Trinidad State Junior College

External Environmental Scan

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Executive Summary

"Now is the time to build a firmer, stronger foundation for growth that will not only withstand future economic storms, but one that helps us thrive and compete in a global economy. It's time to reform our community colleges so that they provide Americans of all ages a chance to learn the skills and knowledge necessary to compete for the jobs of the future." – President Barack Obama

Community, junior, and technical colleges educate over 6 million students in the United States every year. Those students reap the benefits of open admission policies, affordable tuition, and high quality education which meets flexible schedules. These institutions provide degree and certificate programs to meet changing workforce needs, prepare students who need remedial coursework to succeed in college, and partner with their communities to provide lifelong learning experiences.

The Obama Administration, in recognition of the United States' descent in higher education attainment rates in the global context, set an aggressive goal: by 2020, the United States will have the highest proportion of college graduates in the world. In order for this to happen, the community college system will need to graduate an additional 5 million students.

Trinidad State Junior College is the oldest two-year college in Colorado; it serves a diverse community via two campuses over a large swath of southern Colorado and northern New Mexico. This external environmental scan looks at issues and forces of relevance to Trinidad State, identifies projections and trends, and envisions potential implications of the information presented. This report is intended to help provide context for the environment in which Trinidad State operates. Together with an internal environmental scan, the information presented here may be used for strategic and other planning purposes.

Some key findings are offered below. More detail is found in the full report.

Key Findings

Social Forces

Trinidad State operates in a rural environment. Although the total population in its service area is increasing, the young adult segment is projected to decrease in coming years. Despite this projection, Trinidad State is still slated to see minor increases in traditional age freshmen and transfer students, as many younger students come from outside of the designated service area. Adult non-traditional student admits are expected to increase over 30% in the next decade.

Economic Forces

Trinidad State's service areas are characterized by higher than average poverty rates and by volatile economic conditions. Students from these service areas may be less able to pay for tuition and will rely on financial aid or full-time employment for assistance. Some may perform cost/benefit analyses to

determine whether higher education is right for them at any given time. It could be helpful for Trinidad State to be able to supply valid information in this regard. The state and country project demand for middle skills jobs, those requiring a certificate or associate's degree, to remain stronger than for either low or high skilled jobs categories.

Political Forces

While federal and state governments urge citizens to attend institutions of higher education in an effort to compete successfully in the global marketplace, funding for public institutions has been dramatically reduced, particularly in Colorado. Pundits predict that all funding for higher education could dry up in Colorado by the end of the next decade. The inability for federal legislators to reach agreement on financial aid programs, including student loan parameters, leaves many students unable to attend college in a traditional manner. Colleges which are able to accommodate older working and other nontraditional students will tend to be more successful.

Technological Forces

Both traditional and adult students expect convenience and integration of the educational experience into their lives as a whole. Access to current technology allows students and colleges to interact seamlessly whether in person or remote. Learning how to use technology efficiently is essential; educational technologists are invaluable to assisting faculty in reaching a virtual audience effectively.

Potential Collaborators and Competitors

Trinidad State must be an active partner in its community with private, public, and nonprofit institutions. Community colleges are responsible to individual students and the larger community as well. Partnering with other secondary and post-secondary schools is necessary for success, and learning from the innovative ideas and best practices of others is encouraged.

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Introduction

Trinidad State Junior College (Trinidad State) is the oldest two-year college in Colorado; it has been a member of the Community College of Colorado system and has been accredited by the North Central Association since the 1960s (Trinidad State Junior College, 2013-2014). The College serves approximately 2000 students annually, part of a diverse community over a large swath of southern Colorado and northern New Mexico, and operates from two distinct campuses. The Trinidad campus principally serves the Raton Basin area of southern Colorado and northern New Mexico, comprised of Las Animas and Huerfano Counties in Colorado and Colfax County, New Mexico. The Valley campus, located in the town of Alamosa in the San Luis Valley, primarily serves the counties of Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache in south-central Colorado.

The dynamic environments in which community, junior, and technical colleges operate must be examined and understood, as these institutions' effectiveness is dependent upon the ability to forecast and nimbly respond to change (Lapin, 2004). Identifying trends is key to reducing uncertainty and vulnerability in this process. Students and communities served by two-year colleges expect offerings which prepare them for current as well as future conditions. In this way, community colleges[1] act as change agents, not only flexibly responding to conditions, but anticipating emerging developments in order to help prepare their constituents to meet new challenges.

An environmental scan collects information which provides relevant context and helps justify, inform, and articulate the planning process (Lapin, 2004). This report provides an external environmental scan;

[1] In this document, the term *community college* will be used to describe any two-year community, junior, or technical college, including Trinidad State Junior College.

it focuses on factors which influence Trinidad State from the outside and is intended to supplement the College's internal assessment(s) and evaluation. The search for and identification of external forces, trends, and relationships which operate on a system is a snapshot of any given time, and is ideally incorporated into strategic and other planning activities as an iterative process.

This report reflects the most recent data available during the summer of 2013 and is intended to provide an overview of the conditions and potential outcomes as of that time. There are innumerable factors which could be considered relevant to this process; however, a limited number of potential forces were identified in the scope of work agreed upon in advance of the project. National, state, and regional scales are addressed. Most tables follow the same format. National and state data are presented, followed by Raton Basin (Trinidad campus) and San Luis Valley regional data; campus regions are addressed separately. County specific data is also provided. Where applicable, county data is averaged (not weighted) to develop the regional values.

While some data collection may be consistent across program delivery areas in Colorado and northern New Mexico and beyond, other information is inconsistent across geographic boundaries. Every effort has been made to achieve relatable, reliable comparisons but minor inconsistencies remain. Attempts at clarity have been made through the use of specific language. However, readers are advised that not all metrics are directly comparable across locations.

Social Forces

Overview

The social forces which act on Trinidad State Junior College are shaped to a large extent by the region's geography and history. The Raton Basin is a high altitude geologic basin bounded by the Sangre de Cristo mountains to the west and Comanche Grasslands to the east; it stretches north to south along Interstate 25 as an axis. This broad plain dotted with volcanic intrusions has provided grazing land for ranches for centuries. Substantial coal and natural gas deposits provided energy and a source of employment in this rural area. These traditional energy sources are being replaced by green energy generation using wind and solar power. Trinidad is the seat of Las Animas County, the largest county in area in the state of Colorado and fifth largest in the US. Huerfano County lies to the north along the I-25 corridor, and Raton Pass separates Trinidad from the town of Raton to the south; Raton is located in Colfax County, New Mexico (State Demography Office, 2011).

This area is rural, and the population is older than much of the rest of Colorado and New Mexico; many young adults choose to leave the agricultural area for a more urban lifestyle, while the relaxed pace suits many retirees. There is a higher Hispanic/Latino population here than in other areas of Colorado as well, while other ethnic minority populations are less represented. Still, the area has a long history of diversity and acceptance of diverse populations.

The San Luis Valley is another geographically distinct area. The largest alpine valley in North America, it is separated from the Raton Basin by the Sangre de Cristo mountains which form the region's eastern border. Surrounded by the Rio Grande National Forest on three sides, the San Luis Valley is also home to the Great Sand Dunes National Monument. In addition to being a rich agricultural area with a long history, the natural beauty is such that outdoor enthusiasts flock to view and experience it. The city of

Alamosa, where the Trinidad State Valley campus is located, is the seat of Alamosa County. Alamosa and Rio Grande are by far the most populous of the six counties which comprise this region (State Demography Office, 2011).

Demographics

The following table provides basic demographic information on these two service areas, together with state and national numbers:

	Population					
	Population 2012	Population 2010	% change	Child population (under age 18)	Working age population (ages 18-64)	Retirement age population (age 65 and over)
U.S.	313,914,040	308,745,538	1.7%	23.5%	62.8%	13.7%
Colorado	5,187,582	5,029,196	3.1%	23.7%	64.5%	11.8%
New Mexico	2,085,538	2,059,179	1.3%	24.7%	61.2%	14.1%
Colfax, NM	13,223	13,750	-3.8%	19.7%	58.5%	21.8%
Las Animas, CO	14,945	15,507	-3.6%	20.0%	60.5%	19.5%
Huerfano, CO	6,596	6,711	-1.7%	16.2%	56.4%	27.4%
Raton Basin	34,764	35,968	-3.0%	18.6%	58.5%	22.9%
Alamosa, CO	16,148	15,445	4.6%	24.2%	63.9%	11.9%
Conejos, CO	8,275	8,256	0.2%	27.0%	56.5%	16.5%
Costilla, CO	3,594	3,524	2.0%	18.9%	57.0%	24.1%
Mineral, CO	709	712	-0.4%	14.1%	60.4%	25.5%
Rio Grande, CO	11,943	11,982	-0.3%	24.4%	58.6%	17.0%
Saguache, CO	6,304	6,108	3.2%	22.7%	61.1%	16.2%
San Luis Valley	46,973	46,027	1.6%	21.9%	59.6%	18.5%

note: regional percentage values are averages

source: US Census Bureau, American Community Survey

While Colorado's population has grown faster than the national average over the past couple of years, population in most of Trinidad State's service area has either decreased or remains relatively constant. Alamosa and Saguache counties show the highest growth rates. Mineral County is of note for its small population.

Gender and ethnicity numbers add to the understanding of the populations:

	Gender		Ethnicity		
	Female	Male	Hispanic/Latino	White (not including Hispanic/Latino)	all other minority categories
U.S.	50.8%	49.2%	16.9%	63.0%	22.0%
Colorado	49.8%	50.2%	21.0%	69.6%	11.9%
New Mexico	50.5%	49.5%	47.0%	39.8%	16.8%
Colfax, NM	48.9%	51.1%	48.2%	48.6%	5.7%
Las Animas, CO	48.8%	51.2%	42.5%	53.1%	8.2%
Huerfano, CO	50.0%	50.0%	35.4%	61.1%	9.9%
Raton Basin	49.2%	50.8%	42.0%	54.3%	7.9%
Alamosa, CO	50.0%	50.0%	45.3%	50.0%	11.3%
Conejos, CO	50.4%	49.6%	54.6%	43.2%	6.8%
Costilla, CO	47.9%	52.1%	64.7%	32.2%	10.5%
Mineral, CO	49.1%	50.9%	2.8%	95.1%	2.1%
Rio Grande, CO	50.1%	49.9%	43.8%	53.6%	6.0%
Saguache, CO	49.5%	50.5%	39.4%	56.7%	6.9%
San Luis Valley	49.5%	50.5%	41.8%	55.1%	7.3%

note: ethnicity categories will not total to 100%

source: US Census Bureau, American Community Survey

Mineral County is unique among the counties in its ethnic composition. Most of the counties have historically had a high Hispanic/Latino population, and projections reveal that this trend will continue (State Demography Office, 2011).

In 2010, there was a nationwide average of 87.4 persons per square mile; Colorado's average was just over half of that at 48.5 and New Mexico's was a mere 17.0. The Raton Basin averages only 3.7 persons per square mile, an indication of just how rural this area is. The San Luis Valley counties range from a high of 21.4 for Alamosa to a low of 0.8 for Mineral; the average number of persons per square mile for the Valley is 7.8.

Projections and trends

In general, population is decreasing or growing at far less robust rates in the Raton Basin and San Luis Valley than for Colorado and the nation as a whole. The populace is also skewed toward those in retirement age, who are likely to enjoy the benefits of a rural lifestyle. The Raton Basin region has the highest median age of all regions in Colorado at 46.2; the Colorado median age is 36.1. The region's median age is projected to decline to 42.2 by 2030, as the state median increases to 37.6.

The adult population of Colorado (age 17 and older) is expected to increase by almost 930,000 by 2021. While the largest growth will be in the senior population, the young adult population is expected to increase substantially: 18% for the 18–24 age group and 20% for the 25–34 age group. Ethnically, the state's Hispanic/Latino population is expected to increase from the current 21% share to more than 25% by 2021 and grow to one-third by 2040 (State of Colorado Department of Higher Education, 2012).

Population in the Raton Basin region is projected to grow at about 1.8% and reach approximately 30,000 (Las Animas and Huerfano counties only) by 2030, with most of the growth in the 25-44 age range over the next decade. There will be a slight decrease in the 18-24 population (State Demography Office, 2011). Population in the San Luis Valley is projected to grow at about 1% and reach approximately 30,000 by 2030 as well. Again, the largest share of growth will be in the 25-44 age range over the next decade, although the school age population will grow also (State Demography Office, 2011).

Education populations

Overview

Community, junior and technical colleges strive to fill many roles and serve several different populations. First, they strive to meet the needs of individuals who enroll as students. Recent high school graduates may attend community college as a stepping stone before transferring to a four-year baccalaureate degree program, may enroll for an associate's degree or workforce training program, or may need remedial education before beginning college-level work. These same conditions may hold true for transfer students of any age, as well as for older *non-traditional* students returning to school after some time away. High school students may concurrently register at an institution of higher educational for either advanced or remedial work. Some community colleges in several states offer baccalaureate degrees in certain programs. This is a policy issue which was recently defeated in the Colorado legislature but it is anticipated that it will be brought back for consideration again.

Second, community colleges strive to meet the needs of the larger communities in which they operate. The term *community college*, which came into common usage in the late 1940s, is indicative of this mission to reach a wide audience in a manner appropriate for each unique community.

The following series of tables reflects characteristics of Trinidad State's 2012 population:

First time registrants				
residency	age			
	17-20	21-24	25-40	over 40
in-state	140	23	44	28
out of state	45	5	5	2

Transfer students				
residency	age			
	17-20	21-24	25-40	over 40
in-state	35	15	39	20
out of state	18	6	13	10

Continuing or re-admit				
residency	age			
	17-20	21-24	25-40	over 40
in-state	198	190	332	197
out of state	20	13	36	16

High school concurrent		
residency	age	
	under 17	17-20
in-state	87	154

source: Colorado Department of Higher Education

School age populations

In Colorado, 57% of the high school class of 2011 enrolled in postsecondary education in the fall immediately following graduation; 79% stayed in state and 29% enrolled at a two-year college (Colorado Department of Higher Education, 2013).

Forty percent of Colorado's 2011 high school graduates who enrolled in a Colorado postsecondary institution needed at least one remedial course before beginning college-level education. Fully two-thirds of the high school graduates who enrolled in a two-year college needed remedial coursework,

most frequently in mathematics (51%), but also in reading (18%) and writing (31%). Overall, retention of remedial students is a concern. Only 59% of all remedial courses (those at two-year and four-year institutions) were successfully completed. At four year institutions, nearly 20 percentage points separate retention rates for remedial versus non-remedial students (60% and 79% respectively). Remarkably, at two-year institutions, the retention rates for remedial versus non-remedial students was the same: 48% (Colorado Department of Higher Education, 2013). Ideally, no student should graduate from high school in need of remedial coursework before beginning college-level work, but community colleges with an open enrollment policy are charged with preparing students to be successful in college environments, even if high schools do not meet that need.

Among the 2011 cohort of Colorado high school graduates entering Trinidad State for the first time, 30% came from Raton Basin schools, 26% graduated from San Luis Valley schools, and the remaining 44% arrived from outside those service areas. Of Trinidad State's cohort of entering 2011 high school graduates (225), 62.7% (141) required some sort of remedial coursework (Colorado Department of Higher Education, 2013).

The following table provides a view of relevant school age characteristics for various populations.

	K-12 School Age Characteristics				
	School Age Population (ages 5-17)	Child Population as a Percentage	Fall 2012 K-12 enrollment	Fall 2012 English Language Learners	2012 High School Graduation Rate*
US	73,769,800	23.5%	not available	not available	not available
Colorado	892,990	24.1%	833,186	14.4%	75.4%
New Mexico	371,226	24.7%	344,532	not available	70.4%
Colfax, NM	not available	19.7%	1,998	not available	82.0%
Las Animas, CO	2,245	20.2%	2,337	3.5%	75.6%
Huerfano, CO	818	16.7%	696	0.7%	84.1%
Raton Basin	not available	18.9%	5,031	2.1%	80.6%
Alamosa, CO	2,688	24.9%	2,375	14.2%	74.9%
Conejos, CO	1,669	27.7%	1,573	1.7%	88.4%
Costilla, CO	568	20.3%	452	13.9%	89.5%
Mineral, CO	79	14.2%	78	0.0%	88.9%
Rio Grande, CO	2,180	24.7%	2,021	11.4%	75.1%
Saguache, CO	1,011	22.9%	890	24.6%	82.6%
San Luis Valley	8,195	22.5%	7,389	11.0%	83.2%

*percentage of students who graduated from high school four years after entering ninth grade.
sources: 2012 Kids Count in New Mexico and 2012 Kids Count in Colorado

Degree attainment

Education levels for the US population, ages 25-64 is as follows:

Less than high school	12.8%
High school graduate (or equivalency)	27.1%
Some college, no degree	22.2%
Associate's degree	8.4%
Bachelor's degree	19.0%
Graduate or professional degree	10.5%

Source: Lumina Foundation

Although degree attainment statistics are calculated by varying methods and on different populations, there is agreement that the US degree attainment rate for all working age adults is around 42%. This corresponds with a global ranking of 14, behind countries such as Japan, Israel, Canada, and the Russian Federation. More concerning is that the US continues to lose ground, as a smaller percentage of adults are completing degrees compared with other nations (OECD, 2012). The following snapshot provides state and regional data.

	Educational attainment		
	High school graduate or higher*	Bachelor's degree or higher*	Associate's degree or higher**
US	85.4%	28.2%	38%
Colorado	89.7%	36.3%	47%
New Mexico	83.1%	25.4%	33%
Colfax, NM	86.5%	19.6%	28%
Las Animas, CO	83.5%	18.2%	35%
Huerfano, CO	83.2%	25.0%	36%
Raton Basin	84.4%	20.9%	33%
Alamosa, CO	87.1%	24.7%	35%
Conejos, CO	82.0%	20.6%	29%
Costilla, CO	75.8%	15.3%	18%
Mineral, CO	97.6%	39.7%	51%
Rio Grande, CO	85.2%	19.2%	23%
Saguache, CO	77.3%	20.1%	26%
San Luis Valley	84.2%	23.3%	30%

*percent of persons age 25+ compiled for 2007-2011; US Census Bureau, American Community Survey

**percent of persons ages 25-64; source: The Lumina Foundation

In New Mexico the higher education attainment rate of young adults ages 25-34 is 27.6%; in Colorado that number is 38.7%. An additional 26% of New Mexico's adult population has attended some college, but hasn't yet attained at least a two-year degree; that number is 23% in Colorado.

The table shows that higher education attainment rates are substantially lower in the Raton Basin and San Luis Valley than for either the US or for Colorado as a whole.

Projections and trends

Colorado's public higher education institutions could see an enrollment growth rate of more than 20% by 2021 based on population increase alone. Enrollment growth is projected to be lower overall at two-year institutions than at four-year institutions. Still, new traditional age freshmen enrollees at two-year institutions will grow by 18% and new adult undergraduate enrollees will grow by 16%. Hispanic/Latino students will account for the largest increases in new freshmen (45%) and in new undergraduates (38%) overall (State of Colorado Department of Higher Education, 2012).

The intensity of growth rates is also projected to vary by location. The northern front range, including the Denver metropolitan area, will experience the highest growth rates. New freshmen populations in the San Luis Valley and Eastern Plains are estimated to decrease by up to 8% by 2021. New adult undergraduate enrollees are still expected to increase in the San Luis Valley and Eastern Plains by 18% and 22% respectively.

Institution-specific population modeling suggests that Trinidad State Junior College will see one of the lowest rates of increased enrollments in the community college system for new freshmen (3.40%) and new traditional age transfer students (12.76%). Adult undergraduates are expected to increase by 21.33%, and other transfer students will increase 31.07%, the second highest increase in the system (State of Colorado Department of Higher Education, 2012).

Economic Forces

Income and poverty

Overview

Nationally, just over 14% of all people live below poverty level. Although poverty rates are lower in Colorado as a whole, in both of Trinidad State's service areas closer to one-fifth of all people are below poverty level. Three of the counties in the San Luis Valley, Costilla, Conejos, and Saguache, are among the poorest in the state of Colorado. Both Huerfano County, CO and Colfax County, NM are classified as extremely poor as well.

	Income and poverty		
	Median household income	Persons below poverty level	Children qualifying for free or reduced lunch*
US	$52,762	14.3%	47.5%
Colorado	$57,685	12.5%	41.6%
New Mexico	$44,631	19.0%	66.0%
Colfax, NM	$38,012	18.7%	69.2%
Las Animas, CO	$40,617	18.1%	51.4%
Huerfano, CO	$29,737	22.5%	70.1%
Raton Basin	$36,122	19.8%	63.6%
Alamosa, CO	$38,299	21.7%	72.4%
Conejos, CO	$34,435	15.2%	66.9%
Costilla, CO	$25,949	22.2%	87.6%
Mineral, CO	$54,375	7.1%	56.4%
Rio Grande, CO	$37,885	17.3%	61.6%
Saguache, CO	$33,672	25.3%	78.2%
San Luis Valley	$37,435.83	18.1%	70.5%

*Percent of children in public school grades PK-12 who qualify for free or reduced price school lunches.
source: US Census Bureau, American Community Survey, 2012 Kids Count in New Mexico and 2012 Kids Count in Colorado

Living wage versus actual wage

The living wage is the hourly rate that a person must earn to support his/her family as a full-time worker and sole provider. The living wage is a tool which provides a minimum estimate of the cost of living. It was designed to reflect a standard of living typical of low wage employees, not a standard of living typical of the middle class. The following table compares 2013 minimum wage, living wage estimates, and per capita income for relevant areas.

		Living wage			
	minimum wage	1 adult	1 adult, 1 child	2 adults, 2 children	per capita income
U.S.	$7.25	not available	not available	not available	$13.42
Colorado	$7.78	$9.07	$20.56	$19.29	$14.82
New Mexico	$7.50	$8.25	$17.78	$17.86	$11.32
Colfax, NM	$7.50	$8.01	$16.77	$16.84	$10.36
Las Animas, CO	$7.78	$7.49	$18.44	$17.15	$10.75
Huerfano, CO	$7.78	$7.86	$18.44	$17.15	$10.66
Raton Basin	$7.69	$7.79	$17.88	$17.05	$10.59
Alamosa, CO	$7.78	$7.70	$18.44	$17.15	$9.82
Conejos, CO	$7.78	$7.86	$18.44	$17.15	$8.70
Costilla, CO	$7.78	$7.86	$18.44	$17.15	$8.95
Mineral, CO	$7.78	$9.40	$21.53	$20.23	$24.28
Rio Grande, CO	$7.78	$7.87	$18.44	$17.15	$9.02
Saguache, CO	$7.78	$7.86	$18.44	$17.15	$9.71
San Luis Valley	$7.78	$8.09	$18.96	$17.66	$11.75

source: Massachusetts Institute of Technology Living Wage Calculator, American Community Survey

Projections and trends

The percentage of people in both the San Luis Valley and Raton Basin regions who live in poverty is substantially higher than in the rest of Colorado and the US and on par with New Mexico. Many of the counties which comprise these regions rank among the highest poverty percentages in their state. Both of these regions have populations which rely on agriculture, tourism, energy development, or mining for a substantial portion of wages. All of these occupations may be volatile and fluctuate more than other types of employment. Residents of these areas also receive lower than average investment income. However, residents of these regions also receive a higher than average share of government payments to individuals, including social security and other payments (34% for the Raton Basin and 27% for the San Luis Valley as compared with 12% for Colorado). These payments, and therefore this income remains relatively consistent.

Although the cost of living in these regions is lower than state and national averages on balance (Mineral County is a glaring exception), the difference is not enough to make up for lower wages. These conditions of higher poverty levels in the San Luis Valley and Raton Basin region are expected to continue.

Employment and workforce

Overview

The US economy is exhibiting mixed results in the face of a sluggish global economy and federal fiscal policy issues. Workforce performance is also a mixed bag, with pockets of resilience and stagnation. Technology related industries, conventional and green energy technologies, advanced manufacturing and bioscience industries have demonstrated relatively consistent growth.

Colorado as a whole acts as an economic and intellectual property hub for the western mountain region and has fared better than other areas of the country during recent years of economic downturn. Colorado labor force projections are relatively strong, and the state exhibits a lower than average unemployment rate. Military, defense and aerospace industries may be more vulnerable to slowdowns due to the federal budget sequestration. Still, the rural, agricultural areas served by Trinidad State remain somewhat removed from the economic growth enjoyed by urban northern Colorado, including the Denver metropolitan area. Continuing drought and wildfires have affected agriculture and tourism, both of which are large economic drivers for south central Colorado and northern New Mexico (Governor's Office of State Planning and Budgeting, 2013).

Unemployment in the San Luis Valley and in the Raton Basin remains higher than the state average. Both areas rely on agriculture, government (local, state, and federal), retail trade and tourism, and health and human services for most jobs. Some large-scale green energy projects have injected employment opportunities as well as additional construction projects, particularly in the San Luis Valley.

The following table shows labor force and employment numbers to give perspective on the region, state, and nation.

Demographics

	Unemployment rate			
	Labor force	Employed	Unemployed	Unemployment rate
US	154,975,000	142,469,000	12,506,000	8.1%
Colorado	2,743,000	2,524,000	220,000	8.0%
New Mexico	936,000	871,000	65,000	6.9%
Colfax, NM	6,421	5,935	486	7.6%
Las Animas, CO	7,956	7,105	851	10.7%
Huerfano, CO	3,137	2,755	382	12.2%
Raton Basin	17,514	15,795	1,719	10.2%
Alamosa, CO	8,766	7,966	800	9.1%
Conejos, CO	3,793	3,417	376	9.9%
Costilla, CO	1,469	1,282	187	12.7%
Mineral, CO	504	480	24	4.8%
Rio Grande, CO	6,456	5,846	610	9.4%
Saguache, CO	3,283	2,943	340	10.4%
San Luis Valley	24,271	21,934	2,337	9.4%

source: US Bureau of Labor Statistics

Careers and salaries

An overview of number of positions and salary information for some of the careers for which Trinidad State helps prepare students is presented below.

	Mean hourly wage estimates			Employment estimates		
	US	Colorado	New Mexico	US	Colorado	New Mexico
Registered nurse	$32.66	$32.66	$32.07	2,633,980	41,380	14,780
Emergency Medical Technician	$16.53	$19.02	$16.10	232,860	3,220	1,590
Massage therapist	$19.40	$17.87	$22.50	71,040	2,890	370
Cosmetologist	$12.88	$13.12	$11.76	355,910	6,190	1,230
Administrative assistant	$16.13	$16.65	$13.79	2,085,680	58,560	20,820
Carpenter	$21.41	$19.38	$17.92	567,820	10,960	3,520
Welder	$18.46	$19.77	$15.76	329,710	3,720	2,320
Education worker	$19.85	$15.76	not available	102,180	1,260	1,480

note: numbers do not include self-employed

source: US Bureau of Labor Statistics, occupational employment and wage estimates

Emerging occupations and labor needs

The leisure and hospitality sector has been the biggest driver for new jobs in Colorado over the past year, as the state added over 63,000 non-farm payroll jobs. Healthcare jobs also stayed strong, and over the summer, both K-12 and postsecondary schools have been hiring (Colorado Department of Labor and Employment, 2013).

The demand for middle skill jobs in Colorado will remain stronger than for either high or low skilled jobs over the next few years. Nearly half of the jobs in Colorado are classified as middle skill, requiring some education beyond high school but not necessarily a bachelor's degree; these account for over a million jobs (National Skills Coalition, 2011).

The counties which comprise the Raton Basin Region, together with other governmental and non-governmental entities, entered into a Stronger Economies Together (SET) initiative for coordinated economic development. This region is experiencing a shift from old energy technology development, coal mining and gas production, to new energy development, wind and solar. Agriculture and tourism are strong economic drivers, and health and wellness is responsible for the highest number of jobs.

Trinidad State Junior College is noted as a top asset of the region, and one of the core objectives of the SET collaborative is to *educate and train the future workforce*. This group is currently meeting with local businesses to identify the top needs and opportunities and will act to facilitate training programs and internship opportunities with local educational institutions. Another key objective of the SET initiative is to *cultivate innovation and technology*. Many entities will be involved in operationalizing the goals for this objective; Trinidad State is not specifically listed as engaging to provide deliverables, but has an opportunity to be involved in making all of these goals a reality for the region (Colorado Office of Economic Development and International Trade, 2013).

New Mexico proposes that Registered Nurses and other healthcare workers, including nursing aides and licensed vocational and practical nurses, top the list for occupations in demand which require a vocational/technical education. Other growing occupations in this category include general operations managers, dental assistants, health information technicians, and forest and conservation technicians (New Mexico Department of Workforce Solutions, 2013).

Projections and trends

"In the coming years, jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience. We will not fill those jobs – or keep those jobs on our shores – without the training offered by community colleges." – President Barack Obama

In 1973, nearly three-quarters of all jobs required a high school education or less, 12% required an associate's degree or certificate, and 16% required a bachelor's degree or higher. By 2018, it is estimated that 29% of all jobs will require an associate's degree or certificate and another 33% will require a bachelor's degree or higher (Carnevale, Smith, & Strohl, 2010). Community colleges will be asked to provide much of the education needed for our nation to function effectively.

Currently, community college graduates are able to meet only half of the demand for a selection of workforce needs. A lack of qualified worker supply was felt most in distribution and planning (3% of demand met), communications and records (5% of demand met), and construction and maintenance (6% of demand met) (21st Century Commission on the Future of Community Colleges, 2012).

Political, legislative, and regulatory forces

Overview

The community college system, emulated around the world, is a uniquely American invention. The system's roots were planted in the early 20th century as a handful of junior colleges with non-selective admissions standards provided a stepping stone to a baccalaureate degree. In 1947, President Truman's Commission report called for expansion of that system to serve all individuals and communities in an effort to increase accessibility to higher education beyond the intellectual elite. An educational focus on job training for returning war veterans and others and an edict to provide accessible service to wide-ranging communities greatly expanded the scope of the system. In the decades since, as community colleges have responded to changing social and economic conditions, they have grown to meet the needs of increasing diversity in both scope and populations served. In 2009, President Obama recognized the essential role of the community college system, and challenged it to increase graduation and program completion rates by 50%, or over 5 million, over the next 10 years.

In March of 2010, President Obama signed into law the Health Care and Education Affordability Reconciliation Act, which provided $2 billion for the Community College and Career Training Program, a workforce preparation program. In October 2010, the White House Summit on Community Colleges focused national attention on the role of community colleges in the US educational system and in workforce and economic development.

In 2011, the American Association of Community Colleges accepted President Obama's challenge by launching the 21st Century Initiative, with the same goal. Other non-governmental entities have joined in the efforts to increase higher education completion rates in the US. In 2004, the Lumina Foundation launched the Achieving the Dream: Community Colleges Count initiative, with a goal of raising the percentage of Americans with degrees and quality workforce credentials to 60% by 2025 (Boggs, 2010).

The Bill and Melinda Gates Foundation set a goal to double the number of graduates under the age of 26 with a postsecondary degree or certificate. The Aspen Institute awards an annual prize for institutions which have achieved excellence in completion, labor market, learning, and equitable outcomes.

Funding Priorities

The American Association of Community Colleges has drawn attention to the following funding priorities for 2013:

- Preserve the Community College and Career Training Grant Program (TAACCCT), a successful program which provides training to Trade Adjustment Assistance-eligible and other workers.
- Maintain funding for the Carl D. Perkins basic state grants and other aspects of the Perkins Career and Technical Education Act.
- Invest in institution aid for high minority, low income, and first generation college students.
- Prioritize the Workforce Development Act that provides training and adult education programs.
- Maintain adequate Science, Technology, Engineering, and Math (STEM) funding.

At the state level, 48 out of 50 states are spending considerably – more than a quarter – less per student on higher education than in 2008. Colorado higher education funding was cut at a higher rate than for any other state between 2002 and 2010 and is now at the bottom of the list of per student funding for most public higher education students. Colorado could run out of public funding for all higher education as early as 2022-24 (Great Education Colorado, 2013).

Financial Aid

The Pell Grant program is arguably the most important financial aid program for community college students. These grants may reach farther in a community college setting, where tuition is generally lower and many student incomes are lower as well. Pell Grant aid to community college students is over $11 billion each year. Congress made changes which restricted the program in 2012 in order to avoid an anticipated shortfall. Debates continue over whether to further restrict the Pell Grant program or whether to add eligibility for certain students.

Student loan rates shot up this year, and have recently been cut again for new loans. This struggle with student loans and rates is not new and will likely continue in the future. Students are caught in the middle of the political and economic difficulties which are cause for alarm as inconsistencies dominate student loan policy development and implementation.

Projections and trends

Federal and state governments are restricting institutional and student aid for public higher education at a time when higher education institutions are expected to produce more with fewer resources. Several foundations and associations have stepped in to assist with resources and reward creativity which spurs positive changes in the system. Tracking innovative solutions and making note of what other successful colleges are doing to help solve funding shortfalls could be a worthwhile activity.

Entrepreneurial partnerships and inspired thinking will be required to accomplish the complex objectives expected of the community college system. All colleges will be reaching out to their communities at large for assistance with strategic thinking and synergistic activities.

Technological Forces

Overview

Some of the key forces at work in educational technology today revolve around delivery modes and technology infrastructure. Yet other issues permeate and inform technology. Prominent among those is the concept that openness is becoming a value. Access to information is ubiquitous with internet availability through smartphones, tablets, and other devices. Learning does not occur during class hours only, but any time someone conducts a google search or sends out a request on Facebook. Knowing how to decipher which information is real and relevant is more important than learning how to find information in the first place. Open content, data, and sources must be evaluated and managed. Expectations are for transparency and easy access to data and information, which must be achieved appropriately.

Delivery modes

Flipped classrooms and online learning

Online courses and flipped classrooms, where students learn with assistance via curated materials rather than by standard lecture, allow for the freedom and responsibility of self-managed learning experiences. Not all students want to or are capable of directing their own education, but some students find the flexibility and personalization of these experiences enriching. Some instructors record lectures and post them online, others embrace the opportunity for virtual one-on-one tutoring or independent study. Various learning management systems have different capabilities and costs, yet all provide a framework for success via virtual delivery means. Even non-academic platforms such as Skype add tools to the toolbox of collaborative learning technologies.

Some rural colleges have found success with hybrid class formats, where students get together in person from once to several times per course, and complete the rest of their work virtually. This format works well for students in a cohort for whom creating a vibrant community is important, for collaborative group work, or for those who need to be physically present for some learning opportunities (practicing CPR skills, doing lab work or practicing supervised welding, for example).

Quality Matters

Quality Matters, a method of course design based on best practices and peer review processes, is a valuable tool to help accomplish high quality online and flipped classroom courses.

Infrastructure

Bring your own device

Students are bringing their own electronic devices into the classroom: laptops, notebooks, tablets, smartphones, etc. Many students rely on more than one device, and prefer to use a technology with which they are already familiar. The use of personal devices extends the learning environment for students and provides relief for institutions with less than optimal technology funding. However, a lack of standardization across devices, or a lack of available personal devices, may pose hardships for some students. Some institutions have implemented technology practices which address these issues, including continuous wireless internet availability across campuses, virtual desktop infrastructures for consistent display and accessibility, and private clouds for data storage and accessibility.

Some students will not own or have access to personal devices, however. Library or computer lab/center access which accommodates most schedules is still required for technological adequacy.

MOOCs

Massive open online courses (MOOCs) have generated interest and concern for institutions of higher education. In reality, the internet itself and its immediate accessibility has changed the way we all collect information and learn. No longer relegated to a formal classroom environment, independent learning occurs on a variety of topics all the time. MOOCs, however, have maintained an academic and somewhat more formal perspective on learning, and have made information available to anyone with an internet connection. While some institutions view MOOCs as competitors and with suspicion, others have embraced the opportunity to include additional information in courses or to expand offerings. Some community colleges use Khan University and other offerings as tutoring support or to aid in remedial education requirements.

Social media

Social media sites have expanded beyond their original design intentions and have evolved into rich platforms for networking, connecting, collaboration, advertising, and are sometimes unparalleled for getting the word out. Analytics connected with many of the most popular sites, such as Facebook, Pinterest, Twitter, Reddit, Flickr, YouTube, Vimeo and others can provide valuable information about an institution's constituency and patterns of use. Engagement with social media may take different forms: creating content, consuming content, and compiling and/or editing user content. Regardless of the form or venue, engagement with social media is a must.

Personalized learning experiences

Dashboards can be created and managed to filter information provided by analytics and data mining. Many programs and processes track valuable data which provides information on users. Knowing how to access and use this data can aid and enrich teaching, learning, and administrative activities.

Projections and trends

The workforce increasingly demands informal learning skills, which can be acquired either in person or online. Employers value, but may have trouble finding, employees with adequate critical thinking, communication, and collaboration skills. Learning etiquette for virtual or in person classroom exchanges and how to cull, curate, and validate information should be taught along with whatever subject is the topic for class. Educators are expected to act as mentors, providing links to knowledge tools and networks.

Additionally, meeting their mission to serve the community at large, community colleges are reaching out to constituents and potential customers by providing information outside of traditional or online classrooms. Webinars and repositories for videos, lectures, and interactive exchanges allow more flexibility in partnering with the community. For example, some rural community colleges are accepting the role of community center, where farmers and ranchers can go (in person or virtually) for information exchange and collaboration. Classes and other learning experiences may be provided on an ad hoc basis for outreach to the community at large.

Potential Collaborators and Competitors

Institutions of higher education frequently find that competitors may also be collaborators. It is noted that Trinidad State has already identified other area colleges and universities with which it has articulation agreements and with which it works for positive student outcomes. Agreements are also in place and relationships developed with area high schools.

Colleges are working hard in their communities, participating in economic and workforce development. For example and as noted previously, Trinidad State is a collaborative partner on the SET initiative in the Raton Basin region. Building relationships with individual businesses is also important for many reasons, including learning about employer needs and expectations.

Technology allows community colleges to network over vast distances, forming alliances and relationships with other institutions which have similar concerns and customers. Watching and learning from other successful institutions provides valuable insight and useful information. The White House, Lumina Foundation, Bill and Melinda Gates Foundation, and Aspen Institute are just a few entities providing a wealth of information for community colleges, acknowledging superior performance, and highlighting innovation. State and national organizations supporting the community college system are also valuable allies. Partnering with these and other progressive organizations to develop best practices and discuss opportunities and concerns leads to a deeper and more successful community college system.

Challenges and Opportunities

Community colleges have more opportunity – and more responsibility – today than at any time in history. The community college system serves many constituents and many functions. Thoughtful planning, continual learning, and flexibility to adjust to changing conditions are needed in order to succeed.

This external environmental scan has provided an overview of forces, projections, and trends which affect Trinidad State Junior College. National and state information has been included to inform and provide reference for a more detailed look at the delivery areas served by Trinidad State's two campuses.

In addition to the information already presented, following is a list of some of the opportunities and challenges facing community colleges today.

- The White House has tasked community colleges with producing an additional 5 million graduates by 2020 in order to rebuild the capacity and effectiveness of the US workforce.
- Community colleges are necessary partners in helping prepare students for college-level education. More collaboration is needed with secondary schools to ensure students are college-ready before graduation from high school.
- Information is everywhere. Students need to learn how to evaluate and edit information, and to appropriately assess expertise.
- Diversity, inclusiveness, and global awareness are expected and required in today's society.
- Student retention activities must ensure that higher percentages of students complete their certificate or degree program. Students moving on to additional studies must be adequately prepared to succeed in future endeavors as well. Assessment and documentation is needed to guarantee that earned credentials are adequate for employers.
- Leadership, collaboration, communication, critical thinking, decision making, problem solving, and other soft skills must be taught for students to succeed in the workforce, and for employers to value employees and their education.
- Community colleges must be active partners with their communities, with public, private and nonprofit institutions, guiding bright futures and responding to needs. Colleges are responsible to individual students, but also to their communities at large.

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