

Community College Services in Utah



Prepared for the Utah System of Higher Education

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Executive Summary

This study was funded by the Utah Legislature “to analyze current community college-related educational services and identify long-term strategies that address Utahns’ ability to access an affordable, accessible, and workforce aligned postsecondary education.” Based on data analysis and stakeholder engagement, this report details findings on the provision of community college services to various audiences in all regions of the state, within the context of Utah’s unique structure that relies substantially on dual-mission institutions and technical colleges to provide much of the services typically provided by community colleges in other states—services related to dual enrollment, low-cost access points to students seeking a bachelor’s degree, technical and workforce-focused education and training, developmental education, programming tailored to adult learners, customized training, and so on. The report also offers recommendations for how the state may more effectively provide community college services in Utah.

Key findings include:

- Though Utah compares favorably to other states in terms of access and completion, access within Utah varies by student characteristics and location within the state.
- Utah’s enrollment increases have been concentrated among concurrent enrollment students still in high school and recent high school graduates.
- Like other states, Utah has lost enrollment among students aged 25 and older. Current state policy does little to incentivize enrollment among this population, which will become an increasingly important group to serve in the future.
- While tuition at Utah institutions is generally lower than the national average, many students attending dual-mission institutions are paying university prices for community college level education.
- Many students who complete transfer-oriented associate’s degrees do not subsequently enroll in or complete bachelor’s programs.
- There is a need to ensure quality in remedial/developmental education across the state.
- There is more demand—from both employers and students—for technical education than what the technical colleges are currently able to provide.
- Currently, not all associate’s degrees and certificates awarded by USHE institutions have clear workforce or transfer value.
- Though it can be an important part of the community college mission, noncredit programming has not been carefully tracked by USHE (which is also true in most other states) and is offered in an inconsistent patchwork across the state.

Therefore NCHEMS recommends that USHE and the state of Utah:

- Set baseline expectations for what each dual-mission institution should be doing as part of its community college mission.
- Ensure that residents of the rural areas of Utah have realistic access to the education and training opportunities relevant to their local economy.

- Adopt a three-tier tuition structure that keeps in place the current technical tuition, a community college rate for Snow, SLCC, and the first 65 credit hours at the regional universities and all of the statewide campuses of Utah State, and a university rate for all courses at UU and USU-Logan, and for credit courses in excess of 65 credits at the regional universities and USU.
- Analyze and consider reforms to tuition waivers and the Opportunity Scholarship.
- Review the model used to fund Utah's public postsecondary institutions and make adjustments to ensure that institutions have funding available to meet the state's expectations. In some cases, this may mean adding new money, and in other cases it means adding flexibility to existing funds or adjusting the metrics used to allocate funds.
- Adjust the performance funding policy to add incentives that reward institutions for their enrollment and completion of part-time students.
- Develop a more responsive way to create needed capacity, especially at the technical colleges.
- Add additional clarity to USHE's current Institutional Missions & Roles policy, and enforce the policy consistently, with the goal of reducing competition among institutions and removing unneeded duplication while maintaining student access.
- Encourage collaborations that create efficiency and distribute access to educational programs where their availability would be limited otherwise.
- Take a leadership role in improving the delivery of developmental education by standardizing definitions of readiness and the use of multiple assessment measures, co-requisites, and other good practices.
- Reopen discussions with USBE regarding the appropriate oversight agency for programs such as Adult Education (AE), English as a Second Language (ESL), and coursework that prepares adults for high school equivalency exams.
- Put intentionality into recruitment/retention efforts of students that are currently under-represented at USHE institutions, including adult students, Hispanic/Latinx students, and Native Americans, as well as recruitment/retention efforts in programs with excess capacity and high industry demand for graduates.
- Continue work to create clear guidelines around what can be considered a "certificate."
- Ensure that all awarded associate's degrees have meaning and value for either transfer or the workforce.
- Collect and analyze data elements that are not currently available but which are relevant to assessing how well USHE institutions are serving the community college mission across the state.

Introduction and Background

In late 2022, the Utah System of Higher Education (USHE) contracted with the National Center for Higher Education Management Systems (NCHEMS) to conduct a study funded by the Utah Legislature “to analyze current community college-related educational services and identify long-term strategies that address Utahns’ ability to access an affordable, accessible, and workforce aligned postsecondary education.”

As one of the fastest-growing states in the nation, Utah has been largely shielded from enrollment declines in postsecondary institutions until recently, with the exception of enrollment declines in Salt Lake Community College and among particular types of students. However, recent population projections by the Kem C. Gardner Institute have been less positive than prior projections, with potential implications for postsecondary enrollment demand, especially among young people. In addition, a report from the Higher Education Strategic Planning Committee in 2018, the resulting statewide strategic plan released in 2019, and the USHE strategic plan all reference a need in Utah to more fully meet workforce needs for skilled workers with technical training and professionally educated Utahns. Shifting enrollment demands, the concentration of low-income Utahns in its community colleges (and in sub-baccalaureate programs), and evolving workforce demands that emphasize workforce-relevancy help explain the legislature’s interest in this study.

The resulting project has three main deliverables: a report on community college services as delivered in Utah, a report on enrollment trends, and a set of recommendations to more effectively provide community college services in Utah. The report on enrollment trends was completed in July 2023. This final report will offer findings from the study of community colleges services while incorporating relevant highlights from the enrollment trends report, as well as recommendations for policy and practice. The development of this report has been guided by priorities laid out in USHE’s strategic plan—system unification, access, completion, workforce and alignment; extensive data analysis; and deep stakeholder engagement. It also draws on national trends and innovations in the delivery of community college services to inform findings and recommendations in ways that account for the distinctiveness of the Utah context. Finally, the report reflects the reality that Utah’s population is diversifying. Together with the concentration of students of color, low-income students, adults, and other populations in community colleges, the report reflects the necessity that effective delivery of community college services will be central to Utah’s future economic and societal prosperity.

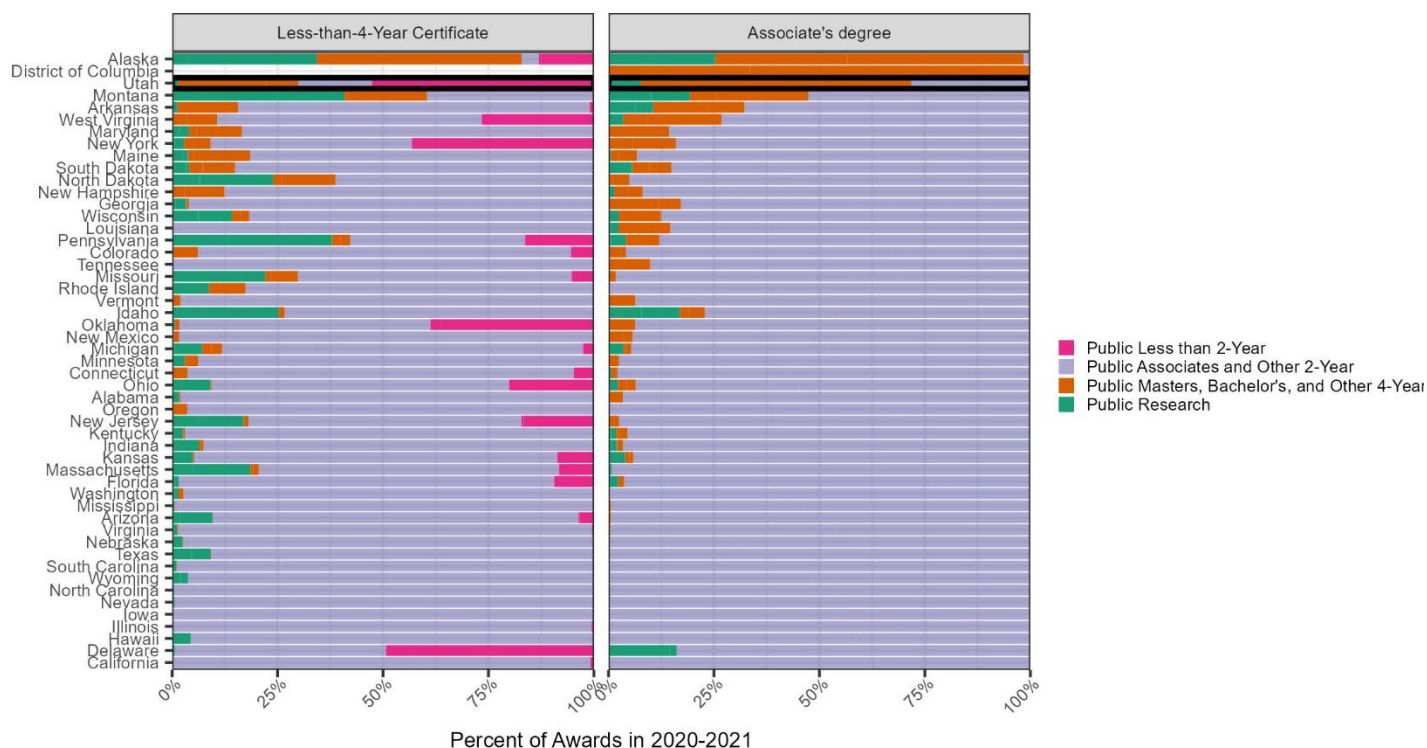
Utah’s System of Higher Education

Among the 50 US states, Utah’s structure of higher education institutions is unusual. The most significant difference lies in its assignment of “community college services” to institutions that serve a broader mission including baccalaureate- and graduate-level instruction, research, and public service, as well as community college services. Additionally, Utah’s non-degree-granting technical colleges shoulder a significant portion of the state’s certificate-level career and technical education. In contrast, other states typically have established two-year institutions within close proximity to all populated

areas of the state, to deliver associate's degrees, sub-baccalaureate certificates, technical education, short-term workforce training programs, and customized training.

To illustrate how unique Utah's structure is compared to other states, Figure 1 shows the distribution of sub-baccalaureate awards across sectors of public institutions, by state. Only Alaska and the District of Columbia, which both also have unusual systems, rely more heavily on public comprehensive universities to produce associate's degrees, and Utah generates a larger percentage of its certificates through its less-than-two-year institutions (i.e., technical colleges) than any other state.

Figure 1. Sub-Baccalaureate Awards by State and Sector, 2020-21



Source: NCES IPEDS Completions Survey, provisional file c2021_a. Note: Only includes undergraduate awards at public institutions.

In Utah, only Salt Lake Community College shares a history, purpose, and organizational design that closely approximates the community colleges like those found in other states. Snow College, with its history as a “junior college,” was merged with the former Sevier Valley Applied Technology Center; while it is also a community college under Utah statute, its history and expansive service area covering six rural counties leave it with relatively few peers nationally. With these two exceptions, community college services are carried out by:

- Regional universities—Southern Utah University, Utah Tech University, Utah Valley University, and Weber State University—that also offer an extensive array of baccalaureate programs alongside a limited number of master's degrees;

- Utah State University, the state’s land-grant, research university, which plays a major role in providing sub-baccalaureate and technical training to the state’s most rural locations; and
- Eight technical colleges, which until recently were statutorily prohibited from offering credit-based instruction and focus on certificate-level technical education and short-term workforce training programs.

Table 1 presents a classification of institutions according to USHE’s Institutional Missions & Roles policy¹ and the credentials each institution is authorized to award under that policy.

Table 1. Organization of the Utah System of Higher Education

	Technical College	Comprehensive Community College	Regional University	Research University
Workforce-oriented certificates	Bridgerland Davis Ogden-Weber Southwest Uintah Basin Dixie Mountainland Tooele	Salt Lake Snow		Utah State Eastern, Moab, and Blanding
Associate’s Degrees		Salt Lake Snow	Utah Valley Weber State Southern Utah Utah Tech	Utah State
Bachelor’s Degrees			Utah Valley Weber State Southern Utah Utah Tech	Utah State University of Utah
Master’s Degrees			Utah Valley Weber State Southern Utah Utah Tech	Utah State University of Utah
Doctoral Degrees				Utah State University of Utah

Definition of Community College Services

Given Utah’s unique arrangement of institutions, it is useful to define the elements of “community college services.” As depicted in Table 2, this concept can be seen as having two dimensions: the programming and other services that institutions provide and the audiences to which those services are provided. This resulting matrix provides a framework for assessing the extent to which different audience members within a state, region, or community have access to the full array of community college services. This

¹ Utah System of Higher Education, “USHE Policy R312, Institutional Roles and Missions,” May 18, 2023, <https://public.powerdms.com/Uta7295/tree/documents/2028680>.

framework informed the way NCHEMS described the project to stakeholders, our data collection efforts, and our analyses.

Table 2. The Array of Community College Services and Audiences

		Audiences/Clients			
		In-School Youth (Secondary Education)	Recent High School Graduates	Adults	Employers
Services	Remedial & Developmental Education				
	General Education				
	Transfer Preparation				
	Career Preparation (including workforce oriented associate's degrees, certificates, and non-credit)				
	Customized Training, Rapid Response Workforce Development				
	Community Service (Non-Credit and Other Services)				
	Low-Cost Education				

Methodology

To explore the extent to which the Utah System of Higher Education provides community college services, NCHEMS gathered and analyzed information from multiple sources, including relevant Utah statutes and USHE policies; data from the U.S. Census' American Community Survey, USHE's internal database, the Utah Data Research Center (UDRC; Utah's state longitudinal database), the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS), the Kem C. Gardner Policy Institute, the Utah Department of Workforce Services, reports from national sources, and stakeholder focus groups and interviews. We began by analyzing quantitative data to examine enrollment patterns and trends, student demographics, participation rates, population trends, cost and financial aid, graduation data, workforce supply and demand, and comparisons of Utah within a national context.

To complete our understanding of the USHE system, its students, and its services, NCHEMS staff completed numerous site visits. An initial meeting in January 2023 with USHE staff, institutional presidents, then-members of the USHE board, and other stakeholders provided essential early information and helped orient these groups to the goals of the projects. In May and June, NCHEMS staff, in two teams, conducted site visits to the following institutions:

Technical Colleges

- Bridgerland

- Davis
- Ogden-Weber
- Southwest
- Uintah Basin
- Dixie
- Mountainland
- Tooele

Comprehensive Community Colleges

- Salt Lake Community College
- Snow College

Regional Universities

- Utah Valley
- Weber State
- Southern Utah
- Utah Tech

Research Universities²

- Utah State University (its main campus in Logan, as well as its branch campuses in Blanding, Moab, and Price)

At each of these visits, NCHEMS staff presented enrollment trends data and facilitated conversations with campus leadership to discuss their mission and services. In many sites, we also met with other stakeholders such as students, faculty members, area employers, K-12 partners, and workforce development leaders. These meetings provided an opportunity for stakeholders to contribute to our understanding of how the USHE system functions and the ways in which institutions are acting to meet the needs of all Utah students.

Findings and Discussion

The review of data and input from the stakeholder engagement activities yielded findings related to the following elements of the community college mission: access, student affordability, state spending, remedial/developmental education, concurrent enrollment, transfer into baccalaureate programs, completion of associate's degrees and certificates, connections between higher education and workforce/employer needs, noncredit instruction, and competition/collaboration between institutions. These findings are detailed below.

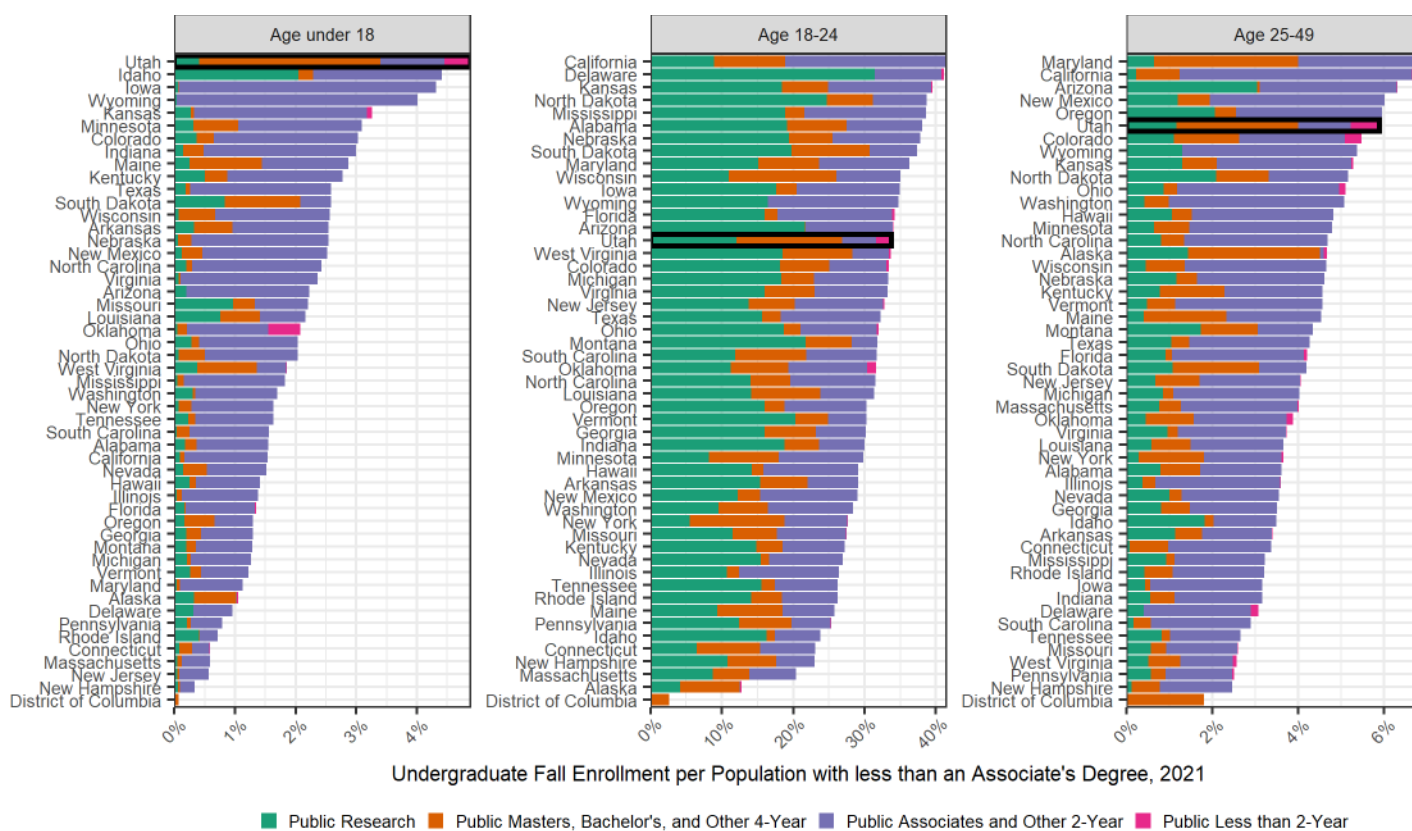
² NCHEMS did not visit the University of Utah as it is the only USHE institution without components of a community college mission.

Access

Community colleges nationwide were founded on a mission of access, designed to provide affordable, open-admissions education close to students' home communities. To understand access in Utah, we analyzed how many students from the state overall and from each Utah county attend USHE institutions. We compared student numbers to the college-aged population of each area, and also looked at how access varies by institution type (e.g., technical colleges vs. degree-granting institutions) and student demographics.

Utah's undergraduate participation rates at public institutions are higher than most other states (Figure 2). Relative to the size of its population, Utah's public institutions enroll more students under age 18 (i.e., concurrent enrollment students) than those of any other state. Utah also ranks 6th in its enrollment rate of students age 25 to 49, and above average for students age 18 to 24.

Figure 2. Undergraduate Fall Enrollment at Public Institutions per population with less than an Associate's Degree by Age, 2021



Source: U.S. Census Bureau; American Community Survey (ACS), 2021 One-Year Public Use Microdata Sample (PUMS); and NCES IPEDS Fall Enrollment Survey, provisional file ef2021b. Only includes public institutions.

At the same time, as Figure 3 shows, access varies widely from one part of the state to another, depending primarily on the array of institutions located within the region. Most Utah institutions draw their students from a relatively small area near their campus(es), which means that access is, in many cases, dictated by geography. For example, some of the counties with the lowest participation rates are in the southeast corner of the state,

where the only institutions are small Utah State locations. Counties that are home to a technical college, but not the main campus of a degree-granting institution, such as Duchesne and Uintah Counties, tend to have higher technical college participation rates and lower degree-granting participation rates.

Additionally, the type of access varies across the state. Weber County, for example, has the 4th highest rate of students enrolling in college directly after high school, but is below average in its participation rates of first- and second-year students overall and those age 25 and over.

Overall, counties that outpace others in terms of participation rates include several in southwest Utah: Kane, Beaver, and Iron. Notably, Washington County's participation rates are lower than the counties that surround it. Duchesne County in the Uintah Basin also has overall high participation rates, though as noted above its rates are highly concentrated in the technical college sector.

Counties with lower participation rates include Grand and San Juan counties in the southeast corner of the state, as well as Juab, Millard and Tooele counties on the western side of the state, counties whose western portions are distant from any USHE institution.

Figure 3. Rankings of Postsecondary Participation Rates by County, All USHE Institutions³
(Low Rankings Refer to Higher Participation Rates)

County of Origin	Age 25+ First- & Second-Year Students	Concurrent/High School Enrollment	Directly after High School	First- & Second-Year Students	Average of four rankings
Kane	5	2	5	6	4.5
Beaver	3	6	7	4	5
Duchesne	2	3	13	5	5.75
Iron	6	5	2	14	6.75
Morgan	8	7	14	3	8
Garfield	11	8	3	11	8.25
Uintah	4	4	19	7	8.5
Daggett	1	9	25	1	9
Davis	13	10	6	9	9.5
Cache	10	11	9	19	12.25
Rich	25	1	1	26	13.25
Weber	18	12	4	21	13.75
Washington	16	16	10	15	14.25
Sevier	15	13	18	12	14.5
Wasatch	24	14	8	13	14.75
Emery	7	24	27	2	15
Sanpete	12	22	15	17	16.5
Box Elder	17	21	11	18	16.75
Summit	20	18	22	10	17.5
Carbon	9	27	29	8	18.25
Salt Lake	14	26	20	16	19
Wayne	28	15	12	25	20
Utah	19	20	21	22	20.5
Piute	23	17	16	28	21
Tooele	21	25	17	23	21.5
Millard	26	19	24	20	22.25
Juab	29	23	23	24	24.75
San Juan	22	29	26	27	26
Grand	27	28	28	29	28

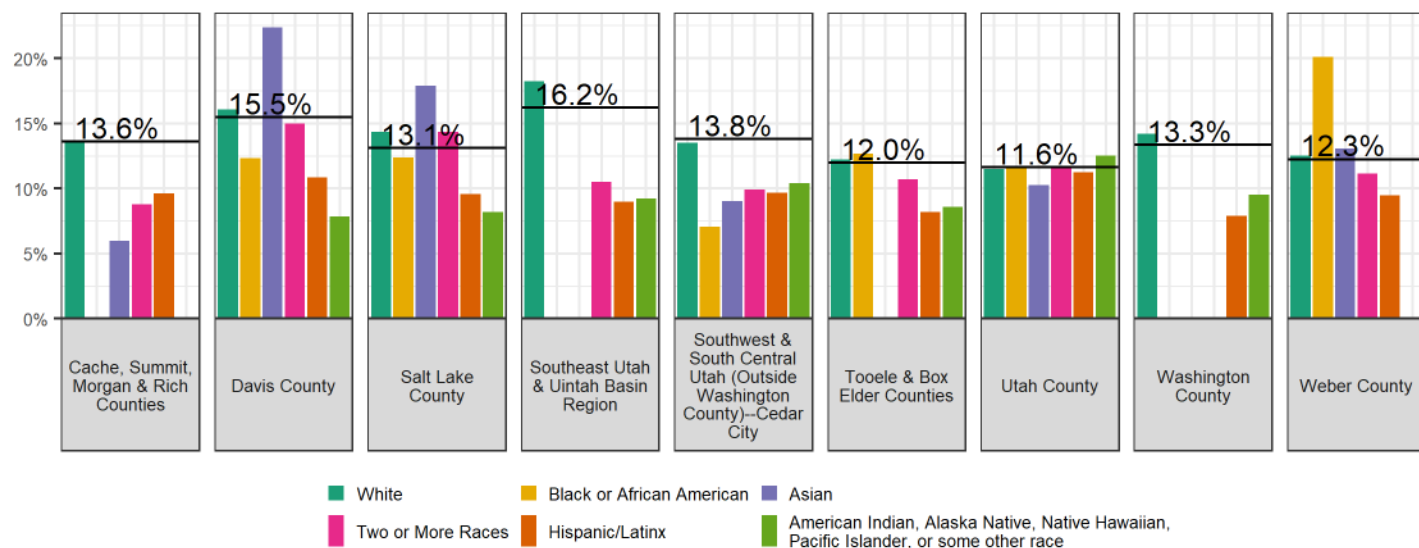
Sources: USHE; U.S. Census Bureau ACS 2021 5-year estimates, table B15001; Utah State Board of Education. Notes: Some rural counties have very small numbers of high school students and graduates, so high rates do not necessarily mean large numbers of students. Locations of institutions are marked with dots. Students may be counted at multiple institutions. Data represent a 5-year average for 2017-18 to 2021-22, except for concurrent enrollment, which represents a 4-year average from 2018-19 to 2021-22. First- and second-year undergraduates include students who have earned less than 60 credits, non-matriculated students and unclassified undergraduate students. Excludes graduate students, junior and senior level students, and--except for the concurrent enrollment map--high school students.

Access also varies by student race and ethnicity. Participation rates of Hispanic/Latinx, Black or African American, and American Indian/Alaska Native/Native Hawaiian/Pacific Islander Utahns lag behind those of White residents in most parts of the state (Figure 4). As noted in the Enrollment Trends Report, the Hispanic/Latinx population in particular is a growing segment of Utah's population, and Hispanic/Latinx student enrollment has not kept pace with population growth.

³ Note: Some rural counties have very small numbers of high school students and graduates, so high rates do not necessarily mean large numbers of students.

Figure 4. Participation Rates by Race/Ethnicity and County - All USHE Institutions

First-Year and Second-Year Enrollment per Population age 18-44 with less than an Associate's degree, by race/ethnicity



Sources: USHE; U.S. Census Bureau; American Community Survey (ACS), 2017-2021 5-year ACS Public Use Microdata Sample (PUMS)
 Notes: Groups with margins of error larger than 30% of their population estimates have been removed. Includes students who have earned less than 60 credits. Students of unspecified race are included in the overall rates (black lines), but excluded from the individual race/ethnicity columns. In some cases, this means total participation is higher than that of each of the races/ethnicities.

During NCHEMS' stakeholder engagement, we learned about several barriers to access. First, in rural locations throughout Utah, access to postsecondary education is limited. Depending on where a prospective student resides, in-person instruction and student support services to place-bound students in remote settings are most likely to be offered by an outpost of Utah State University, a technical college, or Snow College. Of these, Utah State has the widest geographic reach, operating numerous campus locations and cooperative extension offices all over the state while maintaining technology resources designed to deliver instruction remotely.

Utah State has assumed responsibility for a statewide mission to deliver educational programs—including community college services—most noticeably by adjusting faculty reward structures. At the same time, Utah State is a large, research-focused university with multiple and competing priorities. In our stakeholder engagement sessions, we observed that it is a significant challenge to balance these competing interests with such a broad mission. The obligation to serve rural students with sub-baccalaureate education and training will inevitably compete for investment with other institutional priorities, culture, and habits.

These conflicts create a dilemma for how best to meet rural students' needs. On one hand, Utah State's outposts give rural students initial access to the wide array of programs available through the larger institution, as well as necessary student supports critical to their success in a complex educational environment. No other provider in Utah has such an extensive network of resources for deployment in many rural settings in the state, except for perhaps Snow College. On the other hand, many of Utah State's offerings throughout rural Utah are only available via online or two-way-video modalities, which does not always match the needs or preferences of students in those locations, and the

standardized timing of Utah State’s course and semester schedules do not always work for local people, particularly working adults. Furthermore, there is a wider need for short-term workforce training and CTE programming in remote areas (other than the Uintah Basin and Tooele where technical colleges exist to meet these needs) that are outside USU’s core strengths. If meeting the postsecondary educational needs of rural Utahns is a state priority, the state must lead and incentivize institutions to adapt their delivery mechanisms to meet rural needs, including through collaborations forged with partner providers who may be better equipped to offer the kind of courses and programs that are in greatest local demand. This applies to Utah State and Snow especially due to their assigned service areas.

In general, not just in rural areas, access for students aged 25 and older is a weak area. As noted in NCHEMS’ Enrollment Trends report, enrollment among this age group has declined in recent years at both degree-granting and technical institutions, but it will become an increasingly important audience for Utah’s institutions of higher education moving forward as the number of high school graduates is expected to decrease in the medium-term. We found that often student services and courses are not offered at times that are convenient for working adults, that services are generally oriented to the needs of recent high school graduates, and that there is little intentional recruitment of older students. One technical college employee referred to the enrollment of older students at their institution as “by accident.” The small number of adult-focused programs we heard about from institutional stakeholders tended to be online, which can meet the needs of some students, but certainly not all of them.

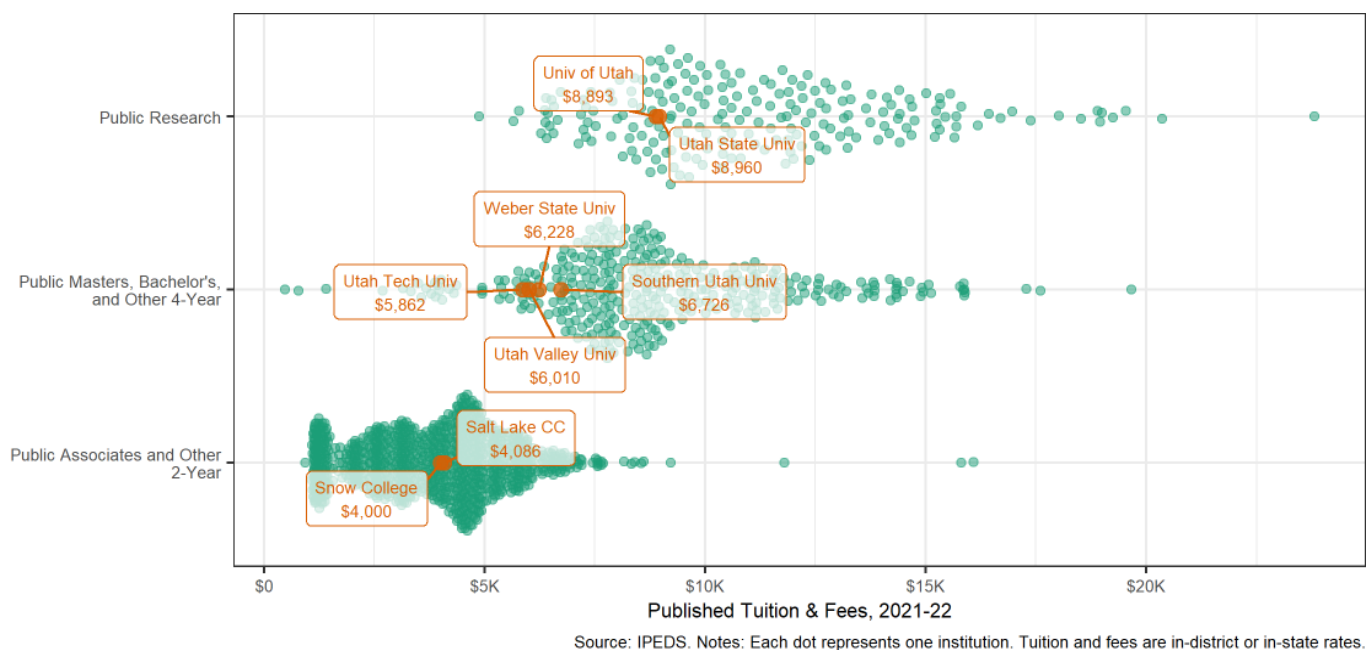
NCHEMS also heard from stakeholders in many locations that housing is a major barrier to providing postsecondary education. Housing is prohibitively expensive for students (or in some cases faculty) in some locations, and in other locations there is simply not enough housing to meet the institutions’ needs. In the most rural parts of the state, students must be housed on campus if they are to receive in-person education; given distances involved, commuting is not an option. Several institutions are implementing creative solutions to expand housing access for their students—such as Snow College’s new leased housing in Richfield and partnership with the county government—but still found it to be a challenge, particularly because they are prohibited from using state funds to create student housing.

Student Affordability

Affordability can be seen as a precondition to access; without affordability, lower-income individuals can be priced out of postsecondary education. This area merits special scrutiny in Utah, because as noted in the Enrollment Trends report, all of Utah’s degree-granting institutions have seen a decline in students eligible for federal Pell grants—which is used as a proxy for low-income students—in recent years. (Data on the income level of technical college students were not available for this analysis.) Further, affordability is a hallmark of community colleges. If Utah aims to enroll more low-income students and successfully serve the community college mission, it will need to pay careful attention to affordability.

Utah's community colleges charge similar prices to community colleges in many other states, and its four-year institutions are generally less expensive, in terms of published tuition and fees for a full-time student, compared to four-year institutions in other states (Figure 5). However, given that most of Utah's four-year institutions also serve a community college mission, it is worth comparing the tuition and fees of Utah's dual-mission institutions to the tuition and fees of community colleges in other states. Though Utah's dual-mission institutions are relatively affordable compared to other four-year institutions, they are all more expensive than most of the nation's community colleges. This means that Utah students who attend a dual-mission institution for community-college level education are subject to a higher sticker price than their counterparts in other states who enroll in community colleges. This makes the first two years at a dual-mission institution in Utah more unaffordable on a relative basis. Additionally, because of Utah's low FAFSA completion rate among graduating high school students (Utah ranks last among all states and D.C. as of August 2023⁴) and cultural aversion to borrowing, a larger-than-average portion of students in Utah will end up paying the published price.

Figure 5. Published In-State Tuition and Fees, Public Degree-Granting Institutions, 2021-22

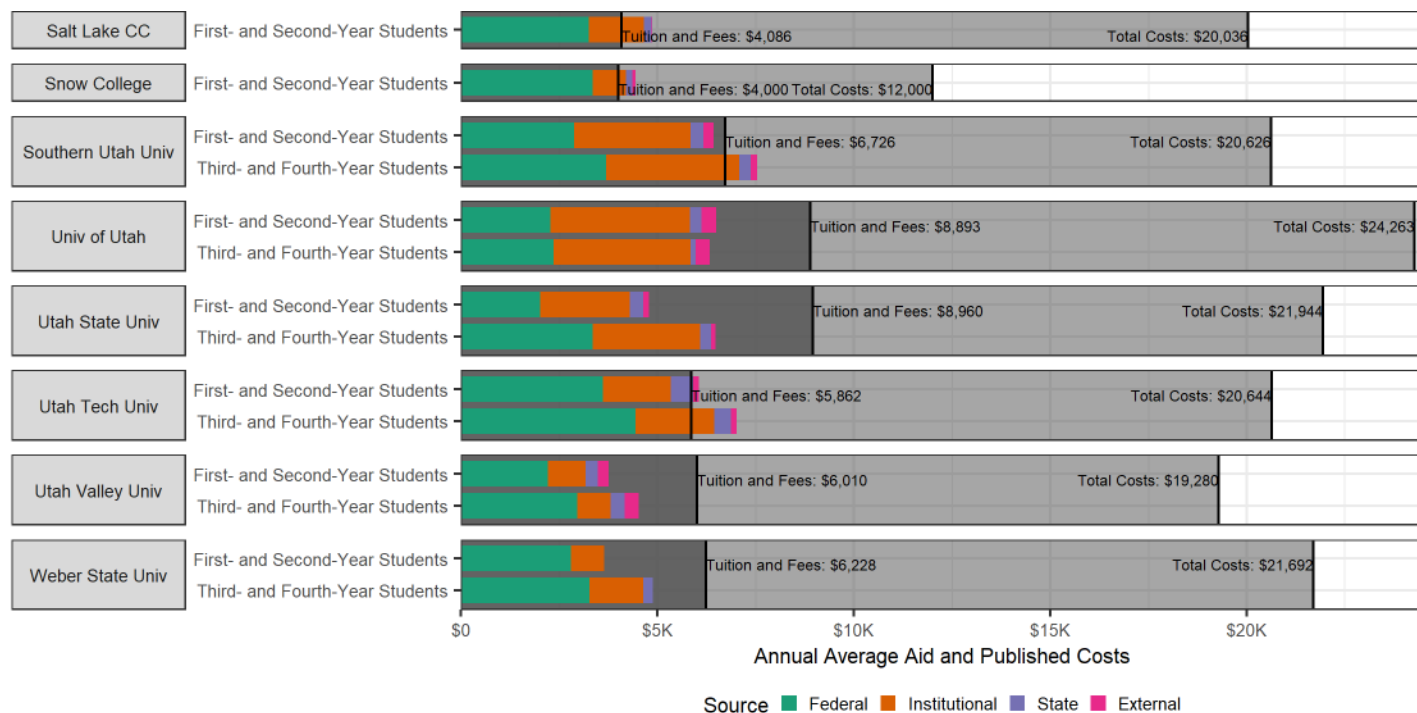


Of course, many students still do not pay the published tuition and fees due to financial aid, grants and scholarships (Figure 6). At Snow College, SLCC, and Utah Tech, the average amount of aid awarded to students who attended full-time in 2021-22 exceeded the published tuition and fees, though it did not come close to covering students' full costs

⁴ "FAFSA TRACKER - Form Your Future," accessed August 23, 2023, <https://formyourfuture.org/fafsa-tracker/>.

of attendance, which includes books, supplies, and living expenses. Note that costs of attendance are estimated by the institutions, and their methods of determining costs may vary.

Figure 6. Average Net Price for Full-Time Utah Residents, 2021-22



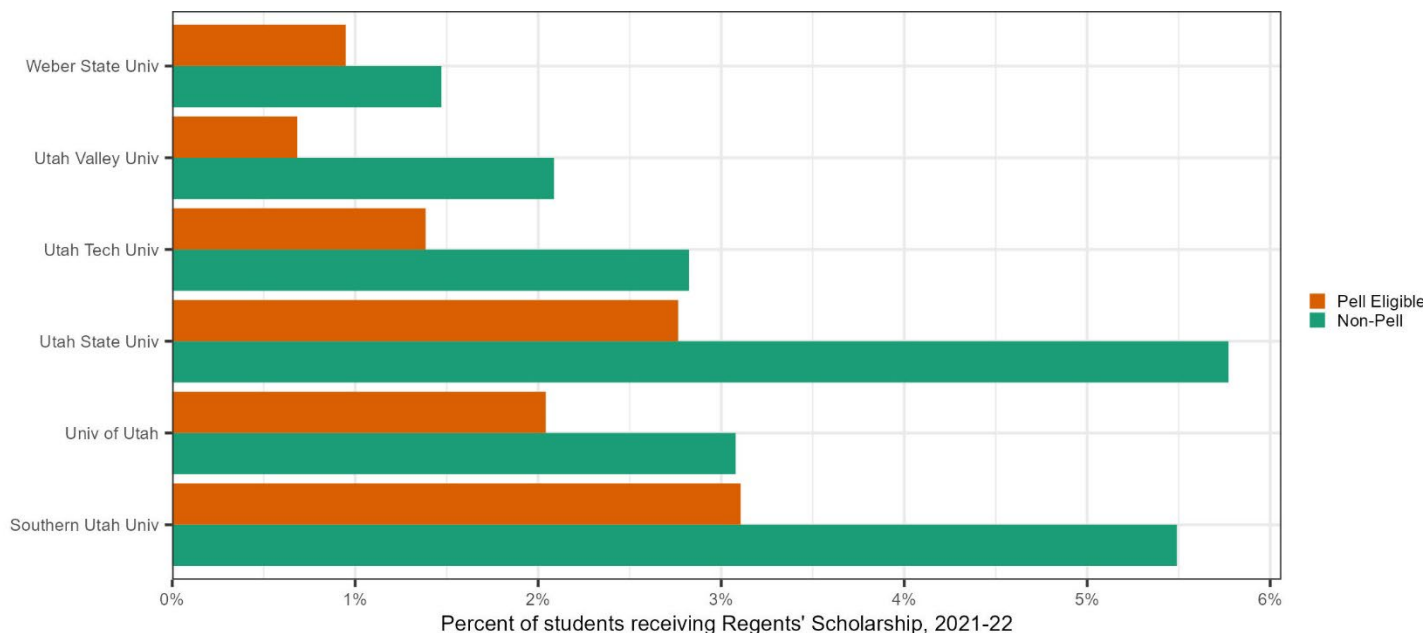
Sources: USHE and IPEDS. Notes: Aid does not include loans or waivers. Only includes Utah resident undergraduates who were full-time in both the fall and spring semesters. Mean values include those who did not receive any aid. 3rd and 4th year students at Snow College are excluded due to low numbers.

Most of the aid awarded to Utah students attending USHE degree-granting institutions is either federal or institutional, with the state also providing support through its own financial aid programs. In Utah, the largest of such programs is the Opportunity Scholarship (previously called the Regents' Scholarship), which awarded over \$10 million in 2021 for high school students meeting merit criteria. The Opportunity Scholarship targets students matriculating directly from high school to college who have completed a college-ready curriculum and achieved a minimum 3.5 grade point average.

Although the Opportunity Scholarship can be used at any USHE institution, in practice nearly all recipients attend a four-year institution. A higher percentage of those who are not Pell-eligible (or who did not complete the FAFSA) receive the scholarship compared to those who are Pell-eligible (Figure 7), and a higher percentage of White students received the scholarship compared to Hispanic/Latinx students (Figure 8); these are the two largest racial/ethnic groups attending USHE institutions. All of this means that this largest of Utah's state aid programs could be unintentionally reinforcing some of the trends identified in the Enrollment Trends report, specifically the decline in Pell-eligible students and the lackluster growth among Hispanic students. Additionally, the Opportunity Scholarship, which is only available to recent high school graduates, is not helping to reverse the decline in students aged 25 and older. The state of Utah does have other

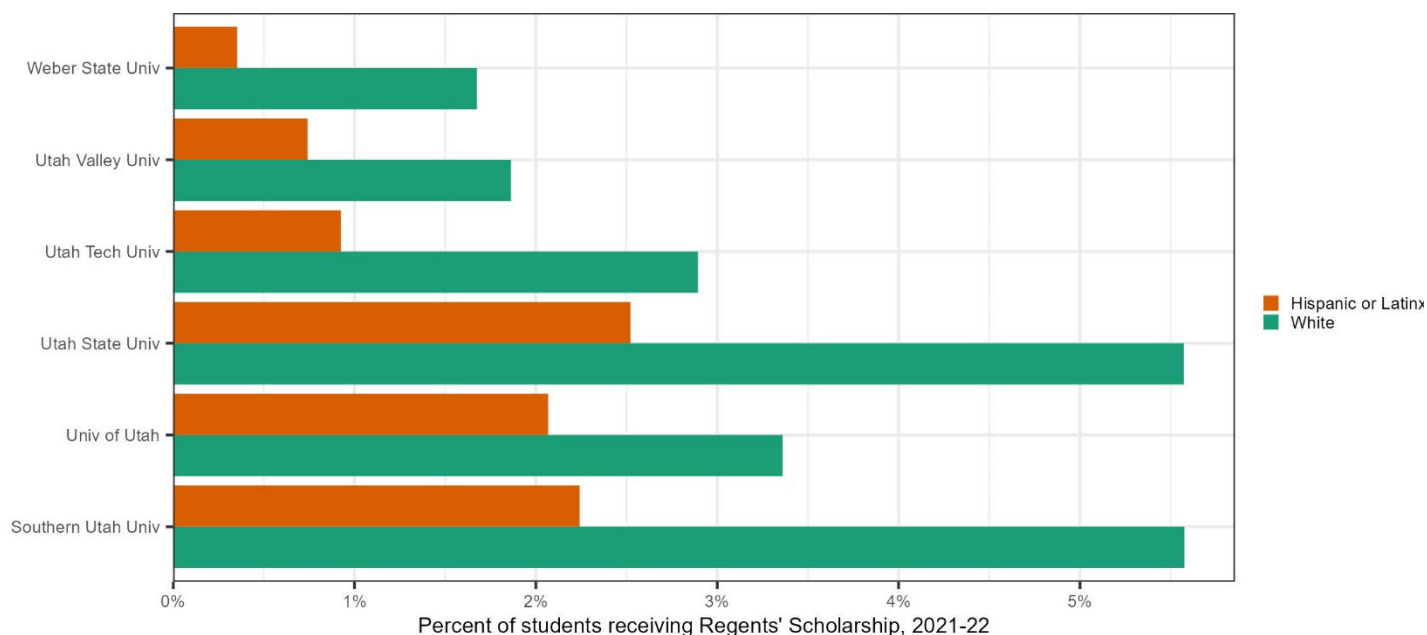
financial aid programs targeted to different audiences, in particular the Utah Promise Grant, which is a need-based grant, and the Technical Education Scholarship Program, which targets students at Utah's technical colleges. We focus on the Opportunity Scholarship in this report because those other programs are significantly smaller, in dollar amounts, than the Opportunity Scholarship.

Figure 7. Percent of Degree-Seeking Undergraduates Receiving Opportunity Scholarship by Pell Eligibility, 2021-22



Source: USHE. Notes: Only includes degree or certificate-seeking undergraduates who are not concurrently enrolled high school students.

Figure 8. Percent of Degree-Seeking Undergraduates Receiving Opportunity Scholarship by Race/Ethnicity, 2021-22 (White and Hispanic/Latinx Only)



Source: USHE. Notes: Only includes degree or certificate-seeking undergraduates who are not concurrently enrolled high school students.

In addition to the Opportunity Scholarship, USHE and the institutions have considerable discretion in how they allocate tuition waivers to aid students. In 2021, the state general fund supported over \$226 million in tuition waivers. While USHE regulations⁵ provide broad guidelines for institutions in awarding these waivers, it is unclear if institutional practices for awarding waivers align with state goals or ensure that community college needs are met across Utah. USHE does not collect data on these waivers within its database, and therefore waiver amounts are not included in Figure 6.

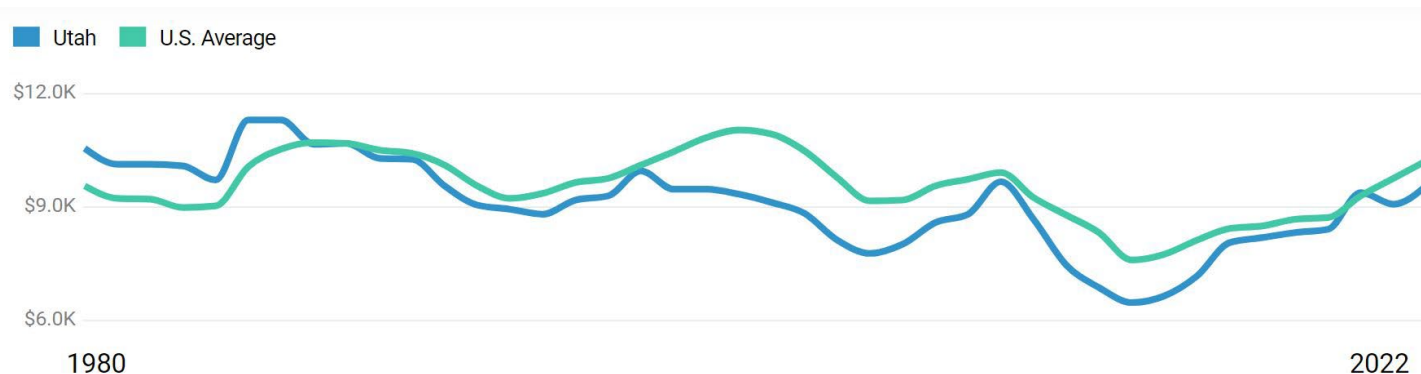
State Spending

In addition to affordability for students, the state of Utah has an interest in supporting its institutions of higher education in a cost-effective way. In nearly every year since 1987, Utah's public education appropriations per student FTE have been below the national average (Figure 9). Utah's increases and decreases in per-student appropriations have generally mirrored national trends. However, the lines in this graph include funding for state financial aid programs, and all but three states provided more state funding through

⁵ "USHE Policy R513, Tuition Waivers and Reductions" (Utah System of Higher Education, November 18, 2022), <https://public.powerdms.com/Uta7295/tree/documents/2022239>.

financial aid on a per-student basis in 2020-21 than Utah did.⁶ Altogether, this means that Utah's unique structure, particularly its relative lack of community colleges, does not appear to cost taxpayers substantially more money than do the systems in other states, and Utah institutions' relatively lower tuitions do not translate into higher public appropriations.

Figure 9. Per-Student Education Appropriations Over Time



Source: SHEEO SHEF, <https://shef.sheeo.org/state-profile/utah/#perstudent-education-appropriations-over-time>.
Adjusted for inflation using SHEF's Higher Education Cost Adjustment.

Remedial/Developmental Education

Community colleges typically serve the important role of helping prepare students for college-level coursework through remedial/developmental education, Adult Basic Education (ABE), High School Equivalency programs, English-as-a-Second-Language (ESL) courses, and introductory technological and financial literacy. In Utah, the K-12 system administers Adult Education, which is different from many other states. ESL instruction does take place at some USHE institutions, particularly Salt Lake Community College, but it is not tracked by USHE. These aspects of pre-college preparation are also not well-connected to college-level coursework or the workforce.

Current statute requires all community colleges in Utah to provide developmental education⁷, and some forms of developmental education are also available through the state's dual-mission institutions and technical colleges. However, during NCHEMS' engagement with institutional stakeholders, we observed wide inconsistency in how students were assessed for college readiness, the definition of college readiness being used, and the options in place to help students prepare for college-level coursework.

⁶ NASSGAP. 52nd Annual Survey Report on State-Sponsored Student Financial Aid. Table 12. Accessed September 29, 2023 from https://www.nassgapssurvey.com/survey_reports/2020-2021-52nd.pdf.

⁷ "Curricula at the Community Colleges," Utah Code § 53B-16-202 (2020).

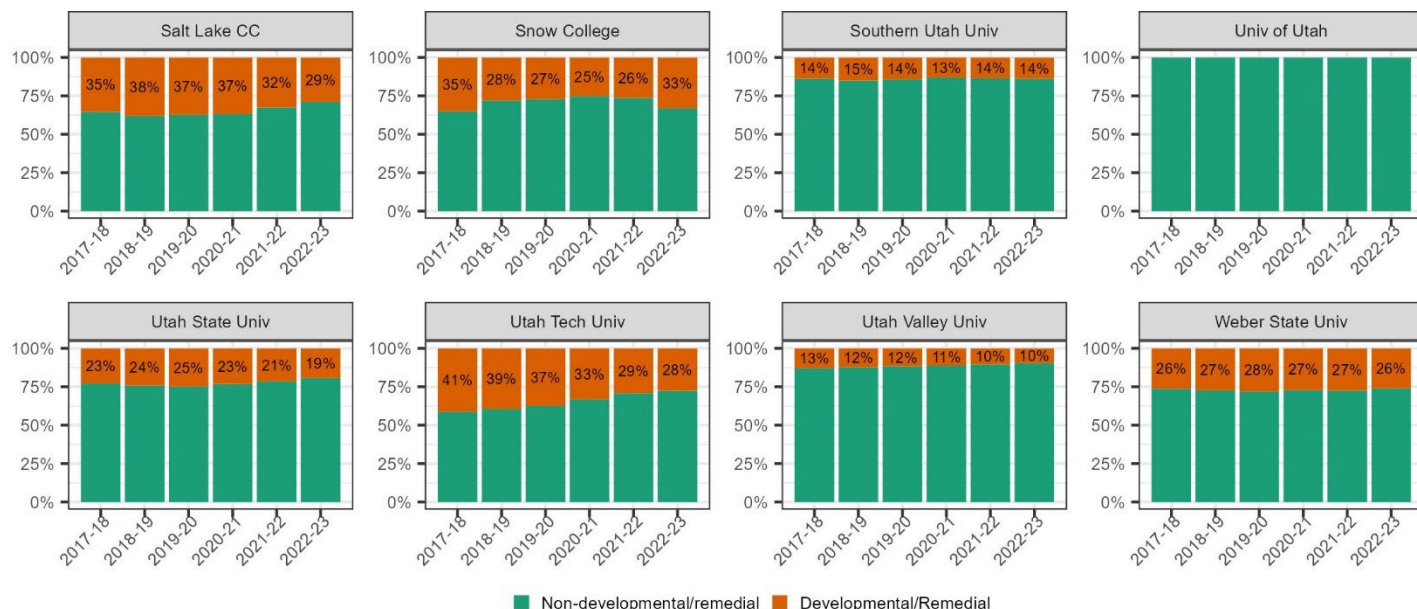
Assessment, placement, and delivery models all impact overall success for students who have graduated high school but are not college-ready.⁸ While implementation of developmental education can vary within states, Utah's state policy posture is unusually silent when it comes to assessment and placement. In fact, 33 states have adopted state- or system-wide policy addressing the tools institutions use to assess college readiness and how institutions use those assessments.⁹ USHE has taken some steps in this direction; the USHE strategic plan identifies standards for placement as a strategy for helping the system meet its completion goal. Thus far, this work has taken place in Faculty Major Committees for specific courses across USHE's degree-granting institutions.

The amount of developmental education taking place at USHE institutions varies considerably and has changed over time (Figure 10). This could either be due to different institutional practices in placement and different models of developmental education (e.g., pre-requisite vs. co-requisite courses), to reforms that have taken place (there was a system-level math pathways redesign in 2018), or to the fact that some institutions simply enroll more students who need additional support to succeed in college-level coursework.

⁸ Paco Martorell and Isaac McFarlin, "Help or Hindrance? The Effects of College Remediation on Academic and Labor Market Outcomes," *Review of Economics and Statistics* 93, no. 2 (May 2011): 436–54, https://doi.org/10.1162/REST_a_00098.

⁹ JoAnne Wilkins, "50-State Comparison: Developmental Education Policies," Education Commission of the States, April 26, 2021, <https://www.ecs.org/50-state-comparison-developmental-education-policies/>.

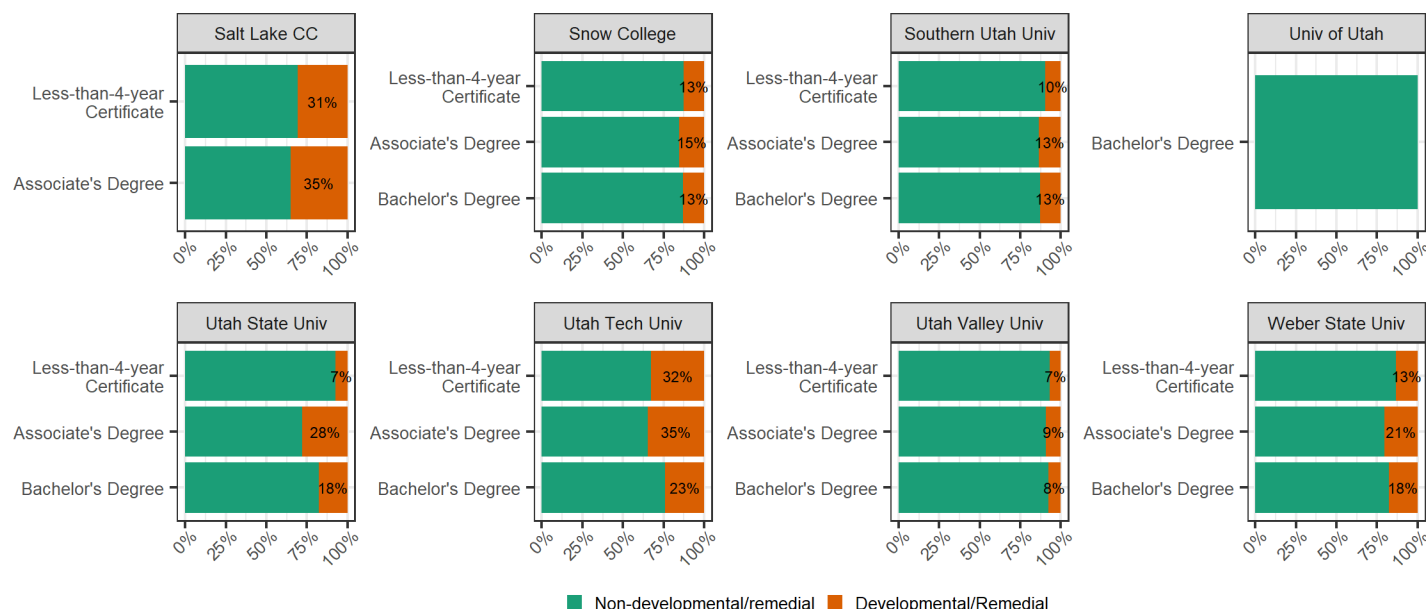
Figure 10. Degree-Granting Institutions Undergraduate Fall Enrollment Over Time, Percentage Developmental/Remedial



Source: USHE. Note: Excludes High School Students. Developmental/Remedial includes students who enrolled in a remedial-level course at any point.

Among graduates at most institutions, a slightly lower percentage of bachelor's degree graduates enrolled in developmental coursework during their studies compared to associate's degree graduates, and compared to undergraduates overall (Figure 11). Though this could partly be due to transfer patterns (the data only include developmental coursework at the institution of graduation), this suggests that Utah students who participate in developmental coursework may be less likely to complete a bachelor's degree than students who do not enroll in developmental coursework, and points to a need for improvement in developmental education and services. This finding would square with findings from other states and systems: students who begin in developmental education are much less likely to persist and to ultimately complete their credential.

Figure 11. Degree-Granting Institutions 2021-22 Completers, Percentage Developmental/Remedial by Level



Source: USHE. Notes: Graduates are from 2021-22. Developmental/Remedial includes students who enrolled in a remedial-level course at any point.

A 2017 USHE analysis found that Native American, Black, and Pacific Islander and Hispanic students were overrepresented in developmental coursework, and that developmental students were frequently Pell-eligible.¹⁰ The overrepresentation of students of color and students with low incomes in developmental course sequences points to a structural inequity within the USHE system. Though this inequity is hardly specific to USHE—it also exists in Utah’s K-12 system and elsewhere—it can be addressed through higher education policy change. What’s more, as those groups are historically under-represented in higher education, this adds an incentive for USHE and its institutions to ensure that developmental coursework is effective. USHE’s strategic plan includes a strategy to “expand supportive entry-level education practices,” through “develop[ing] standards for placement, supportive instruction, co-requisite remediation, and other models.”¹¹ These standards should help ensure better support for students as they become college-ready and complete the credentials they seek.

¹⁰ Joseph A. Curtin and Julie Hartley, “Developmental Education in Utah: A Demographic Overview” (Utah System of Higher Education, August 2017), <https://ushe.edu/wp-content/uploads/2017/08/2017-6-Developmental-Education-in-Utah-Joe-Curtin.pdf>.

¹¹ Utah Board of Higher Education, “USHE 2021 Strategic Plan,” 2021, <https://ushe.edu/board/strategic-plan/>.

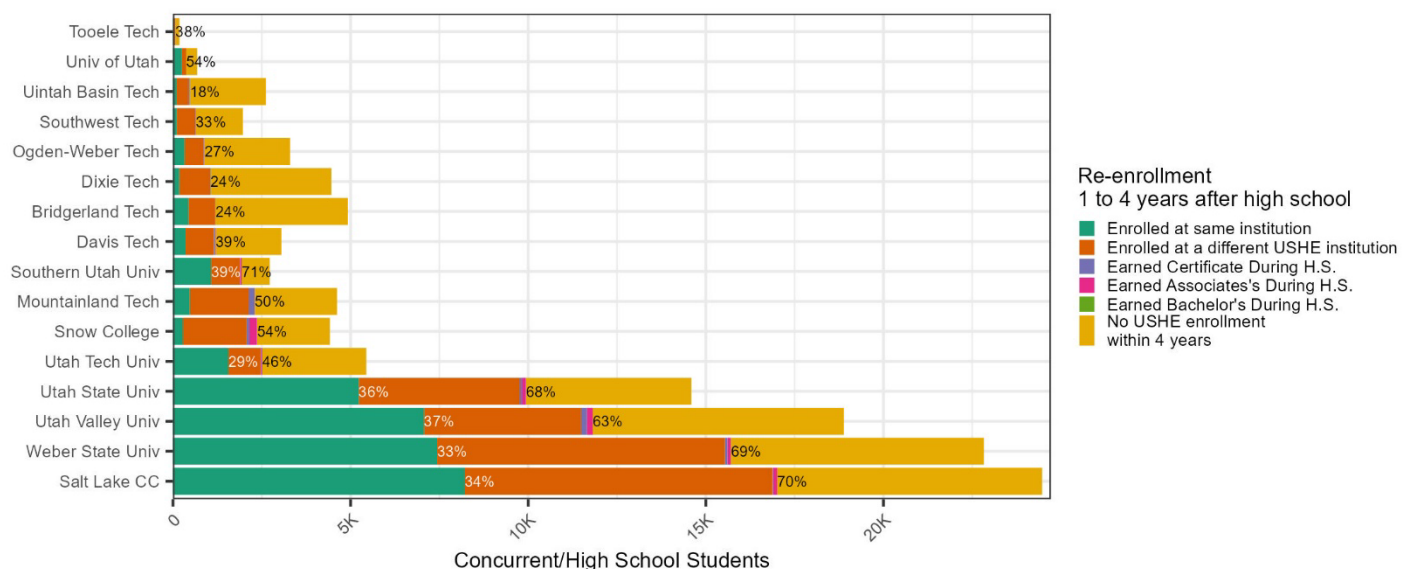
Concurrent Enrollment

One of the primary goals of concurrent enrollment is to provide students with a head start on college during high school. The intention is that students will re-enroll after high school and continue their college education. Concurrent enrollment, or its technical college equivalent, occurs at all 16 USHE institutions, though the largest number of students are served by four institutions: SLCC, Weber State, UVU, and USU. At those institutions, approximately one-third of concurrently enrolled students enroll after high school at the same institution, another one-third enroll at a different USHE institution, and the last third do not enroll at a USHE institution within four years of high school graduation (Figure 12).¹² There are not large differences in these rates between the dual-mission institutions and the community colleges, except at Snow College, which has a lower post-high-school enrollment rate and conducts a significant portion of its concurrent enrollment virtually via two-way video connections to high schools, many of which are not near its two campuses. Rates at the technical colleges vary, but all are significantly lower than the rates at Utah's degree-granting institutions. This is not due to high school students completing technical college credentials during high school; very few students earn certificates or degrees during high school and also do not subsequently re-enroll after high school.

In conversations with institutions, we heard that some leaders believe that students who might otherwise consider their institution for their full degree program do not do so because they are looking for an experience that is different from what they had in high school. Put differently, some institutional leaders in the system attribute their difficulty in converting about two thirds of their concurrent enrollment students into full-time, degree-seeking students stems from the simple fact that they were the same institution where the student completed their concurrent enrollment. Some institutional leaders also believe that Utah's robust concurrent enrollment offerings are helping to steer high-achieving students to other institutions. If these two hypotheses are true, it suggests that concurrent enrollment may be serving high-achieving, mobile students better than students who stay near their high school community to complete their postsecondary credential.

¹² We analyzed enrollment up to four years after high school to account for the fact that many Utah students take a break for religious service after high school.

Figure 12. Post-High-School Enrollment of Concurrent Enrollment Students



Source: USHE / UDRC. Notes: Students are unduplicated. Degrees/certificates earned during high school are only included for those who did not re-enroll, and represent awards from all USHE institutions. Includes those who participated in concurrent enrollment from 2013 to 2016. Subsequent enrollment is counted after each student's high school graduation year (when available) or their most recent concurrent enrollment.

Transfer

One common function of community colleges is to prepare students for transfer into bachelor's degree programs by offering transfer-oriented associate's degree programs, such as the AS in General Studies. While these degrees may have limited workplace value, they are primarily designed to serve as the foundation for a subsequent bachelor's degree.

In Utah, both of the community colleges serve this function, and the dual-mission institutions (the regional universities as well as Utah State) also offer transfer-oriented associate's degree programs, though they primarily intend for graduates of those programs to "transfer" internally; that is, to stay and complete a bachelor's degree at the same institution. In theory, this system should lead to a smoother four-year experience for students at the dual-mission institutions; they should be expected to enroll in four-year programs more frequently and complete bachelor's degrees at higher rates with fewer excess credits.

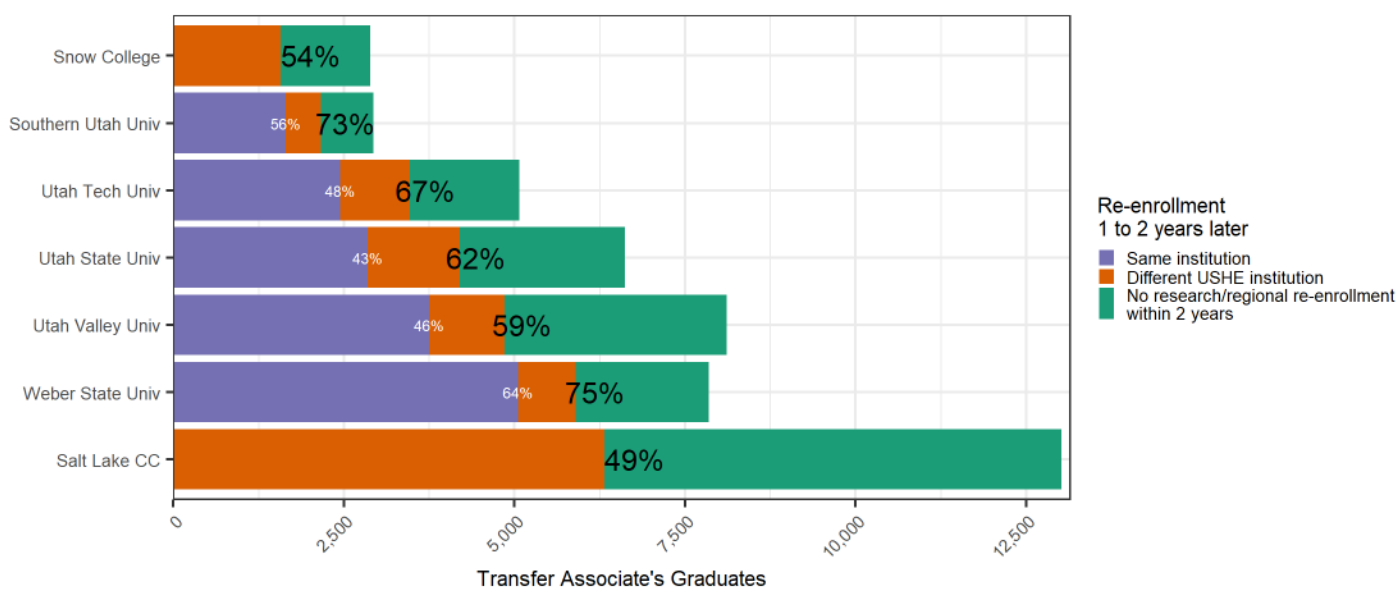
The data show that this is partly happening. Transfer-oriented associate's degree graduates¹³ from Utah's dual mission institutions between 2013 and 2018 were significantly more likely to enroll at one of Utah's regional or research institutions in the subsequent two years post-graduation compared to similar graduates from Snow and SLCC (Figure 13). Note, however, though SLCC had the lowest transfer rate of transfer-

¹³ NCHEMS distinguished transfer-oriented programs from workforce-oriented programs by CIP code.

oriented associate degree graduates, it transferred the largest *number* of these students into Utah’s public four-year institutions.

Additionally, transfer associate’s degree graduates from the dual-mission institutions do not always stay at the same institution following the completion of their associate’s degree; a significant portion of them are transferring. If we compare the rates of dual-mission associate’s graduates from 2013 to 2018 who stayed at the same institution to the rates of community college associate’s graduates who transferred, three of the five dual-mission institutions had lower internal transfer rates than the external transfer rates of the community colleges.

Figure 13. Subsequent Enrollment at a Regional or Research University of Transfer-Oriented Associate’s Degree Graduates



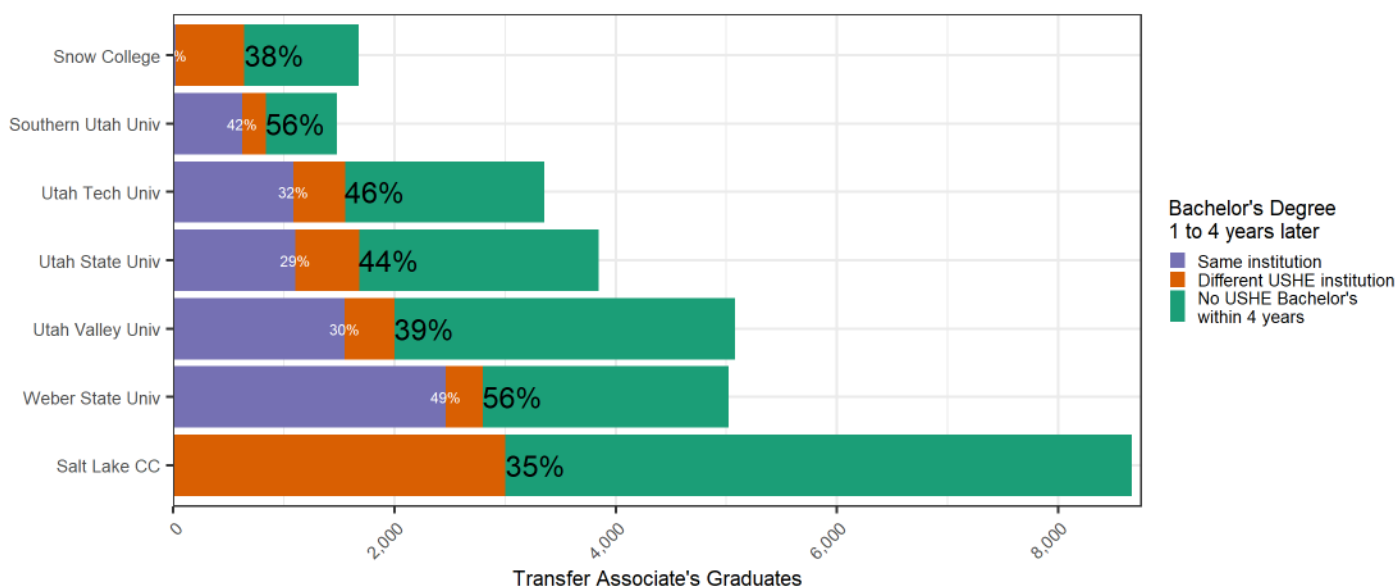
Source: USHE / UDRC. Notes: Transfer-oriented Associate’s degrees are distinguished from terminal degrees by CIP code. Graduates are unduplicated, except for cases in which individuals enrolled at both the same institution and a different institution. Includes those who earned transfer-oriented Associate’s degrees from 2013 to 2018.

These same patterns are present when looking at subsequent bachelor’s degree completion of transfer-oriented associate’s degree earners (Figure 14). Students who earned a transfer-oriented associate’s degree from one of Utah’s dual-mission institutions between 2013 and 2016 were more likely to complete a bachelor’s degree at a USHE institution within the subsequent four years compared to similar graduates from the community colleges. Those differences were not always large—UVU graduates went on to earn a bachelor’s degree at a rate only four percentage points higher than SLCC’s graduates did. Again, three of the five dual-mission institutions had lower rates of internal bachelor’s degree completion than the community colleges’ rates of external completion.

All of this suggests that all seven of these institutions have room to improve the outcomes for transfer-oriented associate’s degree graduates, and particular attention should be placed on the internal pathways to bachelor’s degree completion for associate’s degree students at the dual-mission institutions. Additionally, though one of the selling points of

the dual mission institutions is that students don't have to transfer, many students who start at those institutions are, in practice, transferring externally. These institutions and the USHE system as a whole should ensure that there are effective pathways for these associate's degree graduates to transfer to another institution for their bachelor's-level education. USHE has recently taken steps in this direction by introducing aligned "lower division majors" across all of the degree-granting institutions that ensure stackability into the majority of USHE bachelor's degree programs, regardless of which USHE institution the student attends or transfers to. This effort is a positive example of how the USHE system can exercise its authority on behalf of streamlining the student experience. However, program alignment in itself is not sufficient; the system and its institutions will need to make additional efforts and implement student supports aimed at improving persistence of these students.

Figure 14. Subsequent Bachelor's Degree Completion of Transfer-Oriented Associate's Degree Graduates

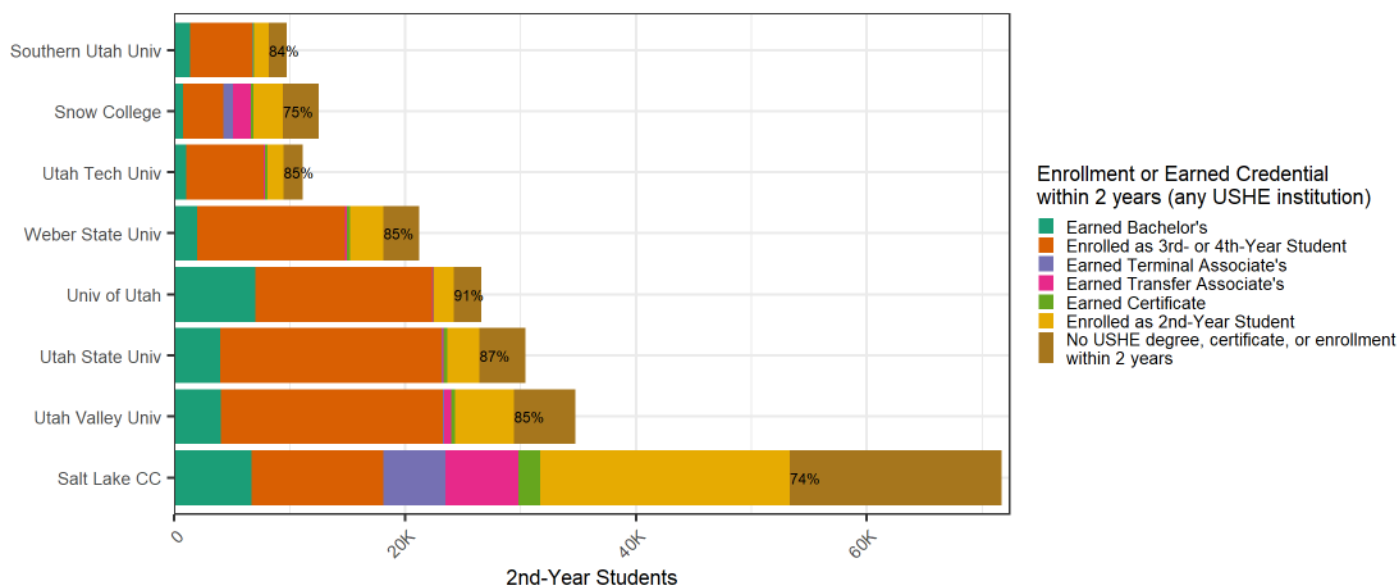


Source: USHE / UDRC. Notes: Transfer-oriented Associate's degrees are distinguished from terminal degrees by CIP code. Graduates are unduplicated. Includes those who earned transfer-oriented Associate's degrees from 2013 to 2016. Students who earned a Bachelor's degree in the same year as an Associate's degree--or earlier--are excluded.

We additionally looked at the outcomes of all sophomores at each of Utah's degree-granting institutions, as there are other successful pathways other than completing a transfer-oriented associate's degree (e.g. AA and AS degrees) and subsequently transferring; specifically, many students complete terminal degrees not intended for transfer (e.g., AAS degrees), and others choose to transfer without completing a degree. Figure 15 shows the outcomes of second-year students (those who have completed 30 to 60 credits) at each institution. The rates of second-year students who either completed a credential or continued to be enrolled during the two years following their sophomore year(s) were higher at Utah's dual mission institutions than at the state's community

colleges.¹⁴ These differences are likely due to differences in their student demographics, though there could be other contributing factors. As previously noted in NCHEMS' Enrollment Trends Report,¹⁵ SLCC in particular serves a higher percentage of part-time, Pell-eligible, and adult students. Across the nation, students in those categories tend to persist and complete degrees at lower rates than do the younger, full-time, non-Pell students who are more highly represented at Utah's other degree-granting institutions.

Figure 15. Second-Year Students' Subsequent Enrollment or Completion



Source: USHE / UDRC. Notes: Students are unduplicated. Includes those who were 2nd-Year students (had earned 30-60 credits) from 2013 to 2018. Does not include: enrollment or degrees earned more than 2-years beyond a student's sophomore year(s) or enrollment/degrees at non-USHE institutions.

Stakeholders told NCHEMS that transfer within CTE fields is not always smooth. It works best in fields where certification and licensure pathways are clear. Health professions are the prime example; a student can earn an LPN certificate from a technical college, then transfer to an associate's-granting institution for an AAS or ADN or in nursing, then continue on to a BSN if they choose. There are clear job opportunities at each level of education along this path. The process works less well in fields where the associate's degree is not either preferred by employers or recognized as a requirement for certification, such as in construction trades, engineering technology, or computing fields. Often, transfer in these fields looks like technical certificate graduates completing a set of

¹⁴ These data are the most recent available; however, they only include enrollment through 2019-20, and will not reflect changes in more recent years related to, among other things, systemwide efforts, policy change, or the pandemic.

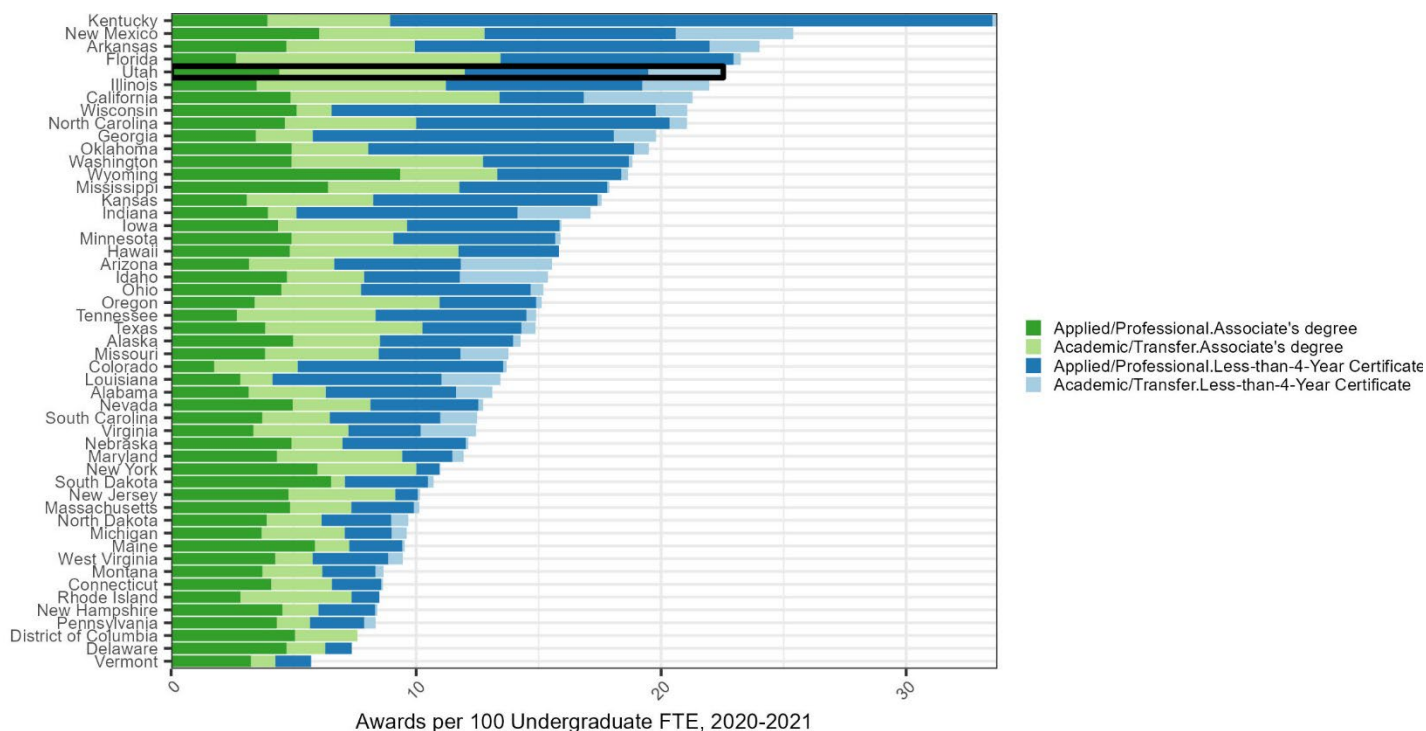
¹⁵ NCHEMS, Enrollment Trends Report (2023). <https://le.utah.gov/interim/2023/pdf/00003444.pdf>

general education requirements, then earning an AAS with no additional coursework in their CTE field. This type of transfer pathway and resulting associate's degrees do not appear to be recognized by Utah employers as leading to knowledge, skills, or abilities they value in recruitment and promotion. Instead, for employers seeking skilled workers, an accumulation of workplace certifications is more important than an accumulation of general education credits that have no clear alignment with needed workplace competencies.

Completion

One way to measure the success of the community college mission is to simply look at the number of sub-baccalaureate awards granted. We measure the number of awards as a percentage of full-time student equivalents (FTE), which serves as both a measure of efficiency and a useful way to compare award production across states. As Figure 16 shows, Utah ranks fifth among states in the U.S. in terms of its associate's degree and certificate production per FTE at its public institutions. This means that Utah is not producing fewer sub-baccalaureate credentials, relative to its undergraduate enrollment, than other states. Despite Utah's relative lack of community colleges, its institutions are still awarding higher-than-average numbers of certificates and associate's degrees.

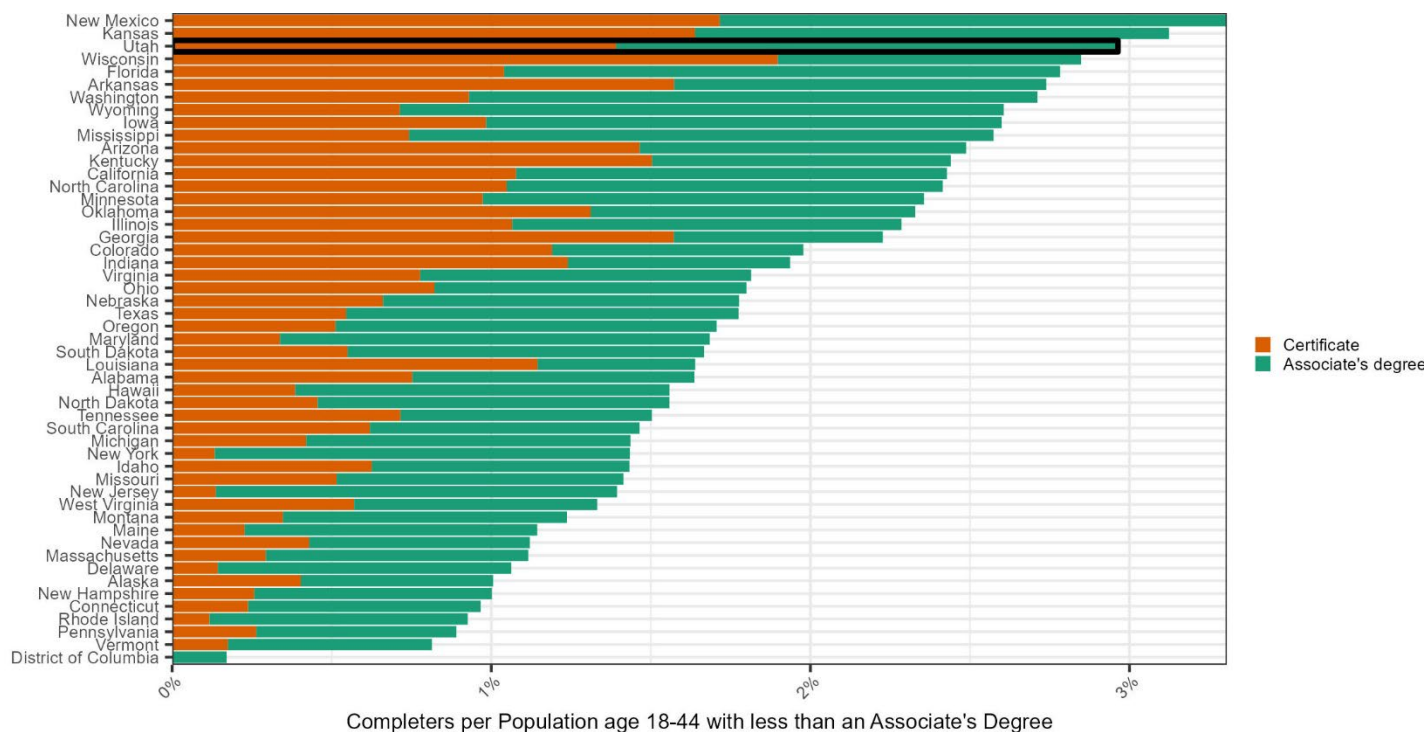
Figure 16. Sub-Baccalaureate Awards per 100 Undergraduate FTE by State, 2020-21



Source: NCES IPEDS Completions and Annual Enrollment Surveys, provisional files c2021_a and efi2021.
Note: Only includes undergraduate awards at public institutions.

Utah also compares favorably to other states in terms of the percentage of its total potential college-going population completing sub-baccalaureate credentials.

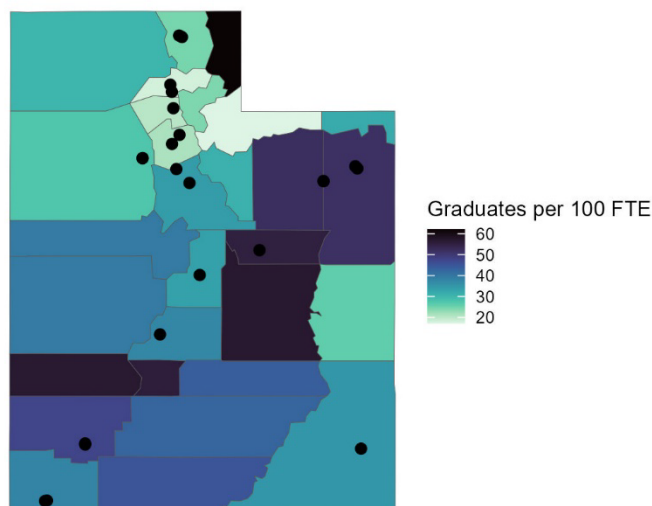
Figure 17. Sub-Baccalaureate Completers at Public Institutions per Population age 18-44 with less than an Associate's Degree, 2017-2021



Sources: U.S. Census Bureau, 2021 American Community Survey Five-Year Estimates, Table B15001; and NCES IPEDS Completions Survey, cYYYY_c files; 2017-2020 final release; 2021 provisional release. Note: Only includes completers from public institutions.

Within the state, the number of sub-baccalaureate completers per 100 FTE varies considerably by county (Figure 18). The counties with the highest completions tend to be the ones where students are more likely to attend a technical college or have fewer four-year options. Counties along the Wasatch front have lower sub-baccalaureate completions, likely because more students there are working on bachelor's degrees. Completions-per-FTE is not lower in rural areas; the challenge appears to be enrolling rural students in the first place rather than ensuring they graduate once enrolled.

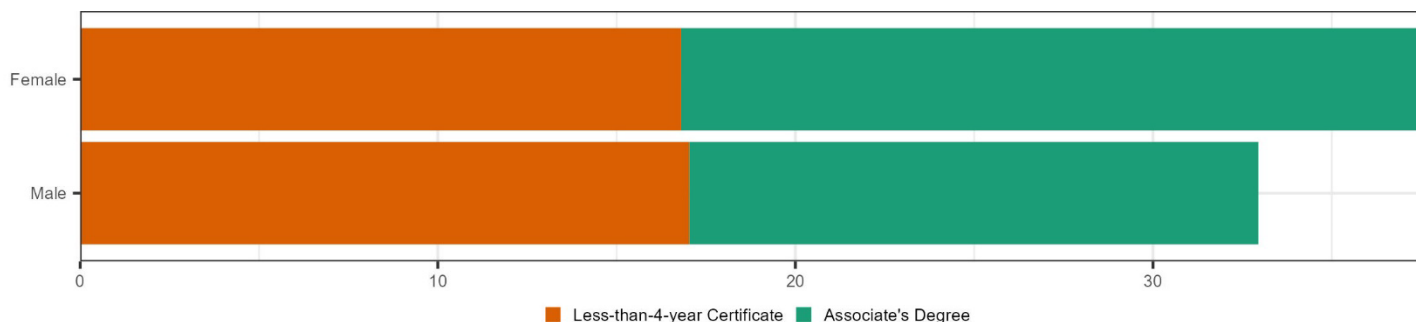
Figure 18. Associate's Degree and Certificate Completers per 100 First-Year and Second-Year Student FTE, 2018-2022



Source: USHE. Notes: Based on data from 2017-18 to 2021-22. Multiple years are used because some counties have very few graduates or FTE. Includes Associate's Degrees and certificates. Each certificate completer is counted for one-half of an Associate's degree completer. Graduates are unduplicated by institution and year. FTE includes first-year and second-year students who are not in high school.

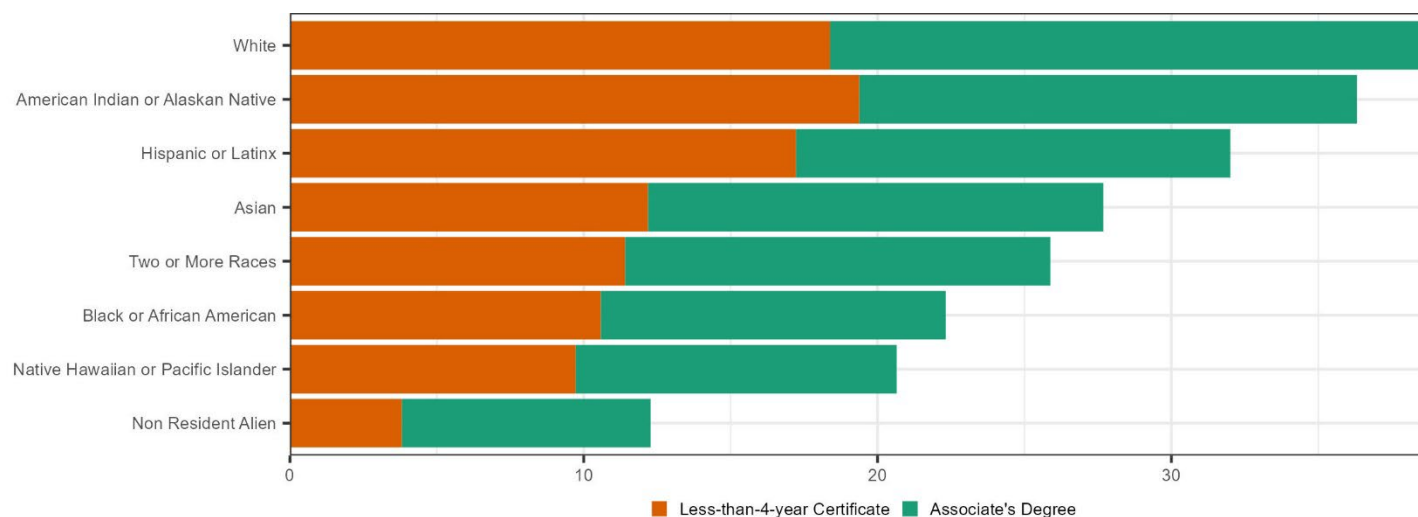
Female students have higher completions per FTE than male students (Figure 19), and White students have higher completions per FTE than those of other races/ethnicities (Figure 20). Interestingly, Pell-eligible students have significantly higher completions per FTE compared to students who are not Pell-eligible, perhaps because they are more likely to be degree- or certificate-seeking in the first place. Additionally, of those earning sub-baccalaureate awards, certificate earners are demographically different from associate's degree earners. A greater percentage of certificate earners is male, non-White, or over age 25 compared to associate's degree earners.

Figure 19. Associate's Degree and Certificate Completers per 100 First-Year and Second-Year Student FTE, by Gender, 2018-2022



Source: USHE. Notes: Includes all USHE institutions. Based on data from 2017-18 to 2021-22. Graduates are unduplicated per institution and year. FTE excludes 3rd and 4th year students and high school students.

Figure 20. Associate's Degree and Certificate Completers per 100 First-Year and Second-Year Student FTE, by Race/Ethnicity, 2018-2022



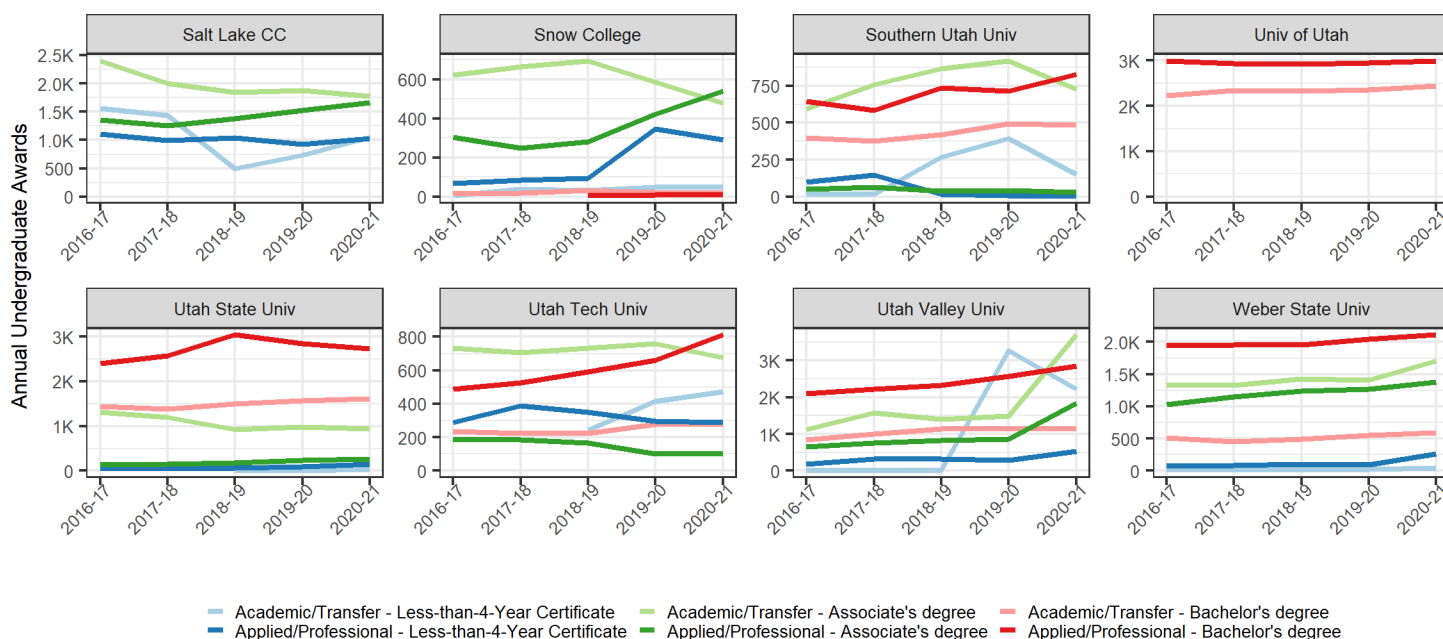
Source: USHE. Notes: Includes all USHE institutions. Based on data from 2017-18 to 2021-22. Graduates are unduplicated per institution and year. FTE excludes 3rd and 4th year students and high school students.

Workforce and Employer Needs

Sub-baccalaureate level education is an important piece of meeting workforce needs. This includes associate's degrees, technical education certificates, non-credit workforce training, and customized (credit- or non-credit) programs for employers. Community and technical colleges often have close connections to employers and curricula that are responsive to workforce demands, especially compared to traditional four-year institutions.

In Utah, the bulk of this portion of the community college mission is borne by the state's technical colleges. Though this is changing, the state's two community colleges have traditionally emphasized the transfer aspect of their mission more than the workforce-preparation aspect. Figure 21 shows that until 2020-21, both SLCC and Snow awarded more transfer-oriented associate's degrees than workforce-oriented associate's degrees. All the dual-mission institutions also awarded more transfer-oriented than workforce-oriented associate's degrees. The only USHE institutions with a primary emphasis on sub-baccalaureate-level career and technical education, therefore, are the technical colleges.

Figure 21. Degree-Granting Institutions Undergraduate Awards by Level and Type



In spite of increases in the number of technical education certificates awarded over time, visits with stakeholders throughout the state revealed a continuing need for more appropriately trained and skilled workers. Statewide data support these stakeholders' experience; parts of 2021, 2022, and 2023 saw Utah's lowest unemployment rates in at least 30 years,¹⁶ and the number of jobs is expected to continue to grow across all levels of education.¹⁷ The specific needs vary considerably by region within the state, although it was common to hear of shortfalls in health care fields, information technology, advanced manufacturing, and various types of technicians—machinists, construction trades, program managers, mechanics and industrial maintenance workers, for example. Employers in all regions also noted a shortage of CDL drivers. Industries in need of additional workers were in aerospace, health care, and life sciences. Different regions required different versions of the same technical training—for instance, the welding required in the Uintah Basin is of a different nature than what is needed in the southwestern corner of the state. These distinctions are important to recognize, and their presence reinforces the statement that credentials awarded at the sub-baccalaureate level should be specified by industry, not by the institutions. USHE's efforts to standardize

¹⁶ Utah Department of Workforce Services, "Seasonally Adjusted Unemployment Rates by County," accessed September 26, 2023, <https://jobs.utah.gov/wi/update/une/>.

¹⁷ Utah Department of Workforce Services, "Long Term Occupational Projections - Table Format," accessed September 26, 2023, <https://jobs.utah.gov/wi/data/library/employment/occprojections/occprojtables.html>.

curricula across the state will need to allow for some appropriate level of region-specific customization, but this requirement does not obviate the value of seeking the kind of standardization that serves students' interests.

Under USHE's Institutional Missions & Roles policy, technical education sub-baccalaureate certificates are the specific purview of the Technical Colleges and other institutions that are assigned a technical college role (Snow, SLCC, and USU in Price, Blanding, and Moab). Yet in practice, these certificates are also awarded by regional universities. This makes sense to the extent these institutions are seeking to stack multiple workforce-relevant credentials into a larger degree. But when these efforts overlap with the work of the technical colleges, it raises questions about how institutions in the same market could collaborate rather than compete over students, faculty, and other resources. It is important to note that USHE's Institutional Missions & Roles policy was just updated in May 2023, and USHE is currently working with the institutions to clarify the differences between academic and technical certificates and to enforce the expectation that only institutions with a technical college role are offering technical certificates.

The relatively slow enrollment growth at the technical colleges stands in contrast to the need for skilled workers, as well as the need to better engage adult learners who are disproportionately represented in this sector. One explanation for this misalignment is that technical colleges are constrained in their ability to add capacity by how they are funded. While stakeholders routinely described the technical colleges as nimble and responsive to workforce needs, they nevertheless encounter challenges in trying to grow quickly to add new programs or enrollments. Although the state generously funds its technical colleges, in part to keep tuition very low, their heavy reliance on state funding hampers their ability to add capacity, especially when compared to Utah's degree-granting institutions. Being smaller and having less money from non-state revenue sources (especially tuition revenue, due to Utah's laudable commitment to keeping costs low for students) means that capacity increases at the technical colleges—expanded staffing and new facilities or equipment—require new funding from the state. By all accounts, the legislature willingly approves those requests, but the request-and-approval process required by the state takes time. This heavy reliance on state money, comprised of ongoing appropriations based on prior years' enrollments combined with new requests that typically take multiple years to complete, limits the technical colleges' ability to develop and launch new programs, even when demand from local employers and students is clear.

To be clear, there are programs at the technical colleges that are not at full capacity; where that is the case, the issues are about attracting more students to those programs. But in programs that are at capacity, or when a new program is needed to meet local workforce needs, technical colleges are largely dependent on the state to provide funding. Because so much of a technical college's space is purpose-built—it is not realistic to hold phlebotomy labs in spaces designed for auto mechanics, for instance—the colleges sometimes require additional or repurposed facility space to meet needs as they change. Thus, they face a particular problem in securing funding for new, specialized lab facilities needed to expand existing CTE programs or add new ones. Talent Ready Utah is essential in helping to fill the gap by providing necessary seed money for starting up new programs,

but the program does not fund facilities (which can be a nonnegotiable pre-requisite for some programs). Technical colleges are best able pivot to new offerings when a) there is a willing partner in a degree-granting institution, b) an employer is willing to pay for services, or c) the program is “adjacent” to existing offerings can make use of existing resources like faculty and space. These constraints are compounded by state statute that rations construction projects at technical colleges.¹⁸

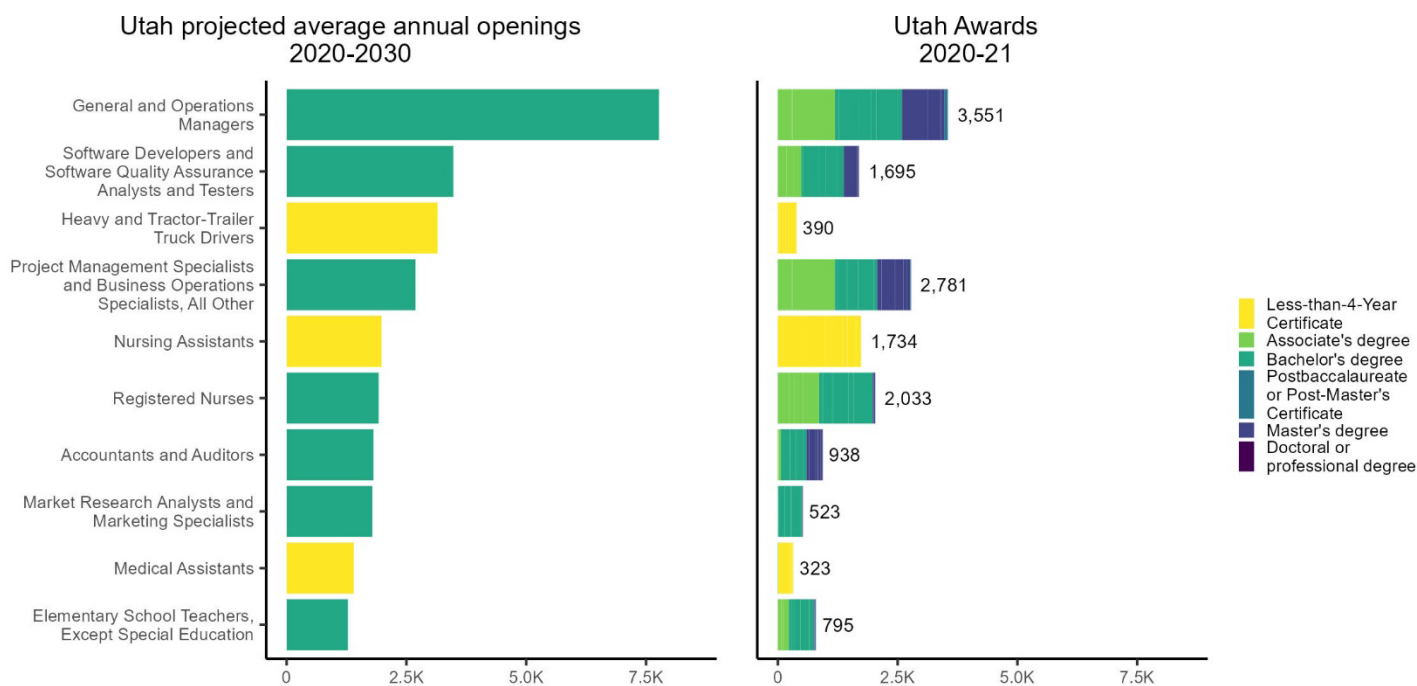
In addition to the technical colleges being disadvantaged relative to the degree-granting institutions in terms of their flexibility in acquiring needed resources to grow, the degree-granting institutions also benefit from having more marketing reach to attract potential students. This advantage grows if they are able to market industry-relevant credentials embedded in degree programs to the extent that such credentials prove to be appealing to new students. These comparative disadvantages for technical colleges in fulfilling their assigned educational role raise questions about mission differentiation and competition among the USHE institutions.

The degree-granting institutions assigned a technical college role (Snow, SLCC, and USU in some parts of the state) face different barriers to meeting workforce needs at the certificate level. These institutions must balance two sets of distinct missions, budgets, tuition structures, marketing brands, and curriculum processes within a single institution. It is not simple to operate a quasi-separate technical college alongside a degree-granting institution, and stakeholders at each of these institutions reported that they faced challenges in doing so. These challenges also represent growing pains associated with the still-recent 2020 merger of the technical college and degree-granting systems. None of the challenges are insurmountable, but at the moment they likely have an impact on how well these institutions can respond to workforce needs.

One simple way to assess how well Utah’s colleges and universities are meeting workforce needs is to compare the number of graduates to the number of job openings for occupations that typically require postsecondary education. Figure 22 shows this comparison, and includes occupations requiring bachelor’s degrees, as sub-baccalaureate-level education can be an important stepping stone to working in those occupations. These data should be interpreted with caution, as the link between academic programs and specific occupations is not always straightforward; for example, a business degree is not necessary to work in many business occupations, and people with liberal arts degrees work in many occupations. Furthermore, new USHE graduates do not represent the only supply of labor to fill these openings. Nevertheless, some occupations stand out as having a particularly large gap between the number of job openings and the number of graduates *and* requiring relatively specific education: Software developers, truck drivers, accountants, and medical assistants all may be occupations in which there are not enough USHE graduates to meet Utah’s growing workforce demand. Additional graphs of industries and occupational needs by region are available in the accompanying appendix.

¹⁸ “Legislative Approval -- Capital Development Projects -- Prioritization,” Utah Code § 53B-2a-117 (2022).

Figure 22. Top Utah Occupations that Require Postsecondary Education



Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based only on Utah public institutions. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Utah's dual mission institutions also award a number of associate's degrees and certificates. Although evidence from UDRC shows that these awards—even those that have no obvious workforce relevance—indicates that recipients receive a wage bump,¹⁹ there remains a general sense among institutional representatives that many associate's degrees have unclear workplace value, and are also not necessarily intended for transfer. We heard from staff and faculty at many of the dual mission institutions that they use associate's degrees as “off ramps” or “consolation prizes” for students who do not complete a bachelor's degree, rather than planned, intentional programs that have a clear next step to transfer or career. Employees at one dual mission institution stated that their students almost never seek associate's degrees; associate's degrees are not an institutional priority, and are essentially only awarded to students as a backup option. This means that some students are leaving with degrees that do not have as much value as they could, and that other students have only a bachelor's degree option in fields where an associate's degree could also deliver good workplace value (for example, SUU only offers a bachelor's degree in nursing, not an associate's).

¹⁹ Utah System of Higher Education, “USHE Graduates' Workforce Outcomes,” accessed October 2, 2023, <https://ushe.edu/ushe-graduates-workforce-outcomes/>.

At the certificate level, some dual-mission institutions are aggressively awarding stackable certificates along students' journeys towards bachelor's degrees. There is evidence that stackable credentials are good for students and deliver labor market value, but this is only true if the stacked credentials provide meaningful skills and are recognized by employers. Though Utah's institutions are making efforts to ensure their certificates have workplace value, there is currently no consistent definition of what the minimum standards for a certificate should be, although USHE is working to develop those standards. Utah's technical colleges generally have consistency in the length, rigor, and workplace value of what they count as a certificate, but the degree-granting institutions do not. This could lead to confusion in the marketplace and potentially "water down" the value of the most rigorous certificates. In this same vein, institutions should be awarding certificates that are scaffolded with workplace certifications and any relevant state licensure requirements, wherever those certifications and requirements exist, or provide tangible assurance that the recipient gains access to a streamlined pathway to a subsequent degree.

Noncredit instruction

Noncredit instruction important to the community college mission usually falls into several broad categories:

1. Pre-college instruction, such as ESL, high school equivalency, and noncredit remedial or developmental education.
2. Customized training for employers, such as the training that takes place through the Custom Fit program.
3. Workforce-oriented training that is not employer-specific but may result in an employer recognized certification.
4. Community service, such as recreational classes, kids' camps, etc.

All these types of activities take place at USHE institutions, though the type and quantity vary greatly by institution and location. Because there are few state-level guidelines, and little data collection or funding (with some exceptions such as Custom Fit and mission-related short-term training at technical colleges) for noncredit programming, each institution is currently making separate, individual decisions about what type of noncredit offerings they will provide to their communities. For example, Salt Lake Community College has a large Workforce and Economic Development division, and Southern Utah University has an office of Regional Services. Though both departments offer noncredit courses and partner with employers, the departments are significantly different from each other and from those of other institutions in the state. Each institution's unique approach to noncredit instruction has financial impacts on the institution as well as wider impacts on the communities and employers where USHE institutions are located.

This varied approach means that there is a dearth of information about noncredit instruction taking place across USHE institutions. USHE does not collect standardized data on noncredit enrollment and offerings, and noncredit activity does not figure into the state's funding model. This makes it difficult to understand the scope of noncredit activity taking place across the state of Utah, both in terms of the availability of offerings and the

number of students participating. Institutions track these data internally, but they are often stored outside the institution's main Student Information System database, and statewide numbers and comparisons across institutions do not currently exist. It should be stated that Utah is hardly unique in this condition; few other states have good data on noncredit instruction. But there are strong indications that noncredit activity is rapidly increasing as institutions—particularly in the two-year and technical college sectors—respond to demand for short-term training and see opportunities for revenue growth.

In our visits, we heard from several technical college leaders that Custom Fit has been successful and is limited only by the capacity of the technical colleges to offer it. Despite recent increases to the state appropriation for Custom Fit, employers consistently predicted that this program could still be fully subscribed if it were three to five times larger than it currently is. While a large portion of the costs of providing Custom Fit are covered by the employer (leaders at Bridgerland Tech estimated employers cover approximately 60–70 percent of the cost of the training they receive), the technical colleges depend on funding from the state or other sources to reach more employers and cover the remaining costs of creating and providing the customized training. Leaders at Uintah Basin Technical College, for example, indicated that they could easily expand Custom Fit if they had more dollars available to supplement the portion covered by the employer. At the same time, institutional and system leaders told NCHEMS that USHE institutions struggle to connect with new and emerging businesses and to partner, via Custom Fit or other programs, with the same set of established businesses. In addition to growing Custom Fit, there may be a need to adjust the program's guidelines to ensure that it serves a wide range of employers in industries that are both new and existing in a region and that its funding is deployed in ways that best support local economies.

Competition and Collaboration

Institutional leaders raised several key points about Utah's approach to funding institutions that impact their ability to deliver community college services. First, there were general concerns expressed about how performance funding has contributed to competition among the institutions, despite the fact that the state's "Access" goal is explicitly statewide and not competitive. One institutional leader argued that the funding model only supported institutions that are growing, even if their growth comes at the expense of other nearby institutions. Increased competitive impulses will constrain institutions' willingness to collaborate even when collaboration has benefits for both students and the state.

Notwithstanding the barriers to collaboration among institutions that exist because of competitive impulses, there are several examples of novel collaborations that are worth acclaim and further support. First among these is the arrangement between Southern Utah University and Southwest Technical College (SW Tech), which permits students at either institution easy access to SW Tech programs that will immediately transfer into SUU's programs. Students are able to pay SW Tech's reduced prices and get credit toward a degree offered by SUU. They also get access to SUU's larger campus and student activities (as do SW Tech's faculty and staff). Credits are awarded immediately and the agreement

is annually adjusted and viewed as mutually beneficial. Additionally, Snow College and Weber State operate a joint agreement for radiologic technicians. This program helps ensure that Snow's health care graduates are able to access an otherwise high-cost program. Finally, Utah Tech has engaged with the U of U to incubate programs in Occupational Therapy and Physical Therapy, which will eventually become UT programs once accreditation is secured. Such collaborations are examples of how higher education institutions can operate in an environment likely to be marked by increased workforce demands coupled with insufficient financial resources to respond to that demand.

Recommendations

Based on the analyses conducted and discussions with stakeholders throughout the state, NCHEMS makes the recommendations presented below. These recommendations are intended to address the specific questions raised by USHE concerning how Utah's public higher education system can better address the community college mission—questions of affordability, cost-effectiveness of delivery, and improved pathways into postsecondary education. In addition, the recommendations emphasize the importance to Utah of providing improved access and success for adult, primarily part-time, students.

Access

Students' access to community college-level education and services varies by location within Utah, as well as across different population and demographic groups. Based on participation rates, the USHE system is doing a good job of providing access to concurrent enrollment across all areas of the state, including rural high schools. Its participation rates of students enrolling after high school are more mixed. In particular, students in the southeast and west-central parts of Utah are not enrolling in college at the same rates as the rest of the state, and enrollment among part-time, adult learners, and Pell-eligible students has declined. Additionally, USHE's dual-mission institutions are providing community college services unevenly, which affects student access to particular services depending on which of these institutions they happen to live near.

To ensure access to all community-college-level education and services for all students in all parts of the state, NCHEMS recommends that USHE:

1. Set baseline expectations for what each dual-mission institution should be doing in serving the community college mission, as current practices vary widely—variance that impacts access and student success. USHE should ensure that, at a minimum, each dual-mission institution will:
 - a. Offer relevant AAS degrees in fields where they already offer bachelor's degrees (e.g., Nursing, Physical Therapy).
 - b. Maintain systems of developmental assessment, placement, and pedagogy that are based on best practices.
 - c. Offer noncredit instruction as needed by the communities they serve (e.g., ESL). Note: Noncredit workforce training should continue to be the purview of institutions with a technical college role.

- d. Appropriately serve adult students by, for example, offering coursework and student services on evenings/weekends; designing services to meet the needs of adults (e.g., childcare support); and offering user-friendly Credit for Prior Learning options.
- 2. Ensure that residents of the rural areas of Utah have reasonable access to the education and training opportunities relevant to their local economy. With small populations and large distances to travel to many providers, rural spaces in Utah are especially prone to experiencing deficits in educational services. Yet it is in the interest of the state to correct for market failures of this nature. This will require of USHE:
 - a. Regular monitoring and assessment of local needs and enrollment demand, which must be sensitive to variation in economic conditions and populations throughout the state.
 - b. Collaboration with other entities that are concerned with rural workforce and economic development, including the Utah Department of Workforce Services and other executive branch agencies, as well as local county government and concerned stakeholders.
 - c. Particular attention to setting appropriate goals for rural access and the possible creation of related accountability mechanisms for the USHE institutions that bear the brunt of responsibility for delivering services to those places, particularly USU's statewide campuses and Snow College.
 - d. Recognition that scale economies and efficiency are more difficult to attain in serving rural populations; USHE's resource allocation policies and accountability mechanisms should reflect this reality. The institutions serving students in these areas face unique issues that need to be recognized in the resource allocation process. For example, provision of housing for both employees and students will likely be needed if students from remote regions are to be enrolled and if faculty are to be attracted to serve those students.

Affordability

Relying on dual-mission institutions to deliver community college services has meant that students attending those institutions are charged university-level tuition rates for these services. For many Utahns, there is no postsecondary education alternative that is priced similarly to most community colleges nationwide, relative to peers who enroll in exclusively bachelor's degree-granting institutions. In light of this reality, NCHEMS recommends that USHE:

- 1. Adopt a three-tier tuition structure, much like that used by USU at its branch campuses in the southeastern part of the state.
 - a. A CTE tuition rate. This tier does not represent a change from current practice; it applies to technical education certificate programs at the technical colleges and degree-granting institutions with a technical college role.

- b. A community college tuition rate for degree credit courses at SLCC and Snow and for the first 65 credit hours of degree credit courses taught at the regional universities and all of the statewide campuses of Utah State.
- c. A university tuition rate for all undergraduate credit hours in degree credit courses in excess of 65 taught by the regional universities and USU's Statewide campuses, as well as all credits at the University of Utah and Utah State's Logan campus. For students enrolled in baccalaureate programs at Snow, credit hours in excess of 65 credits should be charged at university tuition rates.

Implementation of this recommendation will decrease tuition revenue at the regional universities. Without state policy intervention, these institutions will likely cut other budget areas to fund the tuition decrease, decisions which may or may not be in alignment with state priorities. USHE and the state may also decide to support the institutions by phasing in the recommendation over a fixed period of time. One approach would be to start by making each student's first 20 (or 30 credits) chargeable at the community college rate, then later their first 40, and so on. The specific levels and timing will necessarily depend on funding available from the state.

Lowering prices for first- and second-year credits across the USHE system may create additional competition between institutions that already have adopted a lower pricing strategy. Snow College would be particularly susceptible to enrollment loss from increased competition through price. Snow draws its students from a wide geographic area, not just its local service area, and employees at that institution told NCHEMS that many students choose to enroll at Snow due to its lower tuition. Snow certainly has other features that set it apart and make it attractive to students, but NCHEMS would like to acknowledge this possible impact. If USHE adopts this recommendation, we encourage USHE to plan for how to make the transition as smooth as possible for Snow College specifically. There are a few possibilities that might be considered, such as: directing additional need-based student aid funds to Snow, providing limited additional mission-focused funding to enable Snow to better reach populations within its expansive service region, or providing one-time funding and consultative support to Snow to allow it to better assess its market position under changing conditions and respond accordingly.

2. Analyze the ways in which tuition waivers and the largest state aid program, the Opportunity Scholarship, are leveraged towards meeting the needs of students seeking community college services. The current Opportunity Scholarship does not, in practice, currently support first- and second-year students attending a community or technical college, and it is less frequently awarded to Pell-eligible and Latinx students. It is not known how waivers are applied to support students seeking community-college level education. Together with pricing reforms, financial aid reforms may provide the state with opportunities to target students that face affordability challenges to accessing postsecondary education.

Funding

To appropriately serve the community college mission in Utah, the state should recognize all parts of that mission within its higher education funding model. Additionally, there are some needs that currently appear to be underfunded, where the state could better serve students, citizens, and the economy by appropriating additional funds or doing so in a different way. NCHEMS therefore makes the following recommendations for USHE and the state of Utah:

1. As noted above, NCHEMS' recommendation of a lower community-college tuition rate will reduce revenue at Utah's dual-mission institutions. As a result, we recommend that USHE review the entirety of the model used to fund Utah's public postsecondary institutions—including base funding, growth funding, performance funding, capital funding, and other separate funding streams such as Custom Fit, Talent Ready Utah, etc.—and make adjustments to ensure that institutions have funding available to meet each of the state's expectations. The funding model should:
 - a. Provide increased flexibility to institutions in spending state funds. Institutional leaders informed NCHEMS that because the state funds technical education and degree-granting education in separate line items, institutions that have both forms of programming in their mission are required to distinguish all revenue and expenditures associated with technical education from those associated with academic programming. Institutions may have interpreted this requirement in inconsistent ways (there are still issues being addressed from the 2020 merger of systems related to how the tech/degree-granting portions work in harmony towards shared goals), but at least one institution mandates its employees be identified based on which type of programming they provide. This practice creates barriers to institutional flexibility and responsiveness and imposes unnecessary administrative burdens.

Reducing the number of separate “buckets” of funding that institutions must keep separate will simplify the funding model and create flexibility for institutions to use funds where they are most needed. In some areas, more fungibility in funding may reduce the need for new money. As a matter of accountability and for the purposes of populating the funding formula, USHE should maintain reporting requirements on the outcomes and finances of these separate functions, but the funding streams need not be segregated. This is also true of tuition revenue that comes from technical or academic credit, which institutions should be able to use flexibly to serve students' needs without having to provide detailed accounting separately for funds used for technical or academic credit. This treatment may also require adjustments to the pricing plateau for full-time enrollment in ways that ensure students are not penalized for taking a mix of technical and academic credit.

- b. Align funding for colleges performing noncredit community college functions, especially short-term workforce training not funded by Custom Fit, ESL, and Adult Education, with the realities of the costs of performing those functions.

Currently, noncredit activity at degree-granting institutions is treated as a self-supporting, fee-for-service venture. This is appropriate for some types of noncredit programming (such as personal enrichment or community education offerings), but it is generally not adequate for other programs that serve vulnerable populations and directly address Utah's workforce demands. It is possible that current funding levels, in total, are adequate to support workforce-relevant noncredit education and training. However, with limited exceptions, the size and scope of these activities are not currently recognized in the metrics used to set funding levels. Adult education specifically is not currently a USHE function, and will need to be accompanied by appropriate levels of funding if it is brought under the USHE umbrella.

- c. Review the distribution of state funding devoted to supporting concurrent enrollment. Institutional leaders across the state agreed that their concurrent enrollment costs are not fully funded by the state. Further, institutions are prohibited from increasing tuition or fees for high school students, which are currently \$5 per credit at the degree-granting institutions, and \$0 at the technical colleges. Larger USHE institutions with bigger overall budgets are able to absorb the unfunded costs of educating high school students more easily than smaller institutions are. If the State of Utah wants to continue to grow concurrent enrollment, especially among underserved populations, it will need to ensure that institutions can afford to continue carrying out this portion of their mission without having to dip into their discretionary resources.
- d. Consider using funding as one means of incentivizing collaborations between institutions. (Additional commentary on the need for better collaboration is below.)
- e. Provide institutions with equitable funding for students that need the most support to succeed in postsecondary education, such as first-generation students, students from low-income backgrounds, students who need additional support to demonstrate college-readiness, and other student populations historically underrepresented in USHE. A way of ensuring adequate funding for providing services to these populations is to incorporate a factor or weight in the base funding model for the institutions.
- f. Invest in local economies by expanding funding for the Custom Fit program. Custom Fit is one of the primary mechanisms for responding to immediate workforce needs and, in the process, serving adults. During interviews with employers, NCHEMS staff consistently heard that Custom Fit was serving only a fraction of the needs in the employer community. Anything that can be done to increase this funding will benefit the provision of community colleges services offered by the technical education institutions and better serve the adult population that is so critical to the state's workforce development needs. USHE should also revisit the criteria used to approve Custom Fit applications to ensure that funds are made available to start-up, entrepreneurial companies as well as to established companies. At an appropriate point, it would be

useful to conduct a more focused evaluation of the Custom Fit program in order to more fully understand the impact it is having on employers, student participants, and local workforce needs, specifically to identify ways that its positive impact can be strengthened.

2. Adjust the performance funding policy in ways that balance current metrics with incentives that reward institutions for their enrollment and completion of part-time students, especially adult students enrolling in CTE programs. Utah's enrollment declines have been heaviest among the adult and part-time student populations that will be crucial to meeting state goals. Perhaps not coincidentally, multiple institutional representatives noted that the "on-time completion" incentive built into the USHE performance funding model creates incentives to not enroll students who cannot possibly graduate in 150 percent of program time, or to award shorter-term credentials that may or may not have workplace value. Performance funding does not make up the bulk of the state funding USHE institutions receive, but it is both an important way the institutions are able to secure new, ongoing funding and a powerful signal of what the state values. Timely completion and part-time enrollment and eventual completion are both worthy goals, therefore:
 - a. The on-time graduation incentive as currently constructed should be applied only to students who initially enroll as full-time students.
 - b. A separate on-time component should be developed for students who initially enroll as part-time students. For such students "on-time" should be defined as being 300 percent of program length.
 - c. The legislature should adopt an additional metric to incentivize institutions to ensure that students make progress toward degree or credential completion. Such a metric should simply count the number of students who cross a threshold of 30 credit hours within an academic year, or who earn a workforce-relevant (industry-recognized) credential, regardless of when they started. Such a metric would be directly related to the state's interest in improving the number of educated Utahns in the workforce. It would also provide an earlier indicator of institutional performance in improving student success, thereby shortening the lag between when institutions make changes and when they are rewarded for resulting improvement. Finally, this measure would reduce the temptation to "game" the other metrics by manipulating the cohort used as the denominator, a practice that is not uncommon in response to performance funding models in other states.
3. USHE and/or the state should develop a more responsive way to create needed capacity, especially at the technical colleges. As the low-cost point of entry into postsecondary education in Utah, every effort should be made to ensure that these institutions have sufficient capacity to meet demand in terms of facilities, staffing, and equipment. These needs are particularly acute for laboratories in programs that require specialized space (such as welding), where programs are being capped when space limits are exceeded, and where innovative scheduling no longer suffices as a

way of matching demand to available capacity. Since these colleges are so heavily dependent on state funding to expand capacity, the state should take responsibility for ensuring the funds are available to create capacity in a timely fashion. There are several possible options for doing this:

- a. Expanding Talent Ready Utah (TRU). When institutions need to add capacity to meet workforce needs on a short timeline, legislative requests for funding take too long—often several years. Funding available through Talent Ready Utah gets to the institutions much more quickly, but the program is not large enough to meet all of the needs and restrictions on using the dollars available on capital expenses limits institutions’ ability to respond effectively.
- b. Adding dollars to the Technical College Capital Projects Fund. Although Utah’s technical colleges appear to have some of the most attractive and up-to-date spaces relative to similar institutions in other states, limits on the Technical College Capital Fund remain a barrier to rapid-response program development. Currently, this fund is only large enough to contribute to a single non-dedicated project per year among all eight technical colleges, and no money is left over for any dedicated projects, even relatively inexpensive remodels. Freeing additional resources from this funding mechanism would allow the technical colleges to expand and start to address unmet demand for their programs.
- c. Expand or remove limits on the number of non-dedicated projects the USHE board may request from the legislature each year. These limits (currently one project per year among the technical colleges and one project per year among the degree-granting institutions) may be artificially slowing enrollment and credential growth in Utah. Of course, facilities are expensive to build and maintain, so any increase in funding for new facilities should be accompanied by strong guidelines around when a new facility is warranted; the space utilization study currently being conducted under the Division of Facilities Construction and Management (DFCM) may help with this.
- d. Create a discretionary fund at USHE that can be expended to purchase equipment and remodel space to increase needed capacity in specific CTE programs. Framing the purpose of the funds as remodeling rather than construction would prompt institutions to identify underutilized space that can be repurposed. Construction of new space would still be approved and funded through existing processes.

Create Cost-Effective Delivery Models

To increase the cost-effectiveness of the delivery of community college services in the state, it is recommended that USHE and the state of Utah:

1. Add clarity to USHE’s current Institutional Missions & Roles policy, and enforce the policy consistently, with the goal of reducing competition among institutions and removing unneeded duplication while maintaining student access.

- a. In general, regional universities should not offer technical certificates, and should instead rely on their partner technical colleges wherever possible. This recommendation is aligned with USHE's recently-updated Institutional Roles & Missions policy²⁰, its forthcoming new policy on certificates, and recently-begun efforts to implement those policy changes. This will ensure that technical certificate programs are not duplicated by institutions serving the same geographic area. This will also require that the transfer of relevant coursework between technical colleges and degree-granting institutions to be as seamless as possible for students. The SW Tech/SUU arrangement may serve the model for institutions in other parts of the state. Institutions operating in the same geographic space should implement this with students' success and experiences as the highest priority—institutions should make their facilities as freely available as possible to partnering institutions to limit the need for students to relocate themselves throughout the day or evening.
 - b. To help ensure that the University of Utah maintains its character as a research university, USHE should make sure that, in UU's efforts to grow enrollments, it does not draw first- and second-year students away from institutions that focus their efforts to fill a community college role as part of their missions. A failure to maintain the distinctiveness of the University of Utah's character as a selective research university will dilute its ability to achieve its primary mission. In potentially attracting a greater share of Utahns to study as first- and second-year students in general education curricula is also unlikely to support affordability for students and may complicate the financial position of institutions that stand to lose students to the University of Utah.
 - c. Clarify the roles of Utah State and Snow in serving rural Utah; which areas are they each expected to serve with what services, and how are they expected to collaborate to make sure that rural needs are met.
2. Encourage collaborations that create efficiency and distribute access to educational programs where their availability would be limited otherwise:
 - a. USHE should enhance incentives for institutions to share academic programs and coursework. There are already some compelling examples of this within the system, among which is the wide-ranging agreement between SUU and SW Tech that gives students at either institution low-cost access to courses, programs, activities, and other resources. This groundbreaking arrangement has worked out for both institutions, supported by quantitative evidence as well as champions on each campus. It is possible, however, that it may be threatened by its own success, as the agreement must be annually renegotiated and if the burden of costs and perceived benefits shift too far in one direction. Sustained support from each institution's leadership cannot be

²⁰ Utah System of Higher Education, "USHE Policy R312, Institutional Roles and Missions."

assured, especially if there is turnover at either one. USHE can study the partnership agreement, identify threats to its sustainability, and offer suggestions (potentially such as remaking the arrangement through a master agreement with an indefinite term, which is subsequently implemented and administered by annually negotiated provisions, e.g., caps on participation, eligible beneficiaries.)

These arrangements are especially critical for providing access to programs in rural areas where the demand that exists is insufficient to justify the existence of an entire program. USHE's program approval policy requires that some new programs—those outside an institution's designated mission—must consider whether the program's goals can be achieved via a partnership with another USHE institution.²¹ USHE should also marry the exercise of such oversight with incentives to help institutions overcome the natural barriers to collaboration across institutional boundaries. This especially applies to in-mission programs that do not require board approval.

- b. Find ways for institutions to collaborate on online instruction, especially in general education, where the aggregation of services can help institutions produce better instructional products more efficiently. For example, USHE can coordinate a corps of instructional designers, online support services personnel, and even faculty across the system that are specialists in teaching and supporting highly effective online general education courses.

Improve Pathways to Community College Services for Both Recent High School Graduates and Adults

Improving community college services in the state extends beyond access to include providing services that promote student success. USHE can do several things to improve the pathways into and through institutions that provide community college services. In this vein, NCHEMS recommends that USHE:

1. Take a leadership role in improving the delivery of developmental education. USHE should establish definitions of college-readiness and support institutions as they develop multiple measures to assess students' college-readiness. Currently, most USHE institutions rely on placement tests to determine whether students are ready to enter college-level courses. In several of the technical colleges, students are welcomed to study and re-take the tests multiple times, but have few options to help them succeed. For students that are not college-ready in degree-granting institutions, it

²¹ Utah System of Higher Education, "USHE Policy R401, Approval of New Programs, Program Changes, Discontinued Programs, and Program Reports," May 18, 2023, <https://public.powerdms.com/Uta7295/tree/documents/2028740>.

appears that common practice is to enroll students in pre-college level courses, mainly in math and English, which must be completed before they can start on their program. There is considerable evidence that assigning students to courses that must be successfully completed before college-level work can begin significantly reduces persistence and completion. Students who enter open admissions institutions may arrive without adequate preparation for college-level work, making it important to put in place the mechanisms to deal with this reality. This recommendation aligns with USHE's current strategic plan.

2. Reopen discussions with USBE regarding the appropriate oversight agency for programs such as Adult Education (AE), English as a Second Language (ESL), and coursework that prepares adults for high school equivalency exams, such as the GED. At the current time, these programs fall within the purview of the State Board of Education, which commits its primary focus to students who are not yet adults. While the programs in question deal with content at the precollegiate level, the audiences for the programs are adults. In this case, NCHEMS believes that policy leadership for these programs would be better housed in the agency responsible for the education of adults. Such an arrangement would put in one place the responsibility for developing the pathways for:
 - a. Adults who may have completed the equivalent of high school but need to gain additional skills in English. This is particularly important for students interested in enrolling at SLCC, which teaches numerous sections of ESL courses without assistance from the state. There needs to be a more intentional pathway for these students into certificate or associate programs at that institution.
 - b. English-speaking adult students who have not completed high school and are seeking to complete a workforce certification or degree. For any certification that requires a high school diploma as well as passing a certification exam/assessment that depends on completion of a CTE program, the ability to acquire the high school diploma or GED is an important part of the pathway. Having both components provided by a single institution, especially one that caters to adults, is likely to provide a higher probability of success for these students and a clearer path to the workforce.
3. Put intentionality into recruitment/retention efforts of students that are currently under-represented at USHE institutions, including adult students, Hispanic/Latinx students, and Native Americans. This may include statewide or regional marketing and other efforts to encourage a college-going culture.

Additionally, there are a number of academic programs at USHE institutions, particularly its technical colleges, that are not graduating enough students to meet industry demand for employees. In some cases, these programs have capacity for additional students but are undersubscribed. USHE and/or the individual institutions should put additional, focused marketing and recruitment efforts towards these specific programs.

Completion and Workforce Relevance

Utah's technical colleges, community colleges, and dual-mission institutions offer a wide variety of certificates and associate's degrees intended to either prepare students for transfer or the workforce. To that end, it is important for USHE to ensure that all sub-baccalaureate awards have value towards one of those two goals. NCHEMS recommends that USHE:

1. Create basic guidelines around what can be considered a technical education "certificate." Utah's technical colleges are generally consistent about what types of programs, in terms of length, rigor, job placement, and industry recognition, are eligible for a certificate. Certificates awarded by the degree-granting institutions, however, are not similarly consistent. We recommend that USHE establish a standard for all technical education certificates. A standard based on industry recognition is preferable to one based on the number of credits required. This will ensure that certificates have a standard meaning statewide that can be understood by employers.

In addition, USHE's efforts to standardize a definition for academic certificates is worthy of recognition. Such a definition should focus on signifying that a student has reached a tangible milestone toward his or her degree, which ensures that the student's pathway to that degree is streamlined under state policy, or has completed a coherent cluster of courses that conveys mastery of identifiable workforce-relevant skills and knowledge. In other words, an academic certificate that protects the validity of a completed course of general education studies that is uniformly transferrable and creditable toward degree requirements would satisfy this condition.

2. Ensure that all awarded associate's degrees have meaning and value for either transfer or the workforce. USHE recently undertook efforts to align associate's degrees with bachelor's programs in their top majors across the system to smooth transfer and reduce excess credit accumulation. Additionally, USHE should regularly evaluate, and work to improve, the outcomes of transfer-oriented associate's degree graduates. The goal should be to increase the number and percentage of these students who go on to enroll in a bachelor's degree program and ultimately complete a four-year degree. USHE should focus on both external (to another institution) and internal (with the same institution) pathways to bachelor's degree completion for associate's degree students.

Data Collection and Analysis

Through the course of this project, NCHEMS learned that there are some missing data elements that would be very valuable for USHE in understanding how institutions are contributing to the community college mission across Utah. We therefore recommend that USHE collect and analyze the following additional data:

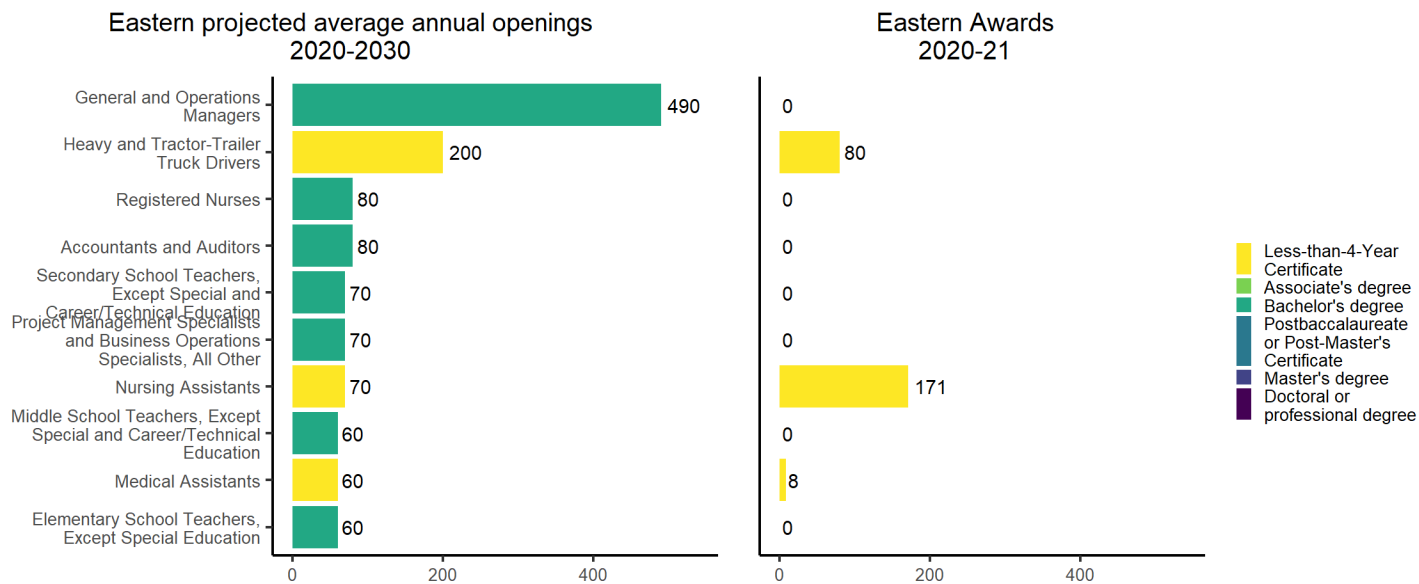
1. Information on tuition waivers and any other aid missing from the USHE financial aid dataset. This will help USHE understand the full scope of aid going to each student, the amount each student is actually paying, and how each institution uses tuition waivers. While some waiver data are collected from institutions and included in memos or

meeting minutes, integrating this information into the financial aid dataset would more effectively enable its analysis by connecting financial data to student data.

2. The low-income status of students at the technical colleges. This is currently tracked only for Perkins Grant reporting purposes, but is useful for additional applications, especially understanding the extent to which low-income students are enrolling at Utah's technical colleges. NCHEMS does recognize that high-quality data may be difficult to obtain, as many technical college students do not complete the FAFSA due to participating in short-term programs that are not eligible for Pell Grants. Collecting and using what data there are will help improve data quality while it provides for the possibility of building a better understanding of the impact of technical colleges on student outcomes.
3. More up-do-date data on transfers between USHE institutions, and on the movement of students from K-12 to postsecondary institutions. NCHEMS' analysis relied on data from the UDRC, Utah's SLDS, which has the ability to track students across institutions in a way the USHE database cannot. As of September 2023, the most recent USHE enrollment data in the UDRC was from the 2019-20 academic year. Significant changes have taken place since then, most notably the global pandemic, and analyzing transfer in more recent years would be valuable. Tolerating that long of a lag in data limits USHE's ability, and its institutions, to connect policies and practices to desired outcomes. NCHEMS suggests that USHE either accelerate the schedule for adding its data to the UDRC or adding cross-institutional tracking capabilities to its internal database.
4. The "home" location of both students and graduates, particularly at institutions with multiple campuses such as Snow College and USU. The lack of having this piece of information prevents analysts from isolating the ways in which specific campus locations are helping meet local needs. This may be as simple as requesting an additional variable in existing enrollment and graduation data submissions.
5. Noncredit instruction. As noted above, there is currently no comprehensive statewide data on noncredit programming. We recommend that USHE collect data on class offerings, numbers of participants, and certifications awarded. These should be classified so that enrollment can be separately measured for pre-college instruction, customized training for employers, workforce-oriented training that is not employer-specific, and community service. Worth noting is that few states currently maintain robust, high-quality data on noncredit activity, but there is a growing movement to capture and categorize these data, especially as the volume of noncredit activity seems to be growing.

Appendix. Additional Data by Region

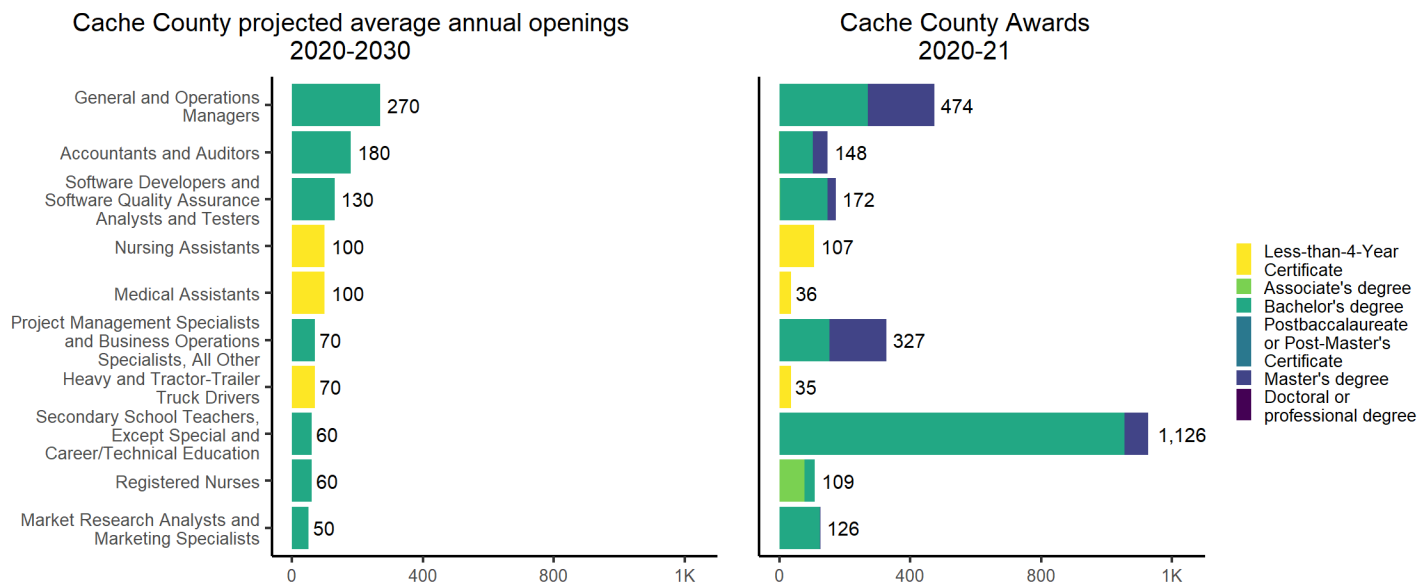
Figure 1. Top Eastern Utah Occupations that require postsecondary education



Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

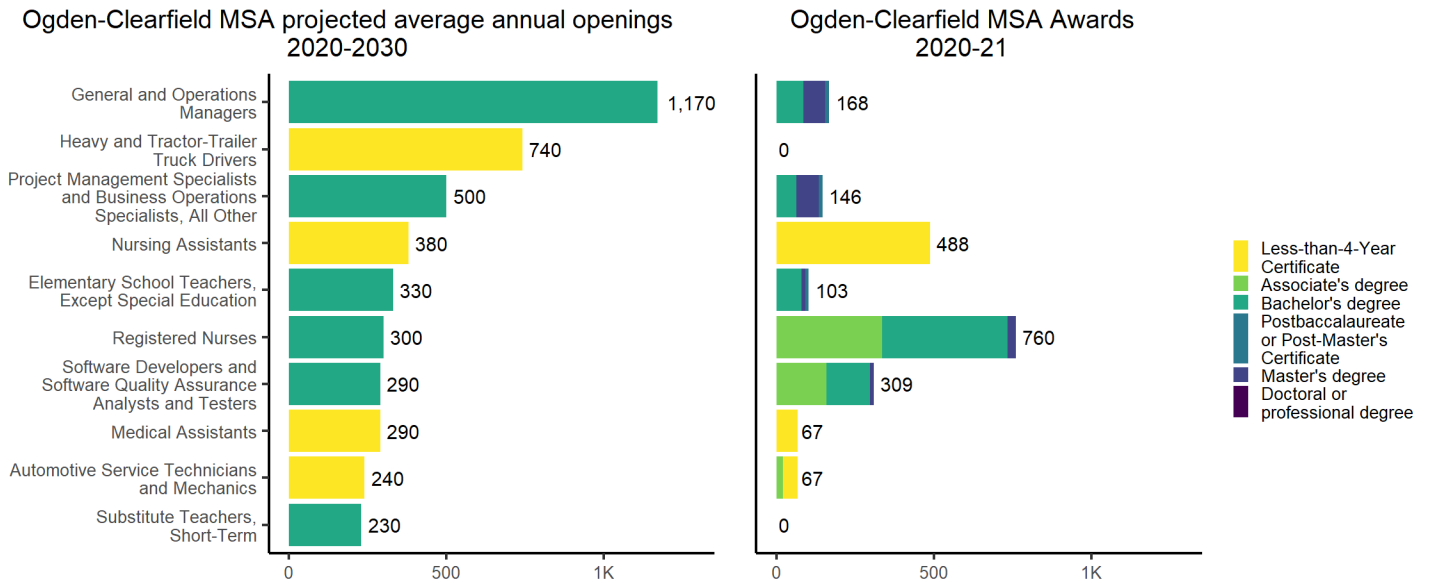
Please note in the graph above that graduates from USU's locations in Eastern Utah are not included. NCHEMS was not able to distinguish them from USU's Logan graduates. The number of graduates on the right side of the graph, therefore, is certainly an underestimate.

Figure 2. Top Cache County Occupations that require postsecondary education



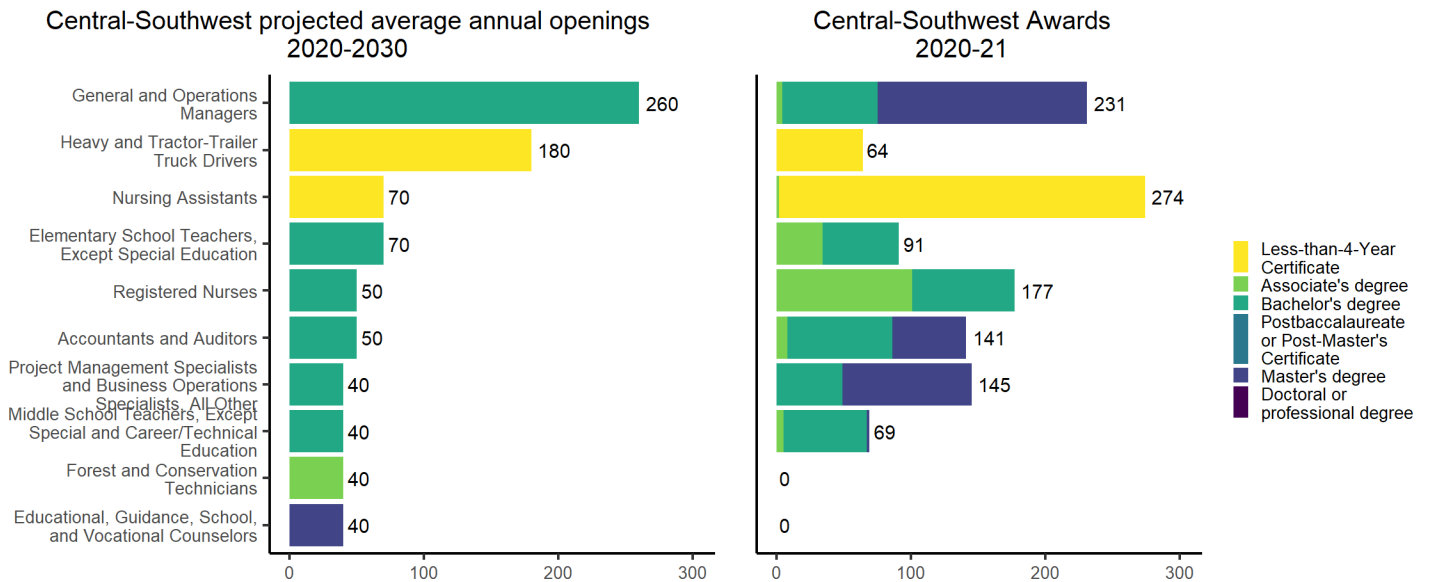
Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 3. Top Ogden-Clearfield MSA Occupations that require postsecondary education



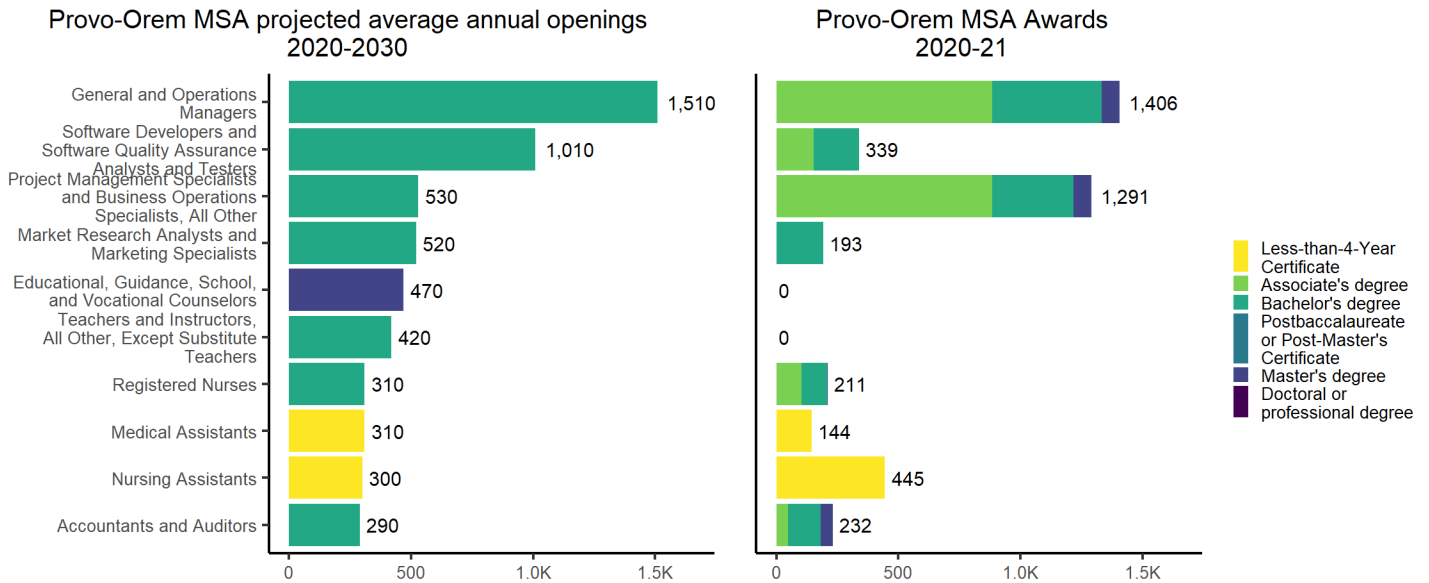
Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 4. Top Central-Southwest Utah Occupations that require postsecondary education



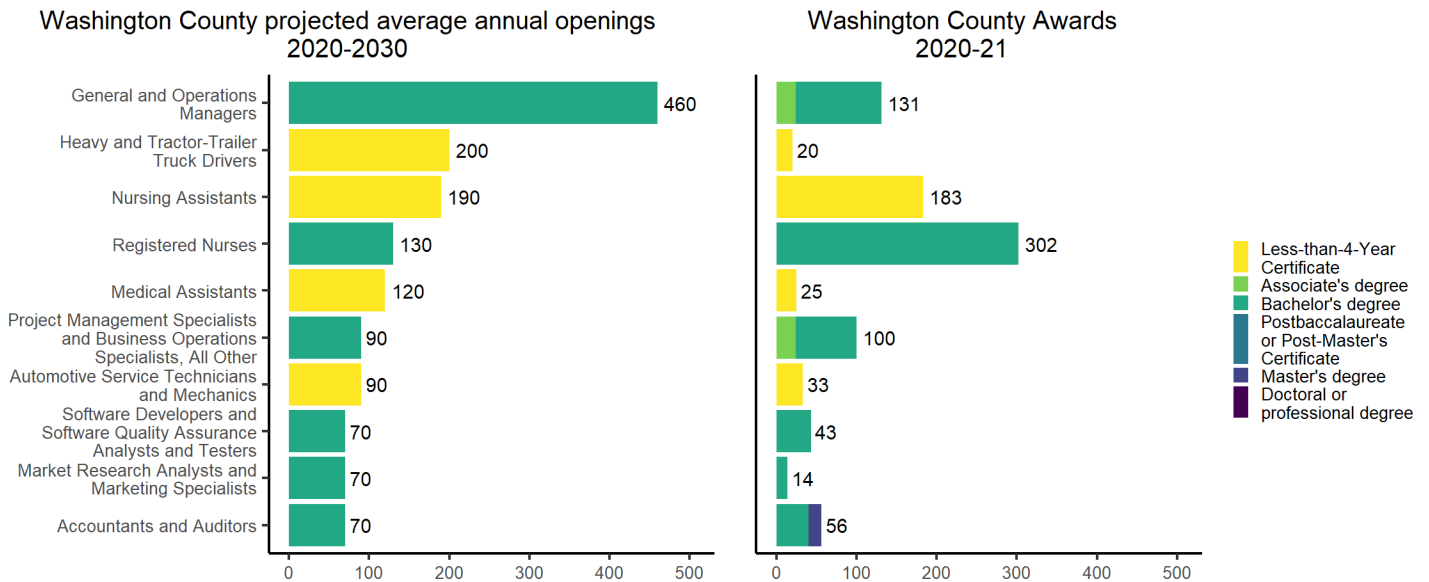
Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 5. Top Provo-Orem MSA Occupations that require postsecondary education



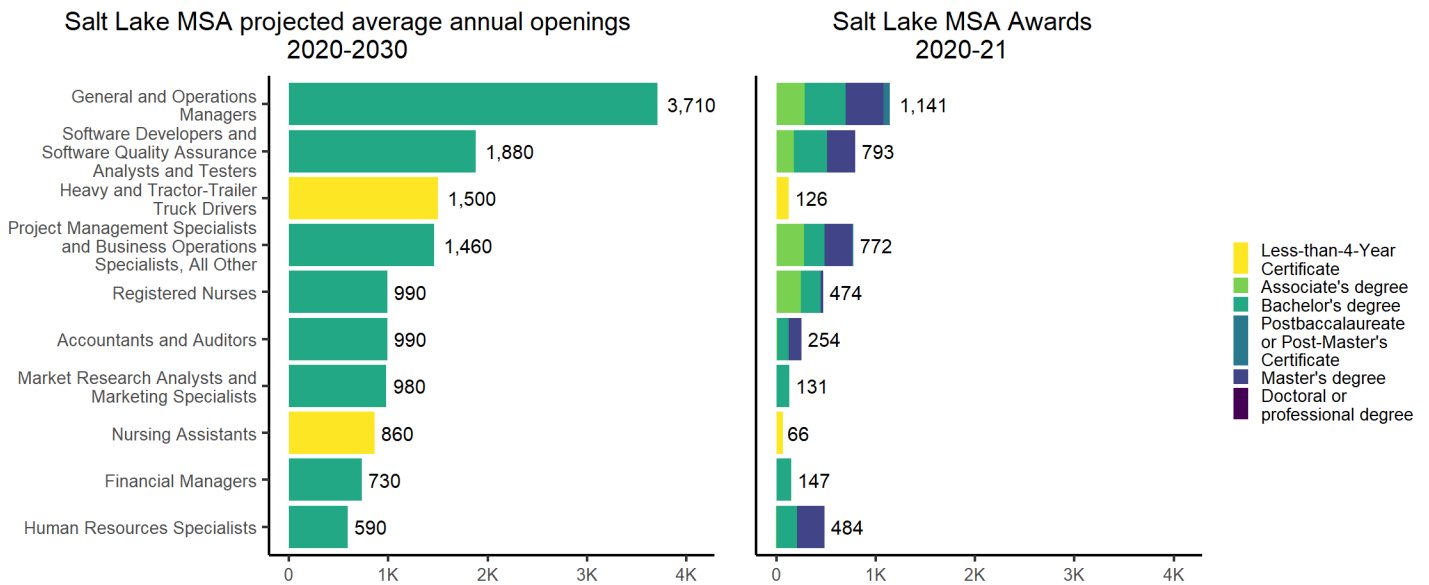
Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 6. Top Washington County Occupations that require postsecondary education



Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 7. Top Salt Lake MSA Occupations that require postsecondary education



Sources: Utah Department of Workforce Services, IPEDS. Notes: Awards are based on public institutions located in the region. Awards include each occupation's typical entry level of education plus one level below and one level above. Programs and occupations linked using the BLS-NCES SOC-CIP crosswalk. Occupation colors represent the typical entry level of education.

Figure 8. Largest Industries, by Number of Jobs per Region, Projected for 2030

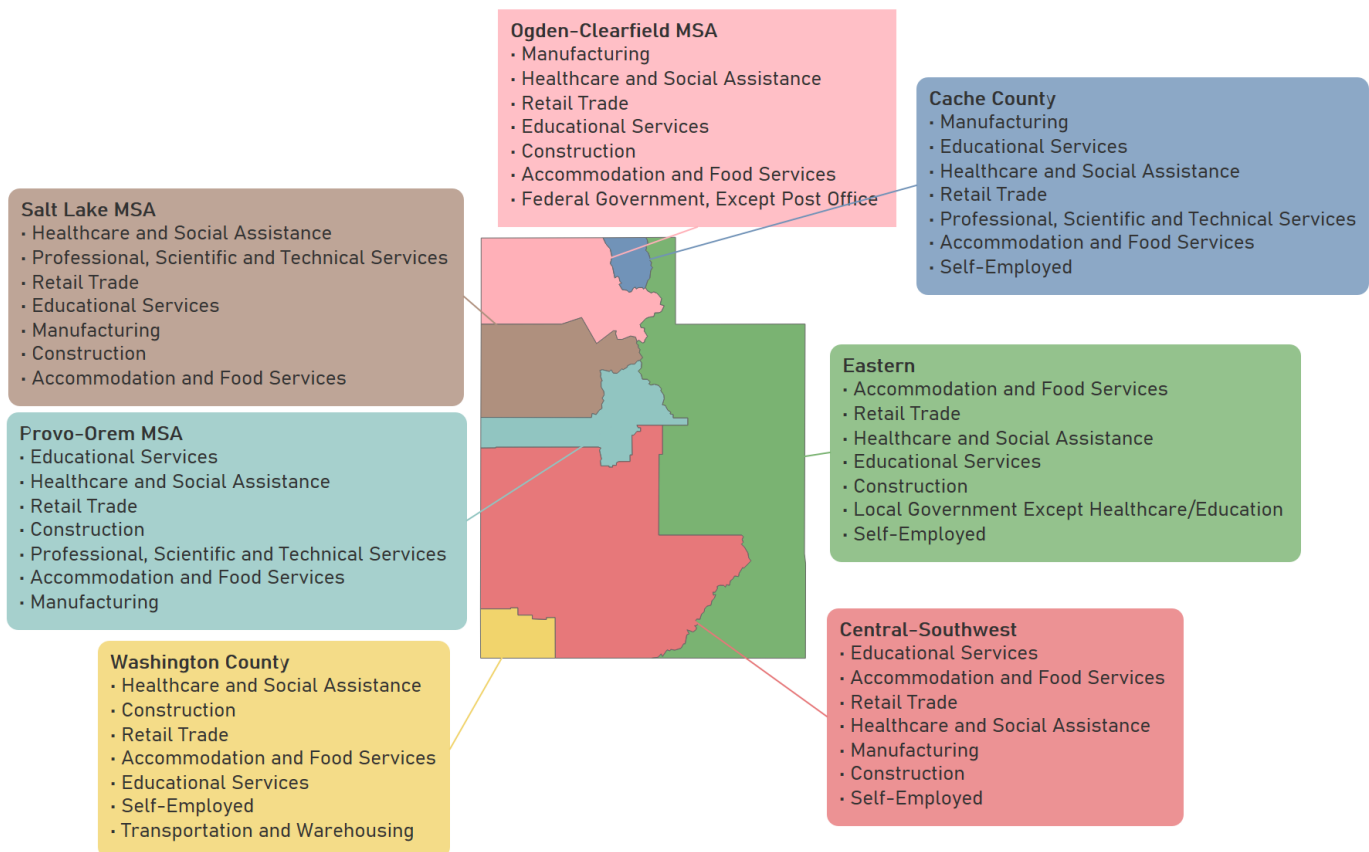
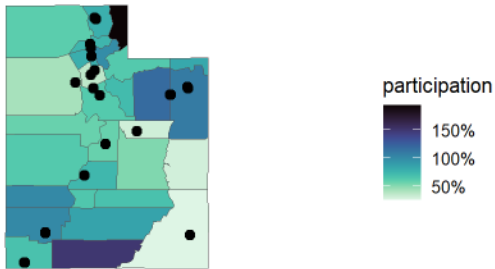
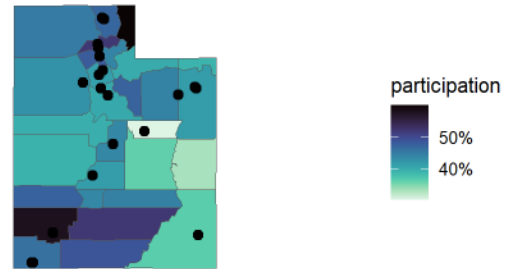


Figure 9. Participation Rates by County, All USHE Institutions

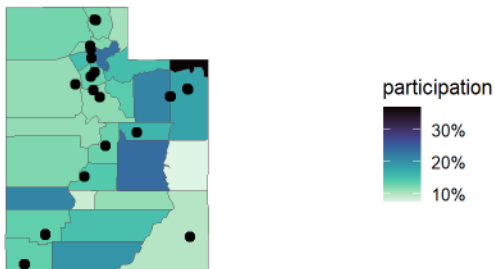
Concurrent/High School Enrollment
As a percent of public H.S. Juniors and Seniors



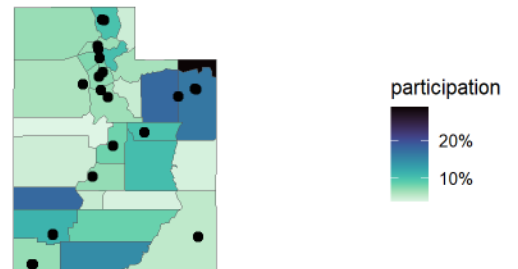
Direct-from-High-School Enrollment
As a percent of public H.S. Graduates



First-Year and Second-Year Enrollment
As a percentage of the population aged 18-44 with less than an Associate's Degree



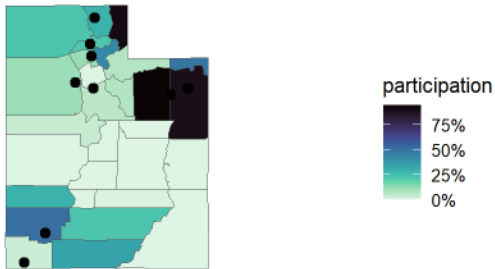
Age 25+ First-Year and Second-Year Enrollment
As a percentage of the population aged 25-44 with less than an Associate's Degree



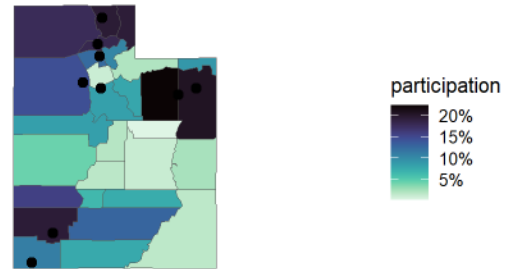
Sources: USHE; U.S. Census Bureau ACS 2021 5-year estimates, table B15001; Utah State Board of Education. Notes: Some rural counties have very small numbers of high school students and graduates, so high rates do not necessarily mean large numbers of students. Locations of institutions are marked with dots. Students may be counted at multiple institutions. Data represent a 5-year average for 2017-18 to 2021-22, except for concurrent enrollment, which represents a 4-year average from 2018-19 to 2021-22. First- and second-year undergraduates include students who have earned less than 60 credits, non-matriculated students and unclassified undergraduate students. Excludes graduate students, junior and senior level students, and—except for the concurrent enrollment map—high school students.

Figure 10. Participation Rates by County, Technical Colleges

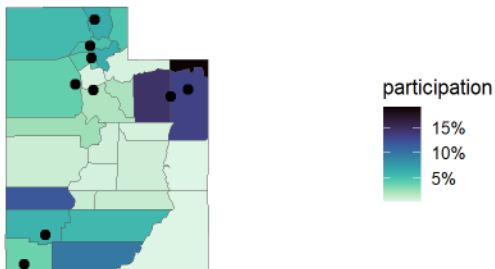
Concurrent/High School Enrollment
As a percent of public H.S. Juniors and Seniors



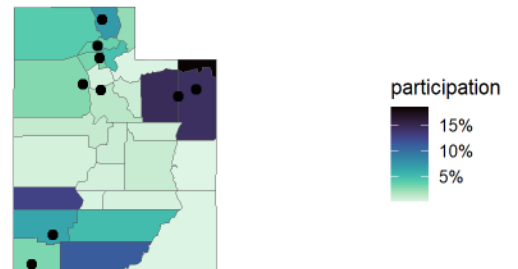
Direct-from-High-School Enrollment
As a percent of public H.S. Graduates



First-Year and Second-Year Enrollment
As a percentage of the population aged 18-44 with less than an Associate's Degree



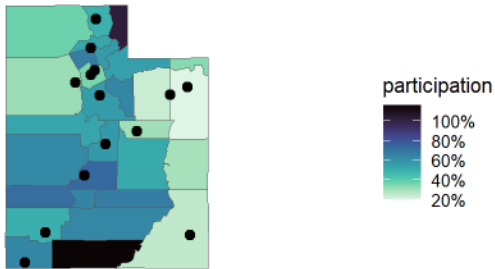
Age 25+ First-Year and Second-Year Enrollment
As a percentage of the population aged 25-44 with less than an Associate's Degree



Sources: USHE; U.S. Census Bureau ACS 2021 5-year estimates, table B15001; Utah State Board of Education. Notes: Some rural counties have very small numbers of high school students and graduates, so high rates do not necessarily mean large numbers of students. Locations of institutions are marked with dots. Students may be counted at multiple institutions. Data represent a 5-year average for 2017-18 to 2021-22, except for concurrent enrollment, which represents a 4-year average from 2018-19 to 2021-22. First- and second-year undergraduates include students who have earned less than 60 credits, non-matriculated students and unclassified undergraduate students. Excludes graduate students, junior and senior level students, and—except for the concurrent enrollment map—high school students.

Figure 11. Participation Rates by County, Degree-Granting Institutions

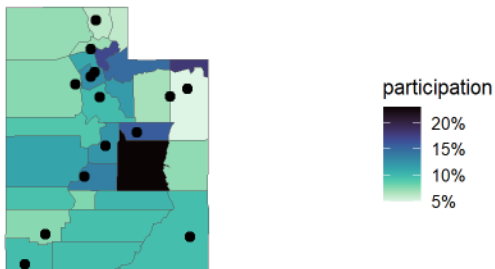
Concurrent/High School Enrollment
As a percent of public H.S. Juniors and Seniors



Direct-from-High-School Enrollment
As a percent of public H.S. Graduates



First-Year and Second-Year Enrollment
As a percentage of the population aged 18-44 with less than an Associate's Degree



Age 25+ First-Year and Second-Year Enrollment
As a percentage of the population aged 25-44 with less than an Associate's Degree



Sources: USHE; U.S. Census Bureau ACS 2021 5-year estimates, table B15001; Utah State Board of Education. Notes: Some rural counties have very small numbers of high school students and graduates, so high rates do not necessarily mean large numbers of students. Locations of institutions are marked with dots. Students may be counted at multiple institutions. Data represent a 5-year average for 2017-18 to 2021-22, except for concurrent enrollment, which represents a 4-year average from 2018-19 to 2021-22. First- and second-year undergraduates include students who have earned less than 60 credits, non-matriculated students and unclassified undergraduate students. Excludes graduate students, junior and senior level students, and—except for the concurrent enrollment map—high school students.