

**In 2014, DATC’s CNA program operated at 34 percent capacity, while neighboring Davis High School’s CNA program operated at 93 percent.**

of Education and DATC Board of Directors should evaluate whether they can more effectively utilize available resources.

### **Tooele School District and Tooele ATC Offer Similar Courses**

In 2014, Tooele School District (TSD) had the lowest utilization of ATCs by secondary students (less than 1 percent). Administrators from USOE and Tooele School District explained that the Tooele schools had well-established and robust CTE programs in place before the TATC began operation on July 1, 2009. Thus, TSD students participate in district offerings for most CTE.

The district operates a magnet technical center (Community Learning Center, or CLC) that serves Tooele, Stansbury, and Grantsville High Schools. The CLC is across the street from TATC's campus. TSD and TATC offer a number of similar, articulating courses, including courses in business, cosmetology, medical assisting, network administration, and welding. These courses are offered in neighboring facilities, and TATC is in a position to serve additional students.

TATC reports that it operated at 59 percent<sup>4</sup> capacity during 2014. Despite similar offerings, available capacity, and limited travel concerns, few secondary students in the area attend TATC. Such duplication is concerning, and TSD's Board of Education and TATC's Board of Directors should look for opportunities to more effectively use available resources between the two facilities.

### **Articulation Agreements Help Identify Potential Duplication**

Regional career pathway agreements (articulation agreements) facilitate the continuation of CTE through post-secondary education. The main purpose of articulation agreements is for ATCs to recognize classes already completed by secondary students so they do not have to repeat work they have already done.

LEA and ATC CTE coordinators create articulation agreements by first comparing curriculum for similar courses and determining levels

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<sup>4</sup> Data provided by TATC.

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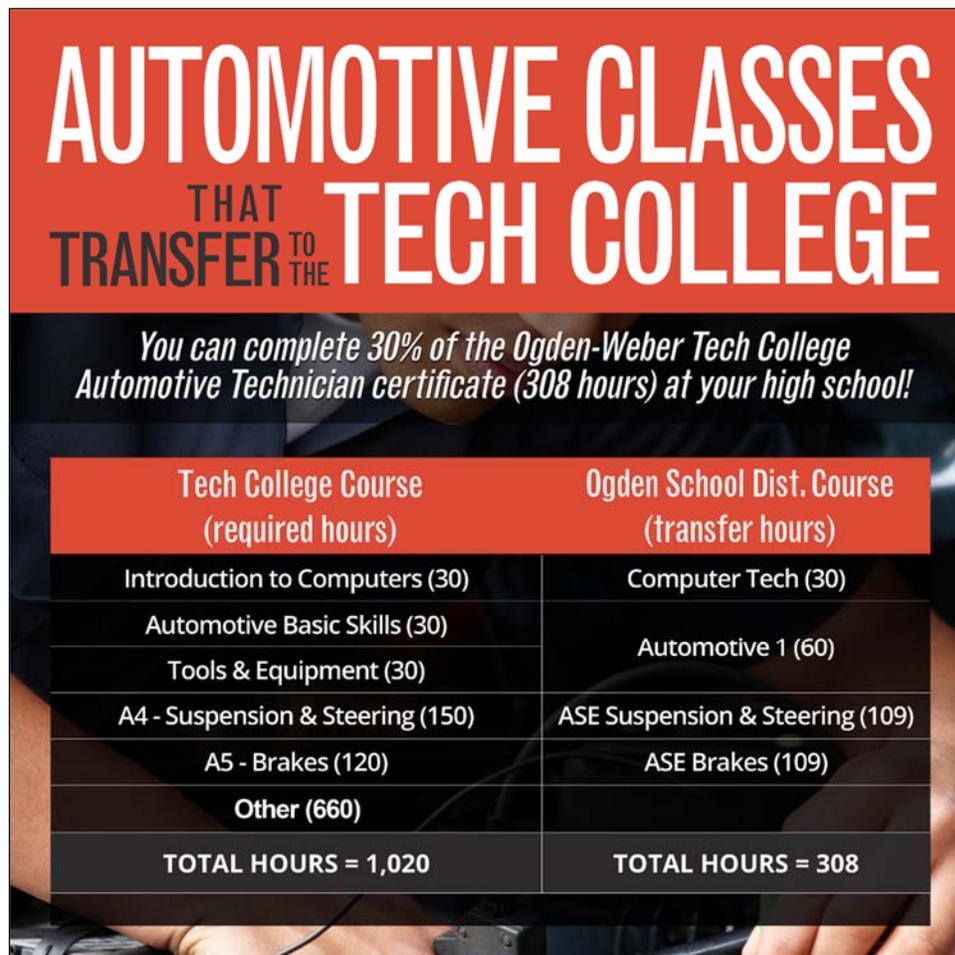
**Few Tooele School District students attend TATC, which operated at 59 percent capacity.**

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of equivalency. Then they determine how many credits or membership hours may transfer between secondary schools and ATCs for coursework completed by secondary students.

Figure 3.5 shows articulation agreements minimize duplication impact by ensuring that ATCs acknowledge secondary coursework toward programs. For example, an articulation agreement would help a post-secondary student who completed introductory welding in high school progress toward welding certification through an ATC without having to retake introductory welding at an ATC.

**Figure 3.5 Articulation Agreements Help Students Continue CTE After Secondary School.** OWATC posters show secondary students how coursework may lead to post-secondary education, completion of certificates, and employment.



Source: OWATC

NOTE: A similar agreement with Weber School District allows students to receive up to 507 hours (50 percent) toward OWATC's Automotive Technician certificate through completion of district CTE courses.

## **Some Overlap of CTE Offerings Is Inevitable**

While secondary schools and ATCs both serve secondary students, only ATCs serve post-secondary (adult) students. ATCs will duplicate most introductory CTE foundation courses offered in secondary schools because they are required for the progression of adult students toward certificates. Certificates offered through ATCs prepare students for employment, and are approved (or pending approval) by UCAT's accrediting body.

CTE stakeholders are aware of concerns regarding wasteful duplication of effort, and strive to minimize such duplication between secondary and ATC programs.

### **ATCs Offer Similar Foundation Courses**

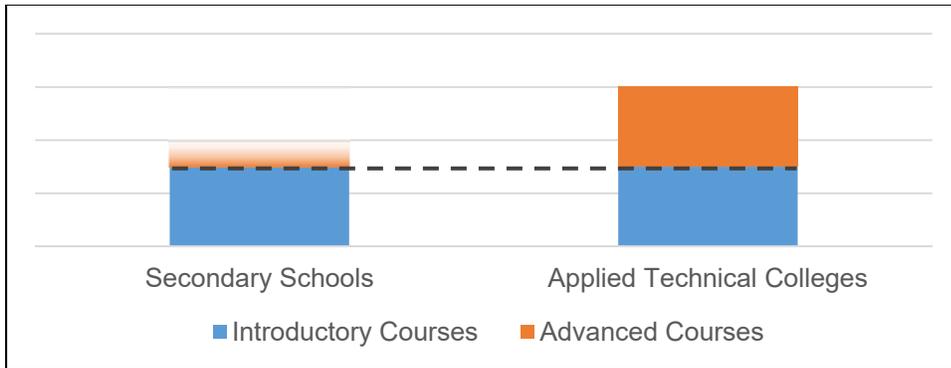
Because ATCs serve secondary and post-secondary students, ATCs must offer foundational or introductory CTE courses for adults in their programs even when similar courses exist in nearby secondary schools, as illustrated in Figure 3.6. All CTE programs require foundational courses to provide a framework for further learning and pursuit of careers. Many high school CTE programs are limited to foundational CTE such as entry level, exploratory, and introductory courses in a broad array of CTE areas. While secondary schools generally offer breadth of CTE, ATCs tend to offer more depth in areas relevant to the local workforce.

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**Both LEAs and ATCs teach introductory CTE courses.**

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**Figure 3.6 ATCs Must Provide Duplicative Introductory Courses for Its Adult Students.** Introductory CTE courses provide a foundation for additional learning that leads to professional certifications and employment. ATCs provide introductory courses for both secondary and post-secondary student populations.



Utah Core Standards and Curriculum (*Administrative Rule R277-700-6*) require a somewhat rigorous course load for secondary students to earn a minimum of 24 units of credit for graduation. These standards require a minimum of 1.0 unit of CTE for graduation. While some students take more CTE than the minimum, few pursue courses beyond exploratory, introductory levels. One CTE director estimated that secondary students take about 1.0 credit of CTE every year (a number of elective courses count as CTE).

With core requirements, it is a challenge for secondary students to complete programs and earn certificates during high school without additional CTE coursework outside school hours. Many CTE programs that lead to certificates, which prepare a student for employment, require over 700 hours to complete. One high school credit takes a student somewhere between 125 and 165 class hours to earn (assuming a course load of six to eight credits per 990-hour school year).

Furthermore, secondary students often take a variety of CTE (that is, courses from different program areas) as they explore potential careers. While many students take desired CTE courses during school hours, some choose to pursue additional CTE (particularly in chosen pathways) during evenings and/or summers.

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**CTE programs typically require over 700 hours to complete (the equivalent of about five high school credits).**

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## **Examples of Regional Coordination to Eliminate Wasteful Duplication**

LEA CTE directors and ATC officials are conscious of the need to avoid wasteful duplication of limited resources. Several CTE directors have told us that trying not to replicate efforts between the two entities is one of the top priorities in their monthly coordination meetings. The following are some examples of how the LEAs and ATCs are working together to reduce duplication and avoid wasting resources.

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**CTE Coordination is occurring between the LEAs and ATCs.**

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- MATC region – The secondary students in the region’s school districts go to the ATC for the following programs: CNA, cosmetology, medical assisting, medical office administration, dental assisting, pharmacy technician, automotive technician, and emergency medical technician. The ATC and the LEAs in the region have coordinated so that schedules are not a reason secondary students do not attend the ATC.
- SWATC region – At the Iron School District, the secondary students go to the ATC for the following courses: health sciences, information technology, automotive, and welding. The district and ATC have coordinated so that the bell schedules and class times are identical, which makes it easy for high school students to attend the ATC.
- UBATC region – At the Uintah School District, the secondary students go to the ATC for the nursing program and welding programs. In addition, ATC instructors teach automotive and woodworking classes at the high schools. The district and ATC have coordinated so that the bell schedules and class times are identical, which makes it easy for high school students to attend the ATC.

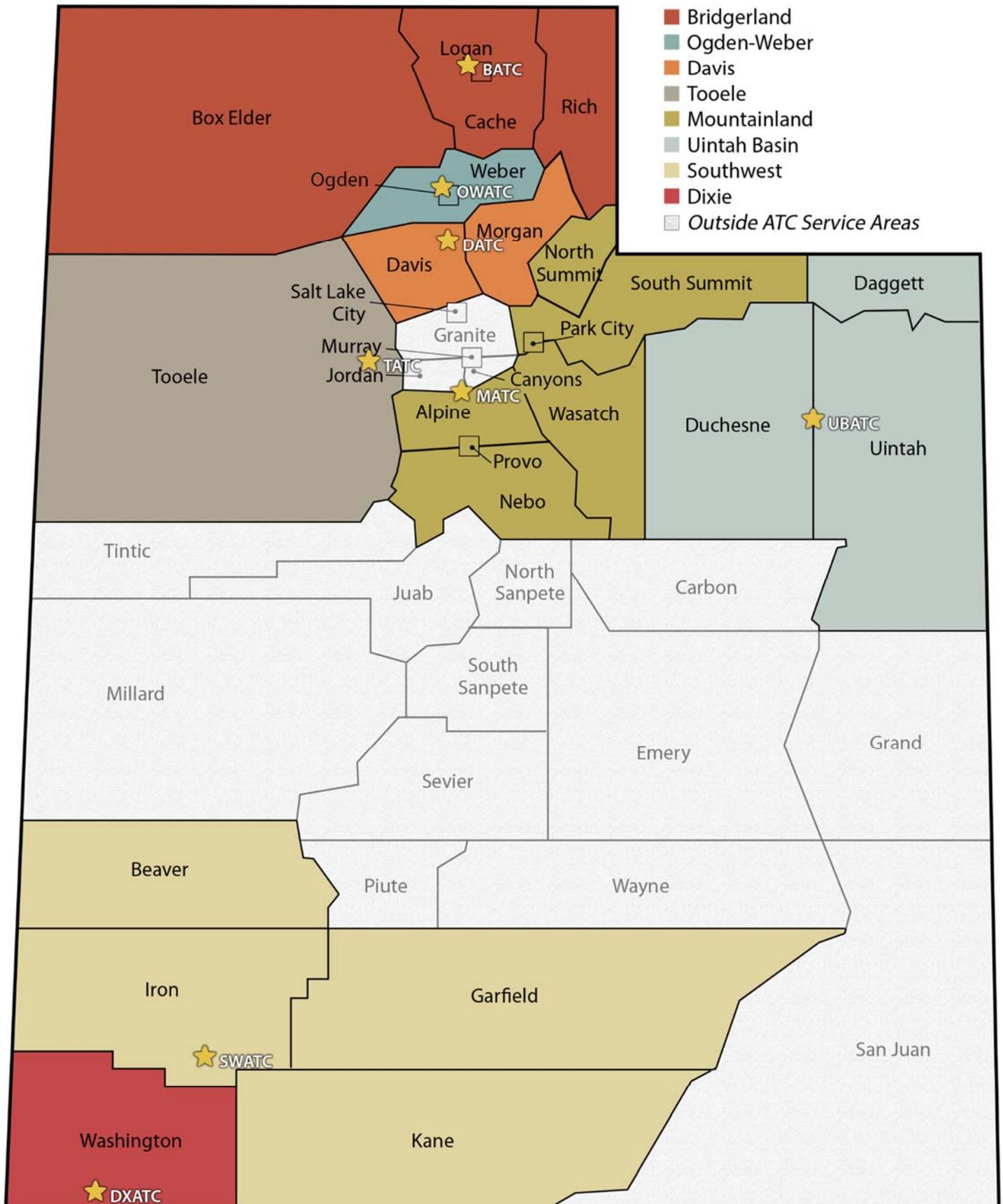
## **Recommendation**

1. We recommend that the State Board of Education and the UCAT Board of Trustees encourage the LEAs’ boards of education and the ATCs’ boards of directors to identify and review potential duplication and determine how to more effectively utilize available resources, particularly those available through ATCs.

# Appendix

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# APPLIED TECHNOLOGY COLLEGE SERVICE AREAS



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## **Agency Response**

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August 31, 2015

Mr. John M. Schaff, CIA  
Auditor General  
Office of the Legislative Auditor General  
W315 Utah State Capitol Complex  
PO Box 145315  
Salt Lake City, UT 84114-5315

Re: Management response to **A Review of CTE Coordination and Program Duplication Between Public Education and UCAT** (Report No. 2015-09)

Dear Mr. Schaff:

This letter represents the management response of the Utah State Office of Education (USOE) to the above referenced audit report.

The audit represented a substantial opportunity for the USOE to evaluate potential redundancies in the services it provides under the Career, Technical and Adult Education programs offered by local education agencies and Utah's Colleges of Applied Technology and other providers. The USOE sincerely appreciates the substantial work the office of the Legislative Auditor General (LAG) has invested. This work represents a genuine partnership that has allowed work with the LAG as a critical friend.

Accordingly we are gratified to learn that substantial duplication or redundancies do not exist. Nevertheless some areas of improvement have been identified, as reflected in the recommendations of the audit report. These are recommendations that the USOE take seriously and will respond to affirmatively and with alacrity.

With respect to the recommendation that the USOE direct the Local Education Agencies (LEAs) to engage in a more collaborative partnership with the Applied Technology Colleges (ATCs), the USOE notes that it has no direct or lineal authority over the LEAs which would allow us to give such direction. Nevertheless the USOE will utilize every available mechanism to encourage the LEAs to engage in the most productive possible arrangement with the ATCs.

Again, the USOE sincerely appreciates the work of the Legislative Auditor General's office and the opportunity to review its processes in this audit.

Respectfully,



Brad C. Smith  
State Superintendent of Public Instruction

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August 7, 2015

John Schaff, CIA  
Auditor General  
Office of the Legislative Auditor General  
315 House Building  
Salt Lake City, UT 84114-5315

Dear Mr. Schaff,

We are pleased to provide an agency response on behalf of the Utah College of Applied Technology to "A Review of CTE Coordination and Program Duplication Between Public Education and UCAT", Report Number 2015-09.

The mission of the Utah College of Applied Technology is to meet the needs of Utah's employers for technically-skilled workers and to promote local and statewide economic development by providing market-driven technical education to secondary and adult students. UCAT and its eight regional campuses have a statutory duty and responsibility to consult with school districts, charter schools and other providers of secondary education to ensure that curricula meet the needs of the state, the region, the school districts and the charter schools (see UCA 53B-2a.)

As we have participated in extensive conversations with the Office of the Legislative Auditor General and reviewed this report, we are pleased that the coordination between Public Education and UCAT is reported to be reasonable and that duplication of effort is not widespread. We credit the many public education and UCAT board members, administrators and instructors across the state for their ongoing efforts to maximize scarce resources through effective coordination and articulation of CTE programs.

The report correctly indicates some instances of potential duplication that must be addressed. We are pleased that the report recommends that the UCAT Board of Trustees and the State Board of Education, along with the boards of education of local education agencies and the UCAT campus boards of directors provide the necessary leadership and action to guide administrators to eliminate any duplication of programs that are deemed unnecessary.

We believe the report is fair, informative and quite specific. There are some issues which focus on regional concerns and we have authorized UCAT's Davis Applied Technology College campus to provide a campus response specific to the content of Chapter III.

We concur with the recommendations found at the ends of chapters II and III. We will immediately initiate dialogue with the State Board of Education and LEA boards to identify and review unnecessary duplication and determine how to more effectively utilize available resources, particularly those available through UCAT's eight campuses.

Sincerely,

Robert D. Brems, President  
Utah College of Applied Technology

Thomas E. Bingham, Chair  
UCAT Board of Trustees

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August 7, 2015

John M. Schaff, Auditor General  
Office of the Legislative Auditor General  
W315 Utah State Capitol Complex  
Salt Lake City, UT 84114-5315

Dear Mr. Schaff:

We appreciate the work of your office to complete the report “A Review of CTE Coordination and Program Duplication between Public Education and UCAT.”

The Davis Applied Technology College (DATC) values its mission to serve both secondary and post-secondary students. We value our roots in the public education system and strive to develop and improve relationships with Davis and Morgan School District leaders with interest in providing the best Career and Technical Education (CTE) possible. In February 2014 we began an initiative with regional partners called, “Remove All Barriers,” with evaluation of concerns which might prevent a secondary student from attending the DATC. This initiative resulted in the elimination of most lab fees for secondary students, providing textbooks at no charge, making sure age requirements were no stricter than legally required, and adjusting schedules to better accommodate secondary students. We communicated these efforts to CTE Coordinators and High School Counselors and encouraged them to let us know of any other barriers to entry that we might have overlooked.

This letter serves as our response to sections of the audit report that relate to the DATC.

### **Nurse Assistant Age Limitations**

On October 28, 2010, the DATC notified Davis School District that effective June 1, 2011, students would need to be 17 years old to enroll in the Nurse Assistant program. This was in response to program employer advisory committee feedback that most facilities cannot hire nurse assistants until they are 18 years of age. The District indicated immediate concern about this change.

Following further investigation by the DATC, it was determined the Utah Nursing Assistant Registry supports admission of students who are 16 years of age or older. In addition, while most facilities that hire Nurse Assistants have age restrictions in hiring practices not all do. On December 9, 2010 the DATC notified the District of changes to the Nurse Assistant program admission requirements to admit students regardless of age.

In February 2011, the DATC discovered the District planned to develop their own Nurse Assistant program at Viewmont High School in fall 2011. The DATC had not been consulted prior to the announcement and this was not discussed in the monthly joint

Michael J. Bouwhuis  
President  
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DATC/Davis CTE Coordinator meetings. In March 2011, the DATC expressed concern about this decision and proposed to offer the Nurse Assistant training at Viewmont High School at no cost to the District. The District proceeded to develop and implement Nurse Assistant magnet programs at Viewmont and eventually three other high schools beginning in fall 2011.

### **Differing Bell Schedules**

Until fall 2012, DATC's first period began at 7:40 a.m. In fall 2012, the DATC changed first period to 8:00 a.m. in response to student feedback that this time would allow parents and siblings to drop younger students off at district schools without being late for DATC classes. The district communicated this as a barrier to secondary enrollment in morning classes. In spring 2014, the DATC notified the district we would accommodate any high school student during their first period timeframe according to the particular high school schedule. This was reiterated to district CTE Coordinators in January 2015. As of fall 2015, some secondary students have enrolled in DATC programs at 7:30 a.m.

Beginning in August 2015, DATC will offer "Sunrise STEM" in the Chairside Dental Hygiene Assistant program to secondary students. This training will prepare students to enroll in the Dental Assisting program. This class will run from 7:00 - 8:55 a.m., providing students two hours of classroom instruction. Students can return to high schools for the beginning of their 2<sup>nd</sup> period class.

### **Limited High School Enrollment – Diesel/Heavy Duty Technology**

In January 2014, DATC limited new student enrollment in the Diesel/Heavy Duty Technology program for four weeks. This was due to a capacity constraint that impacted enrollment of both secondary and post-secondary students. Within four weeks, enough students had completed the program to re-open capacity for new students. This January bottleneck had a very limited effect on the School District, as students do not customarily enroll in new programs in the middle of the school year.

Consistently strong enrollment in this program served as a catalyst for addition of an afternoon class and another full-time instructor in 2014. This will ensure ample capacity in the program to meet the demands of the community we serve.

### **Cosmetology Enrollment Limitations**

In May 2011, the Utah Legislative Auditor General delivered a report titled "Review of Public Education Cosmetology Programs" to the Utah Legislature (Report No. 2011-05).<sup>i</sup> One section of this report addresses public education's expansion into cosmetology as being a primary concern stating:

Of less concern are the cosmetology programs offered by post-secondary schools. Most post-secondary institutions have avoided competing with the private sector beauty schools. For example, the Utah College of Applied Technology (UCAT)

has agreed to limit its enrollment of high school students in regions that are also served by private beauty schools. UCAT has also avoided opening new cosmetology programs in communities already served by private schools. (p. 2-3)

The report goes on to say, “With post-secondary institutions making an effort to avoid adding to an already competitive cosmetology training industry, the growing competition presented by public school districts remains the main concern of the perceived growing competition presented by public school districts.” (p. 3)

The DATC permits enrollment of 55 new secondary students in the Cosmetology program each year with continuing enrollment of students enrolled during the previous year. In 2015, 69 secondary students were enrolled in the program accounting for 29% of total Cosmetology student enrollment.

### **Limited Enrollment in the Pharmacy Technician Program**

During the 2014-2015 school year, the DATC Pharmacy Technician program was filled to capacity. Enrollment in the program was restricted for both secondary and post-secondary students. To remedy the capacity problem, DATC remodeled the classroom and lab to double instructional space, hired three part-time instructors, and added an evening section. This is to ensure there will be no limitations on the number of students that can enroll in the program.

Thank you again.

Sincerely,



Michael J. Bouwhuis, President  
Davis Applied Technology College

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<sup>i</sup> *A Review of Public Education Cosmetology Programs. (2011, May 1). Retrieved August 7, 2015, from [http://le.utah.gov/audit/11\\_05rpt.pdf](http://le.utah.gov/audit/11_05rpt.pdf)*