



2021 Labor Market Information Report

An Analysis of the Emerging Labor Market in South Texas

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Introduction and Acknowledgments

Message from the Executive Director and Board President



Greetings and welcome to the RGV LEAD 2021 Labor Market Information Report! Rio Grande Valley Linking Economic and Academic Development (RGV LEAD) is focused on helping the South Texas region develop its most valuable asset, our students. All our initiatives, including this report, are geared toward equipping our students with the knowledge, tools, and resources to be college-and-career-ready. We encourage our students to participate in our programs and leverage the opportunities within to help enable their success and contribute to our region's economic development.



The vital information contained in this report can be used by students, parents, educators, employers, and economic development professionals across South Texas – including the counties of Cameron, Hidalgo, Starr, Willacy, Zapata, Webb, and Jim Hogg. The report creates awareness of the various careers available, and it helps students learn about RGV LEAD's Targeted Occupations that can be linked to programs of study at their schools. The report also includes profiles of our region's public school and higher education outcomes relating to career readiness, information that is useful in advancing economic development across the region.

The RGV LEAD Labor Market Information Report is utilized by chambers of commerce, economic development organizations, and other community leaders working to improve the South Texas economy. The majority of our students stay within the region after high school graduation. Many of them enter the workforce at an early age to contribute to the family's financial needs. Providing students with timely and accurate information about these targeted occupations helps them set goals and pursue education leading to higher-paying careers aligned with their interests and skills. We are pleased to make this critical tool readily available to students, parents, educators, and partner organizations across South Texas.

Luis Rodriguez
Executive Director, RGV LEAD

Lizzy de la Garza Putegnat
Board President, RGV LEAD

About RGV LEAD

Rio Grande Valley Linking Economic and Academic Development (RGV LEAD) develops and manages collaborative projects that bring employers and educators together to help students set and achieve college-and-career goals.

Helping students set and achieve college-and-career goals impacts individual lives and, in a greater sense, also impacts the economic development in South Texas. Since 1992, RGV LEAD, a Texas nonprofit and federal 501(c)3 organization, and its partners have implemented initiatives that have become a vital part of a regional effort to improve the region's educational levels.

Working as the project manager for regional joint ventures, RGV LEAD manages collaborative projects including educator externships and student internships. RGV LEAD's partners include school districts, colleges and universities, the regional education service center, economic development organizations, workforce development boards, and others. Educational institutions support RGV LEAD because its projects have helped to improve graduation and college enrollment rates. Economic development organizations support RGV LEAD because its initiatives address South Texas' long-standing need for an educated, skilled workforce.

Our Vision. An educated and highly skilled Rio Grande Valley prepared for the global workforce.

Our Mission. To foster partnerships between education and industry to equip students with college and career readiness that meet the region's highly skilled workforce demands.

Our Values. Leadership, Collaboration, Integrity, Excellence and Accountability.

Strategic Goals. RGV LEAD's strategic plan incorporates three broad strategic initiatives or goals:

Goal 1. Coordinate regional initiatives focused on education and workforce development that support linkages with current and emerging organizations in the Rio Grande Valley to reduce duplication of services, maximize resources, decrease fragmentation, and improve effectiveness of education and workforce systems.

Goal 2. Increase the number and percentage of high school students who graduate college-and-career ready and transition successfully into higher education and/or the workforce.

Goal 3. Increase the number and percentage of career-focused college and university students, including tech prep and other career-focused students, who earn certificates, degrees and/or industry or state recognized licenses or certifications and transition into the workforce.

What We Do. RGV LEAD’s initiatives have operated regionally in the Rio Grande Valley (Cameron, Hidalgo, Starr, and Willacy counties), and have included project-specific activities in other parts of South Texas (Zapata, Webb, and Jim Hogg counties). Many RGV LEAD regional projects have been in operation for many years, including the A•L•A Summer Educator Externships, which started in 2003. New initiatives are added to support RGV LEAD’s mission to improve college-and-career outcomes for students. For example, the RGV LEAD Student Ambassadors began in 2014, and in 2020 RGV LEAD began serving as the intermediary organization in Texas Regional Pathway Network projects.

RGV LEAD’s initiatives are all cross-sector collaborative projects, with partners including school districts, colleges and universities, business and industry, and government. The work of RGV LEAD staff in the various projects is like that of the project manager in a joint venture: RGV LEAD brings the partners together in projects where they collaborate to achieve mutually agreed-upon goals. RGV LEAD evaluates all initiatives, operating in a continuous-improvement mode.

RGV LEAD’s current initiatives include:

Academies of the Rio Grande Valley / Ford Next Generation Learning.



RGV LEAD manages a network known as the Academies of the Rio Grande Valley, school districts and high school campuses that utilize a career academy model founded on Ford Next Generation Learning (Ford NGL) strategies. The Ford NGL career academy model promotes experiential learning and proactive business and civic engagement in schools. RGV LEAD introduced Ford NGL to the region in 2014, and eight school districts began implementing academies in 2015-2016.

Counselors’ Network. The Counselors’ Network is a regional collaborative that has operated regionally since 1998. The network provides a forum where counselors from public schools, colleges, and universities come together to discuss issues that students and families experience and to develop solutions for students and families. RGV LEAD coordinates quarterly meetings focused on strategies including transition counseling to help students transition successfully from high school to college, and ultimately to the workforce.



Education and Career EXPO. The Education & Career EXPO, which began in 2004 provides the opportunity for employers to showcase careers and colleges and universities to showcase related educational programs. The EXPO provides high school students (especially seniors) the opportunity to learn about these careers and educational programs and interact with representatives of these organizations. RGV LEAD leads a large group of partners that organize and promote the EXPO each year.





Educator Externships. Externships allow teachers, counselors, and administrators to spend time as employees of local businesses and learn first-hand about opportunities and employer needs. RGV LEAD currently implements two Externship initiatives, the three-week Academic Leadership Alliance Summer Educator Externships and a shorter version, Introduction to Externships, modeled on A•L•A.

Participating educators develop lesson plans, counseling, and supporting materials reflecting what they have learned from their time at employer worksites. Ultimately, educators utilize the lesson plans and counseling materials with students during the academic year following the experience. Because one educator works with over one hundred students every year, thousands of students are impacted by the teacher and counselor Externship experiences.



P-16 Council. The Regional P-16 Council began in 2007 and promotes communication and collaboration of leaders from secondary education, higher education, workforce development, economic development, and the employer community. The Council's work supports regional implementation of the State of Texas 60X30TX plan to ensure that by 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree. RGV LEAD's coordination of P-16 Council regional meetings focus on sharing college and career information with students moving through the public schools around the region's "emerging workforce" for to help them set and pursue college-and-career-focused goals.



Regional Entrepreneurship Challenge. The Regional Entrepreneurship Challenge was launched in 2018 to promote and encourage entrepreneurship among the region's high school students. Student teams are invited to develop and present business plans to meet a societal need through a new product or service. The teams compete and are judged by a panel of community leaders. Cash prizes are awarded to the top teams to allow them to further develop their ideas.



RGV LEAD Annual Conference. RGV LEAD's annual conference promotes professional development for area educators and other professionals by inviting local, state, and national experts to present best practices for advancing student success and workforce readiness. The conference also recognizes the RGV LEAD Administrator, Teacher, Counselor, Higher Education Leader, and Business Leader of the year.



RGV LEAD Scholars and RGV LEAD Scholarships. RGV LEAD scholars is a graduate-recognition program developed and managed by the RGV LEAD Board. Tens of thousands of students have graduated with honors through the program since it began in 1999. Participating in RGV LEAD Scholars encourages high school students to develop college-and-career graduation plans and successfully complete those plans. Additionally, every year RGV LEAD presents a \$5,000 scholarship to an outstanding student who has graduated as an RGV LEAD Scholar and charted a path to success in higher education through participation in the college-and-career-focused programs promoted by RGV LEAD.



RGV LEAD Ambassadors. RGV LEAD Ambassadors, which began in 2014, brings teams of high school students together to develop their leadership skills, learn more about labor market information, and take their knowledge and skills back to their high schools to encourage college-and-career readiness among their peers. Participation in the Ambassadors program has grown rapidly, with over 400 students participating in recent years. RGV LEAD Ambassadors participate in leadership development events designed by RGV LEAD and featuring regional business leaders, while Student Ambassador Teams plan and implement a Young Leaders Conference open to high school students from throughout the region.



RGV Mentors. RGV Mentors utilizes a “life coach,” comprehensive style of mentoring to ensure that participating students graduate high school with a college and career-ready mindset. RGV Mentors matches Mentors (successful community professionals) with Protégés (students) to prepare young people for today’s skilled workforce. RGV Mentors includes School-Based Mentoring, designed primarily for high school freshmen and sophomores, and Community-Based Mentoring, which focuses on RGV Mentor Protégés who are juniors and seniors in high school.



Superintendent’s Annual Meeting. At the beginning of every year, RGV LEAD hosts a special meeting for superintendents and their leadership teams to provide school district leaders an overview of initiatives planned for the year and encourage active participation in planned events. At this meeting, RGV LEAD also provides superintendents with copies of relevant publications and other resources, including the *RGV LEAD Annual Report*, *RGV LEAD Regional Data Report*, and *RGV LEAD Labor Market Information Report*.

Acknowledgments

The development of college-and-career-minded young people is a collaborative effort among students, parents, employers, community leaders, government, and educators from prekindergarten through college (P-16). RGV LEAD works with these partners to provide guidance and motivation for educators, students, and families, and also serves as a communication channel for the businesses that will employ the graduates. RGV LEAD gratefully acknowledges the contributions for this 2021 Labor Market Information Report that were made by the individuals and organizations named below.

Input from Community Leaders. This report was written by RGV LEAD staff based on data drawn from various sources identified in each section of the report. The report also reflects “local wisdom” provided by several community stakeholders, including representatives of businesses, economic development organizations, workforce development boards, and others.

The individuals listed below represented their organizations during a discussion in a pre-publication meeting that occurred in June 2021 designed to gather input from local leaders prior to completion of the 2021 report. Also listed below are the individuals and organizations that provided additional information prior to and after that meeting that contributed to the final version of the report. We are grateful for their input and assistance.

- Francisco Almaraz, Chief Executive Officer, Workforce Solutions / RGV LEAD Board Member
- Rick Carrera, Director of Community and Economic Development, Lower Rio GrandeDevelopment Council
- Val Champion, Executive Director, Los Fresnos Area Chamber of Commerce
- Sergio Contreras, President/CEO, RGV Partnership
- Blanca Davila, Director of Economic Development, City of Edinburg
- Dante Galeazzi, President and CEO, Texas International Produce Association
- Adam Gonzalez, Senior Vice President, Business Development and Investor Relations, Councilfor South Texas Economic Progress
- David O. Gutierrez, Education Relations Supervisor, Workforce Solutions
- Teresa Hernandez, Executive Director, South Texas Manufacturers Association
- Pat Hobbs, Executive Director, Workforce Solutions Cameron / RGV LEAD Board Member
- Flor Leal, Contract Administration Director, Workforce Solutions
- Mario Lizcano, Administrator of Corporate Affairs, DHR Health
- Desi Martinez, Liaison, Los Fresnos Community Development Corporation
- Leticia Pantoja, Administrative Assistant, Economic Development Department, City of Edinburg
- Salome (Sally) Perez, Chief Program Officer, Workforce Solutions Cameron
- Lizzy de la Garza Putegnat, Account Executive, Schneider Electric / RGV LEAD Board President
- Matt Z. Ruszczak, Vice President of Economic Development, COSTEP

- Leo Saenz, Career and Technical Education Specialist, Region One Education Service Center / RGV LEAD Associate Board Member
- Grace Salinas, Planner, Cameron County
- Arcelia (Shelly) Sanchez, Community Engagement Deputy Director, Workforce Solutions
- Adriana Sarmiento-McElrath, Community Member
- Joshua Vasquez, Business Relations Representative, Workforce Solutions
- Matt Wolthoff, Chief Executive Officer, Harlingen Medical Center

The following individuals provided information about their institutions' programs of study that could help students prepare for the Targeted Occupations included in Section 3:

- Laredo College – Dr. David Arreazola, Interim Provost/Vice President for Academic Affairs and Compliance; Dr. Veronica G. Martinez, Interim Dean of Assessment and Research
- South Texas College – Christina Cavazos, Director of Curriculum; Dr. Esmeralda Adame, Associate Professor, Advanced Manufacturing Technology, Adjunct Associate Professor, Organizational Leadership & Technology Management, RGV LEAD Board
- Texas Southmost College – Dr. Joanna Kile, Vice President of Instruction, RGV LEAD Board
- Texas State Technical College – Cledia Hernandez, Provost, Harlingen Campus, RGV LEAD Board
- The University of Texas Rio Grande Valley—Dr. Laura M. Saenz, Associate Vice President for Curriculum and Institutional Assessment, Division of Student Affairs; Cynthia (Cindy) Valdez, Associate Vice President for Educational Outreach, RGV LEAD Board
- Texas A&M International University – Carla Luna, Office of Career Services Coordinator

RGV LEAD Labor Market Information Report Sponsor. Special thanks to the Council for South Texas Economic Progress (COSTEP) for their generous sponsorship of the 2021 RGV LEAD Labor Market Information Report. For the past 45 years, COSTEP served the community by helping hundreds of thousands of students and their families through free financial literacy education programs and by funding millions of dollars in scholarships. Today, COSTEP is implementing a new strategic framework for economic development via a data-driven and market-validated approach to shape the future of the Rio South Texas region. COSTEP is focusing on connecting the economic and education ecosystems to create a talent pipeline and job opportunities for the region. In addition to implementing an aggressive marketing and domestic and foreign business recruitment campaign, COSTEP is strategically aligning the business and education sectors to create a synergy that will culminate in exponential prosperity and create boundless opportunity, advancement, and prosperity for all.

RGV LEAD Board of Directors. RGV LEAD is led by an all-volunteer Board of Directors who establish and drive the mission, vision, and strategic goals of the organization. The Board provides oversight of the organization to ensure continuous progress and success. Their dedication and commitment to RGV LEAD enables all the organization's programs and initiatives, including the Labor Market Information Report.

Executive Board

- President – Lizzy de la Garza Putegnat, Account Executive, Schneider Electric
- Vice President – Naomi Perales, Community Relations Manager, Texas Gas Service
- Treasurer – Felipe C. Salinas, Managing Partner, Contexto Consulting
- Dr. Esmeralda Adame, Ed.D., Associate Professor, Advanced Manufacturing Technology, South Texas College
- Theresa A. (Teri) Alarcon, Superintendent of Schools, Point Isabel ISD
- Anabell C. Cardona, Chief Executive Officer, Valley Grande Institute
- Jonathan Medina, CEO, JMedina Speaks
- Cynthia (Cindy) Valdez, Associate VP for Student Educational Outreach, The University of Texas Rio Grande Valley

Directors

- Francisco (Frank) Almaraz, Chief Executive Officer, Workforce Solutions
- Dr. Eduardo Cancino, Interim Executive Director, Region One ESC
- Albert G. Chronis, Project Manager, Noble Texas Builders, LLC
- Maricela de Leon, Regional Director of Government Affairs, Texas State Technical College
- Luis Figueroa, AIA, Principal, ROFA Architects, Inc.
- Narciso Garcia, Ed.D., Superintendent, Vanguard Academy
- Cledia Hernandez, Provost, Texas State Technical College
- Pat Hobbs, Executive Director, Workforce Solutions Cameron
- Joanna Kile, Ed.D., Vice President of Instruction, Texas Southmost College
- Kristina Leal, PE, CFM, Project Manager/Civil Engineer, Halff Associates
- Christina Lopez Garza, Owner/Agent, State Farm Insurance
- Carolyn Mendiola, Superintendent of Schools, Mercedes ISD
- Albert Pena, Superintendent of Schools, San Perlita ISD
- Carol G. Perez, Ed.D., Superintendent of Schools, Mission CISD
- Gisela Saenz, Ed.D., Superintendent of Schools, La Joya ISD
- Adriana Sarmiento-McElrath, Community Member
- Ryan C. Solis, Attorney, Law Office of Ryan C. Solis, P.L.L.C.

Associate Board

- Daylen Adams, Instructor, Youth Programs, Hidalgo County
- Alda T. Benavides, Ed.D., Educational Consultant
- Jorge Flores, Representative, South Texas Career and Technical Counseling Association
- Robert Leftwich, Broker/Associate, Keller-Williams
- Leo Saenz, Career and Technical Education Specialist, Region One ESC
- Norma L. Salaiz, Ph.D., Community Volunteer

Directors Emeritus

- Eduardo A. Campirano, Port Director and CEO, Brownsville Navigation District/Port of Brownsville
- Ray Elledge, Division Manager, Texas Commercial Energy (retired)
- Cesar Maldonado, Ph.D., P.E., PMP, Chancellor, Houston Community College System
- Hollis V. Rutledge, Jr., President and CEO, Hollis Rutledge and Associates, Inc.
- Ed Tamayo, Executive Vice President, First Community Bank, Harlingen (deceased)
- Perry A. Vaughn, Executive Director, Associated General Contractors-RGV (retired)
- Linda Wade, Ph.D., Superintendent of Schools, Harlingen CISD (retired)

RGV LEAD Corporate Voting Members. RGV LEAD is a Texas nonprofit and federal 501(c)3 organization born of collaboration, working through cross-sector partnerships that engage partners from a variety of public and private sectors. The RGV LEAD Board of Directors oversees all RGV LEAD activities and is responsive to RGV LEAD’s corporate voting members. The ongoing involvement of these organizations is vital in RGV LEAD’s work.

Member School Districts

Brownsville ISD	Lasara ISD	Progreso ISD	Santa Maria ISD
Edcouch-Elsa ISD	Los Fresnos CISD	Raymondville ISD	Santa Rosa ISD
Edinburg CISD	Lyford CISD	Rio Grande City CISD	Sharyland ISD
Hidalgo ISD	McAllen ISD	Rio Hondo ISD	South Texas ISD
La Feria ISD	Mercedes ISD	San Benito CISD	Valley View ISD
La Joya ISD	Mission CISD	San Isidro ISD	Weslaco ISD
La Villa ISD	Point Isabel ISD	San Perlita ISD	

Partner Colleges, Universities, and Other Organizations

Laredo College	Workforce Solutions Cameron
South Texas College	Workforce Solutions for South Texas (Webb, Zapata, Jim Hogg)
Texas Southmost College	Vanguard Academy
Texas State Technical College	Jubilee Academy/Brownsville
Texas A&M International University	Region One Education Service Center
The University of Texas Rio Grande Valley	South Texas Career and Technical Education Association
Workforce Solutions (Hidalgo, Starr Willacy)	

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- Dr. Mari Salaiz, Ed.D. for authorship of the report
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- Eliza Groff for research assistance and final production of the report

Section 1

Education in the South Texas Border Region's Schools

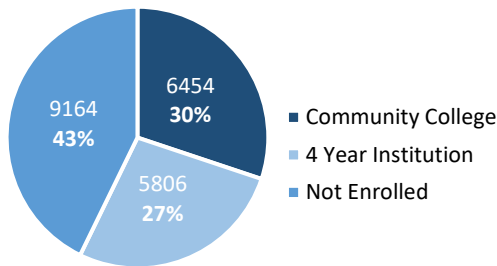
The United States has been responding to the challenges of improving education throughout history. Since the 1950's and thereafter, the government has anticipated that the nation is falling behind in the competitive global market and is destined to continue to fall behind in an increasingly complex, technological, and competitive world unless America commits to excellence. A report entitled *A Nation at Risk* (1983) validated these concerns. This report gave birth to a public educational reform and accountability movement that is still with us today. Texas and the South Texas border region have also been responding to the challenges of improving education. The most current initiatives to improve education include establishment of College, Career, and Military Readiness standards and the *60x30TX* plan, a roadmap to help Texas achieve a better future through higher education. If the South Texas border region is to remain globally competitive, large numbers of students from all backgrounds must complete certificates or degrees. All stakeholders – higher education institutions, K-12 educational institutions, economic and workforce development partners – must collaborate and work towards increasing student success, contend with college affordability, and focus on the workplace skills that students obtain in their programs (Texas Higher Education Coordinating Board, *2020 Texas Public Higher Education Almanac*). These initiatives play a critical role in propelling the state's economy, providing students with an opportunity for a better life, and boosting employment competitiveness.

60x30TX Plan and College-Readiness

The *60x30TX* plan and the College, Career, and Military Readiness (CCMR) measures have been at the heart of the work schools have been carrying out in recent years. These changes have been brought on by the reauthorization of the Elementary and Secondary Education Act (aka *Every Student Succeeds Act*, 2015). According to the *2020 Texas Public Higher Education Almanac* (TPHEA), *60x30TX* is Texas' strategic plan to get 60% of our population ages 25 to 34 to complete certificates or degrees by the year 2030 so that they can compete in the global workforce. The goal is for a minimum of 550,000 Texans to complete a certificate, or an associate, bachelor's, or master's degree from a higher education institution. As of 2018, approximately 44% of Texans in this age group have a postsecondary degree or certificate. (For more information visit: <http://60x30tx.com>.) The TPHEA states that other societies in the world are at or near 60% in this age group. This metric is relevant to RGV LEAD and the regional stakeholders because it measures students' preparedness for college, workforce, or the military.

The most current report provided by the Texas Education Research Center (Texas ERC) to RGV LEAD tracked 21,424 Rio Grande Valley (RGV; Cameron, Hidalgo, Starr, and Willacy Counties) students who graduated from high school in May 2019 (see Figure 1).

Figure 1
2019 Valley Graduates



Out of those 21,424 students, 12,260 (57%) enrolled in higher education in the Fall 2019 semester, with approximately 30% entering a community college and approximately 27% entering a 4-year public institution.

Approximately 8,265 of the 12,260 students who enrolled in higher education graduated college ready; the others did not (Texas ERC, 2020).

Legislation was enacted by the State in 2007 to determine a student's college readiness in the areas of reading, writing, and mathematics. In order to be considered college ready, a student must meet the Texas Success Initiative requirements.

Texas Success Initiative Criteria

The Texas Success Initiative (TSI) standards are designed to improve student success in college. State law TEC §51.333 has set standards for students enrolling in public institutions of higher education. Students who meet the TSI requirements are determined to be college ready, allowing them to enroll in college without academic restrictions. The students who do not meet the TSI requirements must challenge the Texas Success Initiative Assessment (TSIA) to determine academic readiness for college level coursework. Students who attempt the TSIA and fail to meet the minimum passing standards must enroll and complete developmental education programs for reading, writing, and/or mathematics when entering college before they are allowed to take college-level courses.

High school students can meet TSI criteria by successfully passing the TSI, SAT, ACT or by successfully completing and earning credit for a college prep course (as defined in TEC §28.014), in both ELA and mathematics before they graduate. These students can qualify for an exemption if they meet one of the following criteria:

- pass the State of Texas Assessments of Academic Readiness (STAAR) End-of-Course (EOC) exams in English II and Algebra II with a score of 4000;

- receive a composite test result of 23 or higher plus a 19 on the English and Math sections of the ACT exam; or,
- receive a minimum score of 480 on the Evidence-Based Reading and Writing and a 530 or higher on the mathematics portions of the SAT tests.

Graduates who do not meet the high school TSI requirements can challenge the TSIA. Students are assessed in Mathematics, Reading, and Writing. Passing scores on the TSIA are: in Mathematics, a minimum score of 350; in Reading, a minimum score of 351; and in Writing, a score of 5 on the essay section or a score of 4 on the essay and a minimum score of 340 on the multiple-choice section.

As mentioned previously, the Texas ERC (2020) reports that approximately 4,000 Valley students out of the 12,260 who enrolled in higher education did not meet the TSI standard in one or more areas. The table below outlines the number of students reported to have enrolled in one or more developmental courses to meet the TSI requirement in the Fall of 2019. Approximately 27% of the students who graduated and entered college in May 2019 enrolled in a math developmental class, 17% enrolled in a reading development course, and 12% enrolled in a writing developmental program.

Table 1 Fall 2019 Developmental Course Enrollment for 2019 RGV High School Graduates		
Course	Number of Students	Percent of All Enrolled in Higher Education
Math	3,366	$3,366/12,260 = 27\%$
Reading	2,053	$2,053/12,260 = 17\%$
Writing	1,482	$1,482/12,260 = 12\%$

There are other ways students can qualify for a TSI exemption, including the following:

- **Dual course credits.** Students can be college-ready if they earn dual college hours in one of the following ways:
 - graduate with three or more hours of ELA or math
 - graduate with nine or more hours of postsecondary credit in any subject
 - meet the criteria on an Advanced Placement (AP) examination with a minimum score of 3
 - meet the criteria on International Baccalaureate (IB) examinations with a minimum score of 4
- **Associate Degree.** Students can be college-ready if they earn an associate degree while in high school.

- **OnRamps Course Credits.** Some of the region's school districts have partnered with the University of Texas OnRamps program, which allows students to earn credits toward a bachelor's degree via a distance education dual enrollment model. Students who complete the OnRamps course and receive at least 3 hours of university or college credit in any subject area meet TSI requirements (TEC §28.014).

Career-Readiness

Some students prefer to enter the workforce immediately after high school. School districts and campuses are tasked with the responsibility of ensuring that students attain the skills needed to be prepared for success in entering the workforce (House Bill 22, 85th Texas Legislature, 2017, amended Texas Education Code, §39.053). The tables below show that 54% of 2019 RGV high school graduates entered college while 46% did not. Out of the 46% that did not go to college, approximately 22% of the students entered the workforce within one year after high school graduation.

Table 2 2019 RGV High School Graduates One Year After High School Graduation					
	Enrolled in Higher Education		Not Enrolled in Higher Education		Total Graduates
	Number	Percent	Number	Percent	Percent
Total	11,533	54%	9,891	46%	21,424

Table 3 Employment Status of 2019 RGV Graduates One Year After High School Graduation						
	Not Enrolled in Higher Education		Working Only		Not Working	
	Number	%	Number	%	Number	%
Total	9,891	46%	4,770	22%	5,121	24%

Table 4 breaks down the categories by the number of students enrolled or not enrolled in Career and Technical Education (CTE) courses. The table shows that students who graduated with one or more CTE courses in their transcript were more likely to enroll in higher education and less likely to be unemployed one year after high school graduation.

Table 4
 Employment Status of 2019 RGV Graduates by CTE
 One Year After High School Graduation

CTE+ Category	Enrolled in Higher Education		Not Enrolled in Higher Education		Total Graduates	Working Only		Not Working	
	Number	%	Number	%	Total	Number	%	Number	%
0CTE+	3,515	49%	3,717	51%	7,232	1,723	24%	1,994	27%
1CTE+	2,606	52%	2,387	48%	4,993	1,186	24%	1,201	24%
2CTE+	5,412	59%	3,787	41%	9,199	1,861	20%	1,926	21%
Total	11,533	54%	9,891	46%	21,424	4,770	22%	5,121	24%

Graduates can demonstrate career readiness in one of three ways: participate in a CTE coherent sequence coursework aligned with industry-based certification, earn an industry-based certification, or graduate with level 1 or level 2 certifications.

- **Participate in a CTE coherent sequence coursework aligned with industry-based certifications.** A CTE coherent sequence graduate is one who has completed and received credit for at least one CTE course aligned with an industry-based certification. As of the 2021-2022 school year, there were 85 CTE courses aligned with industry-based certifications approved for Texas students. (A complete list of these CTE courses is available at: https://tea.texas.gov/sites/default/files/CTE_Courses_Aligned_IBC.pdf).
- **Graduate with a Level 1 or level 2 certificate.** A high school student can graduate ready for the workforce with a Level 1 or Level 2 certificate in any workforce education area.
- **Industry-based certification.** As mentioned previously, the *60x30TX* goal is to have a minimum of 60% (550,000) of Texans between the ages of 25 and 34 complete a certificate, or an associate, bachelor's, or master's degree from a higher education institution in Texas. In addition to meeting one of the approved career-readiness standards, students earning one or more industry-based certifications (IBCs) are also better prepared to continue into a post-secondary program of study. There are currently 245 approved IBCs for students in Texas. (A complete list is available here: <https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications>).

Industry-Based Certifications

All 38 school districts and charter school systems in the Region One ESC area offer career and technical education programs and opportunities for students to earn industry-based certifications (IBCs). According to the most recent available Texas Academic Performance

Report (TAPR) for the Region One ESC service area, 7,733 (26.4%) of the region's 2019 high school graduates earned at least one state-approved IBC, a rate more than double that of the state (10.7%). The number of IBC programs offered by school districts across the region is expected to grow in response to the recent inclusion of the number of IBCs earned by students in the state's accountability system for school districts. A report was obtained in June 2021 by RGV LEAD from TEA on the types and number of IBCs earned by Region One ESC high school students in 2019-2020 school year (see Table 5 below). The report provides a snapshot of the kinds of programs leading to IBCs that are currently being offered by school districts, as well as the numbers of IBCs being earned, as a point of consideration for their continued development to help meet the region's workforce needs.

Table 5 Industry Based Certifications Earned by Region Once ESC Students From September 1, 2019 to August 31, 2020		
CAREER CLUSTER	INDUSTRY-BASED CERTIFICATION	STUDENTS
AGRICULTURE, FOOD & NATURAL RESOURCES (339 IBCs)	CERTIFIED VETERINARY ASSISTANT	13
	OSHA 30 HOUR GENERAL	203
	TEXAS STATE FLORAL ASSOC LEVEL I	46
	TX ST FLOR ASSO FLR SKL KNWLDG BSED	77
ARCHITECTURE & CONSTRUCTION (~946 IBCs)	AUTODESK CERT PROF OR USER AUTOCAD	212
	AUTODESK CERT PROF OR USER INVENTOR	103
	AUTODESK CERT PROF OR USER REV ARCH	<10
	ELECTRICAL APPRENTICESHIP CRT LVL 1	44
	NCCER CARPENTRY LEVEL I	11
	NCCER CONSTRUCTION TECH CERT LVL I	11
	NCCER CORE LEVEL ONE	514
	NCCER ELECTRICAL LEVEL I	<10
OSHA 30 HOUR CONSTRUCTION	41	
ARTS, AUDIO VISUAL TECHNOLOGY, AND COMMUNICATIONS (~881 IBCs)	ADOBE CERT ASSOC VISUAL DSGN SPCLST	<10
	ADOBE CERT EXPERT WEB PREMIERE PRO	14
	ADOBE CERTIFIED ASSO CREATIVE CLOUD	29
	ADOBE CERTIFIED ASSOC ILLUSTRATOR	131
	ADOBE CERTIFIED ASSOC PREMIERE PRO	52
	ADOBE CERTIFIED ASSOCIATE ANIMATE	69
	ADOBE CERTIFIED ASSOCIATE PHOTOSHOP	555
	ADOBE CERTIFIED EXPERT ILLUSTRATOR	<10
	ADOBE CERTIFIED EXPERT INDESIGN	<10
	ADOBE CERTIFIED EXPERT PHOTOSHOP	16

BUSINESS, MARKETING & FINANCE (~7,985 IBCs)	ENTREPRENEURSHIP AND SMALL BUSINESS	56
	GOOGLE ANALYTIC INDIV QUALIFICATION	237
	GOOGLE CLOUD CERT PROF - G SUITE	54
	MICROSOFT OFFICE EXPERT - EXCEL	<10
	MICROSOFT OFFICE EXPERT - WORD	614
	MICROSOFT OFFICE SPECIALIST EXCEL	389
	MICROSOFT OFFICE SPECIALIST WORD	6,479
	MOS MASTER - 2016	138
QUICKBOOKS CERTIFIED USER	13	
EDUCATION & TRAINING (~48 IBCs)	CHILD DEVELOPMENT ASSOCIATE	<10
	EDUCATIONAL AIDE I	43
HEALTH SCIENCE (~1,408 IBCs)	CERTIFIED DENTAL ASSISTANT	39
	CERTIFIED EKG TECHNICIAN	222
	CERTIFIED NURSE AIDE/ASSISTANT	174
	CERTIFIED OPHTHALMIC TECHNICIAN	<10
	CERTIFIED PATIENT CARE TECHN (CPCT)	17
	CLINICAL MEDICAL ASSISTANT	250
	MEDICAL CODING & BILLING SPECIALIST	10
	PATIENT CARE TECHNICIAN	175
	PHARMACY TECHNICIAN	74
	PHLEBOTOMY TECHNICIAN	281
	REGISTERED DENTAL ASSISTANT	161
HOSPITALITY & TOURISM (416 IBCs)	SERVSAFE MANAGER	416
HUMAN SERVICES (~204 IBCs)	BARBER OPERATOR LICENSE	<10
	COMMUNITY HEALTH WORKER	29
	COSMETOLOGY MANICURIST LICENSE	15
	COSMETOLOGY OPERATOR LICENSE	155
INFORMATION TECHNOLOGY (~124 IBCs)	COMP TIA A PLUS CERTIFICATION	<10
	COMP TIA NETWORK	<10
	COMPTIA IT FUNDAMENTALS	20
	MTA - CLOUD FUNDAMENTALS	<10
	MTA INTRO PROGRAMMING USING JAVA	<10
	MTA MOBILITY & DEVICE FUNDAMENTALS	<10
	MTA NETWORKING FUNDAMENTALS	20
	MTA SECURITY FUNDAMENTALS	24
	MTA SOFTWARE DEVLOPMNT FUNDAMENTALS	<10
	MTA WINDOWS OPR SYSTEM FUNDAMENTALS	29

LAW & PUBLIC SERVICE (~2,271 IBCs)	BASIC STRUCTURE FIRE PROTECTION	<10
	EMERGENCY MEDICAL TECHNICIAN	28
	IAED EMERGENCY TELECOMMUNICATOR	562
	NON-COMM SECURITY OFFICER LEVEL II	1,676
MANUFACTURING (~1,144 IBCs)	API 1104 WELDING	24
	AWS CERTIFIED WELDER	20
	AWS D1.1 STRUCTURAL STEEL	567
	AWS D9.1 SHEET METAL WELDING	236
	AWS SENSE WELDING LEVEL 1	37
	CERTIFIED SOLIDWORKS ASSOC-ACADEMIC	<10
	NATL METL WRK CRT-ITM BSC MECH SYST	13
	NATL MTL WRK SKLS MACH CNC MILL OPS	10
	NATL MTL WRK SKLS-MEASRMNT, MAT, SFTY	232
TRANSPORTATION, DISTRIBUTION & LOGISTICS (~424 IBCs)	ASE AUTO SRVC TECHNOLOGY ENTRY LEVEL	<10
	ASE AUTO TRANSMISSION	<10
	ASE AUTOMOBILE SERVICE TECHNOLOGY	10
	ASE BRAKES	47
	ASE ELECTRICAL/ELECTRON SYS ENTR LVL	15
	ASE ENGINE PERFORMANCE ENTRY LEVEL	<10
	ASE ENGINE REPAIR	48
	ASE ENGINE REPAIR ENTRY LEVEL	20
	ASE HEAT, VENT, AC (HVAC) ENTRY LVL	<10
	ASE HEATING, VENTILATION, AC (HVAC)	<10
	ASE MAINT LIGHT REPAIR ENTRY LEVEL	<10
	ASE MAINTENANCE LIGHT REPAIR	<10
	ASE PAINTING & REFINISH ENTRY LEVEL	14
	ASE PAINTING & REFINISHING ENTRY LVL	<10
	ASE REFRIGERANT RECOVERY & RECYCLING	179
	ASE SUSPENSION & STEERING ENTRY LVL	<10
	ASE SUSPENSION AND STEERING	<10
	ASE TRUCK TECHNICIAN BRAKES	<10
	ASE TRUCK TECHNICIAN DIESEL ENGINES	11
	FAA PART 107 REMOTE DRONE PILOT	25

In addition to ensuring that more students graduate high school more ready for the workforce, IBCs also help students in determining the kind of post-secondary training or major they would

like to pursue after high school. Publicly available data indicates there is some correlation between these two levels of training and education among South Texas students. The THECB's Texas Public Higher Education Almanac provides summary data on the categories of undergraduate degrees awarded by the state's four-year universities. Table 6, below, compares the top five-degree categories awarded statewide, the top five degree categories awarded by the South Texas region's two four-year universities, and the IBCs earned by the region's students organized by TEA Career Cluster areas. The result is that there is strong alignment between the three of largest categories of industry-based certifications being earned by students in the Region One ESC service area and the kinds of majors pursued by students at the region's four-year universities, specifically *Business, Marketing & Finance* (~7,985 IBCs), *Law & Public Service* (~2,271 IBCs), and *Health Science* (~1,408 IBCs). The next two highest categories of industry-based certifications (*Manufacturing* at ~1,144 IBCs, and *Architecture & Construction* at ~946 IBCs) also correlate with Engineering, which is among the state's top five-degree categories. (Note that the TPHEA does not report degrees awarded by category for the state's two-year colleges.)

Table 6 Comparison of Top Five Degree Categories Statewide and at South Texas Universities and Top Five IBC Categories by Career Cluster at Region One ESC High Schools			
All Texas Universities	UTRGV	TAMIU	Region One ESC Service Area
Business, Management, Marketing and Related Support Services (20,620 degrees)	Business, Management, Marketing and Related Support Services (604 degrees)	Business, Management, Marketing and Related Support Services (229 degrees)	Business, Marketing & Finance (~7,985 IBCs)
Health Professions and Related Programs (11,559 degrees)	Biological and Biomedical Sciences (601 degrees)	Homeland Security, Law Enforcement, Firefighting, & Related Protective Services (158 degrees)	Law & Public Service (~2,271 IBCs)
Multi/Interdisciplinary Studies (11,159 degrees)	Homeland Security, Law Enforcement, Firefighting, & Related Protective Services (464 degrees)	Multi/Interdisciplinary Studies (144 degrees)	Health Science (~1,408 IBCs)
Engineering (9,195 degrees)	Health Professions and Related Programs (446 degrees)	Biological and Biomedical Sciences (89 degrees)	Manufacturing (~1,144 IBCs)
Biological and Biomedical Sciences (7,073 degrees)	Psychology (361 degrees)	Psychology (71 degrees)	Architecture & Construction (~946 IBCs)
<i>Note: University degrees awarded are for FY2019; IBCs earned are for 2019-2020 school year.</i>			

Other Ways Graduates Can Demonstrate Career Readiness

- **Completed IEP and workforce readiness.** This indicator measures the number of students who graduate with a graduation type code of 04, 05, 54, or 55, which apply to students receiving special education services. The code indicates that the “student has completed his/her IEP [Individualized Educational Plan] and has either demonstrated self-employment with self-help skills to maintain employment or has demonstrated mastery of specific employability and self-help skills that do not require public school services” (TEA Accountability Manual, 2020). The TEA CCMR Accountability report for the Region One ESC service area reflects that 1,133 students graduated under this plan over the last three years. (TEA Accountability Rating System, CCMR for Region One ESC, 2018-2020).
- **Special education students with advanced degree plans.** This indicator measures the number of students who are identified as special education students and graduate under an advanced degree plan. A total of 1,649 students in Region One were reported to have graduated under this plan over the last three years (TEA Accountability Rating System, CCMR for Region One ESC, 2018-2020).
- **U.S. Armed Forces.** This indicator measures the number of students who enlist in the Armed Forces. This includes graduates enlisting in the U.S. Army, Navy, Air Force, Coast Guard, or Marines. Approximately 4,850 students in Region One were reported to have enlisted in the United States Armed Forces in the last three years (TEA Accountability Rating System, CCMR for Region One ESC, 2018-2020).

Conclusion

In summary, the majority of students in the Region One ESC service area live and work in the region after high school graduation, and many of these students enter the workforce early to contribute to family support. As educators and employers, it is important to strive to meet the requirements of the *60x30TX* initiative by aligning the programs of study offered at our public schools and postsecondary institutions to the demands of the labor market so that our region's students will be just as qualified to compete in the global market at higher levels as those in other societies.

Section 2

Education in South Texas Post-Secondary Institutions

60x30TX is Texas’ strategic plan to get 60% of our population ages 25 to 34 to complete certificates or degrees by the year 2030 so that we can compete globally in the workforce at the highest levels. The goal is for a minimum of 550,000 Texans to complete a certificate, or an associate, bachelor’s, or master’s degree from a higher education institution. As of 2018, approximately 44% of Texans in this age group had a postsecondary degree or certificate (THECB, *60x30TX* Plan, 2021). (See Figure 2.) The THECB’s 2020 Texas Public Higher Education Almanac reports that other societies in the world are at or near 60% in this age group. The *60x30TX* goal is vitally important especially for the South Texas border region, which lags both the state and the nation in overall educational attainment rates, as US Census data demonstrates. (See Table 7.)

Figure 2
**Educated Texas Population
Ages 25-34**

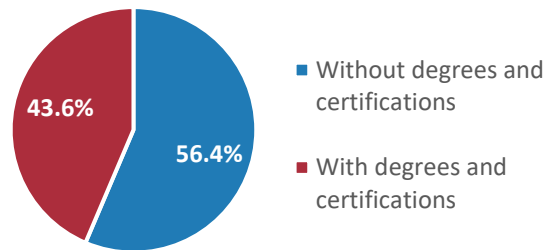


Table 7 Educational Attainment Age 25+					
Region	Less than High School	High School Diploma	Some College, No Degree	Associate Degree	Bachelor’s Degree or Higher
South Texas	33.9%	24.9%	17.6%	5.7%	17.8%
Texas	16.3%	25.0%	21.6%	7.2%	29.9%
U.S.	12.0%	27.0%	20.4%	8.5%	32.1%

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates. South Texas includes Cameron, Hidalgo, Starr, Willacy, Zapata, Webb, Jim Hogg Counties.

The South Texas Border Region is served by two public universities, three community colleges, and one technical college. Other public institutions of higher education conduct satellite operations in the region, including Texas A&M Health Science Center and UT Health Houston both, which both offer public health master's programs, Texas A&M University which now operates a teaching site in McAllen, and several universities that offer programs at the University Center at Texas State Technical College in Harlingen, and the number of satellite programs offered by private institutions is also growing. Several for-profit institutions also offer programs in the region; however, information about these is not included in this report. The following public institutions of higher education have working relationships with RGV LEAD.

University enrollment and degree award data are from the 2020 Texas Public Higher Education Almanac, while university licensure data are from the Texas Higher Education Accountability System (<http://www.txhigheredaccountability.org/AcctPublic/>). Licensure data for two-year institutions are taken from the Texas Higher Education Data Annual Licensure Reports (<http://www.txhighereddata.org/reports/performance/ctclbb/licensure.cfm>).

Laredo College

Laredo College (LC) is a public two-year institution of higher education created in 1947. The college has two campuses (Fort McIntosh Campus and South Campus), and both campuses serve students from Jim Hogg, Webb, and Zapata counties. Laredo College is accredited by the Southern Association of Colleges and Schools. They are commissioned to award associate and baccalaureate degrees as well as certificates. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 10,165. The majority of the students (68.6%) attend part-time and 31.4% attend full-time. The report shows that 82.6% of the students are enrolled in academic programs while 17.4% are enrolled in technical programs. The table below indicates that a high number of students passing certification exams in 2018 were in the Health Sciences.

Table 8 Laredo College 2018 Licensure Report		
Licensure	Students Passing Certification Exam	% of Students Receiving Licensure
Nursing Assistant Aide/Patient Care Aide	63	75%
Registered Nursing/Registered Nurse	44	100%
Clinical/Medical Laboratory Technician	38	95%
Criminal Justice/Police Science	32	100%
Criminal Justice/Safety Studies	27	100%
Licensed Practical/Vocational Nurse Training	22	100%
Physical Therapy Technician Assistant	13	100%
Occupational Therapy Assistant	10	100%
Medical Clinical Assistant	8	89%
Radiologic Technology/Science-Radiographer	8	89%
Emergency Medical Technology/Technician (EMT Paramedic)	2	40%

South Texas College

South Texas College (STC) is a community college with three campuses in McAllen, one campus in Weslaco, and a campus in Rio Grande City. It was founded in 1993 and is accredited by the Southern Association of Colleges and Schools. STC offers over 100 program options leading to

certificates, and associate bachelor's degrees. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 32,478. The majority of the students (70%) attend part-time and 30% attend full-time. The report shows that 73% of the students are enrolled in academic programs while 27% are enrolled in technical programs. The table below presents the number of students passing certification exams in 2018. Based on the information provided, it is evident that the top three licensure areas are in Nursing.

Licensure	Students Passing Certification Exam	% of Students Receiving Licensure
Registered Nursing/Registered Nurse	200	95%
Licensed Practical/Vocational Nurse Training	151	96%
Nursing Assistant Aide/Patient Care Aide	94	100%
Criminal Justice/Police Science	38	100%
Respiratory Care Therapy/Therapist	23	100%
Occupational Therapy Assistant	18	100%
Emergency Medical Technology/Technician (EMT Paramedic)	16	73%
Radiologic Technology/Science-Radiographer	15	100%
Physical Therapy Technician Assistant	13	100%
Fire Science/Firefighting	8	35%
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	4	100%

Texas State Technical College-Harlingen Campus

Texas State Technical College (TSTC) - Harlingen Campus is part of the Texas State Technical College System. It was founded in 1967 and is accredited by the Southern Association of Colleges and Schools. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 4,297. The majority of the students (68.5%) attend part-time and 31.5% attend full-time. The report shows that 48.2% of the students are enrolled in academic programs while 51.8% are enrolled in technical programs. TSTC provides technical education programs leading to certificates (Level 1 and Level 2), and associate degrees. The table below presents the number of students passing certification exams in 2018. Based on the information provided, it is evident that the top three licensure areas are in Nursing and Dental Assisting.

Licensure	Students Passing Certification Exam	% of Students Receiving Licensure
Licensed Practical/Vocational Nurse Training	32	97%
Registered Nursing/Registered Nurse	27	100%
Dental Assisting/Assistant	26	100%
Dental Hygiene/Hygienist	25	100%
Office Management and Supervision	25	81%
Surgical Technology/Technologist	18	90%
Business Administration and Management	14	78%
Health Information/Medical Records Technology/Technician	5	83%

Texas Southmost College

Texas Southmost College (TSC) is located in Brownsville and is a community college with its main campus in Brownsville plus satellite campuses in other locations. It is accredited by the Southern Association of Colleges and Schools. TSC's program offerings include certificate programs and a variety of associate degree programs. It was founded in 1926. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 8,628. The majority of the students (77.6%) attend part-time and 22.4% attend full-time. The report shows that 91.9% of the students are enrolled in academic programs while 8.1% are enrolled in technical programs. The table below indicates that students pass certification exams in varied areas, with the highest concentration in Computer and Information Sciences.

Licensure	Students Passing Certification Exam	% of Students Receiving Licensure
Computer and Information Sciences	73	82%
Building/Property Maintenance	22	92%
Licensed Practical/Vocational Nurse Training	22	76%
Automobile/Automotive Mechanics Technology/Technician	12	100%
Heating, Air Conditioning, Ventilation, and Refrigeration Maintenance Technology/Technician	10	91%
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	8	100%

Respiratory Care Therapy/Therapist	8	67%
Radiologic Technology/Science-Radiographer	7	100%
Emergency Medical Technology/Technician (EMT Paramedic)	5	45%
Clinical/Medical Laboratory Technician	4	80%

Texas A&M International University

Texas A&M International University (TAMIU) is a member of the Texas A&M University System. It is accredited by the Southern Association of Colleges and Schools. TAMIU's business programs are also accredited by the Association to Advance Collegiate Schools of Business (AACSB) International, and multiple other programs are accredited by appropriate accreditation organizations. TAMIU offers a range of baccalaureate and master's programs, and a doctoral degree in international business administration. The tables below provide information about the university's degrees and certificates awarded to students and the top five majors. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 7,220.

Table 12 shows that a total of 1,688 degrees were awarded in 2020. The percent change from the first year (2018) to the last year (2020) is 16%. Table 13 also shows a high nursing certification rate at TAMIU.

Table 12 THECB Accountability Report for TAMIU Degrees Awarded				
	2018	2019	2020	% Change
Bachelor's	1,200	1,207	1,279	6.6%
Master's	254	314	407	60.2%
Doctoral Research Scholarship	1	9	2	100%
Total	1,455	1,530	1,688	16.0%

Table 13 THECB Accountability Report for TAMIU Certification and Licensure Pass Rates				
	2018	2019	2020	% Change
Nursing	93.00%	95.00%	97.06%	4.1%

According to the 2020 Texas Public Higher Education Almanac, the top five college majors chosen by students enrolled at TAMIU are somewhat different from those chosen by students enrolled in universities statewide (Table 14). The most popular majors both statewide and at

TAMIU are: (1) Business, Management, Marketing and Related Support Services; (2), Multi/Interdisciplinary Studies; and (3), Biological and Biomedical Sciences. The two major differences between TAMIU and the state are that Psychology and Homeland Security, Law Enforcement, Firefighting, & Related Protective Services are among the top five at TAMIU but not statewide; Engineering and Health Professions are among the top five statewide but not at TAMIU.

Table 14 Top Five Majors for Students Enrolled in TAMIU and Statewide	
Statewide	TAMIU
Business, Management, Marketing and Related Support Services (20,620)	Business, Management, Marketing and Related Support Services (229)
Health Professions and Related Programs (11,559)	Biological and Biomedical Sciences (89)
Multi/Interdisciplinary Studies (11,159)	Homeland Security, Law Enforcement, Firefighting, & Related Protective Services (158)
Engineering (9,195)	Multi/Interdisciplinary Studies (144)
Biological and Biomedical Sciences (7,073)	Psychology (71)

The University of Texas Rio Grande Valley

The University of Texas Rio Grande Valley (UTRGV) is a new university created by the University of Texas System. UTRGV was founded in 2015. When the UT System created UTRGV, the two UT campuses that operated separately in the Valley (the University of Texas-Pan American and the University of Texas at Brownsville) were consolidated into the one new university. The Texas Public Higher Education Almanac (2020) reports a total 2019 enrollment of 28,909.

UTRGV offers baccalaureate, master's, and doctoral degrees in a variety of disciplines, in addition to having the UTRGV School of Medicine that opened in 2016. The tables below provide information about the university's degrees awarded to and certificates earned by students and the top five majors.

Table 15 shows that a total of 5,831 degrees were awarded in 2020, representing a 9.8% percent change from 2018 to 2020. Table 16 shows that a high number of students earned a certification in Nursing and Engineering.

Table 15 THECB Accountability Report for UTRGV Degrees Awarded				
	2018	2019	2020	% Change
Bachelor's	4,092	4,550	4,360	6.5%
Master's	1,189	1,206	1,442	21.3%
Doctoral Research Scholarship	29	32	29	0%
Total	5,310	5,788	5,831	9.8%

Table 16 THECB Accountability Report for UTRGV Certification and Licensure Pass Rates				
	2018	2019	2020	% Change
Nursing	92.65%	92.5%	93%	.4%
Engineering	45.0%	44.20%	44.20%	-0.8%

According to the 2020 Texas Public Higher Education Almanac the top five college majors chosen by students enrolled at UTRGV are not very different from those chosen by students enrolled in universities statewide (Table 17). The most popular majors both statewide and at UTRGV are: (1) Business, Management, Marketing and Related Support Services; (2) Health Professions and Related Programs; and, (3) Biological and Biomedical Sciences. The two major differences between UTRGV and the state are that Psychology, and Homeland Security, Law Enforcement, Firefighting, & Related Protective Services are among the top five at UTRGV but not statewide, and that Engineering and Multi/Interdisciplinary Studies are among the top five statewide but not at UTRGV.

Table 17 Top Five Majors for Students Enrolled at UTRGV and Statewide	
Statewide	UTRGV
Business, Management, Marketing and Related Support Services (20,620)	Business, Management, Marketing and Related Support Services (604)
Health Professions and Related Programs (11,559)	Biological and Biomedical Sciences (601)
Multi/Interdisciplinary Studies (11,159)	Homeland Security, Law Enforcement, Firefighting, & Related Protective Services (464)
Engineering (9,195)	Health Professions and Related Programs (446)
Biological and Biomedical Sciences (7,073)	Psychology (361)

The South Texas Border Region has tremendous potential due to its advantageous location, but lags behind both the state and nation in educational attainment. RGV LEAD and its partners are working diligently to increase the number of young people who graduate from high school and go on to acquire the postsecondary credentials that are needed to compete in the global economy and ultimately meet the state's *60x30TX* goal.

Section 3

RGV LEAD Targeted Occupations

Section 3, Targeted Occupations, includes a list of RGV LEAD's Targeted Occupations, organized by Career Clusters.

Section 3 is designed to answer the following questions:

- *Which occupations are in demand in the South Texas region?*
- *What level of compensation (pay) can I expect in those occupations?*
- *What type of secondary and postsecondary preparation do I need to qualify for these occupations?*
- *How long will this preparation take?*
- *Where can I go to get the education and training necessary to qualify for these occupations?*

Section 3 describes the methodology utilized to arrive at RGV LEAD's list of South Texas targeted occupations. RGV LEAD's Targeted Occupations have been identified based on data available from state and national sources, then modified with input of regional leaders from chambers of commerce, economic development organizations, and other organizations. The result is a unique listing of occupations that blends information from state agencies and other sources with input of local community leaders.

The information in the Targeted Occupations tables in this section are arranged according to 14 career clusters. Career clusters and related pathways and programs of study align well with the Foundation High School program and endorsements offered in Texas public schools. These programs also support the Texas Higher Education Coordinating Board's 60x30TX Higher Education Strategic Plan, for which the overarching goal is that at least 60% of Texas ages will have a certificate or degree by 2030. (For additional information, visit www.60x30TX.com.)

RGV LEAD's goal for this Labor Market Information Report is to provide a useful, relevant document filled with information that (1) students can use when selecting specific career paths and (2) educators can use for planning curriculum and for advising students and their families.

Targeted Occupations

The Occupational Outlook Handbook (2021), published by the U.S. Department of Labor, defines "occupation" as:

A craft, trade, profession, or other means of earning a living. Also, a set of activities or tasks that employees are paid to perform and that, together, go by a certain name. Employees who are in the same occupation perform essentially the same tasks, whether or not they work in the same industry (glossary).

As indicated in the above definition, occupations are not necessarily tied to particular industries. There are some occupations that can be almost exclusive to a particular industry,

such as physicians and surgeons in the Health Services and Social Assistance industry sector, but most occupations consist of tasks that are transferable to many, if not all, industries.

RGV LEAD's Targeted Occupations Selection Process

Section 3 of this report lists the South Texas region's well-paying, in-demand occupations (RGV LEAD's Targeted Occupations), the educational requirements to enter those occupations, and the post-secondary programs available in public post-secondary institutions that would help students to prepare for those occupations.

There is a difference between a targeted occupation and a demand occupation. If there is a need, or demand, for a lot of workers in a certain occupation, then that occupation is considered a demand occupation. However, just being "in demand" is not enough for an occupation to be targeted. Targeted occupations are those that are in demand, are well-paying, and also meet other RGV LEAD selection criteria, described below.

RGV LEAD's Targeted Occupations Selection Criteria

RGV LEAD discussed the selection criteria for its targeted occupations list with a group of regional leaders who gathered for pre-publication discussions in June 2021. These leaders discussed the (1) changing economic landscape in the South Texas region, (2) jobs that economic development organizations are working to bring to the region, and (3) selection criteria RGV LEAD has utilized in earlier reports. The group also discussed recommended revisions to the selection criteria that would provide accurate, useful information about jobs that currently exist in this region and those that are being developed as "emerging occupations." The resulting selection criteria are those that would identify jobs that students could find near their homes and earn enough money to help their families live above the poverty level.

As a result of these discussions with community leaders, RGV LEAD has modified its selection criteria. The selection criteria used to identify RGV LEAD's Targeted Occupations for 2021 are as follows:

- *The occupations must be **entry-level** positions (only high school graduation or postsecondary education or training or on-the-job training is required for entry);*
- *The occupations must provide an **entry wage** that meets one of the three combinations of criteria listed below:*
 - *\$12.50 per hour if there are more than 15 estimated annual openings, or*
 - *\$15.00 per hour with a minimum of 10 estimated annual openings, or*
 - *\$17.50 per hour with no requirement for number of estimated annual openings.*
- *The occupations must pay an **average wage** of at least \$17.50 per hour.*

The entry-level requirement is necessary because RGV LEAD works with students who are still in high school or enrolled in postsecondary educational programs; therefore, it is highly likely that many will not have prior work experience.

Stable growth refers to occupations that are projected to offer good employment opportunities now and in the future. The projections for openings used in this report were calculated by the U.S. Department of Labor based on information gathered from local employers. The number of estimated annual openings reflected in the 2021 selection criteria reflects the input of regional business and community leaders who are familiar with the local labor market.

The average wage requirement identifies occupations paying salaries that are high enough – when considering not only the starting salary but also the potential for advancement – to help provide a good quality of life for a family. Average wages for targeted occupations are based on RGV LEAD’s calculations of the minimum salary level required for a single person entering the workforce.

Targeted Occupations Primary Data Sources

It is important to remember that RGV LEAD’s list of targeted occupations is based on the existing occupations available in the South Texas region.

The primary data source for RGV LEAD’s list of targeted occupations is the long-term employment projections for the Cameron, Lower Rio, and South Texas Workforce Development Areas as defined by the Texas Workforce Commission.

The Texas Workforce Commission uses several sources for its calculations. First, TWC staff develop industry historical employment trends based on the data from Quarterly Census of Employment and Wage Report and the Current Employment Statistics Survey. Second, utilizing the Long-Term Industry Projection module, TWC staff develop industry employment projections. Next, they develop staffing patterns by industry and occupation employment projections for each occupational code and title. These factors are calculated for each Workforce Development Area and reported separately.

The educational and experience requirements published by the Texas Workforce Commission are taken from the data provided by the U.S. Bureau of Labor Statistics (BLS). The education and experience required for entry are based on the educational attainment and experience of the current workers in each occupation. The BLS takes the educational attainment data collected by the U.S. Census Bureau through its American Community Survey, data from the Occupational Information Network, and data from the National Center for Education Statistics to determine the average education and experience required for entry into each occupation.

The estimated wages are based on the wages of current workers in each of the Workforce Development Areas collected through the state’s Occupational Employment Report. This survey asks a sample of employers to list the current titles and wages for each of the workers on their payroll. This report is updated annually; therefore, the wages reported in RGV LEAD’s Targeted Occupations list were obtained from the TWC’s Labor Market Information website in May of 2021 (<https://texaslmi.com/LMIbyCategory/Wages>).

- **Entry Wage:** This represents what an entry-level worker might expect to make. It is calculated based on the earnings of the lowest third of all workers in that occupation in the selected location.
- **Mean Wage:** This is the average pay earned by all workers in the selected location.
- **Experienced Wage:** This is the wage that an experienced worker might expect to make after several years of experience on the job. It is calculated based on the earnings of the upper two thirds of all workers in that occupation in the selected location.

RGV LEAD's Methodology

RGV LEAD's process for the selection of proposed targeted occupation is as follows:

- The long-term projection tables with information for the Cameron, Lower Rio and South Texas Workforce Development Areas are downloaded and combined to form one data set for the region.
- Occupations that are not entry-level because they require prior experience are deleted from the data set.
- A list of proposed Targeted Occupations organized in the career cluster format utilized by public schools is developed.
- The list is presented to a group of regional leaders for feedback before it is finalized.

In order to include as many Targeted Occupations as possible, RGV LEAD has opted to include any occupation that meets the selection criteria in at least one of the region's three Workforce Development Areas (Cameron, Lower Rio Grande, and South Texas). RGV LEAD has also opted to include a shorter list of Demand Occupations that do not meet the selection criteria for Targeted Occupations, but are currently in high demand across the region; as it turns out, many area high schools also currently offer Industry-Based Certifications and other programs of study aligned with these Demand Occupations. The Demand Occupations table is presented following the Targeted Occupations tables below.

Information Included in Targeted Occupations Tables

The Targeted Occupations tables provide a summary of RGV LEAD's Targeted Occupations List, wage ranges for targeted occupations, and opportunities to acquire education and training to prepare for those targeted occupations in the South Texas region. RGV LEAD encourages schools, colleges, and universities to offer education and training opportunities that will help prepare students to enter and succeed in one of these targeted occupations.

RGV LEAD also encourages students and their families to investigate these occupations so that they will have information about career opportunities in the South Texas region as they make decisions about students' education and career plans. The higher education institutions named in the table provided the education and training information for their institutions.

Targeted Occupations Career Cluster Information

The Targeted Occupations tables are organized according to the 14 Career Clusters used by Texas Career and Technical Education programs, with each Career Cluster comprised of two or more approved Programs of Study. The Career Cluster and Programs of Study descriptions that introduce each Targeted Occupations table are drawn from TEA's Approved CTE Programs of Study website (TEA, Approved Programs of Study, 2021). The Career Clusters and Programs of Study are designed to meet the needs of the Texas economy and also the requirements of the federal legislation known as the *Strengthening CTE for the 21st Century Act (Perkins V)*.

The relationship between the 14 Career Clusters and the Foundation High School Program currently in place in Texas Public Schools is illustrated in the crosswalk below.

Table 18 Career Clusters Alignment with Foundation High School Program Endorsement Areas	
Foundation High School Program Endorsement Area	Career Cluster
Arts & Humanities	Arts, Audio/Video Technology, & Communications
Business & Industry	Agriculture, Food, & Natural Resources
	Architecture & Construction
	Arts, Audio/Video Technology, & Communications
	Business, Marketing, & Finance
	Hospitality & Tourism
	Information Technology
	Manufacturing
	Transportation, Distribution & Logistics
Multidisciplinary Studies	Not applicable – Multidisciplinary Studies allows any combination of CTE courses for the endorsement.
Public Services	Education & Training
	Law & Public Service
	Health Science
	Human Services
Science Technology Engineering and Mathematics (STEM)	Architecture & Construction
	Energy
	Manufacturing
	Science, Technology, Engineering & Mathematics

Texas developed its 14 Career Clusters after extensive work with multiple groups. The relationship between the 14 Career Clusters utilized in the Targeted Occupations tables and the 16 Career Clusters found in Occupational Information Network (O*NET OnLine) handbook developed under the sponsorship of the U.S. Department of Labor appears in the crosswalk below:

Table 19 Texas Career Clusters Alignment with O*NET Career Clusters	
14 Texas Career Clusters	16 O*NET Career Clusters
Agriculture, Food, & Natural Resources	Agriculture, Food, & Natural Resources
Architecture & Construction	Architecture & Construction
Arts, Audio/Visual Technology, & Communications	Arts, Audio/Visual Technology, & Communications
Business, Finance, & Marketing	Business Management & Administration
	Finance
	Marketing
Education & Training	Education & Training
Energy	Science, Technology, Engineering & Mathematics (STEM)
Health Science	Health Science
Hospitality & Tourism	Hospitality & Tourism
Human Services	Human Services
Information Technology	Information Technology
Law & Public Service	Government & Public Administration
	Law, Public Safety, Corrections, & Security
Manufacturing	Manufacturing
Science, Technology, Engineering, & Mathematics (STEM)	Science, Technology, Engineering, & Mathematics (STEM)
Transportation, Distribution, & Logistics	Transportation, Distribution & Logistics

For additional information about Texas curriculum for public schools, see:

Texas' Foundation High School Program:

[https://tea.texas.gov/Academics/Graduation Information/State Graduation Requirements](https://tea.texas.gov/Academics/Graduation%20Information/State%20Graduation%20Requirements)

Texas Education Agency CTE Pathways Initiatives, and CTE Programs of Study:

[https://tea.texas.gov/Academics/College Career and Military Prep/Career and Technical Education/Career and Technical Education](https://tea.texas.gov/Academics/College%20Career%20and%20Military%20Prep/Career%20and%20Technical%20Education/Career%20and%20Technical%20Education)

Targeted Occupations Job Descriptions Information

The Targeted Occupations tables do not include job descriptions. Job descriptions for the various occupations are available at the websites listed below. Students, parents and educators are encouraged to visit these websites to explore the duties and tasks associated with each occupation as well as opportunities for advancement.

Texas Career Check: <http://www.texascareercheck.com/ExploreCareer/OccupationInfo>

Occupational Outlook Handbook: <http://www.bls.gov/ooh>

Targeted Occupations Post-Secondary Programs of Study Information

The Targeted Occupations tables also provide information about programs of study available at the region's public institutions of higher education that could help students prepare for entry into one of the Targeted Occupations. The following regional public institutions of higher education provided the programs of study information for this report.

South Texas College (STC) is a public community college and is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award Bachelor of Applied Technology, Associate of Applied Science, Associate of Arts, and Associate of Science degrees. STC has six campuses: Pecan Campus in McAllen, Technology Campus and Nursing and Allied Health campus, both also in McAllen, Mid-Valley Campus in Weslaco, Starr County Campus in Rio Grande City, and Regional Center for Public Safety located in Pharr. To learn more, visit the website at www.southtexascollege.edu.

Texas Southmost College (TSC) is a public comprehensive community college that is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificate and associate degrees. TSC offers several programs designed to lead to bachelor's degrees, as well as associate degrees and certificates that can lead to immediate workforce placement. TSC also offers career and technical education, college preparatory studies, an engineering academy, customized workforce training, continuing education and an educational program for lifelong learners. TSC's main campus is located at Historic Fort Brown in Brownsville, and includes the International Technology, Education and Commerce Center (ITECC), also located in Brownsville. TSC services the two-county area of Cameron and Willacy Counties. To learn more, visit the website at www.tsc.edu.

Texas State Technical College (TSTC) is the technical college of Texas. TSTC's statewide role and mission is to fill the skills gap and provide industry with a well-trained workforce. TSTC is accredited by the Southern Association for Colleges and Schools to offer workforce-related certificates and degrees. Serving Texas for more than 50 years, TSTC trains students in advanced and emerging technical and vocational areas like computer and information technology, avionics, engineering, transportation and more. TSTC has campuses in Abilene, Breckenridge, Brownwood, East Williamson County, Fort Bend County, Harlingen, Marshall, North Texas, Sweetwater and Waco. For more information, visit www.tstc.edu.

Laredo College (LC) is a public two-year institution of higher education created in 1947. The college has two campuses (Fort McIntosh Campus and South Campus), and both campuses serve students from Jim Hogg, Webb, and Zapata Counties. Laredo College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate and baccalaureate degrees as well as certificates. For additional information, visit www.laredo.edu.

University of Texas Rio Grande Valley (UTRGV) is a regional university that serves the entire Rio Grande Valley. UTRGV is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor's, master's and doctoral degrees. The university's Vackar College of Business & Entrepreneurship also enjoys international accreditation awarded by AACSB, a global business education network and association. UTRGV has campuses and off-campus research and teaching sites throughout the Rio Grande Valley, including in Brownsville, Edinburg, Boca Chica Beach, South Padre Island, Port Isabel, Harlingen, McAllen, and Rio Grande City. UTRGV also has a School of Medicine. To learn more, visit www.utrgv.edu.

Texas A&M International University (TAMIU) is an international university, poised at the Gateway to Mexico and serving as the cultural and intellectual hub of a vibrant multilingual and multicultural community. A Member of The Texas A&M University System, TAMIU is accredited by the Southern Association of Colleges and Schools Commission on Colleges and provides over 8,400 students with a learning environment anchored by the highest quality programs built on a solid academic foundation in the arts and sciences. To fulfill its mission, the University offers a range of baccalaureate and masters programs and the Doctor of Philosophy degree in International Business. Programs focus on developing undergraduate and graduate offerings with a progressive international agenda for global study and understanding across all disciplines. To learn more, visit www.tamtu.edu

GUIDE TO TARGETED OCCUPATIONS DATA AND INFORMATION

Wages/Salaries: Wage rates for each occupation are shown directly below the title of that occupation. All information about wages for targeted occupations is taken from records of the Texas Workforce Commission for these jobs in the South Texas region for 2020, the most recent reporting period for which information is available. (Salaries shown are regional averages and do not reflect the salary one individual might earn at a particular place of business. All wages are shown at hourly rates. The salary rates shown reflect gross earnings and do not reflect either deductions or benefits. Salary rates are given at three levels, in this order: Entry Level/Average/Experienced (for example, \$11.45/\$16.14/\$18.49). The meaning of the three rates shown is as follows:

- *Entry-Level Wages* reflect the average starting salary for someone just beginning in this occupation.
- *Average Wages* reflect the average of salaries paid to all workers, showing what someone would probably earn after working in this occupation for a few years.
- *Experienced Wages* represent the average wage someone with several years of successful experience could expect to earn in this occupation.

An entry of “N/A” means the information is not available from either the U.S. Bureau of Labor Statistics or the Texas Workforce Commission.

Estimated Annual Openings. The estimated annual openings in the tables are taken from government records and represent the average number of job openings projected to be available in each Workforce Development Area each year for the 10-year period indicated.

Education/Training Needed. The Targeted Occupations List uses these abbreviations to show education and training requirements:

- HS = A high school diploma or GED is the minimum education required to enter this occupation.
- OJT = Some on-the-job training would be required. For the occupations that require on-the-job training, students would usually be hired as trainees and would have to successfully complete on-the-job training for the job to become permanent.
- INT = Internship or residency is required after getting a degree.
- APP = A registered apprenticeship program is available for this occupation.
- 1 yr. = A postsecondary certificate is required to get this job; the length of certificates varies, ranging from a few weeks to one year (or more).
- 2 yr. = An Associate or Associate of Applied Science degree is required to get a job in this occupation.
- 4 yr. = A Bachelor’s degree is required to get a job in this occupation.
- 5+ yrs. = A Master’s degree is required to get a job in this occupation.
- PROF = 3 or more years beyond a Bachelor’s degree is required for employment in this occupation.
- LIC/CERT = Not only education, but also a license or a state- or industry-recognized certification is required to enter this occupation.

Higher Education Institutions. The institutions shown below, each of which has provided the information included in the Targeted Occupations tables, are public institutions of higher education in the region.

LC = Laredo College

STC = South Texas College

TSC = Texas Southmost College

TSTC = Texas State Technical College

TAMIU = Texas A&M International University

UTRGV = The University of Texas Rio Grande Valley

Abbreviations used in the tables include CER (Certificate) and CE (Continuing Education). A Level I certificate is awarded for a program consisting of at least 15 and no more than 42 semester credit hours. A Level II certificate is awarded for completing a program of at least 30 but not more than 51 semester credit hours. A brief explanation of the types of certificates awarded by Texas institutions of higher education is available at this link:

<https://reportcenter.highered.texas.gov/reports/data/understanding-credentials-in-texas-certificates-certifications/>

RGV LEAD Targeted Occupations

Agriculture, Food, and Natural Resources

The Agriculture, Food, and Natural Resources (AFNR) program of study teaches students how to apply biology and life science to real-world life processes of animals and wildlife. It includes a diverse spectrum of occupations, including traditional occupations like rancher and farmer, and others like agricultural inspectors, biological technicians, food scientists and technologists, and soil and plant scientists. The AFNR Career Cluster includes six programs of study: Agribusiness, Animal Science, Applied Agricultural Engineering, Environmental & Natural Resources, Food Science & Technology, and Plant Science (TEA, CTE, Animal Science, 2020).

- The Agribusiness program of study is associated with occupations related to farming and agriculture. This program of study teaches students how to explore the marketing of farm products whether it is selling, reselling, or classifying agriculture products. The median salary for farmers, ranchers, and other agriculture managers is approximately \$59,000.
- The Animal Science program of study “focuses on the science, research, and business of animals.” Students who choose this field can work with animals in a veterinary setting or outdoors caring for animals. Occupations related to the field include animal breeders, animal scientist, medical scientist, veterinarians and zoologists. An animal breeder can earn approximately \$40,000 annually; whereas, a veterinarian’s median salary is approximately \$93,000.
- The Applied Agricultural Engineering program of study teaches students how to diagnose, repair or overhaul farm machinery such as tractors, harvesters, dairy equipment, and irrigation systems. Welding knowledge is an essential skill. The median salary ranges from \$32,000 to \$47,000, depending on the occupation.
- The Environmental & Natural Resources program of study focuses on the prevention and control of environmental hazards. Students gain knowledge on how to identify and eliminate sources of pollutants that affect the environment or the health of the population. Environmental and Natural Resources occupations span from power equipment with small engine mechanics to farm equipment mechanics to welders. Environmental technicians earn approximately \$40,000; biologists earn approximately \$67,000; and environmental engineers earn approximately \$87,000.
- The Food Science & Technology program of study focuses on the science of food for animals. This occupation calls for agriculture and food scientists to work with animal breeding and nutrition. The scientists conduct experiments to test, improve, and produce quality crops to decrease the chances of disease or insect infestation in plants

and animals. The median salary ranges from \$35,000 to \$62,000, depending on the occupation.

- The Plant Science program of study focuses on the study of plants and other living organisms. Students learn how “to apply biology and life science to real-world life processes of plants and vegetation, either in the laboratories or in the field.” Plant Science occupations consist of tree trimmers, pesticide handlers, biological technicians, landscaping supervisors, and soil/plant scientists. Tree trimmers earn approximately \$32,000 annually; a pesticide handler’s approximate median salary is \$37,000, and a landscaping supervisor earns approximately \$45,000.

Table 20

Agriculture, Food & Natural Resources

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Agricultural Inspectors	N/A	Texas	18.52	27.85	32.52	4 yr. + Moderate OJT	
Biological Technicians	>11	Cameron	13.99	18.98	21.47	4 yr.	
		Lower Rio Grande	14.27	18.09	20.00		
		South Texas	N/A	N/A	N/A		
Food Scientists and Technologists	N/A	Texas	22.58	35.60	42.11	4 yr.	TAMIU: BS Biology; BS Chemistry. UTRGV: BS Sustainable Agriculture & Food Systems (Concentrations in Agriculture & Ecology, Business & Policy, Food & Health, Agriculture & Society).
Soil and Plant Scientists	N/A	Texas	13.68	30.76	39.30	4 yr.	TAMIU: BS Biology. UTRGV: BS Sustainable Agriculture & Food Systems (Concentrations in Agriculture & Ecology, Business & Policy, Food & Health, Agriculture & Society).

Architecture and Construction

The Architecture and Construction program of study teaches students how to develop, engineer, and design building structures. “It focuses on designing, planning, managing, building, and maintaining the built environment” (TEA, CTE, Architecture & Construction, 2020). The Architecture and Construction Career Cluster includes five programs of study: Architectural Design, Carpentry, Construction Management and Inspection, Electrical, HVAC and Sheet Metal, Masonry, and Plumbing and Pipefitting.

- The Architectural Design program of study involves skills such as interpreting geographic information, preparing maps, and interior designing. Architectural Design occupations range from Architectural Civil Drafter to Geographic Analyst/Surveyor to Architect to Construction Managers. The median annual salary for drafters is approximately \$50,000 while the median salary for construction managers is \$93,000 (TEA, CTE, AC, 2021).
- The Carpentry program of study involves skills related to constructing, installing, or repairing structures made of wood. Other examples include dismantling or moving heavy equipment according to the layout plans or blueprints. Carpenters’ median salary is approximately \$36,000.
- Construction Management and Inspection program of study explore opportunities associated with cost estimates for construction projects. Understanding structural soundness and compliances with building codes and other regulations is essential to this field. Cost Estimator’s median salary is \$70,000.
- The Electrical program of study focuses on installing, maintaining, and repairing electrical wire, equipment, fixtures, fiber optics, etc. Electrical occupations range from linemen to installers to repairers. They work with electricity, electronics, security and fire alarms, and telecommunication lines. The median salary for Electrical occupations range between \$38,000 and \$54,000.
- The HVAC and Sheet Metal program of study explores the occupations associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal. The median salary for Heating, Air Conditioning, and Refrigeration Mechanics is \$41,800, for Sheet Metal Workers it is \$37,400, and for Cost Estimators it is \$63,900.
- The Masonry program of study involves skills related to laying bricks, tile, concrete block and other types of mortar to construct walls and other structures. The approximate median annual salary for cement masons is \$33,000 and brick masons is \$44,000.

- The Plumbing and Pipefitting program of study explores occupations related to assembling, installing, or repairing pipes, fittings, or fixtures of heating, water, or drainage systems. This program of study may also include exploration into maintaining pipe supports or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems. The median salary for Mechanics, Installers, and Repairers is \$63,700, for Plumbers, Pipefitters and Steamfitters it is \$44,900, and for Pipe Installers it is \$31,600.

Table 21
Architecture & Construction

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Architects, Except Landscape and Naval	>7	Cameron	N/A	N/A	N/A	4 yr. + INT	STC: AAS Specialization Architectural/Civil Technology (can transfer to bachelor's). TSC: AS Architecture. UTRGV: 4-year bachelor's degree programs in multiple engineering fields that could lead toward advanced education in Architecture.
		Lower Rio Grande	24.82	55.18	70.36		
		South Texas	N/A	N/A	N/A		
Architectural and Civil Drafters	29	Cameron	11.35	18.29	21.76	2 yr.	LC: AAS Computer Aided Drafting & Design Technology; CAD Draftsman Certificate. STC: AAS Specialization Architectural/Civil Technology. TSC: AAS Computer-Aided Drafting Technology. TSTC: AAS Architectural/Civil Drafting Technology; AAS Architectural Design & Engineering Graphics Technology; AAS Engineering Graphics & Design Technology; OSA Basic Architectural-Mechanical Drafting; OSA Basic Computer Aided Drafting.
		Lower Rio Grande	14.05	21.95	25.90		
		South Texas	16.04	23.25	26.86		
Carpenters	116	Cameron	11.66	15.50	17.41	HS + APP	STC: Certificate & AAS Construction Supervision. TSC: Level One Certificate Construction Technology. TSTC: AAS Building Construction Technology; Certificate I Building Construction – Craftsman.
		Lower Rio Grande	12.91	16.98	19.01		
		South Texas	11.93	18.01	21.05		
Civil Engineering Technologists and Technicians	>27	Cameron	14.22	17.25	18.77	2 yr.	STC: AS Engineering; AAS Specialization Civil Engineering Technology.
		Lower Rio Grande	17.11	21.53	23.74		
		South Texas	17.04	21.50	23.73		

Table 21 (Continued)
Architecture & Construction

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Civil Engineers	39	Cameron	24.02	33.43	38.14	4 yr.	STC: AS Engineering (can transfer to bachelor's).
		Lower Rio Grande	23.92	40.73	49.14		TAMIU: BS Systems Engineering; BS Petroleum Engineering.
		South Texas	24.66	37.09	43.31		UTRGV: BS Civil Engineering.
Construction Managers	54	Cameron	14.35	30.10	37.97	4 yr. + Moderate OJT	STC: AAS Construction Supervision (can transfer to bachelor's).
		Lower Rio Grande	26.34	45.49	55.06		TSC: AAS Construction Management.
		South Texas	24.30	42.29	51.29		TSTC: AAS Building Construction Technology.
Cost Estimators	>17	Cameron	16.96	30.18	36.79	4 yr. + Moderate OJT	UTRGV: Bachelor's degrees in multiple engineering fields that could lead toward careers in this field, but not a degree directly related to this occupation.
		Lower Rio Grande	16.06	26.33	31.46		STC: AAS Construction Supervision.
		South Texas	19.11	31.05	37.02		TSTC: AAS Building Construction Technology.
Electrical Power-Line Installers and Repairers	>27	Cameron	19.61	27.98	32.16	HS + Long-term OJT	TAMIU: BS Systems Engineering; BS Petroleum Engineering.
		Lower Rio Grande	22.82	32.33	37.08		TSC: AAS Construction Management.
		South Texas	20.37	29.72	34.39		UTRGV: BS Civil Engineering; BS Engineering Technology; BSCE Computer Engineering; BSMFGE Manufacturing Engineering; BSME Mechanical Engineering; BSEE Electrical Engineering.
							TSTC: AAS & Certificate Electrical Lineworker Technology.

Table 21 (Continued)
Architecture & Construction

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Electricians	138	Cameron	13.80	19.69	22.64	HS + APP	LC: Electrical Technology—Certificate Electrician Helper; Certificate Journeyman Electrician Assistant. STC: Certificate Electrician Assistant; AAS Electrician Technology. TSC: Level One Certificate Residential Electrician; AAS Commercial & Residential Electrician; 160-hour Electrician CE program.
		Lower Rio Grande	11.30	18.65	22.32		
		South Texas	14.96	22.59	26.41		
HVAC Mechanics and Installers	102	Cameron	12.57	16.74	18.82	1 yr. + Long-term OJT	LC: Certificate Air Conditioning & Refrigeration – Commercial & Residential; HVACR Assistant. STC: AAS HVAC. TSC: AAS HVAC; Level 1 Certificate HVAC. TSTC: AAS HVAC Technology, Level 1 Certificate HVAC Technician.
		Lower Rio Grande	14.86	19.46	21.76		
		South Texas	11.02	17.05	20.06		
Roofers	>11	Cameron	14.13	19.25	21.80	None + Moderate OJT	
		Lower Rio Grande	12.64	17.99	20.66		
		South Texas	N/A	N/A	N/A		

Arts, Audio/Video Technology, and Communications

The Arts, Audio/Visual Technology and Communications (AAVTC) Career Cluster includes two programs of study: Design and Multimedia, and Digital Communications. Careers associated with the AAVTC Career Cluster require skills in “designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services” (TEA, CTE, AAVTC, 2020).

- The Design and Multimedia Arts program of study is associated with a multitude of occupations related to designing or creating graphics for commercial or promotional purposes. Computers, other electronic tools and media skills are needed to create special effects for use in computer games, movies, music videos, and commercials. The median annual salary for Graphic Designers is approximately \$44,821 and the median salary for Multimedia Artists and Animators is approximately \$67,000.
- The Digital Communications program of study explores opportunities associated with the production of audio and video media formats such as TV broadcasts, advertising, video productions, or motion productions. Students who choose careers related to Digital Communication programs of study are expected to operate microphones, sound speakers, video screens, and other related electronic equipment. The median salary for Sound Engineering Technician is \$39,562; Camera, Television, Video and Motion Picture Operators’ median salary is approximately \$50,024; Audio & Equipment Technicians’ median salary is approximately \$40,581 and Film & Video Editors is \$47,382.

Table 22
Arts, Audio/Video Technology, & Communications

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Graphic Designers	48	Cameron	10.61	16.84	19.96	4 yr.	LC: AAS Computer Aided Drafting & Design Technology; CAD Draftsman Certificate. STC: AA Graphic Arts; AAS Specialization Architectural & Visual Technology. TSTC: AAS Digital Media Design. UTRGV: BFA Graphic Design
		Lower Rio Grande	11.87	18.07	21.16		
		South Texas	14.09	20.23	23.30		
Public Relations Specialists	107	Cameron	12.45	23.63	29.22	4 yr.	STC: AA Advertising/Public Relations (can transfer to bachelor’s). TAMIU: BA Communication; BA Communication & Spanish; BA Communication Concentration in Digital & Strategic Communication (RELLIS). UTRGV: BA Marketing; BA Communication Studies; BA Mass Communication.
		Lower Rio Grande	15.05	23.52	27.76		
		South Texas	14.85	25.06	30.16		

Table 22 (Continued)
Arts, Audio/Video Technology, & Communications

Occupation Title	Annual	Workforce	Hourly Wage			Education /	South Texas
	Openings	Area	Entry	Mean	Experienced	Training	Program
Telecommunications Equipment Installers and Repairers	110	Cameron	19.99	26.68	30.02	1 yr. + Moderate OJT	
		Lower Rio Grande	12.42	20.59	24.67		
		South Texas	11.84	18.10	21.23		
Telecommunications Line Installers and Repairers	>128	Cameron	17.92	27.47	32.24	HS + Long- term OJT	
		Lower Rio Grande	11.70	24.69	31.19		
		South Texas	18.01	22.82	25.22		

Business, Marketing, and Finance

The Business, Marketing and Finance (BMF) Career Cluster includes four programs of study: Accounting and Financial Services, Business Management, Entrepreneurship, and Marketing and Sales. Careers associated with the BMF Career Cluster require skills in “planning, organizing, directing, and evaluating business functions” (TEA, CTE, BMF, 2020).

- The Accounting and Financial Services program of study is associated with a multitude of occupations related to preparing financial statements, interpreting accounting records, and conducting audits. Accountants & Auditors earn approximately \$71,469 annually; Loan Officers earn \$68,598; Personal Financial Advisors earn \$86,965; and Administrative Services Managers earn \$96,138.
- The Business Management program of study teaches students how to plan, manage, and coordinate the administrative tasks associated with the operation of an organization. Management Analysts’ median salary is approximately \$87,651; General & Operation Managers is \$107,640; Operations Research Analysts is \$78,083; Administrative Support Supervisors is \$57,616; and Administrative Service Managers is \$96,138.
- The Entrepreneurship program of study helps students explore opportunities associated with the management and operation of public or private sector organizations. General & Operations Managers earn approximately \$107,640 a year; Management Analysts earn \$87,651; and Managers earn \$113,110.
- The Marketing and Sales program of study teaches students the skills of marketing and distributing goods. Marketing Research Analysts earn approximately \$70,346; Insurance Sales Agent earn \$43,181; and Retail Sales Supervisors earn \$72,550 annually.

Table 23
Business, Marketing & Finance

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Accountants and Auditors	305	Cameron	18.32	30.29	36.27	4 yr.	LC: AAS & Certificate in Applied Accounting. STC: AAS Specialization Accounting (can transfer to bachelor’s). TSC: Level One Certificate Accounting Technology; AAS Accounting. TSTC: AAS Business Management Technology, CER II Business Management Technology. TAMIU: BBA-ACC Accounting; MPACC Professional Accountancy; Oil & Gas Accounting Certificate. UTRGV: BBA Accounting.
		Lower Rio Grande	20.10	30.22	35.28		
		South Texas	19.75	30.88	36.44		

Table 23 (Continued)
Business, Marketing & Finance

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Budget Analysts	N/A	Cameron	N/A	N/A	N/A	4 yr.	LC: AAS Applied Accounting. STC: AA Business Administration (can transfer to bachelor's). UTRGV: BBA Accounting.
		Lower Rio Grande	20.76	29.92	34.51		
		South Texas	18.99	25.62	28.94		
Buyers and Purchasing Agents	76	Cameron	14.61	23.47	27.90	4 yr. + Moderate OJT	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA-FIN Finance; BBA Business Administration; BAAS-BA Business. UTRGV: BBA Management; BBA Finance; BBA Accounting.
		Lower Rio Grande	15.01	24.10	28.65		
		South Texas	15.11	24.15	28.68		
Credit Analysts	>11	Cameron	N/A	N/A	N/A	4 yr.	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA Finance. UTRGV: BBA Accounting; BBA Finance; BBA Economics.
		Lower Rio Grande	21.97	33.95	39.94		
		South Texas	18.21	31.70	38.45		
Financial Analysts, Risk Specialists, and Financial Specialists	N/A	Cameron	19.27	32.68	39.31	4 yr. + Moderate OJT	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA Finance. UTRGV: BBA Finance.
		Lower Rio Grande	18.21	34.12	42.07		
		South Texas	18.12	32.89	40.28		
Human Resources Specialists	138	Cameron	14.71	24.73	29.73	4 yr.	LC: AAS & Certificate in Management. STC: AAS Human Resource Specialist (can transfer to bachelor's). TAMIU: BAAS Management; BBA Management. UTRGV: BBA Management.
		Lower Rio Grande	15.98	23.68	27.53		
		South Texas	13.32	21.96	26.29		
Loan Officers	59	Cameron	16.26	28.83	35.12	4 yr. + Moderate OJT	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA Finance. UTRGV: BBA Finance.
		Lower Rio Grande	14.14	28.20	35.23		
		South Texas	23.39	46.84	58.56		
Market Research Analysts & Marketing Specialists	65	Cameron	12.75	22.80	27.82	4 yr.	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA Marketing. UTRGV: BBA Marketing.
		Lower Rio Grande	20.69	32.83	38.90		
		South Texas	17.36	27.60	32.71		

Table 23 (Continued)
Business, Marketing & Finance

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Project Management Specialists, Business Operations Specialists	N/A	Cameron	19.89	31.44	37.22	4 yr.	STC: BAT Technology Management. TSC: AA Business. TSTC: AAS Business Management Technology, CER II Business Management Technology. TAMIU: BBA Management Information Systems & Data Analytics; BBA Business Administration; BAAS Business/Concentration in Administration; BBA International Economics; BBA Finance; BBA/BAAS Management; BBA Marketing; BBA/BAAS Transportation & International Logistics. UTRGV: BBA Management.
		Lower Rio Grande	18.98	30.31	35.98		
		South Texas	12.01	26.35	33.52		
Sales Representatives of Services	1,008	Cameron	9.68	17.41	21.27	HS + Moderate OJT	STC: Certificate in Marketing; AAS Specialization in Marketing.
		Lower Rio Grande	12.28	21.23	25.70		
		South Texas	12.76	22.42	27.25		
Securities & Financial Services Sales Agents	143	Cameron	16.40	24.45	28.47	4 yr. + Moderate OJT	STC: AA Business Administration (can transfer to bachelor's). TAMIU: BBA Finance. UTRGV: BBA Management; BBA Finance; BBA Accounting.
		Lower Rio Grande	16.96	29.77	36.17		
		South Texas	16.02	28.22	34.32		

Education and Training

The Education and Training Career Cluster includes two programs of study: Early Learning, and Teaching and Training. Careers associated with the Education and Training Career Cluster “focus on planning, managing, and providing education, training services, and support services” (TEA, CTE, ET, 2020). The Early Learning program of study is associated with early childhood education. It consists of educating and supporting the social, physical, and intellectual growth of early elementary school children. A primary focus is teaching children the basic elements of science, art, music, and literature. The Teaching and Learning program of study prepares students for careers in teaching. Students who choose careers related to Education and Training are expected to become familiar with curriculum development, coordinating educational content, and teaching groups or individuals.

The Education and Training career cluster consists of numerous occupations that students might choose. Teaching careers are available in preschool, kindergarten, elementary, secondary, special education, and specialized content areas. Careers in specialized content areas include academics (English, Math, Science, Social Studies, etc.), Career and Technical Education, Special Education, and more. The median salary for teachers is approximately \$54,000. Advanced careers are also available in educational administration, counseling and guidance, and librarianship. The median salary for school administrators is approximately \$80,000.

Table 24
Education & Training

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Coaches and Scouts	61	Cameron	14.69	24.37	29.21	4 yr.	STC: AA Kinesiology (can transfer to bachelor’s). TAMIU: BS Kinesiology with concentrations in Exercise Science or Health & Fitness. UTRGV: BS Kinesiology; BS Exercise Science.
		Lower Rio Grande	11.97	24.66	31.01		
		South Texas	13.29	23.63	28.80		
Educational, Guidance, and Career Counselors and Advisors	231	Cameron	21.61	28.31	31.66	5+ yrs.	TAMIU: MS School Counseling. UTRGV: M.Ed. Counseling & Guidance.
		Lower Rio Grande	19.86	30.41	35.69		
		South Texas	20.72	30.65	35.62		

Table 24 (Continued)
Education & Training

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Elementary School Teachers	973	Cameron	21.05	25.78	28.15	4 yr.	STC: AA Teaching (can transfer to bachelor's). TSC: AA Teaching for 4th – 8th and EC-6th. TSTC: AAS Education & Training (can transfer to bachelor's); Certificate in Education & Training. TAMIU: BS Kinesiology, all level certificate; BSIS Elementary Education with EC-6 Certification & Bilingual, Early Learning, English as a Second Language, or Special Education Emphasis. UTRGV: BS Elementary Education with or without bilingual certification; BIS Interdisciplinary Studies with specializations in Bilingual Education, Special Education, or ESL EC-6.
		Lower Rio Grande	21.75	26.83	29.38		
		South Texas	24.50	27.43	28.89		
Interpreters and Translators	>30	Cameron	10.55	19.54	24.03	4 yr.	STC: AA American Sign Language (can transfer to bachelor's); AAS Specialization in Sign Language Interpreter – two-year related program. UTRGV: BA Spanish Language & Interpreting; also related certificate programs.
		Lower Rio Grande	N/A	N/A	N/A		
		South Texas	19.53	26.80	30.43		
Kindergarten Teachers	130	Cameron	20.78	26.00	28.61	4 yr.	STC: AAT EC-6 Generalist (can transfer to bachelor's); Continuing Education Alternative Teacher Certification. TSC: AA Teaching EC- 6th. TAMIU: Multiple BS degree options for teachers. UTRGV: BS Elementary Education with or without bilingual certification.
		Lower Rio Grande	20.23	25.12	27.56		
		South Texas	25.62	27.79	28.87		

**Table 24 (Continued)
Education & Training**

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Librarians and Media Collections Specialists	86	Cameron	22.69	28.51	31.42	5+ yr.	
		Lower Rio Grande	22.65	29.77	33.33		
		South Texas	24.17	32.32	36.40		
Middle School Teachers	518	Cameron	20.89	25.74	28.16	4 yr.	<p>STC: AA Teaching (can transfer to bachelor's).</p> <p>TSC: AA Teaching 4th – 8th, EC- 6th, or Physical Education EC-12th.</p> <p>TSTC: AAS Education & Training (can transfer to bachelor's); Certificate in Education and Training.</p> <p>TAMIU: Several Liberal Arts and Science Bachelor's Degrees carry a teacher certification option.</p> <p>UTRGV: Most Liberal Arts and Science Bachelor's Degrees carry a teacher certification option; BIS in Interdisciplinary Studies with specializations in Bilingual Education, Special Education, or ESL EC-12.</p>
		Lower Rio Grande	21.18	26.55	29.24		
		South Texas	24.24	27.47	29.08		
Preschool Teachers	175	Cameron	11.99	18.71	22.06	2 yr.	<p>LC: Certificate in Child Development Assistant; AAS in Child Development.</p> <p>STC: AAS Child Development/Early Childhood.</p> <p>TSC: AAS Childcare & Development.</p> <p>TSTC: AAS Education & Training (can transfer to bachelor's); Certificate in Education & Training.</p> <p>TAMIU: Multiple BS degree options for teachers.</p> <p>UTRGV: BS Elementary Education with or without bilingual certification.</p>
		Lower Rio Grande	10.33	18.53	22.63		
		South Texas	17.19	24.37	27.97		

Table 24 (Continued)
Education & Training

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Secondary School Teachers	27	Cameron	19.14	24.12	26.61	4 yr.	STC: AA Teaching (can transfer to bachelor's). TSC: AA Teaching 8th-12th Grade; Physical Education EC-12th Grade. TSTC: AAS Education & Training (can transfer to bachelor's); Certificate in Education & Training. TAMIU: Several Liberal Arts and Science Bachelor's Degrees carry a teacher certification option. UTRGV: Most Liberal Arts & Science Bachelor's Degrees carry a teacher certification option; BIS in Interdisciplinary Studies with specializations in Bilingual Education, Special Education, or ESL EC-12.
		Lower Rio Grande	21.55	27.73	30.82		
		South Texas	24.62	27.89	29.52		
Special Education Teachers	>6	Cameron	26.44	30.24	32.13	4 yr.	STC: AAT EC-6 Generalist or 4-8 Generalist or Grades 8-12 (can transfer to bachelor's). TAMIU: BS Education with Interdisciplinary Studies, EC-6 Certification, or Special Education Emphasis. UTRGV: BS Elementary Education—Special Education.
		Lower Rio Grande	22.53	28.60	31.63		
		South Texas	N/A	N/A	N/A		

Health Science

The Health Science Career Cluster includes six programs of study: Exercise Science and Wellness, Health Informatics, Healthcare Diagnostics, Healthcare Therapeutic, Medical Therapy, and Nursing Science. Careers associated with the Health Science Career Cluster require skills in “planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development” (TEA, CTE, Health Science, 2020).

- The Exercise Science and Wellness program of study is about helping patients who are recovering from an illness, diseases, or injury. Students who choose this career help patients maintain their physical, mental, and emotional health. It focuses on applying nutrition and exercise techniques to help patients live healthy and balanced lifestyles. Occupation in this field vary, including athletic trainers, exercise physiologists, coaches and scouts, dietitians and nutritionists, recreational therapists, and much more. The annual median salary salaries range from approximately \$40,000 to \$60,000, depending on the occupation.
- The Health Informatics program of study is about maintaining hospital and patient records in accordance with the regulatory requirements of the healthcare system. Skills in researching, writing, and interpreting medical records is essential. An entry-level position might be a medical records and health information technician. The median salary for a medical records and health information technician is approximately \$36,000. A technician can move up the career ladder to a higher-level occupation such as a Medical and Health Service Manager. The median salary for a Medical and Health Service Manager is \$94,000.
- The Healthcare Diagnostics program of study is about “performing complex medical laboratory test for the diagnosis, treatment, and prevention of disease.” The occupations are associated with blood laboratories, radiologic technology, and ultrasound technology. Phlebotomist is an entry level position with a median salary of approximately \$31,000. Sonographer is a higher-level position with a median salary of approximately \$70,000.
- The Healthcare Therapeutic program of study is about “diagnosing and treating acute, episodic, or chronic illness.” This program of study includes counseling and rehabilitative programs. The spectrum of occupations vary from medical/dental assistants to surgical technologists to physicians/surgeons. The median salary for entry-level occupations is approximately \$30,000, whereas the median salary for physicians/surgeons is approximately \$213,000.

- The Medical Therapy program of study is about patient care, communication, and some form of therapy. Some of the healthcare occupations in this field include speech, respiratory, occupational, and physical therapy. The median salaries range between \$58,000 and \$92,000, depending on the occupation.
- The Nursing Science program of study is about patient care. It is about learning to monitor vital signs, developing and implementing care plans, maintaining medical records, and managing pain/diseases. Licensed vocational nurses, registered nurses, nurse practitioners, and nurse anesthetists are among occupations in this field of study. The median salary ranges from \$45,000 to \$155,000, depending on the occupation and level of training.

Table 25
Health Science

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Cardiovascular Technologists and Technicians	>11	Cameron	16.36	30.15	37.04	2 yr.	
		Lower Rio Grande	12.57	24.43	30.35		
		South Texas	N/A	N/A	N/A		
Clinical Laboratory Technologists and Technicians	>48	Cameron	13.56	20.46	23.91	2 or 4 yr.	TSC: AAS Medical Laboratory Technology. UTRGV: BS Clinical Laboratory Sciences; Graduate Certificate in Clinical Laboratory Sciences.
		Lower Rio Grande	12.96	21.25	25.39		
		South Texas	13.33	22.97	27.79		
Dental Hygienists	65	Cameron	20.13	29.71	34.50	2 yr.	TSTC: AAS Dental Hygiene.
		Lower Rio Grande	28.60	37.00	41.20		
		South Texas	33.26	38.71	41.44		
Dentists, General	>26	Cameron	46.73	101.88	129.45	PROF	UTRGV: Pre-Dental Bachelor's Programs.
		Lower Rio Grande	45.55	105.59	135.61		
		South Texas	42.92	82.00	101.54		
Diagnostic Medical Sonographers	>13	Cameron	25.32	33.43	37.49	2 yr.	LC: AAS Diagnostic Medical Sonography STC: AAS Diagnostic Medical Sonography, Advanced Technical Certificate in Diagnostic Medical Sonography. TSC: AAS Diagnostic Medical Sonography.
		Lower Rio Grande	28.93	35.10	38.19		
		South Texas	22.60	34.04	39.76		
Dietitians and Nutritionists	>21	Cameron	23.16	30.43	34.06	4 yr. + INT	STC: AS Interdisciplinary Studies (can transfer to bachelor's). UTRGV: BS Nutrition Sciences.
		Lower Rio Grande	20.29	27.73	31.45		
		South Texas	22.01	28.92	32.37		
Family Medicine Physicians	>9	Cameron	83.57	119.87	138.03	PROF + INT	UTRGV: MD + Family Medicine Residency Program.
		Lower Rio Grande	76.02	118.91	140.35		
		South Texas	61.31	112.85	138.62		
General Internal Medicine Physicians	>3	Cameron	27.23	46.28	55.80	PROF + INT	UTRGV: MD + Internal Medicine Residency Program.
		Lower Rio Grande	N/A	132.15	N/A		
		South Texas	N/A	N/A	N/A		

Table 25 (Continued)
Health Science

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Licensed Practical and Licensed Vocational Nurses	404	Cameron	17.88	22.07	24.17	1 yr.	LC: Certificate in Vocational Nursing. STC: Vocational Nursing Certificate. TSC: Level Two Certificate in Vocational Nursing. TSTC: CER II in Vocational Nursing.
		Lower Rio Grande	19.24	22.96	24.81		
		South Texas	18.91	23.17	25.30		
Nuclear Medicine Technologists	N/A	Cameron	N/A	N/A	N/A	2 yr.	
		Lower Rio Grande	29.22	34.04	36.45		
		South Texas	N/A	N/A	N/A		
Nurse Anesthetists	N/A	Cameron	N/A	N/A	N/A	5+ yrs.	UTRGV: BS Nursing; MS Nursing. TAMIU: BS Nursing.
		Lower Rio Grande	67.47	74.36	77.80		
		South Texas	N/A	N/A	N/A		
Nurse Practitioners	48	Cameron	47.42	61.39	68.37	5+ yrs.	UTRGV: BS Nursing; MS Nursing. TAMIU: BS Nursing; MS Nursing—Family Nurse Practitioner.
		South Texas	44.72	54.95	60.07		
		Lower Rio Grande	29.42	50.51	61.05		
Occupational Therapists	44	Cameron	25.24	39.24	46.24	5+ yrs.	UTRGV: MS Occupational Therapy.
		Lower Rio Grande	32.25	43.61	49.28		
		South Texas	31.03	46.76	54.63		
Occupational Therapy Assistants	N/A	Cameron	26.92	35.74	40.15	2 yr.	LC: AAS Occupational Therapy Assistant. STC: AAS Occupational Therapy Assistant.
		Lower Rio Grande	27.02	38.31	43.96		
		South Texas	21.77	30.76	35.25		
Pediatricians, General	>5	Cameron	N/A	133.46	N/A	PROF + INT	UTRGV: MD (followed by Pediatric Medicine Residency Program).
		Lower Rio Grande	58.41	102.81	125.00		
		South Texas	N/A	N/A	N/A		
Pharmacists	>38	Cameron	47.56	67.25	77.10	PROF	UTRGV: Cooperative PHARMD with UT Austin.
		Lower Rio Grande	54.82	72.64	81.55		
		South Texas	56.91	67.57	72.90		
Physical Therapist Assistants	75	Cameron	17.10	31.82	39.17	2 yr.	LC: AAS Physical Therapist Assistant. STC: AAS Physical Therapist Assistant.
		Lower Rio Grande	21.01	35.11	42.16		
		South Texas	23.62	35.74	41.80		
Physical Therapists	39	Cameron	34.40	45.47	51.01	PROF	UTRGV: BS Biology; BS Kinesiology or Exercise Science can lead toward graduate education in Physical Therapy.
		Lower Rio Grande	32.44	51.15	60.51		
		South Texas	32.75	50.06	58.71		
Physician Assistants	>47	Cameron	50.75	62.38	68.19	5+ yrs.	UTRGV: MPAS Physician Assistant Studies.
		Lower Rio Grande	33.11	55.83	67.19		
		South Texas	13.28	40.48	54.08		

Table 25 (Continued)
Health Science

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Physicians, All Other; and Ophthalmologists, Except Pediatric	>7	Cameron	50.17	86.60	104.82	PROF + INT	UTRGV: MD (followed by specialization residency program).
		Lower Rio Grande	48.88	101.89	128.40		
		South Texas	N/A	135.93	N/A		
Psychiatrists	N/A	Cameron	27.23	84.25	112.76	PROF + INT	UTRGV: MD + Psychiatry Residency Program.
		Lower Rio Grande	N/A	N/A	N/A		
		South Texas	N/A	N/A	N/A		
Radiologic Technologists and Technicians	58	Cameron	17.31	27.74	32.96	2 yr.	LC: AAS Radiologic Technology. STC: AAS Radiologic Technology. TSC: AAS Radiologic Technology.
		Lower Rio Grande	21.67	28.11	31.34		
		South Texas	19.73	27.28	31.05		
Registered Nurses	661	Cameron	26.10	34.99	39.44	4+ yr.	STC: AAS Nursing, BSN: RN to BSN. TSC: AAS Nursing; LVN to RN Advanced Placement. TSTC: AAS Nursing; Certificate 2 in Vocational Nursing. TAMIU: BSN Nursing; RN/BSN Nursing; MS Nursing Administration; MS Nursing-Family Nurse Practitioner. UTRGV: BS Nursing; MS Nursing.
		Lower Rio Grande	25.14	35.17	40.18		
		South Texas	26.58	35.44	39.87		
Respiratory Therapists	41	Cameron	22.61	28.35	31.22	2 yr.	STC: AAS Respiratory Therapy. TSC: AAS Respiratory Care.
		Lower Rio Grande	23.07	28.66	31.45		
		South Texas	25.57	28.98	30.69		
Speech-Language Pathologists	90	Cameron	24.55	34.67	39.73	5+ yrs. + INT	TAMIU: BS Communication Disorders. UTRGV: MS Communication Sciences & Disorders.
		Lower Rio Grande	26.74	36.53	41.43		
		South Texas	28.46	46.27	55.17		
Surgical Technologists	>21	Cameron	15.96	24.71	29.08	1 yr.	TSTC: AAS Surgical Technology.
		Lower Rio Grande	16.41	23.59	27.17		
		South Texas	10.63	19.04	23.24		
Veterinarians	N/A	Cameron	39.24	52.74	59.49	PROF	
		Lower Rio Grande	33.84	50.24	58.45		
		South Texas	N/A	N/A	N/A		

Hospitality and Tourism

The Hospitality and Tourism Career Cluster includes three programs of study: Culinary Arts; Lodging and Resort Management; and Travel, Tourism, and Attractions. Careers associated with the Hospitality and Tourism Career Cluster require knowledge about the food and beverage industry, lodging, attractions, and travel related services. Students who choose this career cluster acquire skills in communication, customer service, management, marketing, and operations of the industry. (Although the occupations in the table below are not strictly entry-level, they are included due to the importance of this industry sector in South Texas.)

- The Culinary Arts program of study is associated with a multitude of occupations related to the planning, directing, and coordinating activities of the food and beverage industry. Occupations in this field involve the preparation and cooking of food. Examples of occupations in this field include food and beverage managers and chefs. The median wage salary for managers is approximately \$56,000 and the median wage salary for chefs is approximately \$43,000.
- The Lodging and Resort Management program of study teaches students the logistics and operational management of lodging and resorts. Occupations in this field require skills in managing human resources, finances, and marketing. Occupations range from general operations managers, to lodging managers, to administrative service managers to event planners. The median wage salary for managers ranges approximately between \$50,000 and \$100,000, depending on the occupation.
- The Travel, Tourism, and Attractions program of study helps students explore opportunities associated with the marketing of travel and tourism services. Students who choose this program of study advertise, promote, and identify potential customers for products or services. The approximate median wage salary for Marketing Managers ranges between \$70,000 and \$144,000.

Table 26
Hospitality & Tourism

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Chefs and Head Cooks	N/A	Cameron	21.05	31.75	37.10	HS (& 5+ Yrs. Exp.)	LC: Certificate & AAS Culinary Arts. STC: AAS Culinary Arts. TSTC: AAS Culinary Arts; CER I Culinary Specialist; CER I Culinary Assistant; CER II Culinarian.
		Lower Rio Grande	16.99	21.60	23.91		
		South Texas	13.67	17.76	19.80		
First-Line Supervisors of Housekeeping & Janitorial Workers	>44	Cameron	15.05	19.46	21.66	HS (& <5 Yrs. Exp.)	
		Lower Rio Grande	11.66	18.24	21.53		
		South Texas	9.81	15.23	17.94		
Food Service Managers	113	Cameron	18.39	26.46	30.50	HS (& <5 Yrs. Exp.)	
		Lower Rio Grande	15.68	24.96	29.61		
		South Texas	13.49	27.27	34.16		
Lodging Managers	24	Cameron	16.65	23.98	27.64	HS (& <5 Yrs. Exp.)	
		Lower Rio Grande	14.04	19.95	22.90		
		South Texas	N/A	N/A	N/A		

Human Services

The Human Services Career Cluster includes two programs of study: Family and Community Services, and Health and Wellness. Careers associated with the Human Services Career Cluster relate to “counseling and mental health services, family and community services, personal care services, and consumer services” (TEA, CTE, Human Services, 2020).

- The Family and Community Services program of study is associated with a multitude of occupations related to social services such as child and human development, and consumer sciences. Occupations related to the field include social work and/or therapy. The approximate median salary for social workers and therapists ranges from \$42,000 to \$65,000, depending on the occupation.
- The Health and Wellness program of study teaches students how to promote physical, emotional, social, and mental health and wellness. The approximate median salary for health and wellness counselors ranges from \$44,000 to \$55,000, depending on the occupation.

Table 27
Human Services

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Child, Family, and School Social Workers	213	Cameron	12.58	17.85	20.49	4 yr.	STC: AA Social Work (can transfer to bachelor’s). TSC: AA Social Work. TAMIU: BA Sociology; BA Psychology Public Health; MA Counseling Psychology (MACP) Thesis/Non-Thesis; MA Sociology. UTRGV: BSW Social Work.
		Lower Rio Grande	14.41	22.94	27.21		
		South Texas	16.86	25.49	29.80		
Clinical, Counseling, and School Psychologists	44	Cameron	26.90	32.40	35.15	PROF + INT	STC: AA Psychology (can transfer to bachelor’s). TAMIU: BA Psychology; MA Counseling Psychology. UTRGV: BS Psychology; MS Clinical Psychology.
		Lower Rio Grande	27.49	35.82	39.99		
		South Texas	34.56	36.50	37.46		
Community Health Workers	>19	Cameron	10.49	13.55	15.08	HS + Short-term OJT	STC: Non-Credit certificate of completion in Community Health Worker.
		Lower Rio Grande	10.35	14.76	16.97		
		South Texas	14.68	22.33	26.16		
Healthcare Social Workers	>37	Cameron	18.33	25.60	29.24	5+ yrs. + INT	STC: AA Social Work (can transfer to bachelor’s). TSC: AA Social Work. TAMIU: MA in Sociology; Master of Arts in Counseling Psychology (MACP) (Thesis/Non-Thesis). UTRGV: BSW Social Work; MSSW Social Work.
		Lower Rio Grande	17.04	24.97	28.94		
		South Texas	19.57	39.24	49.07		

Table 27 (Continued)
Human Services

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Mental Health and Substance Abuse Social Workers	150	Cameron	14.41	20.38	23.37	5+ yrs. + INT	STC: AA Social Work (can transfer to bachelor's). TSC: AA Social Work. TAMIU: BA Sociology; BA Psychology Public Health; MA Counseling Psychology (MACP) Thesis/Non-Thesis; MA Sociology. UTRGV: BSW Social Work.
		Lower Rio Grande	17.25	19.41	20.49		
		South Texas	16.13	18.43	19.58		
Substance Abuse, Behavioral, & Mental Health Counselors	>101	Cameron	20.07	24.29	26.41	5+ yrs.	TAMIU: BA Psychology; MA Counseling Psychology. UTRGV: BS Addiction Studies; BS Rehabilitation Services; MS Rehabilitation Counseling.
		Lower Rio Grande	13.96	21.48	25.24		
		South Texas	17.29	24.44	28.02		

Information Technology

The Information Technology (IT) Career Cluster includes three programs of study: Information Technology Support and Services, Networking Systems, and Web Development. Careers associated with the IT Career Cluster require skills in designing, developing, supporting, and managing hardware, software, and other integration systems (TEA, CTE, IT, 2020).

- The Information Technology Support and Services program of study is associated with a multitude of occupations related to administering, testing, and implementing databases. The IT Support and Services program of study teaches students how to use their database management knowledge to test computer-related equipment for “commercial, industrial, military or scientific use.” Occupations related to the field include database administrators, computer hardware engineers, and computer system analysts. The approximate median salary for database administrators and computer system analysts is approximately \$85,000 while computer hardware engineers earn approximately \$112,000.
- The Networking Systems program of study helps students explore opportunities associated with the designing and implementing of computer and information networks. Students learn how to design and implement local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communication networks. Computer Network Specialists earn approximately \$68,000 annually; Computer System Analysts earn approximately \$88,000; and Computer Network Architects earn approximately \$111,600.
- The Web Development program of study teaches students to design, create, and modify websites. Students who choose careers related to Web Development learn how to integrate computer applications and convert other components (written, graphic, audio, and video) to facilitate the creation of web and multimedia content. Occupations that students can explore include Web Developers, Web Administrators, and Software Developers. Web Developers earn approximately \$68,000 annually; Web Administrators earn approximately \$85,000; and Software Developers earn approximately \$105,000.

Table 28
Information Technology

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Computer Network Support Specialists	>21	Cameron	19.81	29.86	34.88	2 yr.	LC: Certificate & AAS Computer Information Systems; Certificate & AAS Computer Electronics Technology. STC: AAS Specialization Network Systems. TSTC: AAS Computer Networking & Systems Administration.
		Lower Rio Grande	18.63	24.15	26.90		
		South Texas	19.06	27.27	31.37		

Table 28 (Continued)
Information Technology

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Computer Programmers	>5	Cameron	24.70	30.27	33.05	4 yr.	STC: AS Computer Science (can transfer to bachelor's). TSC: AS Computer Science. TSTC: AAS Computer Programming Technology. TAMIU: BBA Management Information Systems & Data Analytics. UTRGV: BS Cybersecurity; BSCE Computer Engineering; BSCS Computer Science.
		Lower Rio Grande	24.01	36.83	43.25		
		South Texas	25.55	33.23	37.07		
Computer Systems Analysts	>20	Cameron	23.64	40.81	49.40	4 yr.	STC: BAT Computer & Information Technologies. TSC: AS Computer Science, AAS Computer Information Systems, Level One Certificate in Computer Information Technology. TSTC: AAS Computer Science. TAMIU: BBA Management Information Systems & Data Analytics; MS-IS Information Systems. UTRGV: BSCS Computer Science; BS Computational Science; BS Cybersecurity; BBA Information Systems; MS Business Analytics.
		Lower Rio Grande	23.87	32.08	36.19		
		South Texas	24.56	38.00	44.71		
Computer User Support Specialists	132	Cameron	12.87	18.66	21.56	1 yr. or 2 yr.	STC: AS Computer Science; AAS Specialization Computer Support Specialist; AAS Specialization Information Systems; Certificate in Computer & Information Technologies Specialist; Certificate in Computer Applications Specialist. TSC: AAS Computer Information Systems; Level One Certificate in Computer Information Technology. TSTC: AAS Computer Science; AAS Cyber Security; Advanced Technical Certificate in Cybersecurity.
		Lower Rio Grande	12.73	19.32	22.61		
		South Texas	12.69	18.89	21.99		
Database Administrators and Architects	>5	Cameron	19.96	40.88	51.34	4 yr.	TAMIU: BBA Management Information Systems & Data Analytics. UTRGV: BBA Information Systems.
		Lower Rio Grande	23.46	35.75	41.89		
		South Texas	22.14	33.70	39.47		

Table 28 (Continued)
Information Technology

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Network and Computer Systems Administrators	42	Cameron	17.85	27.27	31.98	4 yr.	STC: AS Computer Information Systems (can transfer to bachelor's). TSC: AAS Computer Information Systems. TSTC: AAS Computer Networking & Systems Administration. TAMIU: BBA Management Information Systems and Data Analytics; MS-IS Information Systems. UTRGV: BS and MS Computer Science; MS Information Technology.
		Lower Rio Grande	23.06	32.01	36.48		
		South Texas	21.31	30.83	35.58		
Software Developers & Quality Assurance Analysts & Testers	>30	Cameron	24.66	44.87	54.98	4 yr.	STC: AS Computer Information Systems (can transfer to bachelor's). TSC: AS Computer Science. TSTC: AS Computer Science (can transfer to bachelor's). TAMIU: BS Computer Engineering; BBA Management Information Systems and Data Analytics; MS-IS Information Systems. UTRGV: BS & MS Computer Science; MS Information Technology.
		Lower Rio Grande	24.53	45.97	56.70		
		South Texas	19.72	38.53	47.93		
Web Developers and Digital Interface Designers	>7	Cameron	21.17	28.41	32.03	2 yr.	LC: Certificate & AAS degree Computer Information Systems. STC: AS Computer Information Systems. TSTC: AAS Computer Science with option for transfer; AAS Digital Media Design. UTRGV: BS & MS Computer Science; MS Information Technology.
		Lower Rio Grande	19.69	24.93	27.55		
		South Texas	12.74	24.11	29.80		

Law and Public Service

The Law and Public Service Career Cluster includes four programs of study: Emergency Services, Government and Public Administration, Law Enforcement, and Legal Studies. Careers associated with the Law and Public Service Career Cluster require skills in “planning, managing and providing legal services, public safety, protective services, and homeland security” (TEA, CTE, Law & Public Service, 2020). Occupations related to this field include the areas of policing, courts, corrections, private security, and fire and emergency services.

- The Emergency Services program of study is associated with a multitude of occupations related to emergency responders. The Emergency Services program of study teaches students how to prevent emergencies, respond to emergencies, and investigate the source of the emergency. Occupations related to the field include firefighters, fire inspectors, and emergency medical technicians. The approximate median salary for emergency medical technicians is approximately \$35,000 while firefighters earn approximately \$50,000 and inspectors earn \$55,000.
- The Government and Public Administration program of study helps students explore opportunities associated with the conformity of laws and regulations. Students learn how to develop comprehensive plans and programs for use with towns, cities, counties, etc. Tax Examiners, Tax Collectors, and Appraisers are among the occupations in this field. The median salary for this field range between \$48,000 and \$77,000, depending on the occupation and level of responsibility.
- The Law Enforcement program of study teaches students the letter of the law and how to uphold the law. Occupations that students can explore include police officers, probation officers, correctional officers, immigration inspectors, and detectives. The median salary varies, depending on the occupation and level of responsibility.
- The Legal Studies program of study helps students explore opportunities associated with legal proceedings and representing clients. Paralegals and lawyers are the most common occupations in this field. The median salary for paralegals is \$50,000, whereas the median salary for lawyers is \$125,000.

Table 29
Law & Public Service

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Compliance Officers	422	Cameron	22.84	36.78	43.76	4 yr. + Moderate OJT	TAMIU: BBA Management. UTRGV: BBA Management; Minor Public Administration.
		Lower Rio Grande	20.16	33.08	39.54		
		South Texas	19.85	32.90	39.43		

Table 29 (Continued)
Law & Public Service

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Correctional Officers and Jailers	>117	Cameron	13.03	14.55	15.32	HS + Moderate OJT	STC: AAS Law Enforcement; Basic Peace Officer Certificate. TSC: AAS Criminal Justice; Basic Peace Officer Certificate. TSTC: Police Academy through Lower Rio Grande Valley Development Council.
		Lower Rio Grande	16.27	18.28	19.29		
		South Texas	14.23	19.89	22.73		
Eligibility Interviewers, Government	87	Cameron	14.81	17.02	18.12	HS + Moderate OJT	STC: AAS Public Administration. UTRGV: BBA Management; Minor Public Administration.
		Lower Rio Grande	N/A	N/A	N/A		
		South Texas	15.26	17.99	19.35		
Firefighters	>98	Cameron	17.32	21.32	23.32	1 yr. + Long-term OJT	STC: Certificate in Basic Firefighter and AAS Fire Science Technology.
		Lower Rio Grande	12.07	15.95	17.89		
		South Texas	20.37	25.19	27.60		
Lawyers	84	Cameron	22.74	41.63	51.08	PROF	
		Lower Rio Grande	29.63	44.73	52.29		
		South Texas	35.52	52.76	61.39		
Legal Secretaries and Administrative Assistants	37	Cameron	14.28	16.79	18.05	HS + Moderate OJT	STC: AAS Paralegal, Legal Office Specialist Certificate. TAMIU: BA Political Science w/Concentration Pre-Law.
		Lower Rio Grande	11.71	18.34	21.66		
		South Texas	13.45	18.46	20.97		
Occupational Health and Safety Specialists	16	Cameron	N/A	N/A	N/A	4 yr.	LC: AAS & Certificate in Occupational Safety & Health Technology (General Industry or Transportation). TAMIU: BA Public Health. UTRGV: BS Environmental Sciences.
		Lower Rio Grande	18.85	26.23	29.91		
		South Texas	14.21	26.17	32.14		
Paralegals and Legal Assistants	107	Cameron	16.65	20.21	21.99	2 yr.	STC: AAS Paralegal. TSC: AAS Paralegal Studies.
		Lower Rio Grande	14.90	18.59	20.43		
		South Texas	15.93	23.26	26.92		

Table 29 (Continued)
Law & Public Service

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Police and Sheriff's Patrol Officers	398	Cameron	16.12	24.45	28.61	HS + Moderate OJT	<p>LC: AAS Criminal Justice; Police Academy Certificate; Certificate & AAS Homeland Security Studies.</p> <p>STC: AAS Law Enforcement; Basic Peace Officer Certificate; AS Criminal Justice (can transfer to bachelor's).</p> <p>TSC: Basic Peace Officer Certification; AAS & AA Criminal Justice.</p> <p>TSTC: Police Academy available through Lower Rio Grande Valley Development Council.</p> <p>TAMIU: BA Criminal Justice & Political Science; BAAS with Criminal Justice Concentration.</p> <p>UTRGV: BSCJ Criminal Justice, Criminology & Criminal Justice.</p>
		Lower Rio Grande	17.94	24.13	27.22		
		South Texas	20.22	30.25	35.27		
Postal Service Mail Carriers	89	Cameron	17.98	25.07	28.62	HS+ Short-term OJT	
		Lower Rio Grande	17.83	25.15	28.81		
		South Texas	18.69	25.90	29.51		
Property Appraisers and Assessors	>15	Cameron	N/A	N/A	N/A	4 yr. + Long-term OJT	<p>UTRGV: BBA Management; BBA Entrepreneurship & Innovation; BBA Finance.</p>
		Lower Rio Grande	14.97	24.06	28.60		
		South Texas	17.92	30.28	36.46		
Public Safety Telecommunications	69	Cameron	13.65	14.98	15.64	HS + Moderate OJT	
		Lower Rio Grande	12.42	14.93	16.18		
		South Texas	13.26	16.60	18.27		
Tax Examiners and Collectors, and Revenue Agents	>12	Cameron	18.19	29.73	35.50	4 yr. + Moderate OJT	<p>STC: AA Business Administration (can transfer to bachelor's).</p> <p>TAMIU: BBA Accounting; BBA Finance.</p> <p>UTRGV: BBA Accounting.</p>
		Lower Rio Grande	14.49	24.29	29.19		
		South Texas	14.62	22.79	26.88		
Urban and Regional Planners	>9	Cameron	20.73	27.64	31.10	5+ yrs.	<p>UTRGV: BS Civil Engineering; MPA Public Administration.</p>
		Lower Rio Grande	17.45	32.30	39.73		
		South Texas	21.61	30.90	35.54		

Manufacturing

The Manufacturing Career Cluster includes three programs of study: Manufacturing Technology; Advanced Manufacturing and Machinery Mechanics; and Welding. Careers associated with the Manufacturing Technology Career Cluster require skills in processing materials into final products. Other related professional activities include production planning and control, maintenance, and manufacturing engineering. Occupations related to this field include the vocation of machine operators, technicians, production assemblers, mechanics, repairers, welders, and engineers (TEA, CTE, Manufacturing, 2020).

- The Manufacturing Technology program of study is associated with a multitude of occupations related to robots and other computer-controlled machines. The program of study teaches students how to setup and operate a variety of machines to produce precision parts and instruments. Students will also learn how to modify parts in order to maintain and repair machines. Occupations related to the field include aerospace, electrical, industrial, and mechanical engineering technicians. The approximate median salary for technicians is approximately \$60,000.
- The Advanced Manufacturing and Machinery Mechanics program of study “focuses on the assembly, operation, maintenance, and repair of electromechanical equipment.” Students gain knowledge in robotics, refinery systems, pipeline systems, deep ocean exploration, or hazardous waste removal. The median salary for this field ranges from \$30,000 to \$56,000, depending on the occupation and level of responsibility.
- The Welding program of study teaches students how to use hand-welding or flame-cutting equipment to repair or maintain equipment. The median salary for welders is approximately \$40,000.

Table 30
Manufacturing

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Electrical and Electronic Engineering Technologists and Technicians	N/A	Cameron	16.28	25.38	29.93	2 yr.	STC: AS Engineering (can transfer to bachelor’s); AAS Specialization Civil Engineering Technology. TSTC: AS Engineering (can transfer to bachelor’s); AAS Mechatronics Technology; Skills Award in Mechatronics Technology.
		Lower Rio Grande	20.57	29.15	33.45		
		South Texas	9.20	17.93	22.29		

Table 30 (Continued)
Manufacturing

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Electrical and Electronics Drafters	N/A	Cameron	N/A	N/A	N/A	2 yr.	TSTC: AAS Instrumentation Technology; AAS Electrical Power & Controls; AAS Electromechanical Technology; Certificate in Electromechanical Technology.
		Lower Rio Grande	17.95	22.88	25.34		
		South Texas	N/A	N/A	N/A		
Electro-Mechanical & Mechatronics Technologists/Technicians	N/A	Texas	18.39	26.17	30.06	2 yr.	
Industrial Machinery Mechanics	89	Cameron	11.43	18.70	22.34	HS + Long-term OJT	STC: Non-Credit (CE) apprenticeship program in Industry Machinery Mechanic.
		Lower Rio Grande	14.37	23.70	28.36		
		South Texas	15.94	23.67	27.54		
Machinists	>55	Cameron	11.31	16.88	19.67	HS + Long-term OJT	STC: AAS Precision Manufacturing Technology; Certificate in Precision Manufacturing Technology.
		Lower Rio Grande	9.30	13.75	15.98		
		South Texas	20.47	22.15	22.99		
Maintenance Workers, Machinery	>15	Cameron	11.93	19.43	23.18	HS + Long-term OJT	
		Lower Rio Grande	13.77	20.09	23.25		
		South Texas	N/A	N/A	N/A		
Security and Fire Alarm Systems Installers	>22	Cameron	N/A	N/A	N/A	HS + Moderate OJT	
		Lower Rio Grande	15.47	21.74	24.88		
		South Texas	15.59	20.35	22.72		
Tool and Die Makers	>11	Cameron	14.17	19.34	21.93	1 yr. + Long-term OJT	STC: AAS Precision Manufacturing Technology; Certificate in Precision Manufacturing Technology.
		Lower Rio Grande	N/A	N/A	N/A		
		South Texas	N/A	N/A	N/A		

Table 30 (Continued)
Manufacturing

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Welders, Cutters, Solderers, and Brazers	>106	Cameron	12.94	16.71	18.59	HS + Moderate OJT	<p>LC: Certificate in Welder Assistant; Certificate in Combination Pipe Welding; Certificate in Structural Welding.</p> <p>STC: AAS Welding, Certificate in Structural Welding; Certificate in Combination Welding; Non-Credit (CE) certificate of completion in Structural Welding & Pipe Welding.</p> <p>TSC: 120-hour & 160-hour Structural Welding CE program; 80-hour Shipfitting CE program.</p> <p>TSTC: AAS Welding Technology; CER I in Structural Welding; CER II in Structural & Pipe Welding.</p>
		Lower Rio Grande	9.80	17.40	21.19		
		South Texas	14.57	17.83	19.46		

Science, Technology, Engineering, and Mathematics

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster includes five programs of study: Biomedical Science, Cybersecurity, Engineering, Programming and Software Development, and Renewable Energy. Careers associated with the STEM Career Cluster focus on scientific research and development services. It requires skills in technical services such as laboratory and testing services. Occupations related to this field include biological technicians, forensic scientists, information security analysts, engineers, computer programmers, software developers, and wind turbine technicians (TEA, CTE, STEM, 2020).

- The Biomedical Science program of study focuses on the study of biology and medicine. It is associated with a multitude of occupations related to the healthcare field. Students who choose this career learn to diagnose diseases, pre-existing conditions, etc. The entry-level positions can lead to students practicing patient care. Technicians in the field include medical, laboratory, biological, forensic science, chemical, etc. The approximate median salary for technicians ranges between \$48,000 and \$58,000, depending on the level of the job.
- The Cybersecurity program of study “focuses on the planning, implementing, upgrading or monitoring of security measures for the protection of computer networks and information.” Students who choose this field react to computer breaches and viruses and learn to manage network security measures. The median salary for this field ranges from \$80,000 to \$90,000, depending on the occupation and level of responsibility.
- The Engineering program of study teaches students how to design, develop, construct, operate and maintain the use of engines, machines, and structures. Occupations in this field include aerospace engineers, industrial engineers, mechanical engineers, chemical engineers, and electrical engineers. The median salary for engineers is approximately \$100,000.
- The Programming and Software Development program of study is related to researching, designing, developing, and testing software for various fields, including medical, industry, military, aerospace, business, etc. Students who choose this field learn to create, modify, and test the codes, forms, and scripts that allow computer applications to run. Software developers earn over \$100,000 while programmers earn approximately \$80,000.
- The Renewable Energy program of study teaches students to “assemble, inspect, maintain, and repair different equipment required for renewable energy.” Students learn how to operate and maintain solar photovoltaic equipment and wind turbines. Installers earn approximately \$44,000, whereas technicians earn approximately \$51,000.

Table 31
Science, Technology, Engineering, & Mathematics

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Aerospace Engineers	N/A	Texas	41.89	61.70	71.60	4 yr.	
Electrical Engineers	>5	Cameron	26.47	47.67	58.27	4 yr.	STC: AS Engineering (can transfer to bachelor's). TSTC: AS Engineering (can transfer to bachelor's). TAMIU: BS Systems Engineering. UTRGV: BSEE Electrical Engineering.
		Lower Rio Grande	31.35	51.63	61.77		
		South Texas	33.78	45.01	50.63		
Electronics Engineers	N/A	Texas	38.43	58.03	67.84	4 yr.	STC: AS Engineering (can transfer to bachelor's). TSTC: AS Engineering (can transfer to bachelor's). TAMIU: BS Systems Engineering. UTRGV: BSEE Electrical Engineering.
Health and Safety Engineers	N/A	Cameron	37.58	51.98	59.18	4 yr.	STC: AS Engineering (can transfer to bachelor's). TSTC: AS Engineering (can transfer to bachelor's). TAMIU: BS Systems Engineering. UTRGV: Various bachelor's engineering programs that can provide foundation for this occupation.
		Lower Rio Grande	26.48	43.58	52.13		
		South Texas	N/A	N/A	N/A		
Industrial Engineers	N/A	Cameron	28.44	40.86	47.07	4 yr.	STC: AS Engineering (can transfer to bachelor's). TSTC: AS Engineering (can transfer to bachelor's). TAMIU: BS Systems Engineering. UTRGV: BSMFGE Manufacturing Engineering.
		Lower Rio Grande	31.28	52.75	63.48		
		South Texas	25.74	39.86	46.92		
Life, Physical, and Social Science Technicians	73	Cameron	15.82	21.35	24.12	2 yr.	
		Lower Rio Grande	12.75	18.90	21.97		
		South Texas	N/A	N/A	N/A		
Mechanical Engineers	>5	Cameron	30.62	44.32	51.17	4 yr.	UTRGV: BSME Mechanical Engineering.
		Lower Rio Grande	29.04	44.17	51.73		
		South Texas	N/A	N/A	N/A		

Transportation, Distribution, and Logistics

The Transportation, Distribution, and Logistics (TDL) Career Cluster includes four programs of study: Automotive, Aviation Maintenance, Diesel & Heavy Equipment, and Distribution & Logistics. Occupations associated with the TDL Career Cluster focus on “planning, management, and movement of people, materials, and goods.” Goods are moved by road, pipeline, air, rail, and water. Occupations related to this field include the automotive, aviation, and small engine mechanics; and transportation, storage, and distribution managers (TEA, CTE, Transportation, 2020).

- The Automotive program of study focuses on repairing and refinishing automobiles. Students who choose this career learn to perform typical vehicle maintenance such as oil changes, adding antifreeze, replacing wiper blades, and fixing tires. Mechanics and related repairers earn approximately \$40,000 per year.
- The Aviation Maintenance program of study focuses on opportunities related “to inspecting aircrafts, maintenance procedures, air navigational aids, air traffic controls and communication equipment to ensure conformity with federal safety regulations.” The median salary for aircraft mechanics and technicians is approximately \$59,000.
- The Diesel and Heavy Equipment program of study teaches students how to “diagnose, repair, or modify mechanical and hydraulic equipment.” The mechanical equipment includes cranes, bulldozers, graders, conveyors, construction equipment and diesel engines vehicles. The median salary for mechanics is approximately \$46,000.
- The Distribution and Logistics program of study is associated with planning, coordinating and directing people and operational plans connected to the distribution of goods and services. Students who choose this field learn to manage daily operations and logistics personnel. The median average salary for these occupations varies depending on the level of responsibility, typically between \$65,000 and \$120,000.

Table 32
Transportation, Distribution, & Logistics

Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training	South Texas Program
			Entry	Mean	Experienced		
Aircraft Mechanics and Service Technicians	N/A	Cameron	11.52	17.87	21.04	1 yr.	TSTC: AAS Aircraft Airframe Technology; CER II in Aircraft Airframe Technician; AAS Aircraft Powerplant Technology; CER II in Aircraft Powerplant Technician.
		Lower Rio Grande	26.36	46.00	55.82		
		South Texas	N/A	N/A	N/A		

Table 32 (Continued)
Transportation, Distribution, & Logistics

Occupation Title	Annual Openings	Workforce		Hourly Wage		Education / Training	South Texas Program
		Area	Entry	Mean	Experienced		
Automotive Body and Related Repairers	>40	Cameron	11.55	14.75	16.35	HS + Long-term OJT	LC: Certificate in Automotive Collision & Repair Technology. TSC: Level One Certificate in Auto Body Repair Technology Specialist. TSTC: AAS Auto Collision & Management Technology (Refinishing or Repair Specialization); Certificate 1 in Auto Collision Refinishing; Certificate 1 in Auto Collision Repair; Certificate 2 in Auto Collision Repair; Advanced Technical Certificate in Auto Collision Refinishing; Advanced Technical Certificate in Auto Collision Repair.
		Lower Rio Grande	12.44	21.13	25.48		
		South Texas	14.06	25.21	30.78		
Bus and Truck Mechanics and Diesel Engine Specialists	169	Cameron	11.19	14.87	16.71	HS + Long-term OJT	LC: Certificate in Diesel Heavy Truck Technician. STC: AAS & Certificate in Diesel Technology.
		Lower Rio Grande	11.41	16.77	19.45		
		South Texas	13.69	19.00	21.65		
Bus Drivers, Transit and Intercity	>49	Cameron	14.24	14.43	14.53	HS + Moderate OJT	
		Lower Rio Grande	13.54	14.60	15.13		
		South Texas	N/A	N/A	N/A		
Cargo and Freight Agents	>146	Cameron	11.23	18.90	22.73	HS + Short-term OJT	
		Lower Rio Grande	13.06	20.39	24.05		
		South Texas	11.80	17.04	19.66		
Dispatchers, Except Police, Fire, and Ambulance	137	Cameron	9.86	16.47	19.78	HS + Moderate OJT	
		Lower Rio Grande	8.08	12.40	14.57		
		South Texas	13.34	19.00	21.83		
Heavy and Tractor-Trailer Truck Drivers	1,722	Cameron	14.29	21.86	25.64	1 yr. + Short-term OJT	STC: Continuing Education Program.
		Lower Rio Grande	11.72	19.05	22.71		
		South Texas	12.38	20.86	25.10		
Logisticians	>9	Cameron	22.17	31.25	35.79	4 yr.	LC: Certificate & AAS Logistics & Distribution.
		Lower Rio Grande	21.76	32.12	37.31		
		South Texas	23.97	40.80	49.21		

Demand Occupations

In addition to RGV LEAD's Targeted Occupations that have been detailed above, the South Texas region also has high demand for other occupations that do not meet the Targeted Occupation criteria selected for the *20201 Labor Market Information Report*. Many high schools across the region offer programs of study aligned with these occupations, including opportunities to prepare for some industry-based certifications that apply to these demand occupations. Following is a listing of several demand occupations organized by Career Clusters, presented to provide students additional information as they consider their career choices.

Table 33						
South Texas Demand Occupations						
Agriculture, Food & Natural Resources						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Agricultural and Food Science Technicians	N/A	Cameron	N/A	N/A	N/A	2 yr. + Moderate OJT
		Lower Rio Grande	14.27	18.74	20.98	
		South Texas	N/A	N/A	N/A	
Pest Control Workers	>16	Cameron	8.52	14.49	17.47	HS + Moderate OJT
		Lower Rio Grande	11.38	18.26	21.69	
		South Texas	N/A	N/A	N/A	
Water and Wastewater Treatment Plant and System Operators	>89	Cameron	12.22	16.98	19.36	HS + Long-term OJT
		Lower Rio Grande	11.10	14.71	16.52	
		South Texas	11.07	14.45	16.15	
Architecture & Construction						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Control and Valve Installers and Repairers, Except Mechanical Door	N/A	Cameron	12.77	19.51	22.88	HS + Moderate OJT
		Lower Rio Grande	15.70	21.05	23.72	
		South Texas	N/A	N/A	N/A	
Operating Engineers and Other Construction Equipment Operators	219	Cameron	12.92	15.03	16.08	HS + Moderate OJT
		Lower Rio Grande	10.42	14.92	17.16	
		South Texas	12.78	16.08	17.73	
Plumbers, Pipefitters, and Steamfitters	109	Cameron	11.81	17.12	19.77	HS + APP
		Lower Rio Grande	12.00	20.00	24.00	
		South Texas	10.00	15.00	17.00	
Structural Metal Fabricators and Fitters	>7	Cameron	N/A	N/A	N/A	HS + Moderate OJT
		Lower Rio Grande	15.36	22.26	25.71	
		South Texas	N/A	N/A	N/A	
Arts, Audio/Video Technology, & Communications						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Writers and Authors	N/A	Cameron	N/A	N/A	N/A	4 yr. + Long-term OJT
		Lower Rio Grande	13.13	24.50	30.19	
		South Texas	N/A	N/A	N/A	

Table 33 (Continued)						
South Texas Demand Occupations						
Business, Marketing & Finance						
Occupation Title	Annual Openings	Workforce		Hourly Wage		Education / Training
		Area	Entry	Mean	Experienced	
Bill and Account Collectors	65	Cameron	9.81	18.02	22.13	HS + Moderate OJT
		Lower Rio Grande	10.00	15.00	17.00	
		South Texas	10.00	15.00	17.00	
Bookkeeping, Accounting, and Auditing Clerks	655	Cameron	9.37	14.96	17.76	1 yr. + Moderate OJT
		Lower Rio Grande	11.20	16.44	19.06	
		South Texas	9.96	14.38	16.59	
Customer Service Representatives	1827	Cameron	8.79	11.96	13.55	HS + Short-term OJT
		Lower Rio Grande	10.08	13.50	15.21	
		South Texas	10.56	16.39	19.31	
Insurance Sales Agents	271	Cameron	11.83	21.55	26.40	HS + Moderate OJT
		Lower Rio Grande	12.00	32.00	42.00	
		South Texas	11.00	23.00	29.00	
Interviewers, Except Eligibility and Loan	N/A	Cameron	10.42	14.84	17.05	HS + Short-term OJT
		Lower Rio Grande	10.53	12.78	13.90	
		South Texas	10.75	13.45	14.79	
Office Clerks, General	2227	Cameron	8.96	13.31	15.48	HS + Short-term OJT
		Lower Rio Grande	8.79	13.49	15.85	
		South Texas	9.44	14.92	17.66	
Secretaries and Administrative Assistants, Except Medical, Legal, Exec.	970	Cameron	10.27	14.34	16.38	HS + Short-term OJT
		Lower Rio Grande	9.87	14.58	16.94	
		South Texas	10.17	14.22	16.25	
Shipping, Receiving, and Inventory Clerks	437	Cameron	9.81	13.79	15.79	HS + Short-term OJT
		Lower Rio Grande	9.36	13.78	15.98	
		South Texas	9.07	13.14	15.17	
Tellers	332	Cameron	11.10	14.13	15.65	HS + Short-term OJT
		Lower Rio Grande	10.13	13.29	14.88	
		South Texas	9.84	13.40	15.18	
Health Science						
Occupation Title	Annual Openings	Workforce		Hourly Wage		Education / Training
		Area	Entry	Mean	Experienced	
Dental Assistants	223	Cameron	12.73	16.60	18.54	LIC/CERT
		Lower Rio Grande	11.38	16.15	18.54	
		South Texas	11.10	16.81	19.67	
Medical Dosimetrists & Records Specialists, Health Technologists & Technicians	N/A	Cameron	11.75	18.37	21.68	LIC/CERT
		Lower Rio Grande	11.14	19.72	24.01	
		South Texas	11.86	17.14	19.78	
Pharmacy Technicians	169	Cameron	11.84	16.07	18.19	HS + Moderate OJT
		Lower Rio Grande	13.41	16.88	18.62	
		South Texas	13.05	15.68	16.99	

Table 33 (Continued)						
South Texas Demand Occupations						
Health Science						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Phlebotomists	90	Cameron	11.27	12.73	13.46	LIC/CERT
		Lower Rio Grande	10.92	13.95	15.47	
		South Texas	11.56	16.71	19.29	
Veterinary Technologists and Technicians	>27	Cameron	11.49	16.78	19.43	2 yr.
		Lower Rio Grande	11.00	16.00	18.00	
		South Texas	N/A	N/A	N/A	
Human Services						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Health Education Specialists	N/A	Cameron	15.17	20.42	23.05	4 yr.
		Lower Rio Grande	13.70	22.12	26.33	
		South Texas	10.98	14.41	16.12	
Social and Human Service Assistants	480	Cameron	10.91	14.80	16.74	HS + Short-term OJT
		Lower Rio Grande	11.29	15.43	17.50	
		South Texas	11.06	17.20	20.27	
Law & Public Service						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Emergency Medical Technicians and Paramedics	>85	Cameron	11.49	14.08	15.37	LIC/CERT
		Lower Rio Grande	11.24	14.92	16.77	
		South Texas	12.95	15.50	16.77	
Manufacturing						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Computer, Automated Teller, and Office Machine Repairers	>16	Cameron	9.41	11.78	12.96	1 yr. + Short-term OJT
		Lower Rio Grande	12.05	17.09	19.61	
		South Texas	11.19	16.90	19.75	
Electrical and Electronics Repairers, Commercial and Industrial Equipment	>7	Cameron	14.50	22.28	26.17	LIC/CERT + Long-term OJT
		Lower Rio Grande	13.13	16.74	18.54	
		South Texas	N/A	N/A	N/A	
Installation, Maintenance, and Repair Worker	>47	Cameron	12.30	17.88	20.68	HS + Short-term OJT
		Lower Rio Grande	12.07	17.82	20.70	
		South Texas	11.75	14.36	15.66	
Maintenance and Repair Workers, General	666	Cameron	9.47	12.53	14.07	HS + Moderate OJT
		Lower Rio Grande	9.89	13.73	15.65	
		South Texas	N/A	N/A	N/A	
Medical Equipment Repairers	N/A	Cameron	N/A	N/A	N/A	2 yr. + Moderate OJT
		Lower Rio Grande	10.81	15.64	18.05	
		South Texas	N/A	N/A	N/A	

Table 33 (Continued)						
South Texas Demand Occupations						
Manufacturing						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Mechanical Drafters	>6	Cameron	16.10	24.46	28.64	2 yr.
		Lower Rio Grande	12.52	16.51	18.50	
		South Texas	N/A	N/A	N/A	
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	>17	Cameron	11.46	17.94	21.19	HS + Moderate OJT
		Lower Rio Grande	8.75	14.48	17.35	
		South Texas	N/A	N/A	N/A	
Transportation, Distribution, & Logistics						
Occupation Title	Annual Openings	Workforce Area	Hourly Wage			Education / Training
			Entry	Mean	Experienced	
Automotive Service Technicians and Mechanics	237	Cameron	10.47	18.77	22.92	LIC/CERT + Short-term OJT
		Lower Rio Grande	11.90	19.51	23.31	
		South Texas	9.98	15.82	18.74	
Industrial Truck and Tractor Operators	421	Cameron	9.35	13.73	15.92	None + Short-term OJT
		Lower Rio Grande	8.61	11.61	13.12	
		South Texas	10.25	12.35	13.39	

The Education Advantage

The following table shows the advantage of acquiring credentials beyond high school. This analysis indicates that **education pays**. Over 50% of RGV LEAD’s targeted occupations require education beyond high school, and that additional education yields a positive return on that investment. The returns, however, vary by level of education. Also, the return on educational investment varies by occupation, industry sector and Career Cluster. For example, a bachelor’s degree in Social Work with an average hourly wage of \$25.83 does not yield a return equal to that of a Financial Analyst at \$40.55 an hour. (The Targeted Occupations tables present lists of RGV LEAD’s 2021 Targeted Occupations organized by education requirements.)

Level of Education	Average RGV Hourly Wage
High School Diploma or GED*	\$21.00
Associate Degree	\$27.00
Bachelor’s Degree	\$32.00
Master’s Degree	\$38.00

Averages calculated based on average wages in Targeted Occupations tables and rounded up to the nearest dollar.

Higher hourly salary rates translate to more income for an individual; for example, an individual earning \$32.00 per hour would earn \$11.00 per hour more than an individual earning \$21.00 per hour. If both individuals worked 40-hour weeks, that difference in hourly salary would translate to about \$1,900 a month in additional income.

On average, a person graduating from high school with little or no work experience, when hired into one of RGV LEAD’s targeted occupations requiring only a high school diploma, can expect an entry-level wage around \$15.00 an hour. If the person stays in that occupation, not necessarily with the same employer, for a few years, he/she can expect an average wage somewhere around \$21.00 an hour. In contrast, a person who invests a little more time in education and acquires an associate degree in one of the targeted occupations can expect an entry-level wage of about \$19.00 an hour, and in time an average wage around \$27.00 an hour, or \$6.00 an hour more than a person with just a high school education, or about \$12,500 more a year. Earning a post-secondary certificate can take as little as one year and usually no more than two years.

There is a significant difference between the average hourly wage for targeted occupations requiring a bachelor’s degree and those requiring a master’s degree. Most master’s degree programs take about two years beyond the bachelor’s degree to complete and average about \$38.00 an hour, or \$6.00 an hour more a bachelor’s degree. The time to complete a

Professional or Advanced degree after completing a bachelor's degree ranges from three years for a law degree to about eight years for a medical doctor. However, the average hourly wage for these occupations is considerably higher.

The above examples of the differences of average wages for the different educational levels are for illustrative comparison only. That is, this information is included so that students can see an example of the possible return on the investment of the different levels of education. These wages are averages; therefore, they will be different for the individual occupations within each category. Wages also differ based on worker tenure, experience, and performance. For example, workers with above average performance will generally earn more than workers with just average performance, even within the same occupation. For a more accurate picture of the wages/salaries possible, students should research their particular occupation(s) of interest.

RGV LEAD's Targeted Occupations tables present entry, average, and experienced hourly wages. Some workers are paid hourly, but others are paid weekly, biweekly, monthly, or annually. The illustration below shows steps for salary conversions that educators can use for communicating with students and their families.

Table 35			
How to Compute Salary Conversions Annual, Weekly, and Hourly Salary Rates			
Part A. How to Compute an Annual Salary When Given an Hourly Salary			
<i>Steps to Be Taken</i>	<i>Example</i>		
1. Compute the weekly salary by multiplying the hourly wage by the number of hours in an average work week (40 hours).	Hourly salary	X No. of Hours	= Weekly salary
	\$15.00	X 40	= \$600.00
2. Compute the annual salary by multiplying the weekly salary by the number of weeks in a year (52 weeks).	Weekly salary	X No. of Weeks	= Annual Salary
	\$600.00	X 52	= \$31,200.00
Part B. How to Compute an Hourly Salary When Given an Annual Salary			
<i>Steps to Be Taken</i>	<i>Example</i>		
1. Compute the weekly salary by dividing the annual salary by the number of weeks in a year (52 weeks).	Annual salary	÷ No. of Weeks	= Weekly salary
	\$22,000.00	÷ 52	= \$423.08
2. Compute the hourly salary by dividing the weekly salary by the number of hours in an average work week (40 hours).	Weekly salary	÷ No. of Hours	= Hourly Salary
	\$423.08	÷ 40	= \$10.58

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