



RIO GRANDE VALLEY

LEAD

LINKING ECONOMIC & ACADEMIC DEVELOPMENT

*In the business of education*



# 2019 Labor Market Information Report

*An Analysis of the Emerging Labor Market in the Rio Grande Valley*

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# Introduction and Acknowledgments

## THE PURPOSE OF THIS REPORT

Rio Grande Valley Linking Economic and Academic Development, Inc. (RGV LEAD) is a public-private collaborative comprised of school districts, charter schools, institutions of higher education, workforce development boards, and other organizations. Created in 1992 as a Texas nonprofit and federal 501c3 corporation, RGV LEAD began with federal grant funding, but is now a regional community-based organization supported by its stakeholders. All RGV LEAD initiatives are linked to its 2016 strategic plan; and this regional labor market report, first published in 1996 and updated regularly thereafter, is a vital component of the plan. Many members of the RGV LEAD collaborative have participated in the development of this report by providing input prior to its publication.

RGV LEAD's labor market report provides information about the Valley—the four-county (Cameron, Hidalgo, Starr, and Willacy) region in South Texas that is served by RGV LEAD. Supplemental information is included throughout the report—especially in Section 5—for the benefit of students from Jim Hogg, Webb, and Zapata Counties because RGV LEAD is working with those students through a special project.

RGV LEAD is focused on helping the Valley develop its most valuable asset: the intellectual capital of its people, especially the students moving through the Valley's public schools. All RGV LEAD initiatives encourage students to participate in college-and-career-focused programs of study supporting students' success. Selecting a specific career field with an established course of study and/or link to the job market puts high school students on a proven path to success.

The majority of Valley students live and work in the Valley after high school graduation, and many of these students enter the workforce early to contribute to family support. These students have the opportunity to set goals and pursue education and work in tandem, helping to support their families while also pursuing additional education to secure higher-level jobs, thereby moving through education systems in a progressive-achievement mode. This regional labor market report provides information about Valley career opportunities to help students establish meaningful education-and-career goals with job-market linkages. The report also provides relevant information that educators can use to plan program and course offerings and to advise students and their families as students establish goals and chart individual education-and-career-paths.

This report includes demographic information, an analysis of the Valley's labor market, and information about the region's current "best jobs" and emerging occupations. The report also includes information about education and training opportunities related to the targeted occupations listed in Section 3 and Section 5. The report is based on an analysis of data from multiple sources and input provided by Valley leaders from workforce development boards, economic development organizations, institutions of higher education, and others.

Although designed primarily for students, parents and educators, RGV LEAD's labor market report also supports economic development by responding to employers' talent requirements and by focusing on jobs in the Valley. For this reason, RGV LEAD's report has become a resource utilized by chambers of commerce, economic development organizations, and others who are working to improve the Valley's economy.

## THE LINK BETWEEN EDUCATION AND ECONOMIC PROSPERITY

Economic development is about jobs: jobs for individuals and jobs that exist in communities and the region as a whole. Economic developers work to create and sustain good jobs—jobs that pay well enough for individuals to support their families. When individuals secure jobs that provide support for their families, those individuals gain “buying power.” The purchases made by these individuals and their families generate sales tax dollars that provide funds that are used by communities to address infrastructure needs such as roads, utilities, and recruitment of additional industries and jobs.

For communities and the region as a whole, successful economic development means attracting companies that will open or expand businesses that create good jobs. As part of the work they do to attract employers, economic developers must present data showing the capable, skilled talent pool available in their communities and in the region. An educated workforce is a vital requirement for promoting economic growth.

For individuals, successful economic development means having the skills—both academic and work-related—that are required for success in finding and securing good jobs or becoming entrepreneurs, generating enough income to support a good quality of life. Completing college-and-career-focused programs of study helps students achieve the outcomes required for personal economic success.

A Pew Research Center report (“The Rising Cost of NOT Going to College”) published in 2014 stated that the unemployment rate of people who have never gone to college is nearly twice as high as that of those who have college degrees. At the same time, employers have job openings for those individuals with the skills and education to keep their companies competitive locally and globally. Individuals who are not equipped with the academic and work-related skills that employers seek will not be hired, even if they are looking for work.

Students' career and education decisions to pursue knowledge-based occupations determine more than their personal success. Their decisions shape the economic vitality of individual communities, the region, Texas, and the U.S. The presence of an available, skilled workforce is the acknowledged foundation for increased economic development. Yet the Valley's growing population of working-age people who are equipped with technical skills poses a challenge for the business community. The region's economy must develop at a pace that continues to create well-paid jobs for these skilled entrants into the workforce, and the region's education systems must continue to rise to meet the demands of business and industry. The Valley's development of desirable jobs—well-paid, in-demand jobs—is essential to avoid a “brain drain” and to sustain regional growth.



RGV LEAD has worked in close partnership with economic development organizations since 2003, and multiple EDC leaders contributed information for this report, especially Section 4, which includes information about the “emerging occupations” that economic developers are working to bring to this region.

## ABOUT RGV LEAD

**RGV LEAD: In the Business of Education.** RGV LEAD is in the business of education, working with a large group of regional stakeholders and operating under the authority of RGV LEAD’s private-sector-led board of directors. RGV LEAD’s current strategic plan, adopted by the Board in 2016, is summarized below:

**Vision** RGV LEAD builds the intellectual capital of the region by facilitating collaboration between employers, community leaders, and educators from public schools, colleges, and universities to assist students in acquiring the academic and career skill-sets necessary for success in higher education, careers, and life.

**Mission** RGV LEAD’s mission supports the organization’s vision: *Partnering to engage students in college-and-career-focused learning opportunities to achieve a higher level of competence in the workforce.*

**Values:** RGV LEAD’s core values are reflected in every program and activity and form the foundation of the organization: Leadership, Collaboration, Integrity, Excellence, and Accountability.

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.

**Current Initiatives:** RGV LEAD’s initiatives are like joint ventures that involve cross-sector collaboration of school districts, colleges and universities, business and industry, and government. RGV LEAD’s work expedites the flow of communication across sectors—business/industry, public schools, colleges, universities, and other partners—linking the region’s education and economic development systems in collaborative partnerships through which the various organizations understand one another’s goals and work together to achieve jointly-defined outcomes. Data indicates this approach is working to improve outcomes for Valley students. RGV LEAD’s current initiatives are these:

- *Academies of the Rio Grande Valley: The Ford Next Generation Learning (Ford NGL) Partnership:* The Ford NGL career academy model promotes experiential learning and proactive business and civic engagement in schools. RGV LEAD introduced Ford NGL to the Valley in 2014, and multiple school districts are implementing the model. In December 2016, Ford NGL national leadership honored the Academies of the Rio Grande Valley as an official Ford NGL national partner site (see <https://www.fordngl.com/about/communities>). RGV LEAD manages the network and coordinates RGV Academy Leaders Coalition (RGV ALC) sessions designed to facilitate business partnerships; provide ongoing support, training and evaluation for districts in active implementation; and provide opportunities and support for other districts who join the network.
- *Education & Career EXPO:* The EXPO, which began in 2004, is an annual event that provides the opportunity for employers to showcase careers and colleges and universities to showcase related education opportunities, providing the opportunity for high school students to learn about Valley opportunities and interact with representatives of these organizations. RGV LEAD leads a large group of partners that organize and promote the EXPO each year.
- *Educator Summer Externships:* Externships provide the opportunity for teachers, counselors, and administrators to spend time as employees of local businesses and learn first-hand about opportunities and employer needs. RGV LEAD implements multiple programs as follows:
  - Academic Leadership Alliance, funded and implemented by RGV LEAD and partners including the McAllen Economic Development Corporation, Region One Education Service Center, Workforce Solutions, and numerous school districts and employers.
  - RGV Intro to Externships funded by Workforce Solutions and conducted in partnership with Workforce Solutions Cameron, school districts, and numerous employers. RGV LEAD manages the externship experience.
  - GEAR UP Intro to Externships, which are funded by federal GEAR UP funds awarded to the Region One Education Service Center and other funding sources.
- *P-16 Council, Regional Counselors' Network, and P-16 Regional Leadership Team:* These groups, comprised of representatives from school districts, institutions of higher education, workforce development boards, and other organizations, support implementation of Texas' 60X30 plan (60x30TX.com). With higher education partners and public school leaders as partners, RGV LEAD coordinates quarterly meetings focused on sharing information, discussing barriers, and developing resources (transition counseling and others) to help students transition successfully from high school to college, succeed in higher education, and, ultimately, transition successfully to the workforce.
- *RGV LEAD Annual Conference:* The annual conference promotes professional development for area educators by presenting local best practices plus presentations from local, state, and national experts in education and workforce development. The conference also provides the opportunity for educators to recognize excellence among their peers—and for RGV LEAD to honor its education and business partners—through annual awards for the *RGV LEAD Teacher of the Year and the RGV LEAD Counselor of the Year*
- *RGV Mentors:* RGV Mentors is a college-and-career mentoring program that allows business people, college students and other leaders to help high school students identify and successfully



pursue college-and-career goals. RGV LEAD has coordinated the RGV Mentors program regionally since 2010.

- *RGV LEAD Scholars:* RGV LEAD scholars is a graduate-recognition program, begun in 1999, developed and managed by the RGV LEAD Board in collaboration with RGV LEAD's Partner School Districts. Participating in RGV LEAD Scholars encourages high school students to develop college-and-career graduation plans and successfully complete those plans. Graduating as an RGV LEAD Scholar is a requirement for competition for the RGV LEAD Scholarship.
- *RGV LEAD Scholarship:* 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 programs promoted by RGV LEAD.
- *RGV LEAD Student Ambassadors:* This initiative, 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.
- *RGV LEAD GEAR UP Student Ambassadors:* This initiative, which began in 2019, provides leadership-development activities for students from school districts and campuses served by RGV LEAD provides services through its contract with the Region One Education Service Center.
- *Superintendent's Annual Meeting:* Every year RGV LEAD hosts a meeting of superintendents of RGV LEAD's Partner School Districts. The purpose of the meeting is to update the superintendents on RGV LEAD's initiatives and to encourage active participation in programs designed to develop college-and-career readiness. RGV LEAD also provides superintendents with copies of its labor market report, data report, and annual report at this meeting.
- *Data and Publications:* RGV LEAD tracks participation in, and evaluations of, initiatives for the Board's use in making management decisions. RGV LEAD also shares appropriate reports with superintendents of its partner school districts. These items include the following:
  - *RGV LEAD Annual Report:* The annual report provides an overview of all RGV LEAD initiatives conducted during the past year. This report provides additional information about various initiatives and describes RGV LEAD's funding and ways to become involved.
  - *RGV LEAD's Regional and District-Specific Data Reports:* RGV LEAD contracts with the University of Texas at Austin's Texas Education Research Center to provide an analysis of the effectiveness of the programs and initiatives offered by RGV LEAD. The Texas ERC also provides RGV LEAD with data files, and RGV LEAD staff use the report and data provided by the Texas ERC to provide individual supplemental evaluations for each district.
  - *Student Participation Records:* RGV LEAD maintains records of participation in RGV LEAD Scholars, the RGV LEAD Scholarship, RGV LEAD Student Ambassadors, and the Education & Career EXPO.
  - *Evaluations of Forums and Professional Development Activities:* RGV LEAD summarizes and analyzes evaluations to support decision-making for continuous improvement.
  - *RGV LEAD Regional Labor Market Information Report:* RGV LEAD's labor market report is updated biennially.

## STUDENT POPULATION SERVED

RGV LEAD provides services designed especially for the students enrolled in the Valley's public secondary and charter schools. Because the majority of these students will remain in the Valley, near their families, understanding the information in this report is important for these students, their families, and the educators who work with them. For the well-being of individual students and families—as well as the economic future of the region and its communities—it is important to increase the number of students that enroll in college programs linked to career goals and to make certain that those who do not enroll in postsecondary education graduate from high school with the skills necessary for success in the job market.

Working through partnerships, RGV LEAD uses multiple paths to introduce students to the qualifications required to gain employment in numerous fields. Educator externships, student internships, mentoring, and job shadowing provide invaluable first-hand knowledge about the opportunities available in the world of work and the skills needed for employment. The career information absorbed through these initiatives motivates students—the future workforce—to pursue specific career fields or to begin a search for alternative careers. The alignment of the educational system with the needs of the private sector and public employers creates a viable, upwardly mobile workforce and results in economic success for all involved.

## BACKGROUND FOR RGV LEAD'S 2019 REGIONAL LABOR MARKET REPORT

RGV LEAD serves Valley students, educators, employers, and community leaders; therefore, the focus of RGV LEAD's labor market report is the Valley's economy. The Valley economy, however, has not developed in a vacuum; rather, it is an integral part of the Texas and American economies and is influenced by its location on the border with Mexico. An analysis of the Valley labor market must take into consideration these outside forces. These same forces also impact the Laredo area, discussed in Section 5 of this report.

### Globalization and Technology

Current and future American workers are facing an evolving job market. Presently, that phenomenon is the subject of multiple news articles and reports from university institutes and private non-profit think tanks. These reports describe how globalization and technological innovation are driving this change.<sup>1</sup>

Globalization “refers to the free movement of goods, capital, services, people, technology and information” across international borders. In many American geographic areas and sectors, globalization has had a very negative economic impact while in other areas these same changes have brought welcome positive economic growth.<sup>2</sup> For example, global changes in governmental policy and transportation have made it possible for industry to seek out locations with cheaper labor and fewer restrictions, and certainly a significant number of American enterprises have chosen to relocate to other nations. In many regions of

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<sup>1</sup> Carnevale, Anthony P., Tamera Jayadundera and Artem Gulish, 2016, *America's Divided Recovery, College Haves and Have-Nots*, Center for Education and the Workforce, Georgetown University; Pew Research Center, October, 2016, *The State of American Jobs: How the shifting economic landscape is reshaping work and society and affecting the way people think about the skills and training they need to get ahead*; The Economist, January, 2014, *The future of jobs. The onrushing wave*; The Economist, June 2016, *America's economy. When barometers go wrong*.

<sup>2</sup> Definition from Wikipedia, the free encyclopedia.

America this development, known as “outsourcing,” has resulted in a significant loss of well-paying jobs and a corresponding increase in unemployment and underemployment. In the Valley, globalization made its appearance and impact more than twenty years ago with the passage of the North American Free Trade Agreement (NAFTA). For the Valley, like some other regions also on the border with Mexico, America’s second largest trading partner, outsourcing and trade facilitated by NAFTA was the catalyst for significant positive impact to the economy in the form of new industry, jobs, and higher wages.<sup>3</sup>

Technology, according to most analysts, is the engine driving the major changes in the American job market.<sup>4</sup> In manufacturing, for example, this new technology, such as the use of robots on the factory floor, has made possible increased productivity while at the same time reducing the number of workers. In reality, economic evolution driven by technology in America and elsewhere in the world is nothing new. The job market is in almost perpetual change as it adjusts to changes in other aspects of a society, especially technology. The difference today is the international aspect behind this change, the speed of change, and, especially, the impact this change is having on the **educational preparation** needed by the American worker. In the Wilson Center’s report *Charting a New Course: Policy Options for the Next State in U.S.-Mexico Relations*, Christopher E. Wilson writes:

The global economy is transforming at a very fast pace. A failure to adequately and effectively invest in education and workforce development leaves huge segments of our population in danger of being excluded from the benefits of the global economy, putting support of the international economic system and the health of our national economies at risk.<sup>5</sup>

Since the economic transformation of nations has been well documented, history helps to provide perspective regarding this most recent evolving economy. For example, at the turn of the 20<sup>th</sup> century, the advent of the automobile played havoc with the industry built around the horse and buggy. Later the passenger train industry declined with the emergence of air and convenient passenger car transportation. These changes, however, also resulted in new jobs and new skills required to perform these jobs. Eventually, workers and entrepreneurs ready and able embrace this new economy prospered. Automobile manufacturing and its supporting industries, for example, provided well-paying stable jobs for high school graduates in the United States for decades.

Today most of the change in the job market is also due to new technology, especially e-commerce and robotics. However, the result is not necessarily more well-paying jobs. Even as “reshoring,” or return by manufacturing enterprises to the United States, increases, the number and type of manufacturing jobs remain low. The main reason for this is that on the factory floor many repetitive tasks have been replaced by robots. That has not only decreased the overall number of factory jobs, but also increased the

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<sup>3</sup> Canas, Jesus. 2016. “Texas Border Cities Illustrate Benefits and Challenges of Trade”, *Southwest Economy*, Federal Reserve Bank of Dallas; Vargas, Lucinda. June 2001. “Maquiladoras, Impact on Texas Border Cities”, *The Border Economy*, Federal Reserve Bank of Dallas.

<sup>4</sup> Brown, Anna. October 2016. *Key findings about the American workforce and the changing job market*, Pew Research Center; Carnevale, Jayasundera & Gulish, 2016; *The Economist*, December 2016, *Global Trade, Most US manufacturing jobs lost to technology, not trade*.

<sup>5</sup> Wilson, Christopher E., et al, 2016. “Leveraging the U.S.-Mexico Relationship to Strengthen our Economies”, *Charting a New Course: Policy Options for the Next Stage in U.S.-Mexico Relations*. Wilson Center, Mexico Institute.

knowledge and skills required of the personnel who monitor and maintain those robots.<sup>6</sup> Similarly in all other industries, clerical jobs have decreased as computers and e-mail have decreased the need for typists, receptionists, billing clerks and file clerks. In retail, firms are already experimenting with self-service checkouts. This trend to self-service, plus the trend to buying on-line, is expected to have a tremendous impact on the retail industry.<sup>7</sup> In fact, recently the low sales volume in several retail stores has forced both store closures and employee layoffs.<sup>8</sup>

What changes are coming in the future? Unfortunately, although analysts can predict the probability of the types of occupations that will change or disappear, exactly which jobs may be lost to technology is anybody's guess. Experts predict that almost all jobs that are repetitive in nature will eventually disappear; however, nobody really knows which of these jobs will be affected and/or when they will disappear. Also, it is very difficult or almost impossible for accurate predictions of jobs that will materialize with changes in social behavior or technology that is not part of today's imagination. It would be wonderful, if that were possible, but it isn't. **However, one important trend that is already apparent is that most of the new jobs or the jobs remaining can be categorized into two general types: (1) low-skilled, low-paying jobs that require little or no preparation and (2) higher-skilled, higher-paying jobs that require varying levels of postsecondary preparation.**<sup>9</sup>

For organizations like RGV LEAD that provide local labor market information to students and educators, the big question is what to tell students, parents, and educators about this emerging labor market. Clearly, the most important point to convey is that the labor market is changing rapidly, and, in order to remain competitive, both current and future workers must not only stay informed but also prepare by acquiring a solid academic foundation, critical thinking skills, work-related skills, and soft skills that will serve them in adjusting to this fast-changing job market. However, in order to make concrete plans for the immediate future, students and educators require more than generalizations. The aim of this report is to point to specifics for the immediate future in the Valley while setting these specifics in the overall milieu of the current fast-paced, changing national and local economies. For the 2019 report, the Valley's economic development organizations have provided valuable information that students, families, and educators should consider as students plan for the future.

### **Data Sources for the Labor Market Information Report**

RGV LEAD does not collect economic data. Rather, data used in this report come from various sources including area counties, municipalities, school districts, and other local organizations as well as state and national agencies. Most of the statistics come from state and national agencies that report data for their own geographical units, such as the areas served by the Valley's two workforce development boards (each of which operates in a "workforce investment district" and Metropolitan Statistical Areas (MSAs). The regional MSA created for the Valley in 2019 will have a significant impact on this region's future (see Section 4). However, that impact is only beginning at the time RGV LEAD completes its 2019 report.

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<sup>6</sup> Cocco, Federica. December 2016. "Most US manufacturing jobs lost to technology, not trade", *The Economist*; Hicks, Michael J. and Srikant Devaraj. June 2015. *The Myth and Reality of Manufacturing in America*, Ball State University, Center for Business and Economic Research.

<sup>7</sup> Thompson, Derek. April 10, 2017. "What in the World IS Causing the Retail Meltdown of 2017?" *The Atlantic*.

<sup>8</sup> CNN Money, April 22, 2017. Stores are closing at an epic pace, accessed on 6/15/2027 at [money.cnn.com/2017/04/22/news/credit-suisse-retail/index.html](http://money.cnn.com/2017/04/22/news/credit-suisse-retail/index.html)

<sup>9</sup> Carnevale, Jayasundera, and Gulish 2016; Brown 2016.

For this 2019 report most of the wage information, demographics, and workforce projections come from local workforce development boards, the U.S. Bureau of Labor Statistics, and the U.S. Bureau of Census. Demographic data come primarily from the U.S. Census Bureau. These data are available through publications and the internet; however, the data are in different formats, different websites and not combined for the entire Valley. This report pulls out the relevant data, then shapes the data into a relevant and useful format, resulting in an analysis that applies to the entire region, and a single information resource that is available to RGV LEAD's stakeholders.

One important note about the data from the U.S. Bureau of Census is the timeliness of the data. In order to remain current on demographic information, the Census Bureau collects data throughout the year through the American Community Survey. These survey figures are reported as one-year or three- and five-year averages. The one-year figures, however, are only reported for jurisdictions with populations above 65,000; therefore, Starr and Willacy Counties are not part of the one-year file. Three-year estimates that include the average of data collected over a three-year period are published for all jurisdictions with a population of 20,000 or more; however, not all indicators are included in the survey. The five-year estimates include all areas with populations over 20,000 and include more indicators; however, the data are older. The data used in this report represent the most current estimates for both each particular jurisdiction and indicator.

Data from these sources are invaluable in framing a picture of the Valley's economy; however, these data do not provide a complete picture of the more recent developments in the Valley's economy. In order to access this aspect of the region's economic developments, RGV LEAD invites the participation of local stakeholders in the development and review of the targeted industries and occupations. Once the preliminary lists of targeted industries and occupations are compiled, RGV LEAD presents these lists to a group of stakeholders for their review and comment. The information that these local employers and community leaders provide prior to publication is invaluable in compiling an accurate report. The final industry overview and targeted occupations list in the published report reflect not only data analysis but also this local input.

## **STRUCTURE OF THE REPORT**

RGV LEAD's 2019 Labor Market Information Report is structured into five sections, as follows:

- Section 1 provides a demographic and geographic profile of the area that RGV LEAD serves: the four-county region that comprises the Rio Grande Valley of Texas. Section 1 also includes supplemental information for Jim Hogg, Webb, and Zapata Counties.
- Section 2 provides a thorough analysis of the current Rio Grande Valley labor market and emergent trends. This provides an overview of the tools utilized in the analysis and a description of the data utilized to analyze the Valley's labor force and industries and to support the selection of RGV LEAD's targeted occupations. Section 2 also includes supplemental information for Jim Hogg, Webb, and Zapata Counties.
- Section 3 is designed for use by administrators, teachers, and counselors who work with students

and their families in planning for college and careers. Section 3, which explains the meaning of the term “targeted occupations,” provides specific information about RGV LEAD’s Targeted Occupations along with wages for targeted occupations and the requirements to enter these occupations. This section organizes the information presented in a format that illustrates the relation to the Endorsements included in the Foundation High School Program, correlated with the career cluster program-of-study format utilized in Texas. RGV LEAD’s Targeted Occupations are presented in a format that includes information about related college-and-career-focused programs of study that are available at the region’s public institutions of higher education. Finally, Section 3 provides information about the North American Industry Classification System (NAICS), the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The RGV LEAD Targeted Occupations identified in Section 3 are equally applicable for students from the South Texas area (Jim Hogg, Webb, and Zapata Counties).

- Section 4 explains the functions of economic development organizations and provides information about the relationship between education and economic development. This section also provides information about a 2019 survey of economic development organizations and information about the emerging occupations these entities are working to create in this region.
- Section 5 provides supplemental information designed to be useful for students, their families, and the educators who work with them. This section provides an introduction to the relationship between income and cost of living, points to be considered when comparing the benefits of living in the Valley with other parts of the state and the nation, and information designed to assist students and their parents/guardians in making informed decisions about creating college transcripts prior to graduation from high school.
- The end of Section 5 provides supplemental information for students from the South Texas area.

## ACKNOWLEDGMENTS

The development of college-and-career-minded young people is a collaborative effort among students, parents, employers, community leaders, government, and public educators in prekindergarten through college (P-16). RGV LEAD works with these partners to provide guidance and motivation for educators, students, and families as well as a communication channel for the businesses that will employ the graduates. RGV LEAD gratefully acknowledges the contributions for this 2019 labor market 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 multiple external reviewers, including representatives of businesses, which must have a literate, skilled workforce to thrive and succeed, economic development organizations, and other organizations.



The “local wisdom” and input provided by leaders from a cross-sector of community leaders is essential to ensure that this report reflects trends to support development of a home-grown workforce equipped with skills that will keep the Valley’s economic growth moving forward. RGV LEAD gratefully acknowledges the contributions made by all of the individuals named below.

The individuals listed below represented their organizations during in a discussions in a pre-publication meeting designed to gather input from local leaders prior to completion of the 2019 report. This meeting occurred in August 2019. Also listed below are the individuals and organizations that provided additional information through a survey of economic development organizations conducted as the result of discussions during that meeting and the representatives of workforce development boards and VIDA who provided information about their own lists of targeted industries and occupations:

- Center for Innovation and Commercialization, The University of Texas Rio Grande Valley, NSF Innovation Corps, and US Economic Development Administration: Laurie G. Simmons, Manager
- Greater Brownsville Incentives Corporation: Mario Lozoya, Executive Director, and Laura Matamoros, Director of Business Research & Strategy
- La Feria Independent School District: Miriam Guerra, Director of College and Career Readiness; Ida Prado, Family and Community Engagement Coordinator; and Veronica Torres, Technology Director
- Los Fresnos Consolidated Independent School District: Dr. Gonzalo Salazar, Superintendent (RGV LEAD Board of Directors)
- Los Fresnos Community Development: Desi Martinez, Contractor
- Lower Rio Grande Valley Development Council: Ron Garza, Director, and Blanca Davila, Assistant Director of Community & Economic Development
- McAllen Economic Development Corporation: Keith Patridge, President and Chief Executive Officer
- RGV LEAD Associate Board Members: Blanca Munoz, former Deputy Superintendent, South Texas ISD, and Dr. Norma L. Salaiz, former RGV LEAD Director and former Superintendent, La Villa ISD
- RGV LEAD Staff and Contractors: Dr. Anadelia Gonzales, Special Projects Coordinator (retired); Eliza Groff, Program Coordinator; Janie Johnston Lopez, Contractor; and Dr. Mari Salaiz, Contractor
- Rio Grande Valley Partnership: Sergio Contreras, MBA, President and Chief Executive Officer
- Rio South Texas Economic Council: Matt Ruszczak, Director
- ROFA Architects: Luis Figueroa, AIA, Principal (Vice President, RGV LEAD Board of Directors)
- Texas A&M University Higher Education Center at McAllen: Adolfo Santos, Assistant Provost
- Texas Gas Service: Naomi Perales, Community Relations Manager (President and Board Chair, RGV LEAD Board of Directors)
- Valley Initiative for Development and Advancement (VIDA): Priscilla Dinn Alvarez, Executive Director
- Weslaco Chamber of Commerce: Barbara Garza, Director
- Workforce Solutions: Frank Almaraz, Chief Executive Officer
- Workforce Solutions Cameron: Pat Hobbs, Executive Director

## Introduction and Acknowledgments

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These individuals provided information about their institutions' programs of study that could help students prepare for the targeted occupations included in Section 3:

- South Texas College—Dr. Esmeralda Adame, MBA, Assistant Dean, Business, Public Safety and Technology Division; Associate Professor; NCSL International RGV Section Coordinator (RGV LEAD Board of Directors)
- Texas Southmost College—Dr. Joanna Kile, Vice President of Instruction (RGV LEAD Board of Directors)
- Texas State Technical College—Mary Gallegos Adams, Director of Curriculum
- The University of Texas Rio Grande Valley—Cynthia (Cindy) Valdez, Associate Vice President for Educational Outreach (Executive Board, RGV LEAD Board of Directors)

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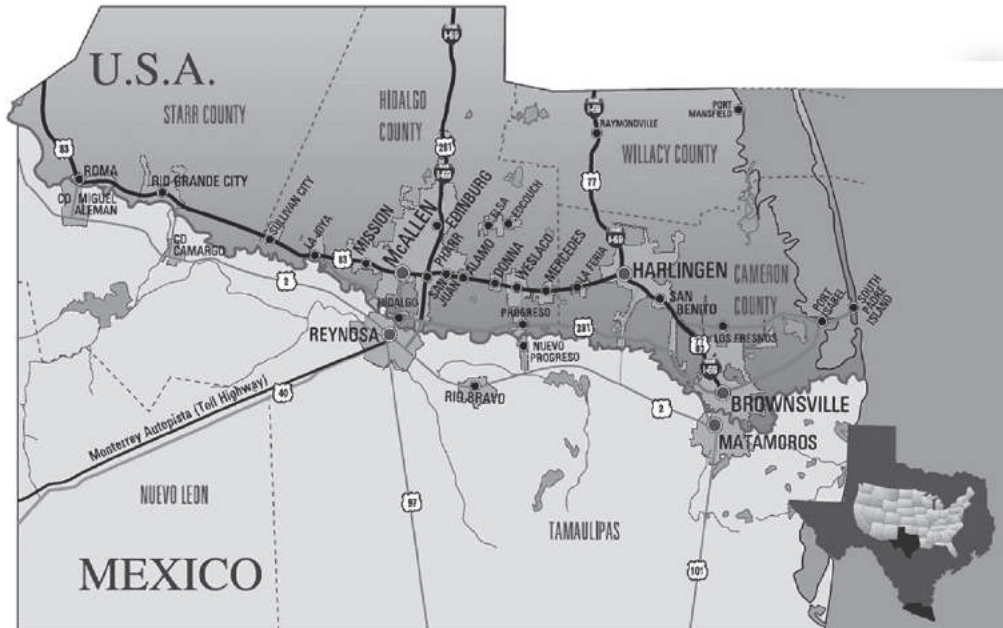
We gratefully acknowledge the support provided by our 2019 report sponsors. We also appreciate the economic development organizations, chambers of commerce, institutions of higher education, workforce development boards, school districts, and community leaders who provided input for this report. The collaboration of our RGV LEAD Board of Directors and corporate voting members make our work possible. Finally, special thanks to Dr. Anadelia Gonzales, Dr. Mari Salaiz, and Eliza Groff, who assisted with research, writing, and final development of this report! These individuals' multiple contributions are reflected throughout this report. Completed at Weslaco, Texas, on October 31, 2019.



Patricia G. (Pat) Bubb  
Interim Director, RGV LEAD

# Section 1: Transition to the Service Economy; Geography and Demographics

Figure 1.1 The Rio Grande Valley of Texas



Map courtesy of Rio Grande Valley Partnership Regional Chamber of Commerce —<http://www.valleychamber.com>

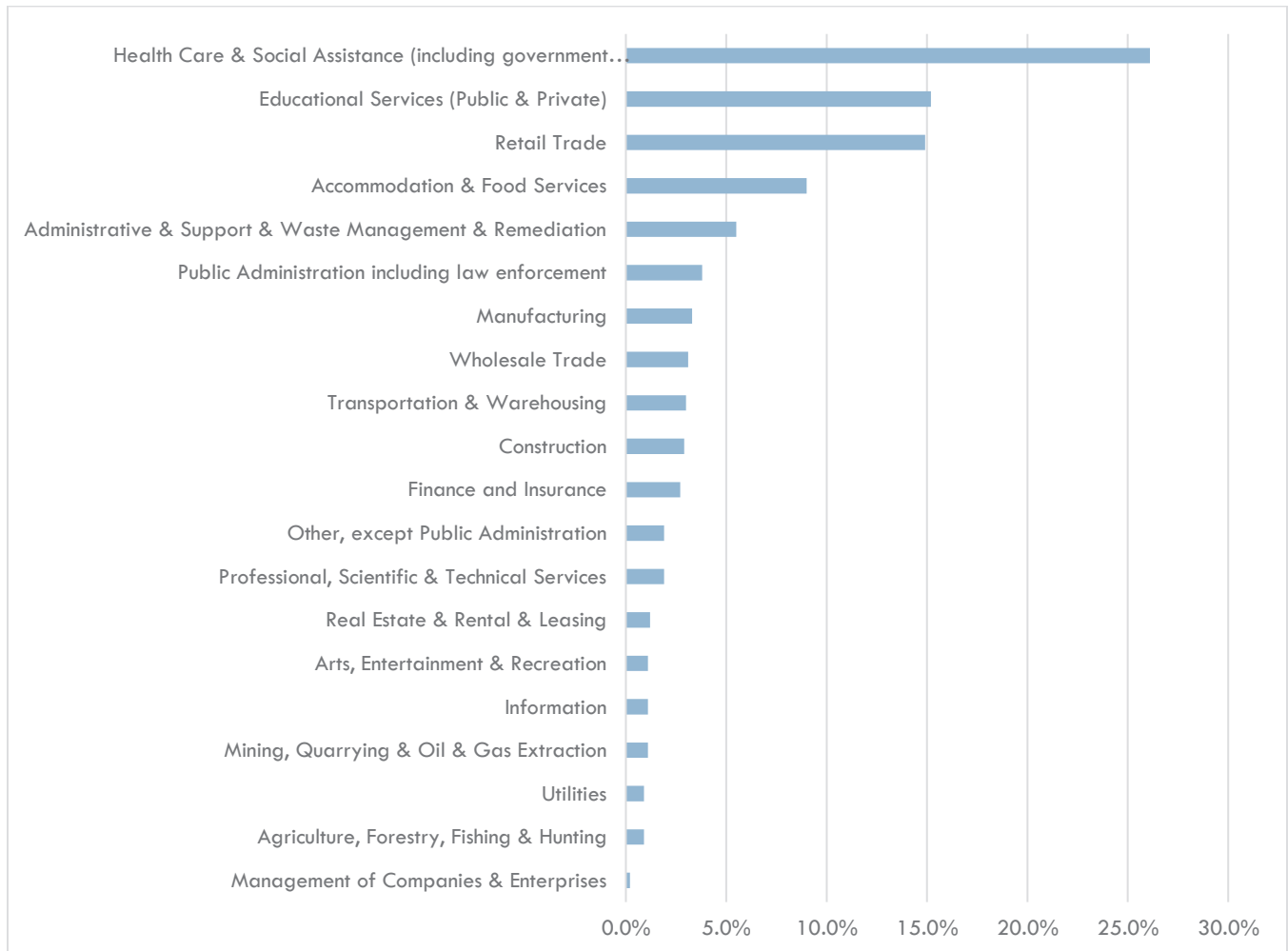
For several years, the Rio Grande Valley of Texas (the Valley), like the rest of the nation, has been in the process of transitioning from an economy based on agriculture and goods production to one based on service. A service economy is based on providing services, such as health care, rather than manufacturing or producing goods. A Department of Labor interactive map shows that by 2013, Health Care and Social Assistance was the dominant industry in 34 states, including Texas. In 1990 Texas' major industry (based on employment) was Manufacturing; however, by 1999 the major employer was Retail Trade. By 2010, Texas had joined most of the rest of the nation, as the dominant industry shifted from retail to Health Care and Social Assistance.<sup>1</sup> The Valley is not substantially different from the rest of the state and the nation. Chart 1.1 shows that in 2014, the Valley's dominant industry based on employment was Health Care and Social Assistance. Retail Trade was third. Manufacturing and the other goods-producing industries employed less than five percent of the Valley's labor force. Goods-producing industries include Manufacturing, Mining, Quarrying & Oil & Gas Extraction, and Agriculture, Forestry, Fishing & Hunting.

A recent study by the Center for Education and the Workforce at Georgetown University<sup>2</sup> concluded that this "transition from a manufacturing to a service economy led to a parallel shift from a high school to a college economy." This new economy requires many more workers with the types of skills and credentials that are usually acquired through postsecondary education. While it is true that most occupations in the service economy require some postsecondary training and/or credential, there is also a darker side to

**Section 1: Transition to the Service Economy; Geography and Demographics**

the service economy. The service industry is to a large extent bilateral. On one side are the jobs that require higher skill levels and reward workers with higher pay and benefits. On the other side are the lower-end workers who have less education and/or skills and receive lower pay, less than 40 hours and few if any benefits such as insurance.

**Chart 1.1 2014 Q3 RGV Employment Distribution by Industry Sectors and Subsectors**



Source: U.S. Census Bureau; Chart created using data extracted by QWI Explorer; Texas Beginning of Quarter by Metro/Micropolitan Areas and NAICS Sectors

The authors of that same study divided occupations in the service economy into three tiers based on the level of education and skills required. The first tier consists of occupations that require a bachelor’s degree or higher, such as physicians, dentists, attorneys, and other degreed professionals, such as teachers, accountants and nurses. The second tier contains occupations that require some type of postsecondary certificate or associate’s degree. Included in this group are health care workers, clerical and administrative workers, and skilled blue-collar workers, such as electricians and engineering technicians. Many of the occupations in the lowest, third tier usually require at least a high school diploma; however, some may or may not even require literacy. At the higher end of the third tier are occupations such as team assemblers, sales clerks, security guards, and light truck drivers. At the lower end of the third tier are occupations such as laborers, waitpersons, and personal care attendants.



Two major service industries in the Valley, Retail Trade and Accommodation and Food Services, have few first- and second-tier workers and many lower-level third-tier workers. Also, the occupations in Health Care and Social Assistance, the largest employers in the Valley, are of two types. One group includes first- and second-tier professionals and technicians, but the second group consists of the personal care workers whose remuneration is considerably less. The proliferation of low-paying service jobs in the Valley means that many Valley workers earn low salaries, and those low salaries place a significant portion of the population below the poverty level. Table 1.1A and Table 1.1B show the extent of the difference in income between the Valley counties and the state of Texas and the nation. For example, the median income in the Valley’s two urban counties is approximately \$20,000 lower than that of the state and the nation, and the difference in the number of families in poverty is about 20 percent.

Table 1.1A Income Comparison of Poverty Rates and Income by Type

	<b>Cameron</b>	<b>Hidalgo</b>	<b>Jim Hogg</b>	<b>Starr</b>	<b>Webb</b>	<b>Willacy</b>	<b>Zapata</b>
<b>Families in Poverty</b>	27.4%	27.8%	22.7%	32.7%	27.7%	34.5%	25.5%
<b>Median Household</b>	\$36,095	\$37,097	\$31,403	\$27,133	\$40,422	\$29,104	\$34,550
<b>Mean Household Income</b>	\$51,904	\$54,348	\$51,149	\$44,105	\$56,802	\$43,572	\$54,139
<b>Per Capita Income</b>	\$16,085	\$15,883	\$17,761	\$13,167	\$16,316	\$13,369	\$17,817

Source: 2013-2017 American Community Survey Five-Year Estimates.

Table 1.1B Income Comparison of Poverty Rates and Income by Type

	<b>Texas</b>	<b>U.S.A.</b>
<b>Families in Poverty</b>	12.4%	10.5%
<b>Median Household Income</b>	\$57,051	\$57,652
<b>Mean Household Income</b>	\$80,879	\$81,283
<b>Per Capita Income</b>	\$28,985	\$31,177

Source: 2013-2017 American Community Survey Five-Year Estimates.

To attract service and goods-producing industries that have a significant number of higher-paying occupations to the Valley, the education and skill levels of the Valley workforce must improve. Prosperity for the region depends on a highly educated workforce and the well-paying occupations in the industries that a highly educated workforce can attract. Fortunately, the Valley has a large, youthful bilingual and bicultural population with the potential to transform the Valley’s labor force into one that can attract industries that provide well-paying stable jobs. Unfortunately, due to the Valley’s high poverty rate (over 28% compared to 12% for Texas and 10% for the nation), most of this potentially powerful population faces many challenges to acquiring the education required by the current economy.

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RGV LEAD's Targeted Occupation (see Section 3) encompass all three tiers; however, the list focuses on good jobs because of the input provided by Valley leaders before RGV LEAD's list was finalized. RGV LEAD's Targeted Occupations list identifies jobs that are, or have the potential to be, better-paying jobs in the Valley. In 2018, the federal government set the income poverty level for a family of four at \$25,701<sup>3</sup>. RGV LEAD's Targeted Occupations focus primarily on jobs that pay well enough that students who enter those jobs have the potential to earn income at a level high enough to help lift their families out of poverty.

## EDUCATION IN THE VALLEY

A 2011 study of education in South Texas states that the Valley lacks a "college-going culture." The researchers found that most college enrollees at that time were first-generation, low-income students who needed to work at full-time jobs. They also concluded that first-generation students and their parents do not understand "the rigor and time commitment demanded by postsecondary studies."<sup>4</sup> While these conclusions are to a large extent accurate, they do not speak to the underlying reasons for their existence. Fortunately, more recent data indicates that most of the Valley's native-born population have recognized the importance of education, and a "college-going culture" is in the process of becoming established in the Valley (see Table 1.2). Nevertheless, it is still important to understand why the lack of a "college-going culture" existed in the past and continues to exist for some of the population. An informed understanding of the "why" requires a review of the Valley's complex history.

### The Magic Valley of Texas

The term "Magic Valley" was coined in the 1920s by land developers trying to attract prosperous northern farmers to the region. Pamphlets and posters created by these developers featured images of successful landowners enjoying life while Mexican laborers harvested the crops. The area was marketed as a garden place where "every month is a farming month." The advertisements further stated that labor was plentiful and cheap because "Mexicans living on the Texas side" were willing to work and not eager to join "our society." They (the Mexicans) lived in "primitive homes," much like the "Negro shanties of the South." The land developers' efforts were successful as hundreds of northern Anglo farmers purchased land and established thriving farms that furnished much of the nation's citrus, vegetables and cotton for decades<sup>5</sup>.

Prior to the 1920s, the main use of the Valley land had been ranching.<sup>6</sup> Even though many Valley residents of Mexican origin had already lost their land to non-Hispanic immigrants and speculators, it was not uncommon for Americans of Mexican descent to own and work in their own small ranches. A consequence of the 1920s transfer of land to the non-Hispanic white farmers was that the Valley became

almost a two-class society in which the Mexican-origin population became the lower class and the non-Hispanic newcomers from the North and Midwest “Anglos,” or non-Hispanic whites, became the higher class. With few exceptions, the Mexican-origin population worked in the farm fields and other low-paying jobs and the non-Hispanic whites owned most of the farms and businesses or held the management and professional positions. Since the occupations open to the majority of the Mexican-origin population did not require high educational levels or in some cases even literacy, it was understood that the majority of the Mexican-origin population did not attend school beyond the elementary grades.

Prior to the 1960s, Texas and Valley educational policies were designed to foster cultural norms that encouraged “Mexicans” to drop out of school early. Segregation and tracking became the norm. In his book, *Chicano Education in the Era of Segregation*, Dr. Gilbert G. Gonzalez cites a study that found that in the 1930s, segregation in some form existed in 85 percent of the districts surveyed.<sup>7</sup> He further states that “In some areas, such as the south Rio Grande Valley of Texas, strict segregation existed through most of the grades.” These segregated “Mexican” schools were often underfunded and staffed with unqualified faculty. Education for Mexican-American children was not a priority because they were expected to leave school to help harvest crops in the Valley, in Texas, and in other states. This pattern of migrating to harvest crops is the reason for the necessity of migrant student programs in Valley school districts. This environment and mind-set resulted in many problems, including the Valley’s high school dropout dilemma that persisted until very recently.

As the Valley shifted away from a primarily agricultural economy to one based on retail trade, the need for agricultural workers decreased and the need for retail and lower-level manufacturing workers increased. The Valley never really transitioned into an economy primarily based on manufacturing. Manufacturing jobs were available; but not in the numbers and levels available in the rest of the state and the nation. Instead, most of the new non-agricultural jobs were in Retail Trade and Accommodation and Food Services. With this change came the need to have a more literate workforce. Mexican-American children were encouraged to stay in school, but also were often “tracked” into vocational courses to train for these emerging occupations, which were still low-paying and did not require highly trained/educated workers. So for many, the move out of the cotton fields did not necessarily mean either a move out of poverty or a move from high school dropout to high school graduate.

## The Struggle for Education Reform

The Mexican-American struggle for equality in education began in the 1940s; however, it was not until the 1960s, after the passage of the Civil Rights Act of 1964, that the changes in education began in earnest. The first legal challenge to the practice of segregation of Mexican-American students was the 1947 *Mendez v. Westminster School District* case in Los Angeles, California. Since then, Mexican-Americans have used the legal system to struggle against segregation and to seek equal opportunities in education. The first Texas case was *Delgado v. Bastrop Independent School District* in 1948. In that case, as in the California case, the judge ruled that “placing students of Mexican ancestry in different buildings was arbitrary, discriminatory and illegal.” There have been subsequent cases initiated and/or supported by the Mexican American Legal Defense Fund, culminating in the 1987 class-action lawsuit, *LULAC v Richards*, that charged the state with discrimination against Mexican-Americans in South Texas because of its inadequate funding of colleges in the area. LULAC prevailed in the lower courts; however, the ruling

was overturned by the Texas Supreme Court. Nevertheless, this lawsuit had an impact on Texas educational policy. The lawsuit is cited as the impetus for the 71st Texas Legislature's 1989 South Texas Border Initiative. Implementation of the South Texas Border Initiative resulted in the expansion and/or upgrading of five Texas colleges, including two in the Rio Grande Valley. More recently, the two Valley universities have been combined into The University of Texas Rio Grande Valley. In addition to other enhancements, this new University admitted its first cohort into the new School of Medicine in 2016.

## Valley Educational Attainment

Educational attainment in the Valley, though improving, is still low in comparison to the state and the nation. Current and past efforts have been successful, as described in this section; however, the gains have not kept up with the rest of the state or the nation. If the Valley is to compete successfully in the service economy, the educational levels of the Valley's workforce must improve. Successful policies and programs must be expanded and new strategies implemented. RGV LEAD and its partners have been, and continue to be, leaders in implementing innovative educational programs in the Valley. Even though those programs have been successful, RGV LEAD continues to seek new approaches to improve education. A recent example is the Academies of the Rio Grande Valley, created by RGV LEAD in collaboration with national leaders of Ford Next-Generation Learning and local partners with the goal of transforming teaching and learning to increase the number of high school students who graduate college-and-career ready.

Since the 1960s, the Valley has shown considerable progress in increasing the percentage of residents who are high school graduates. The pattern depicted in Table 1.2 shows that the younger the group, the higher the educational attainment. Throughout the Valley, the percentage of persons 25-34 years old who are high school graduates is much higher than that of those who are 65 and older. This difference between the 65-plus and the 25-34 populations is approximately 30% for the entire Valley, and it is apparent that the change came much faster to the current urban counties than to the rural counties. The same pattern of change holds true for the 35-44 and 45-64 age cohorts. The difference between the 65-plus and those ages 45-64 is between 6% and 23%, and the difference between the 45-64 and the 35-44 cohorts is approximately 7.5 percent.

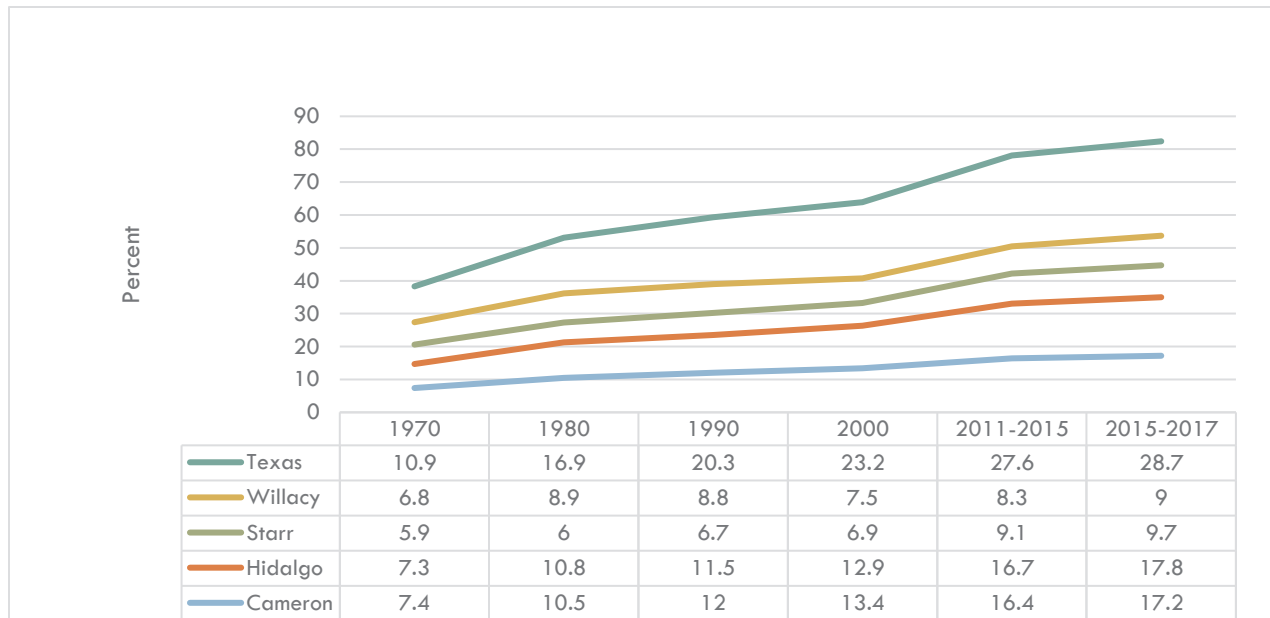
Table 1.2 Average Educational Attainment by Age in Percent

Age	All 25 & Over	25-34	35-44	45-64	65 Plus
<b>CAMERON</b>					
High School Graduate or Higher	66.2	78.7	71.2	65.0	51.0
Bachelor's Degree or Higher	17.2	17.8	17.9	18.1	14.5
<b>HIDALGO</b>					
High School Graduate or Higher	63.7	77.8	67.8	61.1	45.3
Bachelor's Degree or Higher	17.8	18.6	18.9	19.5	12.6
<b>JIM HOGG</b>					
High School Graduate or Higher	71.6	84.0	77.7	63.5	69.5
Bachelor's Degree or Higher	11.3	12.1	9.3	15.8	7.4
<b>STARR</b>					
High School Graduate or Higher	48.8	71.3	54.7	44.8	23.3
Bachelor's Degree or Higher	9.7	12.8	12.9	8.5	4.5
<b>WEBB</b>					
High School Graduate or Higher	66.7	79.3	71.6	64.4	44.9
Bachelor's Degree or Higher	17.4	17.9	20.2	17.7	12.0
<b>WILLACY</b>					
High School Graduate or Higher	65.4	78.4	76.5	64.3	40.8
Bachelor's Degree or Higher	9.0	7.3	7.7	11.9	8.0
<b>ZAPATA</b>					
High School Graduate or Higher	55.4	63.2	60.9	52.8	46.3
Bachelor's Degree or Higher	11.4	13.7	19.8	4.4	11.8
<b>TEXAS</b>					
High School Graduate or Higher	82.8	86.9	82.8	82.8	77.7
Bachelor's Degree or Higher	28.7	29.8	31.0	28.4	25.2
<b>UNITED STATES</b>					
High School Graduate or Higher	87.3	89.8	88.1	88.2	82.8
Bachelor's Degree or Higher	30.9	34.4	34.8	30.1	25.9

Source: U.S. Bureau of Census 2013–2017 American Community Survey three-year estimates

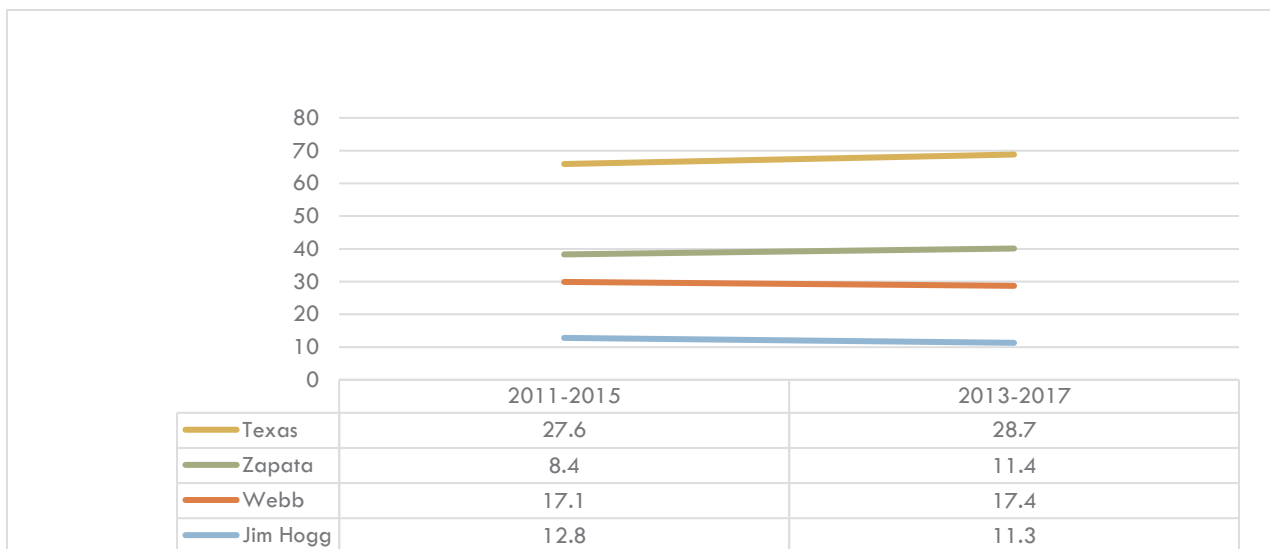
Unfortunately, the increase in the percent of residents who are college graduates has not been as impressive. In the last 35 years, the percentage of college graduates in the Valley has doubled (see Chart 1.2). However, the gap between the Valley and the state has grown from about 3 percentage points in 1970 to almost 10 percentage points in 2017. In the last few years, however, the problem has not been low college enrollments. Valley students had higher college/university enrollment rates than the state—a three-year average (2009, 2010 and 2011) of 60% for the Valley compared to 57% for the state of Texas. Unfortunately, the percentage who actually complete their college careers is very low. While college graduation and persistence rates are low all over the nation, the extent of the problem is more critical in the Valley because of the need to catch up from years of very low educational attainment. As described in Chart 1.2, the Valley is improving at a much slower rate than the state, and this makes it difficult for Valley leaders to compete for the high-paying service and goods-producing industry jobs.

Chart 1.2A RGV & Texas Percent Change in Adult Population with a Bachelor's Degree



Source: Bureau of Census, 2013-2017 American Community Survey 5 Year Estimates

Chart 1.2B Jim Hogg, Webb, Zapata & Texas Percent Change in Adult Population with a Bachelor's Degree



Source: Bureau of Census, 2013-2017 American Community Survey 5 Year Estimates



## The Effects of Poverty

Why the emphasis on poverty? The reason is that living in poverty is a serious situation that has a negative effect on educational attainment. A recent study that illustrates this correlation indicates that even when controlling for IQ, children's performance in a planning task exercise in the 3<sup>rd</sup> grade partially explained their academic performance in the 5<sup>th</sup> grade. Children from low-income homes were more likely to do poorly in the planning skills assessment in the third grade, and this low performance continued in the fifth grade. Therefore, by the third grade, children from homes in poverty are already behind their non-poor peers in the skills necessary to succeed in their grade level, and this gap continues into the higher grades. Based on their findings in this and other similar studies, the researchers conclude that a poverty-stricken home environment does not provide adequate opportunities for children to develop the planning skills necessary to succeed academically.<sup>8</sup> This is not due to any lack of desire on their part or the part of their parents, but, rather, to the type of life experiences usually found in a poverty-stricken household.

In a service economy, more than ever, prosperity for individuals and the community is directly linked to education. A region with a labor force with low educational levels will not reap the benefits of this new service economy. There will be jobs, but most of these jobs will be low-paying and without benefits. Even when working full-time, many of those families will meet the poverty level guidelines and MAY qualify for governmental transfer payments. This situation can result in a "cycle of poverty" in which, due to lack of funds and social capital, offspring are not able to acquire the skills necessary to move out of poverty.

## Native-Born and Foreign-Born Population

Another factor that influences the educational levels in the Valley is the influx of poor and uneducated immigrants from Mexico and Central America.

The data for this section were taken from the Bureau of Census 2013-2017 American Community Survey 5-Year Estimates. The Bureau of Census uses the term "foreign-born" for anyone who was not an American citizen at birth. The Bureau of Census emphasizes to respondents that the agency does not provide information to the immigration authorities; however, it is still difficult to collect information from the undocumented population due to their fear of deportation. Therefore, it is likely that there is a significant undercount of the undocumented population and that the data collected really apply mostly to the foreign-born population legally in the United States. These documented residents include naturalized citizens, legal residents, and temporary migrants such as students and refugees.

The following analysis shows that there are significant differences between the native-born and foreign-born populations in the Rio Grande Valley, as well as notable differences between the nation's foreign-born and native-born populations. According to the Bureau of Census 2013-2017 five-year estimates, 25 to 30% of the Valley's population is foreign-born, and most of those, over 95%, are of Hispanic/Latino origin. In comparison, the percentage of foreign-born residents for the nation as a whole is 13.4% and for the state of Texas, 16.9%. Also, the foreign-born population for the nation is more diverse—45.1% are Hispanic/Latino, 26.5% are from Asia, and 8.9% are Black or African. In Texas, Hispanics/Latinos account for 67.4% of the foreign-born population. Table 1.3 and the narrative following present a more complete description of these differences.

Table 1.3 Characteristics of Native-Born and Foreign-Born Population in Cameron, Hidalgo & Starr Counties

	Cameron		Hidalgo		Starr		Webb	
	Native Born	Foreign Born	Native Born	Foreign Born	Native Born	Foreign Born	Native Born	Foreign Born
Total Estimated Population	76.0	23.9	72.7	27.3	68.6	31.4	73.3	26.7
Percent Hispanic/Latino	87.5	95.0	90.3	95.9	99.0	99.6	94.7	97.6
School-Age Children (5-17)	28.3	5.3	30.6	6.2	31.3	5.1	30.8	5.3
<b>Education (25 and older)</b>								
Less Than High School	21.2	55.9	20.8	57.4	28.2	73.7	20.7	50.5
High School or GED	28.6	18.9	27.1	17.8	32.6	15.1	29.8	23.0
Associate’s or Some College	29.6	13.9	30.6	11.9	23.5	7.5	29.1	13.2
Bachelor’s Degree	14.6	8.0	15.4	9.3	11.4	2.8	14.1	9.8
Graduate or Professional	6.0	3.3	6.2	3.5	4.3	1.0	6.4	3.5
<b>Language</b>								
Speak English Less Than Well	12.5	68.5	15.1	70.9	32.9	85.2	18.6	72.7
<b>Labor Force Participation</b>								
In Labor Force	56.2	53.3	59.0	56.3	60.1	51.2	60.5	53.5
Self-Employed	5.7	16.2	6.1	20.8	6.0	11.9	3.8	12.9
Service Occupations	22.2	35.8	20.2	29.3	21.8	43.6	20.0	28.5
With Earnings	74.9	76.1	79.1	81.9	81.6	74.2	82.3	81.2
<b>Median Earnings</b>								
Male	\$36,119	\$26,469	\$37,180	\$28,187	\$36,136	\$25,325	\$37,813	\$32,035
Female	\$29,512	\$22,647	\$31,744	\$21,521	\$27,447	\$19,355	\$30,325	\$21,864
<b>Poverty Status</b>								
In Poverty	29.9	35.4	29.6	37.9	32.7	40.2	30.9	33.0

Source: 2013-2017 American Community Survey 5-year Estimates (Data for Jim Hogg, Willacy and Zapata Counties are not available)

**Education**

The foreign-born population in the Valley has a much lower educational level than the native-born population. Even though about 23.4% of the adult native-born population has less than a high school education, over 62% of the adult foreign-born population has less than a high school education. The situation is even worse for Starr County, where 73.7% of the foreign-born population is without a high school diploma or GED. In comparison, nationwide, almost two-thirds of the foreign-born population were high school graduates or higher.

**Labor Force**

There is very little difference between the native- and foreign-born populations as far as participation in the labor force is concerned. However, a greater number of the foreign-born report that they are self-employed (approximately 16%) than do the native-born (about 6%). Some of these may be entrepreneurs who are doing well; however, based on the median incomes and levels of poverty, it is more likely that most are people who do day labor or have a booth at a local flea market. Those who are employed are more likely to be in service occupations than in other more skilled and higher-paying occupations.

## **Income**

While most of the Valley's foreign-born population do work, as evidenced by the high percentage of those who reported having earnings during the period surveyed, the earnings were not sufficient to lift them out of poverty. The median earnings for males in the Valley urban counties are approximately \$8,800 lower for the foreign-born than for the native-born. The foreign-born female earnings hover around \$21,000 a year. Two of the reasons for the lower income levels are the lower educational levels plus the fact that about 74% of the foreign-born report that they speak English less than well. In comparison, only about 20% of the national foreign-born population stated that they speak English less than well.

## **Poverty**

The Rio Grande Valley has one of the highest poverty rates in the nation. The poverty rate for the native-born has remained around 30% for a number of years; however, the poverty rate for the foreign-born stands at about 6 percentage points higher.

Even though only a small percentage of the foreign-born are school-age children, between the ages of 5 and 17, it is important to remember that many children of the foreign-born were born after their parents immigrated to the United States; therefore, they are American citizens.

Understanding this situation is important for those working with both adults and their young children in public school systems because most of these children, whether foreign- or native-born, come from families who do not have a lot of experience with the school system. The fact that they do not speak English very well means that many parents may not be able to assist their children with homework and may not feel comfortable contacting teachers and other school officials. Usually, these children require more than the usual school counseling that school districts are able to provide. These children require more intensive programs that also involve their parents, such as sessions where both students and parents can learn about occupations as well as the pathways to those occupations. RGV LEAD provides these types of services.

Given the Valley's history of poverty and high immigration (discussed in Section 2), it is imperative that strategies to improve the educational levels in the Valley be holistic. They must accomplish the usual objective of preparing students for further education and/or the workforce; and they must also tackle the problems endemic to living in poverty, the needs of migrant children, and the needs of the children of immigrants, both documented and undocumented. In addition, the schools and the community must promote a college-going culture for both students and their parents. In summary, Valley leaders have to address and mitigate the consequences of the Valley's historical past.

## **ECONOMIC POTENTIAL: GEOGRAPHY AND PUBLIC AGENCIES**

Real estate professionals often say that there are three things that are important about a property...those are location, location, and location. This old real estate axiom refers to the fact that a property's location often determines its value. If this real estate axiom is correct, the Valley's potential for economic and cultural success is limitless. As Figure 1.1 shows, the Valley is strategically located at the

southern tip of Texas right across the Rio Grande River from Mexico and right on the coast of the Gulf of Mexico. This location gives the Valley access to international trade and movement of goods through both land and sea. Several Valley cities have international bridges that link them to Mexican cities right across the border. People and goods move across those bridges every day, some bound for areas in the immediate locality and others bound for miles within the interior of Mexico or the United States. This location also produces a subtropical climate with adequate rainfall, access to other sources of water for irrigation, and a year-round temperate climate that is ideal for agricultural production. In addition to agricultural production, the climate plus the Valley's proximity to Mexico and the beach make the region attractive to tourists from both sides of the border. All these geographic characteristics come together to produce a unique environment that promotes a great deal of interaction between residents of both nations, making bilingualism (English/Spanish) and biculturalism a "natural" characteristic of the region.

In addition to location, it is important to understand the region's governmental divisions and how these are interrelated. The 43,000 square miles that make up the Valley are divided into four counties, 47 incorporated cities and towns and a large number of unincorporated communities. The Valley is also home to a number of local, state and national agencies charged with overseeing specific activities such as health and public assistance. Describing all of these agencies would be an extensive task; therefore, in this report only those agencies that are active partners or have considerable interaction with RGV LEAD are mentioned and/or discussed.

## **Cities and Counties**

County boundaries are established by the state, and their powers are limited to those specifically stated or implied by state law. Each county has a governing body made up of a county judge (really an elected administrator) and four commissioners; therefore, the Valley has four county judges and 16 county commissioners. Incorporated cities and towns usually provide services for their residents and have the power to elect a governing body as well as establish local laws and collect taxes. Unincorporated communities are usually just places that have a concentration of population; however, they are under the jurisdiction of the county and the state.<sup>9</sup> The 50 incorporated cities and towns in the Valley and their 2018 estimated populations are listed in Table 1.4A and Table 1.4B. If each city or town has a mayor or its equivalent and at least four council members or their equivalent, the Valley has 47 mayors and approximately 188 council members.

Table 1.4A Estimated 2018 Valley Population Distribution by Urban Counties and Incorporated City/Town

Cameron		Hidalgo	
City/Town	2018 Population	City/Town	2018 Population
Bayview	409	Alamo	19,892
Brownsville	184,350	Alton	16,057
Combes	3,061	Donna	17,143
Harlingen	68,182	Edcouch	3,363
Indian Lake	899	Edinburg	90,888
La Feria	7,845	Elsa	7,546
Laguna Vista	3,455	Granjeno	304
Los Fresnos	7,266	Hidalgo	13,398
Los Indios	1,073	La Joya	4,280
Palm Valley	1,280	La Villa	2,433
Port Isabel	5,054	McAllen	142,733
Primera	4,881	Mercedes	17,113
Rancho Viejo	2,568	Mission	83,859
Rangerville	341	Palmhurst	2,717
Rio Hondo	2,897	Palmview	6,796
San Benito	24,695	Penitas	4,946
Santa Rosa	2,756	Pharr	80,143
South Padre Island	2,817	Progreso	5,864
		Progreso Lakes	225
		San Juan	37,145
		Sullivan City	4,174
		Weslaco	39,912
<b>Cities/Towns</b>	<b>18</b>	<b>Cities/Towns</b>	<b>21</b>

Source: Texas Demographic Center, Estimates of the Total Populations of Counties and Places in Texas for July 1, 2017 and January 1, 2018. \* Not Incorporated, considered a Place by the Census Bureau

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This large number of governmental jurisdictions can influence a region’s economic development in both positive and negative ways. For example, a city or county within the region might envision itself in competition with the other cities or counties in the region, while a business or industry wanting to locate in “the Valley” sees the entire Valley population as its potential labor pool and/or customer base. In the past, it has been difficult for the Valley to approach economic development from a regional perspective. However, more recently there is evidence that Valley leaders have begun the transformation to approaching issues and solving problems from a regional perspective. One CEO from the Dallas-Fort Worth area who is familiar with the Valley recently observed, “I think the leadership is beginning to realize that when you begin to solve problems, they don’t stop at city limits signs. Here, we are beginning to see regional cooperation on medical issues, transportation issues...”<sup>10</sup> Two examples of this emerging regionalism are the recent successful effort to locate a medical school in the Valley and the “united effort to seek and find regionalized water supply solutions.”<sup>11</sup> An even more recent example is the creation of the Rio Grande Valley Metropolitan Planning Organization (RGV MPO) created in 2019 (see additional information about the RGV MPO in Section 4).

Table 1.4B Estimated 2018 Valley Population Distribution by Rural County and Incorporated City/Town

<b>Starr</b>		<b>Willacy</b>		<b>Webb</b>	
<b>City/Town</b>	<b>2018 Population</b>	<b>City/Town</b>	<b>2018 Population</b>	<b>City/Town</b>	<b>2018 Population</b>
Escobares	2,760	Lyford	2,543	El Cenizo	3,092
La Grulla	1,683	Raymondville	11,324	Laredo	263,584
Rio Grande City	14,876	San Perlita	553	Rio Bravo	4,907
Roma	12,030	Sebastian*	1,805		
<b>Cities/Towns</b>	<b>4</b>	<b>Cities/Towns</b>	<b>4</b>	<b>Cities/Towns</b>	<b>3</b>

Source: Texas Demographic Center, Estimates of the Total Populations of Counties and Places in Texas for July 1, 2017 and January 1, 2018.



Table 1.4C Estimated 2018 Valley Population Distribution by Rural County and Census Designated Place

Jim Hogg		Zapata		Webb	
City/Town	2018 Population	City/Town	2018 Population	City/Town	2018 Population
Hebbronville	4,389	Falcon Lake Estates	1,164	Aguilares	26
Las Lomitas	230	Falcon Mesa	352	Bonanza Hills	44
South Fork Estates	76	Las Palmas	66	Botines	124
Thompsonville	47	Lopeno	184	Bruni	393
		Los Lobos	7	Colorado Acres	336
		Medina	4,335	Four Points Colonia	16
		Morales-Sanchez	73	Hillside Acres	43
		New Falcon	171	La Coma	52
		Ramireno	31	La Presa	297
		San Ygnacio	552	Laredo Ranchettes	18
		Siesta Shores	1,647	Las Haciendas	3
		Zapata	4,630	Las Pilas	29
				Los Altos	152
				Los Arcos	137
				Los Centenarios	96
				Los Corralitos	40
				Los Fresnos	77
				Los Huisaches	17
				Los Minerales	19
				Los Nopalitos	67
				Los Veteranos	25
				Mirando City	349
				Oilton	360
				Pueblo Nuevo	562
				Ranchitos East	238
				Ranchitos Las Lomas	309
				Rancho Penitas West	582
				San Carlos I	343
				San Carlos II	287
				Sunset Acres	21
				Tanquecitos South Acres I	248
				Tanquecitos South Acres II	53
<b>Census Designated Places</b>	<b>4</b>	<b>Census Designated Places</b>	<b>12</b>	<b>Census Designated Places</b>	<b>32</b>

Source: Texas Demographic Center, Estimates of the Total Populations of Counties and Places in Texas for July 1, 2017 and January 1, 2018. Not Incorporated, considered a Designated Place by the Census Bureau.

The Valley is generally an urban area, as more than 70% of its residents live inside an incorporated city. However, there are county differences in the number of cities within each county as well as in the number of residents per square mile. When the Valley's four counties are combined with the three counties of the South Texas Workforce Development Area (see Section 6), the differences divide the seven counties into two urban counties, Cameron and Hidalgo, and five rural counties, Jim Hogg, Starr, Webb, Willacy, and Zapata. Census-designated places are listed in Table 1.4C. These populated places are not incorporated; however, they are considered a "Place" by the Census Bureau.

## **Economic Development Organizations**

Incorporated cities and towns have the power to establish organizations governed by appointed boards to oversee specific activities, and many cities in the Valley have used this power to establish economic development organizations (EDCs). EDCs work to improve the economic status of their cities by bringing in new industries. RGV LEAD currently has active working partnerships with many of these organizations (for example, a "We Grow Our Own!" project with GBIC and educator externships with McAllen EDC), and multiple EDCs provided input for this report. RGV LEAD, EDCs, school districts, institutions of higher education, and other partners work together in these various communities in coordinated efforts to prepare a well-trained workforce that will attract industries providing good jobs and stimulate economic growth in general. A more comprehensive list of quasi-governmental organizations collaborating with RGV LEAD is provided in the Introduction of this report.

## **Workforce Development Boards**

Texas has 28 workforce investment districts, each served by a workforce development board whose mission is to provide employers and job seekers with a "one-stop" system of workforce investment. (Federal law uses the term "workforce investment district," and state law uses the term "workforce development area." Regardless of the term, the reference is to the service delivery area of each of the individual workforce boards.) These workforce boards provide services for adults, dislocated workers, and young people. The region served by RGV LEAD includes two workforce investment districts, as follows:

- Cameron County district, which includes all of Cameron County and is served by a workforce development board known as Workforce Solutions Cameron.
- Lower Rio district, which includes the Counties of Hidalgo, Starr, and Willacy, combined, and is served by a workforce development board known as the Lower Rio Grande Valley Workforce Development Board, or Workforce Solutions.

RGV LEAD works with Workforce Solutions and Workforce Solutions Cameron on projects such as educator externships, an annual Education & Career EXPO, labor market training for RGV LEAD Student Ambassadors, annual Education & Business Summit, and others. RGV LEAD's partnerships in the past year have expanded to serving students from Jim Hogg, Webb, and Zapata Counties, which are served by the South Texas Workforce Development area, which is served by the South Texas Workforce Development Board.

## Educational Institutions

The following narrative is a description of the **public** schools and **public** postsecondary institutions in the Valley. There are other for-profit and non-profit academic institutions in the Valley; however, they are not included in this report.

### Public School Districts

The Valley has 32 independent school districts, some with multiple high schools, as well as several charter schools and private schools. These school districts, as well as others, also receive services provided by the Region One Education Service Center, which is also an active partner in RGV LEAD's programs. The following is a listing of all the public school districts in the Valley, with their total enrollment as of the 2018-2019 school year, as reported by the Region One Education Service Center. (Table 1.5 includes information for the students from Cameron, Hidalgo, Starr, and Willacy Counties, the four-county region that has historically been RGV LEAD's service delivery area, as well as the districts from Jim Hogg, Webb, and Zapata Counties, districts with which RGV LEAD began working for the first time in 2018-2019.)

Table 1.5 Fall 2018-2019 Rio Grande Valley Public and Charter School Enrollment  
By County and District\*

District	Total Enrollment
Brownsville ISD	44,402
Harlingen CISD	18,620
La Feria ISD	3,320
Los Fresnos CISD	10,739
Point Isabel ISD	2,352
Rio Hondo ISD	1,907
San Benito CISD	10,520
Santa Maria ISD	636
Santa Rosa ISD	1,107
South Texas ISD	4,098
<b>Total Cameron County</b>	<b>97,701</b>
Donna ISD	14,459
Edcouch Elsa ISD	4,935
Edinburg CISD	34,121
Hidalgo ISD	3,253
La Joya ISD	28,024
La Villa ISD	555
McAllen ISD	22,875
Mercedes ISD	5,275
Mission ISD	15,588
Monte Alto ISD	947
Pharr-San Juan-Alamo ISD	32,682
Progreso ISD	1,756

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District	Total Enrollment
Sharyland ISD	10,285
Valley View ISD	4,438
Weslaco ISD	17,275
<b>Total Hidalgo County</b>	<b>196,468</b>
Jim Hogg ISD	1,156
<b>Total Jim Hogg County</b>	<b>1,156</b>
Rio Grande City ISD	10,184
San Isidro ISD	223
Roma ISD	6,238
<b>Total Starr County</b>	<b>16,645</b>
Laredo ISD	23,645
United ISD	43,364
Webb CISD	268
<b>Total Webb County</b>	<b>67,277</b>
Lasara ISD	368
Lyford CISD	1,474
Raymondville ISD	2,054
San Perlita ISD	269
<b>Total Willacy County</b>	<b>4,165</b>
Zapata ISD	3,522
<b>Total Zapata County</b>	<b>3,522</b>
IDEA Public Schools	42,748
Vanguard Academy	4,180
Excellence in Leadership	242
Gateway Academy	305
Midvalley Academy	382
Horizon Montessori	1,324
<b>*Total Charter School</b>	<b>49,181</b>
Total Cameron County	97,701
Total Hidalgo County	196,468
Total Jim Hogg County	1,156
Total Starr County	16,645
Total Webb County	67,277
Total Willacy County	4,165
Total Zapata County	3,522
Total Charter School	49,181
<b>Grand Total</b>	<b>436,115</b>

\*Does not include Parochial Schools

Source: Region One Educational Service Center PEIMS Student Data

### Public Postsecondary Educational Institutions

The Valley is served by one public university, two community colleges, and one technical college. Other public institutions of higher education conduct satellite operations in the region (for example, Texas A&M Health Science Center offers a public health master's program in McAllen, and several universities offer programs at The University Center at Texas State Technical College in Harlingen), and the number of satellite programs offered in the region is growing. Several for-profit institutions also offer programs in the region; however, information about these is not included in this report. The South Texas Workforce Development Area is served by two public institutions of higher education: Laredo College and Texas A&M International University. Additional information about these institutions appears in Section 6 of this report.

The following Valley public institutions of higher education have working relationships with RGV LEAD (information about the programs offered by these institutions appears in Section 3 of this report):

- **South Texas College (STC)** is a community college with three campuses in McAllen, one campus in Weslaco, and another campus in Rio Grande City. STC offers more than 120 program options leading to certificates, associate of arts, associate of science, and associate of applied science degrees in several disciplines plus several baccalaureate degrees in applied technology and applied science.
- **Texas Southmost College (TSC)** located in Brownsville, is a community college with its main campus in Brownsville plus satellite campuses in other locations. TSC's program offerings include certificate programs and a variety of associate degree programs.
- **Texas State Technical College (TSTC)** is part of the Texas State Technical College System. TSTC provides technical education programs leading to certificates (Level 1 and Level 2)<sup>12</sup>, associate of science, and associate of applied science degree awards. TSTC has established agreements with partnering institutions to provide continuing-education opportunities for graduates at the baccalaureate, graduate, and doctoral levels. TSTC's Harlingen campus is also home to the University Center at TSTC, which houses programs of other public and private universities, including The University of Texas Rio Grande Valley and others, offering bachelors and graduate degrees at the site.
- **The University of Texas Rio Grande Valley:** UTRGV is a public research university with multiple campuses in the Rio Grande Valley and is part of the University of Texas system. UTRGV was founded in 2013 and entered into full operation in 2015 after consolidation of the University of Texas at Brownsville, The University of Texas-Pan American, and the UT Regional Academic Health Center. UTRGV offers baccalaureate, master's, and doctoral degrees in a variety of disciplines, plus the UTRGV School of Medicine.

Table 1.6 shows enrollment for the Valley's public postsecondary institutions as they were structured in 2018. This table shows that in the fall of 2018, these postsecondary institutions served a total of 71,838 students, 91% of whom identified themselves as Hispanic or Latino. Both the State of Texas and UTRGV reported 22% of students attending four-year universities on a part-time basis. However, some percentage differences were noted between the state and two Valley colleges. The state reported

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76.7% of students attending part-time at two year colleges, South Texas College reported 71.7% (5% points below the state) and TSTC reported 68.2% (8.5% points below the state). Texas Southmost College at 76.6% reported similar percentages as the state. The number of students attending part-time is important because these students take much longer to complete their programs and most will drop out before completion.

Table 1.6 Fall 2018 Enrollment & Other Statistics at Valley Public Colleges/Universities

Race/Ethnicity	TSTC	STC	TSC	UTRGV	TOTAL
White, Not Hispanic	362	696	207	883	2,148
Black/African American	50	95	14	228	387
Hispanic	3,970	30,121	6,724	25,127	65,942
International	0	95	21	769	885
Other	197	633	164	1,482	2,476
<b>Total</b>	<b>4,579</b>	<b>31,640</b>	<b>7,130</b>	<b>28,489</b>	<b>71,838</b>
Part-Time	68.2%	71.7%	76.6%		
Full-Time	31.8%	28.3%	23.4%		
Degrees / Certificates Awarded	929	6,508	724		5,310
Average Tuition & Fees 2018: 30 Semester Hours (15 Fall; 15 Spring)	\$5,566	\$3,800	\$3,900		\$7,813

Source: Texas Higher Education Coordinating Board

The figures in Table 1.7 indicate that students enrolled at the Valley’s two community colleges are more likely to be enrolled in academic programs than in technical programs. This is also true for the state as a whole. The academic programs usually lead to transfer to a four-year university for a bachelor’s degree or higher.

Table 1.7 2018 Fall Valley Technical and Community College Enrollment by Type of Program

Student Characteristics	STC	TSC	TSTC	TEXAS
Academic Program	73.0%	91.0%	50.7%	75.0%
Technical Program	27.0%	9.0%	49.3%	25.0%

Source: Texas Higher Education Coordinating Board (see endnote 11)

The top five college majors chosen by students enrolled at UTRGV are not very different from those chosen by students enrolled in universities statewide (see Table 1.8). The most popular majors for both statewide and 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 the Valley and the state are that (1) Psychology; and Homeland Security and Law Enforcement, Firefighting, & Related Protective Services are among the top five in the Valley but not statewide, and (2) Engineering and Multi/Interdisciplinary Studies are among the top five statewide but not in the Valley. These enrollment preferences indicate that Valley students are aware of the occupations in demand both in the Valley and the nation as a whole. (A more detailed description of demand occupations in the Valley is provided in Sections 2 and 3 of this report.)

Table 1.8 Top Five Majors for Students Enrolled in Valley Universities and Statewide

Statewide	UTRGV
Business, Management, Marketing and Related Support Services	Business, Management, Marketing and Related Support Services
Health Professions and Related Programs	Biological and Biomedical Sciences
Multi/Interdisciplinary Studies	Health Professions and Related Programs
Engineering	Psychology
Biological and Biomedical Sciences	Homeland Security, Law Enforcement, Firefighting, & Related Protective Services

Source: 2019 Texas Public Higher Education Almanac, Texas Higher Education Coordinating Board

## DEMOGRAPHICS

Demographic profiles are often used by political jurisdictions, economic development organizations, marketing researchers and other groups to understand the population and make decisions affecting a particular region. For example, a firm looking for a place to locate its next plant might be interested in the number of residents who are in a certain age bracket and who possess the desired educational credentials required of the labor force that firm intends to recruit. Some of the most common population variables usually included in a demographic profile are age, sex/gender, race/ethnicity, education, income/earnings, language, home ownership and employment status. A region’s demographic profile is not the same as a profile of that region’s labor force. The difference between a demographic profile and a profile or description of an area’s labor force is that an area’s demographic profile includes all residents, but a description of the labor force includes only those residents who are currently employed or actively seeking employment.

### Population Growth

Based on the Census population estimates from April 1, 2010, to July 1, 2018, the Valley population has increased by 9.0 percent. At 11.8% increase in population, Hidalgo County is the fastest-growing county in the Valley. Generally the increases in population are the result of a combination of high birth rates, immigration (both documented and undocumented from Mexico and Central America) and in-migration from other states and Texas cities. It is anticipated that this growth will continue for the foreseeable future.



Table 1.9 Valley 2018 Population Growth Estimates

	Cameron	Hidalgo	Jim Hogg	Starr	Webb	Willacy	Zapata	RGV
<b>Population (4/1/2010)</b>	406,220	774,769	5,300	60,968	250,304	22,134	14,018	1,533,718
<b>Population Estimate (7/1/2018)</b>	423,908	865,939	5,248	64,525	275,910	21,515	14,190	1,671,235
<b>Percent Change</b>	+4.4%	+11.8%	-9.8%	+5.8%	+10.2%	-2.8%	+1.23%	+9.0%

Source: U.S. Bureau of Census. QuickFacts accessed on 5/10/2019

## Racial/Ethnic Composition

During the 2010 Census, respondents were asked to identify their race and ethnicity separately, and this practice has continued to be used in the current surveys. Table 1.10 indicates that a vast majority of Rio Grande Valley residents self-identified as Hispanic or Latino. Table 1.10 also shows that the Valley is considerably different from the state of Texas and the nation as a whole. Over 90% of Valley residents identify as Hispanic or Latino, compared to 38.9% for the state and 17.6% for the nation.

Table 1.10A 2017 Population Estimates by Geographic Area and Race/Ethnicity in Percent

Race/Ethnicity Identification	Cameron	Hidalgo	Jim Hogg	Starr	Webb	Willacy	Zapata	RGV
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
White	9.3	6.6	5.9	.6	3.5	11.1	5.2	6.03
Black or African American	.4	.4	0	0	.3	.7	0	.26
Hispanic or Latino	89.3	91.8	93.8	99.2	95.5	88.0	94.1	93.1
Other	.7	1.0	0	0.1	.6	.1	.7	.46
<b>Total</b>	<b>99.7</b>	<b>99.8</b>	<b>99.7</b>	<b>99.9</b>	<b>99.9</b>	<b>99.9</b>	<b>100</b>	<b>99.85</b>

Source: U.S. Census Bureau, 2013-2017 American Community 5-Year Estimates accessed on 5/11/2019

Table 1.10B 2017 Population Estimates by Geographic Area and Race/Ethnicity in Percent

Race/Ethnicity Identification	RGV	Texas	U.S.A.
	Percent	Percent	Percent
White	6.03	42.9	61.5
Black or African American	.26	11.7	12.3
Hispanic or Latino	93.1	38.9	17.6
Other	.46	8.1	11
<b>Total</b>	<b>99.85</b>	<b>101.6</b>	<b>102.4</b>

Source: U.S. Census Bureau, 2013-2017 American Community 5-Year Estimates accessed on 5/11/2019

## Age and Gender Distribution

Across Texas and the nation, the population is “graying” at a fast rate. That is, a general decrease in the birth rate and a significant increase in life expectancy at the national level are driving up the median age. Persons residing in the Valley, however, tend to be younger than the statewide and national averages. The statewide median age (as of 2013-2017) was estimated to be 34.3 years, and the estimate for the nation was 37.8. The median age of Valley residents for the same period ranged from 35.4 in Jim Hogg County to 28.4 in Webb County. Hidalgo and Webb Counties had the highest percentage of residents under age 18. All four counties had a higher percentage of residents under age 20 than the statewide average, and except for Jim Hogg County, had a lower percentage of persons 65 or older than the state.

The percentage of females in the Valley’s population (50.2%) was slightly lower than the statewide average of 50.3%. The age and gender distribution of the population is important to economic development and general planning because it provides data necessary to estimate workers available in the future, educational needs, and the potential for population growth. For example, a higher-than-average number of Hispanic women of child-bearing age correlates directly with the area population’s above-average birth rate.

Table 1.11 Age Distribution by Geographic Jurisdiction in Percent

Age	Cameron	Hidalgo	Jim Hogg	Starr	Webb	Willacy	Zapata	Texas	U.S.A.
<b>Under 5</b>	8.6	9.6	6.8	10.2	9.9	6.4	10.0	7.2	6.2
<b>5 – 17</b>	22.8	24.0	23.0	23.1	24.0	18.2	23.8	19.1	16.7
<b>18 - 24</b>	10.7	11.1	9.6	11.6	11.5	13.1	10.4	10.0	9.7
<b>25 - 44</b>	24.6	26.2	22.3	25.0	26.6	28.7	24.4	28.1	26.4
<b>45 - 54</b>	11.1	10.6	6.6	10.8	11.1	10.6	10.1	12.7	13.4
<b>55 – 64</b>	9.6	8.1	13.1	8.3	8.2	9.9	8.5	11.1	12.7
<b>65 - 74</b>	7.0	5.8	11.9	6.2	5.2	7.3	7.1	7.0	8.6
<b>75 Plus</b>	5.8	4.6	6.7	4.9	3.6	5.8	5.6	4.7	6.3
<b>Median Age</b>	31.4	28.9	35.4	28.8	28.4	33.4	29.4	34.3	37.8

Source: U.S. Census, 2009-2013 American Community Survey 5-year Estimates

## Birth and Death Rates

According to the Texas Department of State Health Services, vital statistics for the year 2013 (the latest available in summary form), the annual birth rate (calculated at per 1,000 women ages 15-44 in that area) continues to be higher in the Valley than it is statewide (see Table 1.10). Even though the birthrates in the Valley have decreased slightly since 2006 and the annual death rate (calculated at per 100,000 population) increased in Cameron and Hidalgo Counties, death rates for six out of the seven counties continue to be lower than the state rates.

With a higher-than-average fertility rate and lower-than-average death rate, the Valley population’s “*natural growth*” is faster than that of the state as a whole. In general, this means that the Valley’s median age is still lower than the state as a whole and will continue to be lower as long as birth and death rates continue in the current pattern. It also means that the number of school-age children in the Valley will remain close to its current number.

Table 1.12 2015 Birth and Death Rates in the Lower Rio Grande Valley

	Cameron	Hidalgo	Jim Hogg	Starr	Webb	Willacy	Zapata	Texas
<b>Birth Rates</b>	82.4	85.9	99.2	97.4	87.8	75.9	93.0	70.3
<b>Death Rates</b>	690.8	623.8	810.4	693.2	707.5	718.2	703.7	767.6
<b>Infant Mortality Rates*</b>	5.0	4.3	0	<10	4.7	<10	0	5.6

Source: Texas Department of State Health Services: <http://healthdata.dshs.texas.gov/HealthFactsProfiles>

\*Infant death rates are per 1,000 live births

## CONCLUSION

The Rio Grande Valley of Texas is a region with tremendous potential due to its advantageous location and the relative youth of its population. In the past, the large number of separate governmental jurisdictions has made it difficult for the region to market itself as a single region; however, there is evidence that this is changing and the cooperative effort of the region is paying off in tangible successes, such as the approval of a medical school for the region. The probability is that success for the region will continue to increase as a result of the 2019 creation of the RGV MPO. Another effort that has yielded some level of success is the improvement in the educational levels of the workforce; however, there is still much work to be done. The area is behind both the state and the nation in educational attainment, and this makes it difficult to attract industries with high wages. The lack of education and high-paying wages has resulted in high levels of poverty. In turn, these high levels of poverty make it difficult for young people to acquire the education they need to succeed in today’s workplace. Mitigating the effects of poverty resulting from years of discrimination in education and the influx of poor immigrants with low levels of education requires programs designed to address these issues. 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 necessary for today’s service economy.

## ENDNOTES—SECTION ONE

- <sup>1</sup> U.S. Department of Labor. July 28, 2014. *Largest Industries by State , 1990-2012*  
[http://www.bls.gov/opub/ted/2014/ted\\_20140728.htm](http://www.bls.gov/opub/ted/2014/ted_20140728.htm)
- <sup>2</sup> Carnevale, Anthony P. and Stephen J. Rose. 2015. *The Economy Goes To College: The Hidden Promise of Higher Education in the Post-Industrial Economy*. Center on Education and the Workforce, McCourt School of Public Policy, Georgetown University. Washington D.C.
- <sup>3</sup> United States Department of Health & Human Services. 2019 Poverty Guidelines. <https://aspe.hhs.gov/2019-poverty-guidelines>) For additional information, see: <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>
- <sup>4</sup> Social Impact Consultants. February 2011. *South Texas Regional Overview* at FSG.Org.
- <sup>5</sup> Quotes in this paragraph taken from Brannstrom, Christian and Matthew Neuman. "Inventing the 'Magic Valley' of South Texas, 1905-1941", *The Geographical Review* 91 (2): 123-145, April 2009. The American Geographical Society of New York.
- <sup>6</sup> For an overview of the history of Mexican Americans in Texas and the Rio Grande Valley see De Leon(1983); Garcia (1991; and Montejano (1987) among others (for citations see bibliography).
- <sup>7</sup> Gonzalez, Gilbert G. 1990. *Chicano Education in the Era of Segregation*. University of North Texas Press. Denton, Texas.
- <sup>8</sup> Crook, S.R. and Evans, G. W. (2013), "The Role of Planning Skills in the income-Achievement Gap", *Child Development*, Vol. 84, Issue 4.
- <sup>9</sup> Texas Municipal League, *Alphabet Soup: Types of Texas Cities*. by Laura Mueller, Scott N. Houston and Lauren Ford Crawford Available at (<http://www.texascityattorneys.org/typescities-update2009-CDAdams.pdf>) accessed on 6/7/2013.
- <sup>10</sup> Sam Coats quoted in *rgVision*. Volume 4, Issue 3, by Joey Gomez in *It's Time to Think Regionally*, p. 38.
- <sup>11</sup> Rio Grande Valley Partnership. "Diverse Interests Unanimously Support Need for Regionalized Water Solutions", news released issued on Monday, July, 2013, Available at [www.valleychamber.com](http://www.valleychamber.com) accessed on August 20, 2013.
- <sup>12</sup> The Texas Higher Education Coordinating Board publishes rules governing programs offered by public institutions of higher education, "Level 1 and Level 2 certificates" are among those programs. To learn more, see the rules published by the Texas Higher Education Coordinating Board in Title 19 of the Texas Administrative Code. (See [http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac).)

**RGV Labor Market Analysis**

*This section describes the data used to analyze the Valley's labor force and industries and to support the selection of RGV LEAD's targeted occupations. The list of targeted occupations and the selection criteria used in final identification of RGV LEAD Targeted Occupations are described in Section 3. This section provides an explanation of the multiple analyses conducted to compile that data used in the analysis of the Valley's labor market, together with the input from Valley leaders used in the final Selection Criteria used for selection of the 2019 RGV LEAD Targeted Occupations.*

Research sources included these:

- U.S. Census data.
- Description of Region's Civilian Labor Force Characteristics and industries.
- Data available through state agency websites; and other sources.

*The results of any one of these analyses on its own should not be used as a complete and accurate description of the Valley's labor market. Rather, any conclusions must utilize a combination of these plus the "local wisdom" provided by business people and community leaders with first-hand knowledge of the region. The final selection criteria reflects input of local leaders.*

# Section 2: Rio Grande Valley Labor Market Analysis

Section 2 is a description and analysis of the Rio Grande Valley's labor force and industry mix. In order to provide students, parents and educators with a wide array of information that covers all the career clusters that are part of the public school curriculum, the 2019 RGV LEAD Labor Market Report industry analysis includes all industries operating in the Valley. Targeted occupations (discussed in Section 3) are derived from this analysis.

Analysis of a region's labor market requires the examination and evaluation of a number of factors including:

1. Size and characteristics of the region's current and projected labor force (**people**);
2. State of the market itself as far as which industries operate in the region (**industries**);
3. Projections for growth of these industries (**industries**); and
4. Occupations within the industries (**jobs**).

Subsection 2.1, The Civilian Labor Force, covers the first of these factors, beginning with the characteristics of the current labor force and comparison with the state of Texas, the nation and a group of selected Texas urban counties. These characteristics include size, growth, participation and educational attainment. A review of the participation in the labor force indicates that the Valley is not very different from the state or the nation. The one factor that is considerably different is the Valley's educational levels. The

available data for this report is not adequate for definitive conclusions of why the Valley's educational levels are so much lower. However, a comparison with other counties along the Texas-Mexico border and other selected urban counties does indicate that location on the Texas-Mexico border does have some effect on the Valley's overall educational configuration.

Subsection 2.2, Industries in the Valley's Labor Market, describes the distribution of industries based on levels of employment in the Valley plus a comparison of that distribution with other selected Texas counties. These comparisons also indicate that the industries that employ the majority of people in the Valley are not dramatically different from those of the nation, state or the comparison counties. The difference comes in

the high concentration of Valley employment in just a few industries and the lack of more industries that offer good-paying stable jobs. In order to verify that the industry employment figures represent an accurate depiction of the Valley's industry mix, Subsection 2.2 also includes the results of a comparative advantage analysis and calculations using location quotients, shift share analysis and the number of openings reported by the two Workforce Solutions organizations located in the Valley.

This analysis demonstrates the relationship between education and individual and societal prosperity. On the individual level, education influences participation in the workforce and type of employment, and these in turn influence the earnings and quality of life that the individual is able to attain. On a societal level, education influences the types of industries willing to locate in the region, the types of jobs available in those industries and the income levels and ultimately the governmental revenues collected and the amenities that governmental unit is able to offer its citizens. Regional and individual levels of education are influenced by a number of factors such as socioeconomic status and history; however, of interest for this report is the impact of the percent of foreign-born residents and their tendency for much lower levels of education compared to the native-born.

As this brief analysis suggests, at least part of the reason for the Valley's current economic situation is the result of difficult circumstances precipitated by the Valley's location as well as other factors such as the history briefly discussed in Section 1. These current circumstances present problems that require serious commitment and multiple approaches for resolution. One part of the solution is to improve the skills of the future labor force (in school youth) and the current labor force including the foreign born. Valley leaders, educators and organizations like RGV LEAD are already deeply committed to improving the educational levels of the future labor force (in-school youth) and as described in Section 1, much has already been accomplished. However, much remains to be done. Continuance of this positive momentum requires that these efforts be maintained, intensified and expanded.

## SOURCES AND METHODOLOGY

This *2019 Labor Market Information Report* addresses the current state of the Valley's labor market and is based on as many reliable sources as are available for analysis. Although it is true that no amount of research and analysis can predict the future with a high degree of certainty, state and national organizations attempt to get as close as possible to predicting labor market trends by using surveys, demographic trends and other data. For example, based on facts about the aging of the population and what is known about the needs of an older population, it is possible to predict that this aging of the population will result in a greater demand for health-related services. Of course, unforeseen changes in population, innovations and discovery of new technology can change those predictions without warning. Therefore, this report, as any other analysis of any labor market, is constrained by the data that are known and available for analysis.

Some of the sources and tools used for this labor market analysis include the U.S. Bureau of Census, the U.S. Bureau of Labor Statistics, the Texas Workforce Commission data sources and analysis tools such as SOCRATES, the U.S. and Texas Department of Agriculture, the Federal Reserve Bank of Dallas, several

Valley publications and national publications such as the *New York Times*. Each of these sources is noted in either the body of the report or the endnotes. The data from each of these sources were analyzed and compared to draw a more complete picture of the Valley's labor market as it exists now and a summary of the predictions for growth. Any analysis of a region's labor market, however, is not complete without the input of "local wisdom" provided by those who have firsthand knowledge of the region. Therefore, a draft of the list of targeted occupations and selection criteria was presented to a group of business and community leaders, and their suggestions have been incorporated into the final report. Information about local contributors appears with the acknowledgments included in the introduction.

## **SUBSECTION 2.1 CIVILIAN LABOR FORCE**

A region's civilian labor force (CLF) is defined as persons of working age who are either employed or available for work.<sup>1</sup> Unemployed individuals who have stopped looking for work are not considered part of the civilian labor force. The employment rate is computed as the number of residents employed divided by the CLF. The CLF and the employment and unemployment rates are calculated for specific periods of time; therefore, growth rates and trends can be calculated by comparing the numbers for one period against another. Caution should be exercised when comparing the current rates with the rates of a year ago because a single event could have skewed the numbers considerably.

This subsection provides a description of the Valley's labor force including:

- Mobility, commuting patterns;
- Size and growth rates;
- Participation rates;
- Unemployment rates; and
- Educational attainment.

### **Mobility of the Labor Pool**

As described in Section One, the Valley's labor market is not concentrated in one large municipality, but spread over a large geographic area covering the four Valley counties and across the boundaries of several cities and towns. Indeed, the Bureau of Census commuting studies show that Valley residents often live in one county but work in another (see Table 2.1). During 2014 (the latest report available for this factor), about 30% of the people who were part of the labor force and living in Cameron County were employed in another county, and 25% of those in the labor force and living in Hidalgo County were employed in another county. Starr and Willacy counties had the largest outflow of residents who lived in these counties but worked outside their county of residence. These higher numbers for Starr and Willacy counties can be attributed in part to the fact that these are rural counties; therefore, these counties have fewer businesses operating within their boundaries.



Table 2.1 2014 Inflow/Outflow Employment Statistics by County

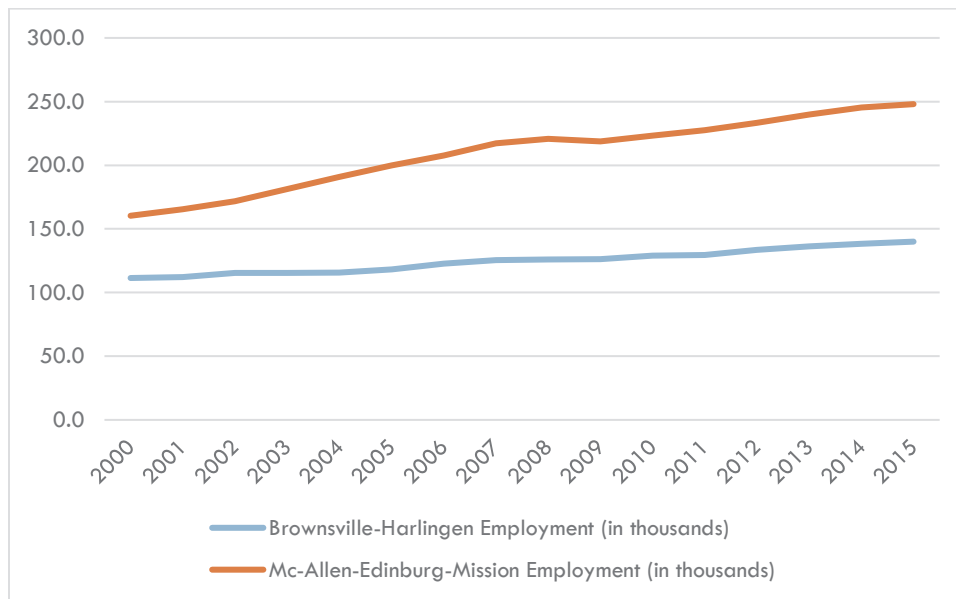
Description	Cameron	Hidalgo	Starr	Willacy
Percent of People Living in County but Working Outside	29.8%	24.7%	62.4%	85.6%
Percent of People Employed in County but Living Outside	24.4%	20.3%	34.5%	57.9%

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics accessed and reports generated on 8/23/2017

### Size and Growth Rates

Chart 2.1 provides a picture of annual employment by the Valley’s two large metropolitan statistical areas (MSAs) over the last 15 years. The average annual employment is different from the total Civilian Labor Force (CLF) because it includes the average total employment and does not include those in the labor force but not employed. This chart shows that while the average employment in the McAllen-Edinburg-Mission MSA has grown rapidly, over the last 15 years (a growth from a little over 150,000 to almost 250,000), the average annual employment for the same period in the Brownsville-Harlingen MSA has grown at a steady but slower rate (a growth from about 125,000 to 140,000). It is important to note that the McAllen-Edinburg-Mission MSA has a larger geographic area and in 2000 already had a larger annual employment than the Brownsville-Harlingen MSA. That being stated, however, it is also evident that the **difference** between the two MSAs has grown from about 50,000 in 2000 to about 110,000 in 2015.

Chart 2.1 2000-2015 Average Employment by Valley MSAs



Source: Chart created using data from the Federal Reserve Bank of Dallas ([www.dallasfed.org](http://www.dallasfed.org))

## Section 2: Rio Grande Valley Labor Market Analysis

Data from the Census' Current Population Survey indicate that the CLF (that includes both employed and unemployed) growth rates for the state of Texas and the Rio Grande Valley have increased over time. The overall growth rate for the Valley is slower than that of the state (see Table 2.2). In the CLF estimate for Texas and the Valley in May 2017, the Texas CLF numbered approximately 13,450.5 (in thousands)—an increase of approximately 336,000 persons in the labor force since May 2015. That represents an increase of about 2.5% compared to an increase of 1.6% in the McAllen-Edinburg-Mission Metropolitan Statistical Area<sup>2</sup> (MSA) and a 1.4% increase in the Brownsville-Harlingen MSA over the same period. **This trend of slower growth of the Valley's CLF is similar to that of the nation.** Much of the increase in the CLF (both locally and nationally) is driven by the economic recovery from the past recession. This increase is mitigated by a “natural” decrease in the labor force due to slower overall population growth and decreasing overall labor force participation of the Baby Boom Generation moving out of the workforce<sup>3</sup>. **One characteristic that is different in the Valley is the number and percent of Hispanics in the labor force.** Nationally the Hispanic/Latino share of the labor pool is expected to increase from 14.8% in 2010 to 18.6% in 2020. In the Valley the percent of Hispanics/Latinos in the CLF is closer to 90 percent.<sup>4</sup>

Table 2.2 May 2017 State of Texas and the  
Two Large Valley Metropolitan Statistical Areas Civilian Labor Force (numbers in thousands)

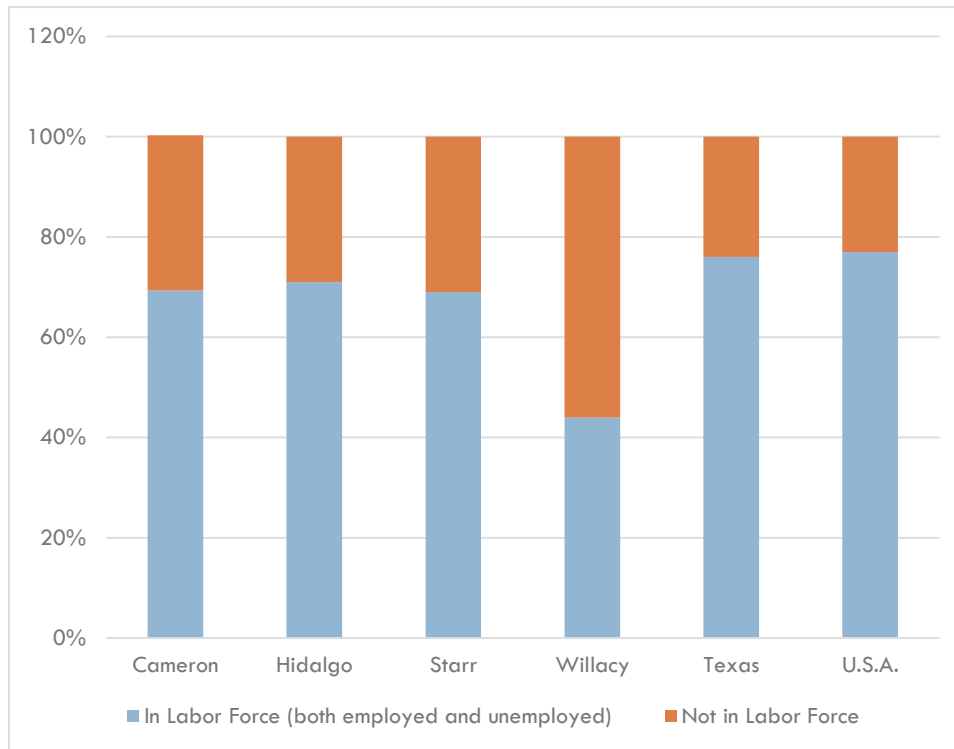
	Texas	Brownsville-Harlingen MSA	McAllen-Edinburg-Mission MSA
<b>Total CLF 5/2017</b>	13,450.5	167.8	340.7
<b>Change 05/2015-05/2017</b>	336.5	2.4	5.5
<b>Percent Change</b>	2.5	1.4	1.6

Source: Table generated from data downloaded from U.S. Department of Labor at <http://www.bls.gov/news.release/metro.to1.htm>

### Labor Force Participation Rates

In addition to actual employment and growth rates, the CLF can be analyzed to determine the percent of the total population that are participating in the labor force at any point in time as well as characteristics of those participants such as age and educational level. The labor force participation rate is calculated as the percent of the total population over the age of 20 who are either working or looking for work. The labor force participation rate is influenced by several factors including age, educational level and the number of unreported workers.<sup>5</sup> Unreported workers are those who are paid “under the table” for a number of reasons including the hiring of undocumented persons and small-scale independent workers (entrepreneurs) who want to be paid in cash.

Chart 2.2 2015 RGV, Texas and Nation Labor Force Status of Population Ages 20-64



Source: Chart created from data downloaded from U.S. Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates

Chart 2.2 depicts the 2015 labor force participation rate for the nation, the state of Texas and the four Valley counties. **As indicated in that chart, the average overall labor force participation rate for the Valley is approximately 10% lower than the nation and the state of Texas.** Two reasons that may be behind this lower participation rate for the Valley may be the low educational levels (discussed in the next subsection) and the number of undocumented immigrants whose labor generally goes unreported. An estimate of the impact of unreported workers on the labor force participation rate is beyond the scope of this report because there is not a reliable source for these data; however, anecdotal evidence, both current and historical, indicates that the Valley has a significant number of undocumented workers.

Table 2.3 provides a view of the relationship between age and labor force participation in the nation, the state of Texas and the Valley. As shown in this table, the highest rate of labor force participation in all jurisdictions is for individuals between the ages of 20 and 59. These are individuals who are generally out of school and supporting a family. There are many reasons why an individual in this age category is not in the labor force. Among these are stay-at-home parents, disabled persons, college students and unreported workers. Individuals in the age 16-19 category who do not participate in the labor force are generally enrolled in high school or higher education. The age 65-74 and over-75 categories represent individuals who may have been in the labor force but are now retired. **Even though the Valley has a lower rate of participation in all age categories, the pattern of participation by age is very similar to the rest of the nation and the state.**

Table 2.3 2015 Labor Force Participation Rates for RGV, State, and Nation by Age Group in Percent

AGE	U.S.A.	Texas	Cameron	Hidalgo	Starr	Willacy
16-19	37.5	35.1	20.1	21.7	23.7	12.6
20-24	73.7	72.7	51.1	63.8	62.8	38.8
30-34	82.1	80.1	67.5	74.9	70.5	34.7
45-54	80.2	79.3	74.0	75.0	72.9	52.3
55-59	72.2	71.1	58.7	67.6	63.8	42.1
65-74	24.0	27.1	19.5	18.0	19.6	12.2
75 +	6.1	6.5	4.0	3.2	4.1	3.0

Source: Table created from data downloaded from the U.S. Bureau of Census

The educational attainment of the Valley’s population is definitely improving; and the younger the group, the higher the educational levels. This is very good news for the Valley because research indicates that higher educational levels have a positive correlation with participation in the labor force and earnings. Table 2.4 and Chart 1.1 in Section 1 illustrate that this same relationship between participation in the labor force, education and earnings is present in the Valley. **Table 2.4 shows that in the Valley the labor force participation rate for an individual with less than a high school education is as much as 30 percentage points lower than for an individual with a bachelor’s degree or higher.** In fact, just completing high school or earning a GED improves the labor force participation rate by about 10 percentage points (see Table 2.4).

Table 2.4 Labor Force Participation for Population Ages 24-64 by Educational Attainment in Percent

Educational Attainment	U.S.A.	Texas	Cameron	Hidalgo	Starr	Willacy
Less than High School	60.8	64.0	52.7	54.0	59.3	25.5
High School Graduate	73.2	72.9	69.0	65.0	70.4	38.3
Some College or Associate’s Degree	79.3	79.1	75.5	73.2	80.2	51.0
Bachelor’s Degree or Higher	86.0	85.7	84.6	82.6	90.6	61.6

Source: Table created from data downloaded from the U.S. Census Bureau, 2011-2012 American Community Survey 3-Year Estimates

## Unemployment Rates

Historical unemployment rates for the Valley show that since 1990 unemployment rates have improved significantly. Table 2.5 provides a very brief look at the fluctuations in the unemployment rates for the Valley’s two large Metropolitan Statistical Areas (MSAs) from 1990 to 2012. The fact that even in the deepest part of the recession the unemployment rate has not risen to pre-1990 levels speaks to the strength of the emerging Valley economy.

Table 2.5 Valley Historical Unemployment Rates by Metropolitan Statistical Area

Brownsville-Harlingen MSA			McAllen-Edinburg-Mission MSA		
	Year	Rate		Year	Rate
<b>High</b>	1991	15.2%	<b>High</b>	1990	22.6%
<b>Fell to Single-digit</b>	2000	7.0%	<b>Fell to Single-digit</b>	2000	9.2%
<b>Low</b>	2007	6.0%	<b>Low</b>	2007	6.6%
<b>Increased to Double-digit</b>	2010	11.3%	<b>Increased to Double-digit</b>	2009	10.4%
<b>Current</b>	Jan. 2019	6.1%	<b>Current</b>	Jan. 2019	6.7%

Source: Table compiled using data from the Federal Reserve Bank of Dallas at <https://www.dallasfed.org/research/econdata/tx-unemp.aspx#tab2>

Table 2.6 shows that the July 2019 unemployment rate for the state of Texas is lower than that in the Valley. Table 2.6 shows that the large Texas MSAs with the lowest unemployment rates are Austin-Round Rock, Dallas-Plano-Irving and San Antonio. These data also indicate that from July 2016 to July 2017, all these MSAs except McAllen-Edinburg-Mission and Fort Worth-Arlington saw slight decreases in the unemployment rate. (The Dallas Federal Reserve Bank reports only for the large MSAs.) These decreases in the unemployment rate can be attributed to the recovery from the recession. At one point in 2017, there was a slight increase, 0.2%, in the McAllen-Edinburg-Mission MSA. The reason for that change at that point is not clear; however, anecdotal evidence suggested that national political developments may have had a significant impact on the retail and other industries that have high interaction with Mexico. The decline in sales is reflected in the lower sales tax revenue as discussed in Subsection 2.2.

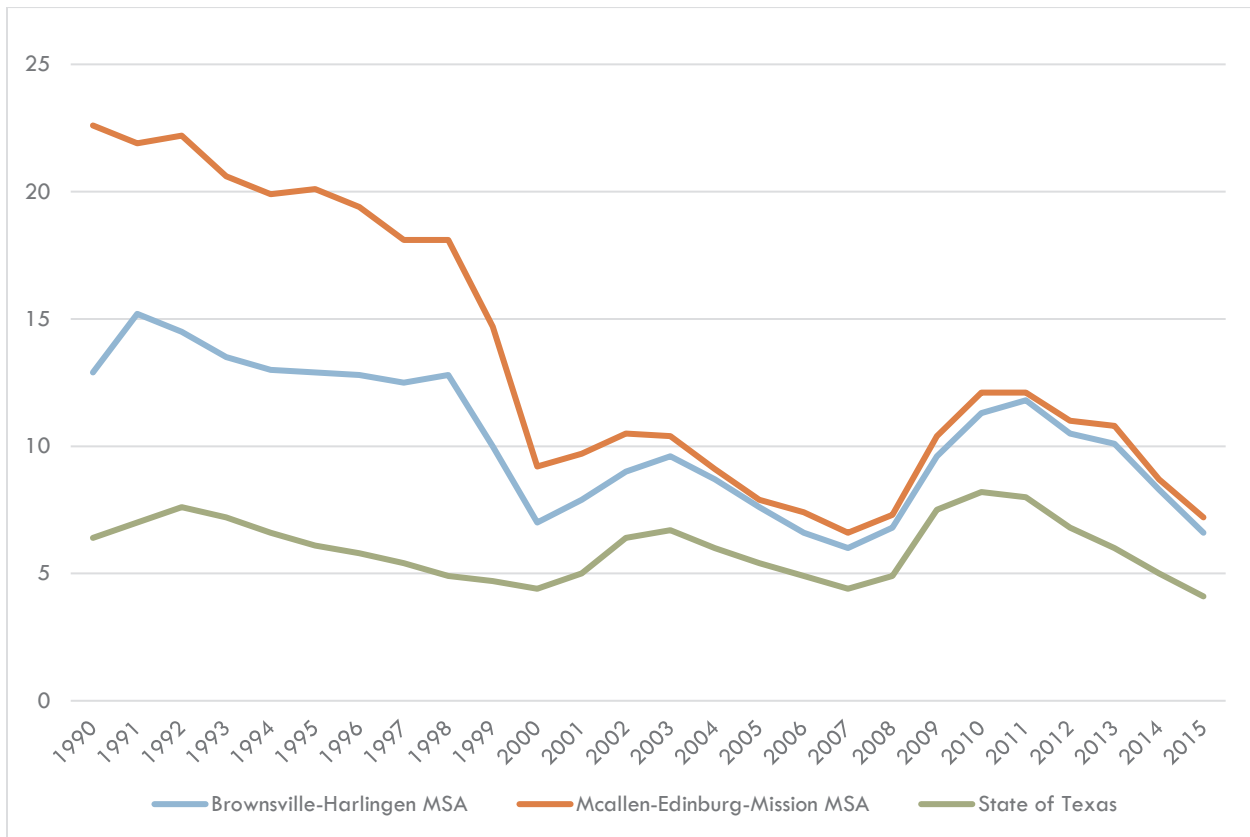
Table 2.6 Unemployment Rate Texas and Large MSAs from 7/2016 – 7/2017

	July-16	July-17	Change
Texas	4.7%	4.3%	-0.4%
Austin-Round Rock	3.3%	2.8%	-0.5%
<b>Brownsville-Harlingen</b>	<b>7.4%</b>	<b>7.1%</b>	<b>-0.3%</b>
Dallas-Plano-Irving	4.0%	3.7%	-0.3%
El Paso	5.1%	4.3%	-0.8%
Fort Worth-Arlington	4.0%	4.4%	+0.4%
Houston-Sugar Land-Baytown	5.2%	4.8%	-0.4%
Laredo	5.2%	4.5%	-0.7%
<b>McAllen-Edinburg-Mission</b>	<b>7.7%</b>	<b>7.9%</b>	<b>+0.2%</b>
San Antonio	3.8%	3.6%	-0.2%

Source: Table constructed from data downloaded from the Federal Reserve Bank of Dallas

The “Great Recession” that occurred in the late 2000s and early 2010s impacted the Valley later than other parts of Texas and the nation. The Valley was also slower to recover. Chart 2.3 shows the slant of the unemployment rate over the twenty-five years from 1990 through 2015. This chart indicates that from 2003 through mid-2008, when the Valley began to experience the impacts of the recession, the job growth in the Valley’s urban counties had kept up with the CLF growth. During the recession the unemployment rate peaked during 2009-2010 and then began a downward trend. **Also, it is apparent that the downward trend in the Valley’s unemployment rate correlates with the implementation of NAFTA in the early to mid 1990s.**

Chart 2.3 1990-2015 Texas and Valley Unemployment Rate Trends



Source: Chart created using data from the Federal Reserve Bank of Dallas

An interesting fact regarding the relationship between education and employment is that the likelihood of being unemployed decreases as workers' education increases.<sup>6</sup> Table 2.7 shows the same trend for the Valley. Workers with less than a high school diploma are more than three times more likely to be unemployed than those with a bachelor's degree or higher. This relationship is expected to continue and become even more intense as more and more jobs require skills than are usually acquired through some postsecondary education and/or training. Workers without post-secondary training who are able to secure employment will very likely be employed in the lower-skilled and lower-paying jobs.

Table 2.7 Unemployment Rates for Population 24-64 by Educational Attainment in Percent

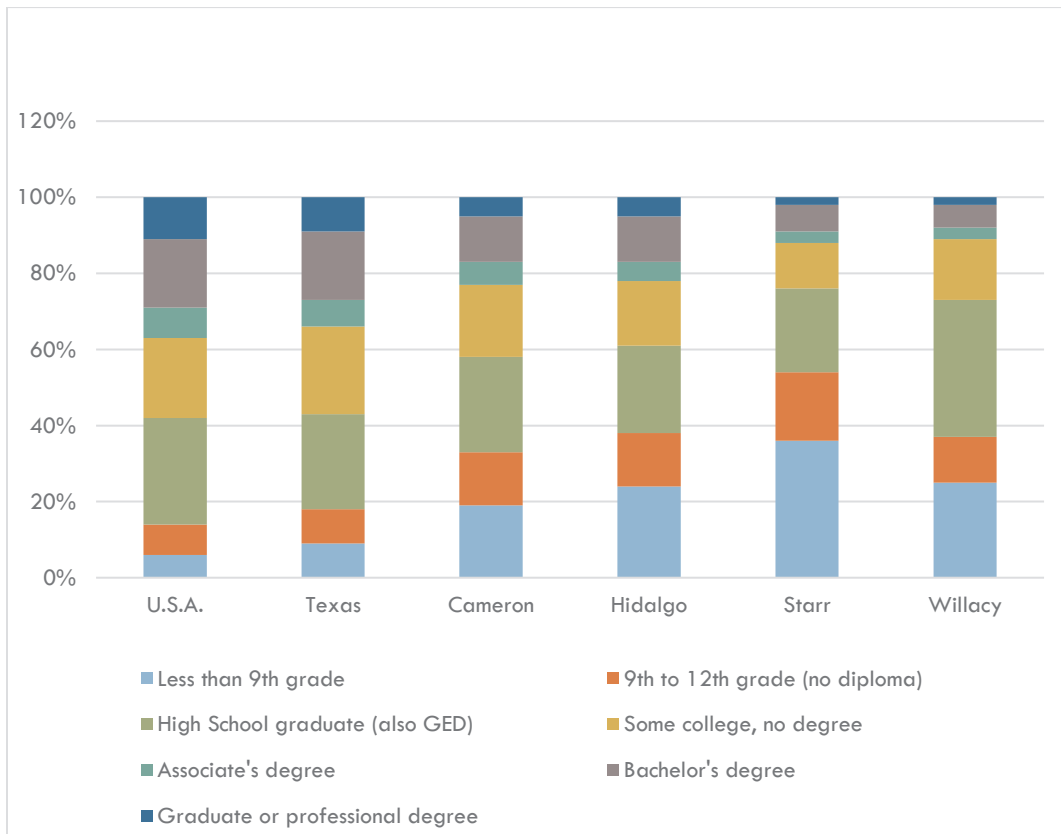
Educational Attainment	U.S.A.	Texas	Cameron	Hidalgo	Starr	Willacy
Less than High School	14.0	9.4	13.8	12.8	11.4	15.2
High School Graduate	10.0	7.9	9.7	9.5	11.6	11.0
Some College or Associate's Degree	8.0	6.5	7.0	6.6	8.5	4.8
Bachelor's Degree or Higher	4.2	3.5	3.5	3.3	4.0	0.0

Source: U.S. Census Bureau, 2011-2012 American Community Survey 5-Year Estimates

## Worker Educational Attainment

With the data available, it is difficult to determine the educational attainment of just the labor force (only those currently working or looking for work); therefore, this **analysis utilizes the educational attainment data for all Valley residents age 25 and over (see Chart 2.4).** These data show that there are significant differences between the Valley and the state. For example, in the Valley over a quarter of the over-25 population have less than a 9<sup>th</sup> grade education compared to 6% for the nation and 9% for the state of Texas. Also, only about 12% in Cameron and Hidalgo Counties, and in Starr and Willacy Counties only about 7%, have a bachelor's degree or higher compared to 18% for the nation and the state. It is also interesting to note that there is a significant difference between the two Valley urban counties. For example, the percent of the population 25 and over that have less than a high school education is 33% for Cameron and 38% for Hidalgo. The two rural counties are also considerable different. The percent of the adult population with less than a high school education is 54% in Starr County, but only 37% for Willacy County. Based on what is known about the relationship between education and employment/unemployment, it is possible to speculate that increasing the percent of the Valley's over-25 population with a high school diploma or higher could result in less unemployment and in higher availability of well-paying jobs.

Chart 2.4 Comparison of Educational Attainment of Persons Age 25 Plus in Percent by Nation, State, and RGV Counties



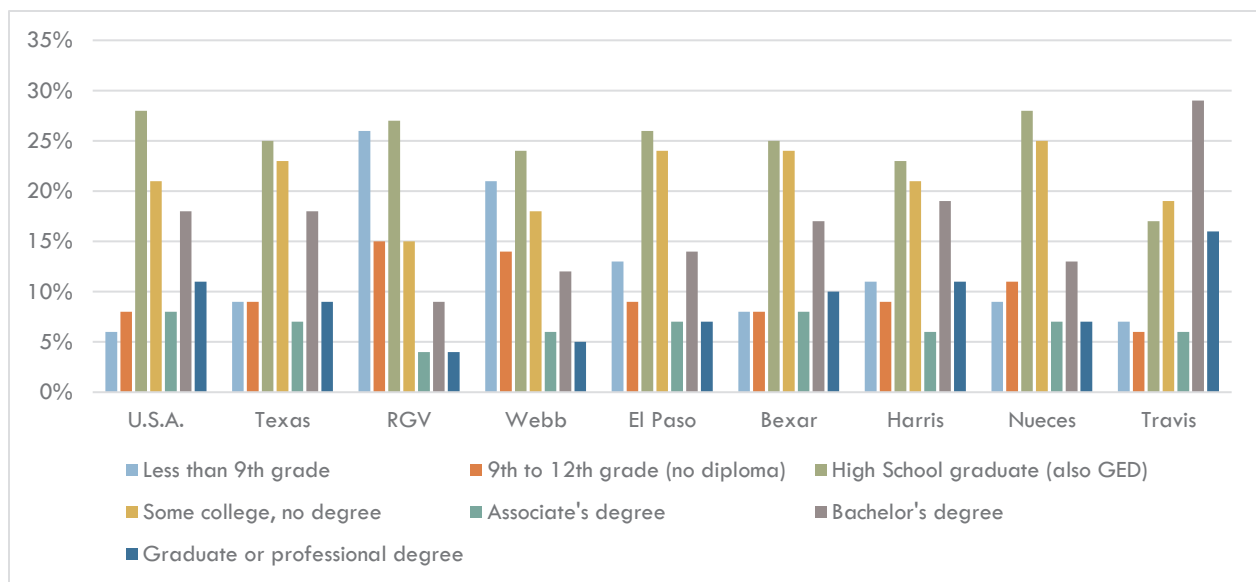
Source: Chart created from American Community Survey 5 Year Estimates 2011-2015 downloaded using American Factfinder at census.gov



**Section 2: Rio Grande Valley Labor Market Analysis**

An analysis of all or even most of the factors behind the Valley’s lower educational attainment is beyond the scope of this report. However, a comparison with the two other large border counties, Webb (Laredo) and El Paso, two large counties in close geographic proximity to the Valley, Bexar (San Antonio) and Nueces (Corpus Christi) plus Harris County, the most heavily populated, and Travis County, the most highly educated, **does indicate that at least one of the reasons may be related to the Valley’s location along the U.S.-Mexico border.** Chart 2.5 provides a comparison of the educational attainment in the counties mentioned above plus the nation and the state of Texas. (For this comparison the statistics for the four Valley counties were collapsed into one number for the Valley and labeled “RGV.”) This comparison shows that approximately 45% of the Valley’s age-25-and-over population has less than a high school diploma. Webb County, also located on the border with Mexico, has 35% of its age-25-and-over population with less than a high school diploma. El Paso County, also on the border with Mexico, is next with 22% then Harris and Nueces with 20%, Bexar with 16% and Travis with only 13 percent.

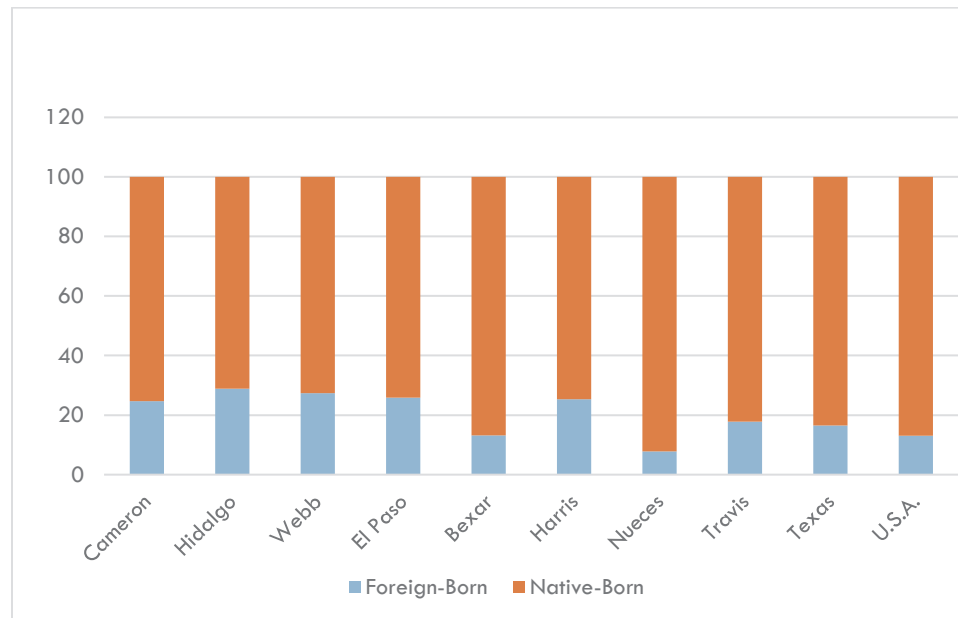
**Chart 2.5 Comparison of Educational Attainment for Persons Age 25 Plus by Nation, Texas, RGV and Selected Texas Counties**



Source: Chart created from American Community Survey 5 Year Estimates 2011-2015 downloaded using American Factfinder at census.gov

Further analysis of the population in the selected counties indicates that being located on the border with Mexico is associated with a higher percent of the population that is foreign-born (see Chart 2.6). The percent of the population that is foreign-born in the four urban border counties is 25% for Cameron, 29% for Hidalgo, 27% for Webb and 26% for El Paso. The only other selected county that has a similar distribution between foreign- and native-born is Harris, with 25% and 75% respectively. These percentages of foreign-born are considerably higher than the 17% for the state of Texas and 13% for the nation as a whole.

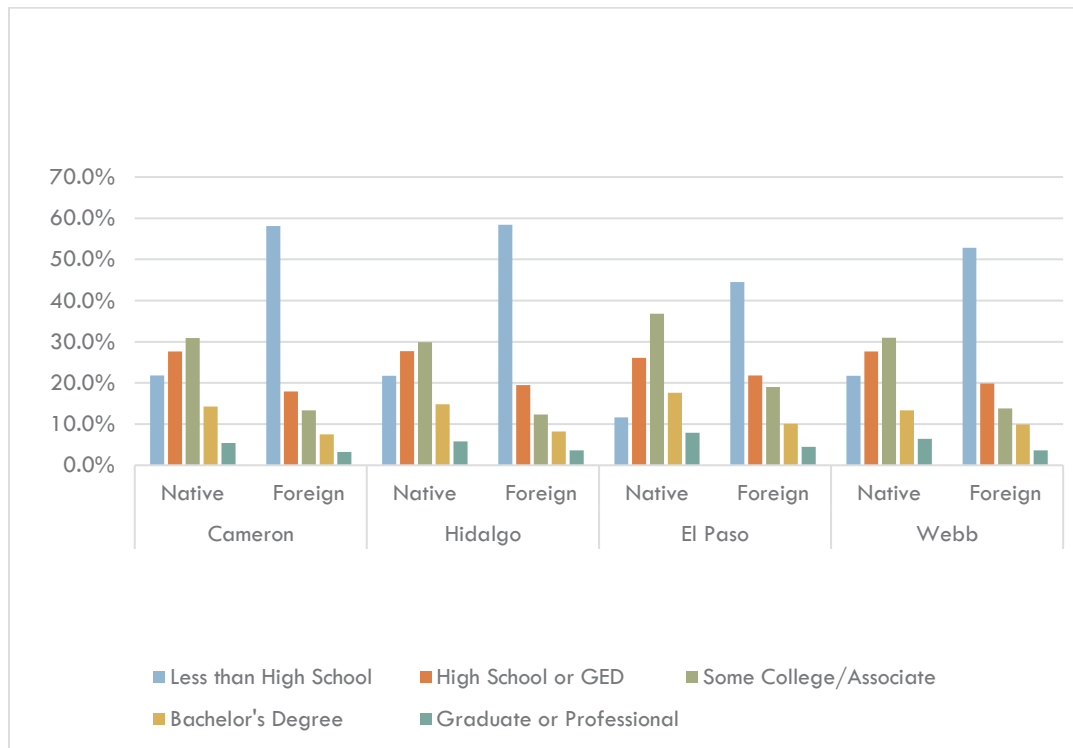
Chart 2.6 Nativity of Population by Selected Texas Counties, State of Texas and the U.S.A. in Percent



Source: U.S. Census Quick Facts<sup>7</sup>

A high percentage foreign-born in and of itself is not necessarily a problem for a county's level of income, poverty or distribution of employment; however, when a high percent of the foreign-born have much lower educational levels, the overall educational attainment level of the whole county can be negatively impacted. The foreign-born population in the United States generally has a lower level of education, especially those who come from Mexico and the less-developed nations.<sup>8</sup> In the counties on the Texas-Mexico border, most of the foreign-born population come from Mexico and Central America and, as shown in Chart 2.7 the foreign-born in these border counties have considerably lower educational levels than the native-born population. The data show that the percent of the native-born population in Cameron and Hidalgo Counties with less than a high school education is about 20%, while for the foreign-born it is almost 60%. In Webb County the percent of the native-born with less than a high school education is also 20%; however, the percent of the foreign-born with that same level of education is closer to 50%. El Paso County has a similar difference between the two groups, about 35%; however, the percent of native-born population with less than high school is only 10%, while for the foreign-born it is about 45 percent.

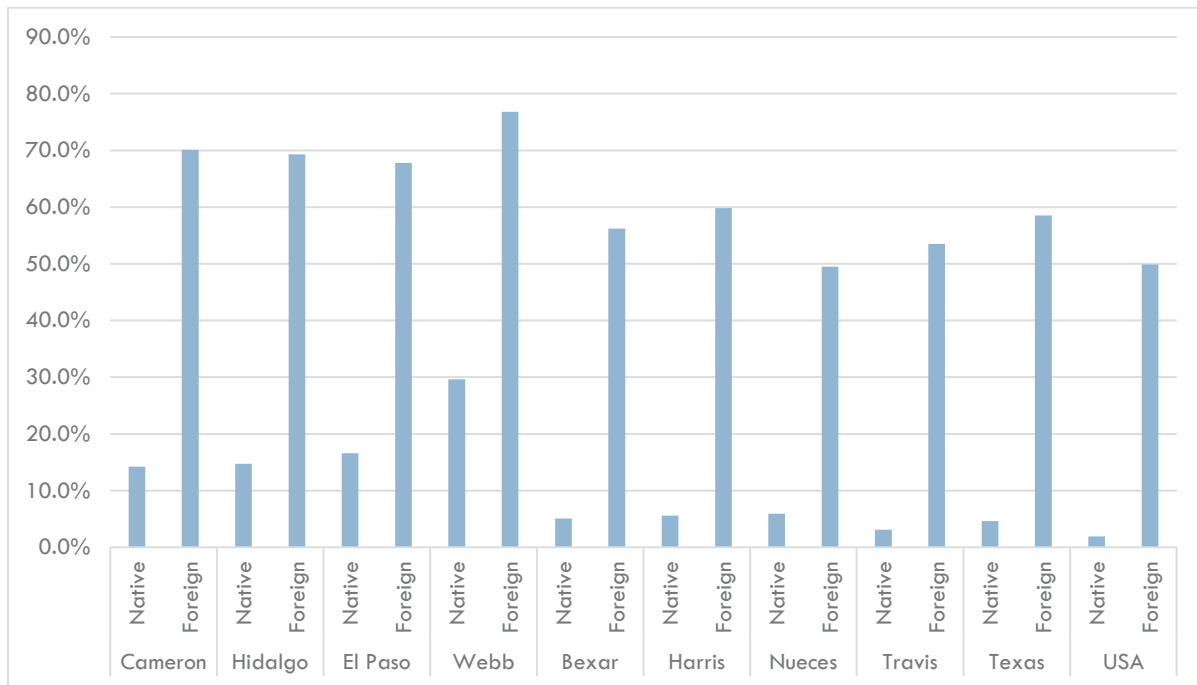
Chart 2.7 Educational Attainment for Population 25 and Over in Texas Large Border Counties by Nativity



Source: Selected Characteristics of the Native and Foreign-Born Populations, 2011-2015 American Community Survey 5-Year Estimates at census.gov accessed on 4/24/2017.

Another factor that can have a significant impact on the employability of individuals in the United States of America is the ability to speak English well.<sup>9</sup> In places like the Valley and the other Border counties, the ability to speak both English and Spanish can be a positive; but, the lack of proficiency in either language can be a negative. Chart 2.8 is a description of the percent of the native- and foreign-born who indicated that they do not speak English well. As expected, the data show that the foreign-born in each jurisdiction are more likely to say they speak English less than well; however, the percent for the Border counties is considerably higher than the other counties, the state and the nation. One unexpected fact is that the percent of native-born in the border counties who say they speak English less than well is over 10%, while it is in the low single digits for the other jurisdictions.

Chart 2.8 Percent of Population Who Speak English Less Than Well by Nation, State of Texas and Selected Counties



**These data indicate that two of the important differences between the Valley and the state of Texas and nation is the lower levels of education and ability to speak English well, especially among the foreign-born. The Valley, however, is not very different from the other large Border counties.** There are probably many other reasons why these counties have lower levels of education; however, the data do indicate that one of those reasons is the phenomena that occur in large urban areas located on the Texas-Mexico Border. This movement of population is not exclusive to the Valley; rather, it can be common to areas on the border between two nations with differing economies, such as the United States and Mexico. Often these circumstances lend themselves to the migration of people seeking better economic opportunity. Usually these immigrants are not the wealthy or highly educated individuals from the sending country.<sup>10</sup>

Given the relationship between educational levels and industry requirements, places like the Valley often find themselves in a very difficult position. Industries that bring well-paying stable jobs with possibilities for advancement usually require a labor force with higher levels of education than those found in the Valley; therefore, that is one of the reasons they are often unwilling to locate in the Valley. One obvious remedy to this situation is to increase the Valley's level of education. As discussed in Section 1 of this report, the work of Valley educators and other organizations such as RGV LEAD have helped to decrease the dropout rates, increase the high school graduation rates, and increase the college enrollment rates. However, when some of these graduates fail to find good-paying jobs, they are likely to move to other areas where better jobs are available. At the same time more immigrants with low levels of education and ability to speak English move into the Valley and other Border counties. This situation causes the levels of education to remain below the levels considered acceptable by industries that offer the higher-paying jobs. The result is a serious conundrum. That is, how does a region like the Valley keep its skilled labor when jobs are not

available, or how does a region like the Valley attract well-paying industries when the skilled labor force required is not present?

## SUBSECTION 2.2 INDUSTRIES IN THE VALLEY'S LABOR MARKET

Subsection 2.2 provides a description and brief analysis of the Valley's existing industry mix. The analysis of the entire industry mix includes:

- Employment Distribution by private industry and public jurisdictions;
- Employment Distribution by industry sector and subsector;
- Comparative Advantage;
- Location Quotients;
- Shift Share Analysis; and
- Job Openings as reported by the Texas Workforce Commission and Workforce Solutions organizations.

The analysis of Industries is especially complex because it includes the reconciliation of data collected in several different categories. These categories include:

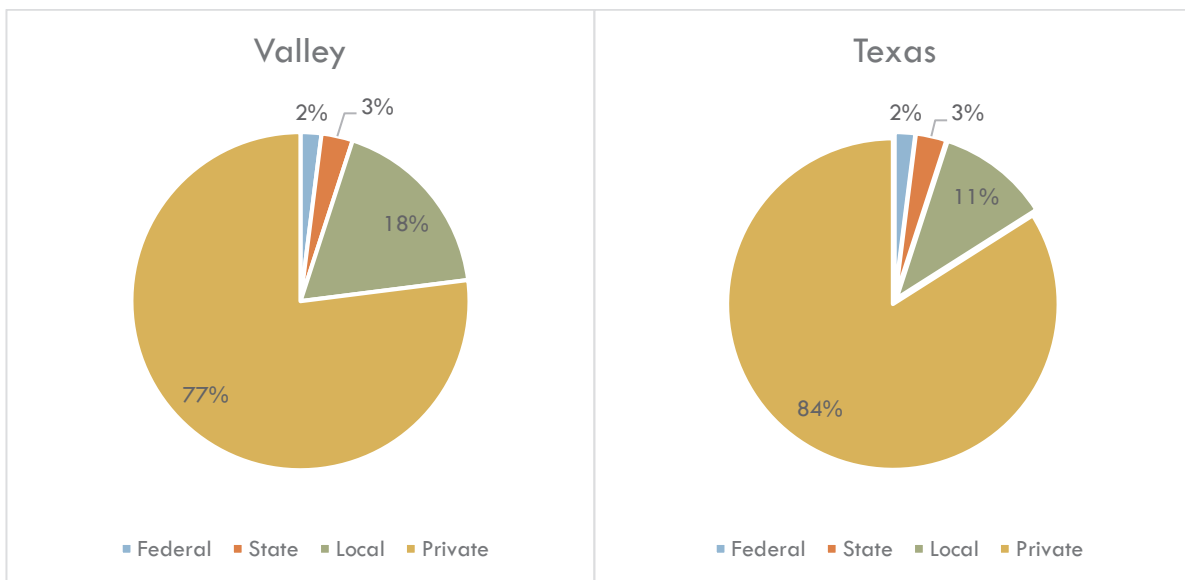
- **The North American Industry Classification System (NAICS).** This system is the standard used by Federal statistical agencies in classifying **business establishments** for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. This category has several layers including industry sector and subsectors within each sector. For example, the industry sector Accommodations and Food Services includes, among others, the subsector Food Services and Drinking Places<sup>11</sup>.
- **The 2010 Standard Occupational Classification (SOC) System.** This system is used by Federal statistical agencies to classify workers into **occupational categories** for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups.<sup>12</sup> Each major occupational group has several occupations or job titles. For example, the Engineers, Architects and Surveyors major occupational group has, among others, Civil Engineers, Industrial Engineers and Mechanical Engineers. **Some of these occupations are industry-specific; however, most can be found in all or most of the industries.**
- In addition, the categories listed above have to be converted into the career cluster format. The career cluster framework is based on sixteen federally defined career clusters and is the foundation for structuring how schools arrange their instructional programs. A career cluster is a grouping of occupations and broad industries based on commonalities (especially skills, knowledge and abilities). The sixteen career clusters provide an organizing tool for schools, small learning communities, academies, and magnet schools.<sup>13</sup>

- Among other modifications to the Texas high school graduation requirements, Texas House Bill 5 passed by the legislature in 2013 allows students to earn endorsements in Science, Technology, Engineering and Mathematics (STEM); Business and Industry; Public Services; Arts and Humanities; and Multidisciplinary Studies. Students must select one of these endorsements at the point of entering the 9<sup>th</sup> grade. The career cluster framework in Section 3 reflects the 16 career clusters in currently in effect, aligned with Foundation High School Program endorsements. For information about career cluster modifications planned for 2020-2021, see Section 3.

### Employment Distribution by the Private and Public Sectors

Chart 2.9 shows that about three quarters of the civilian labor force in the Rio Grande Valley is employed in private industry, including those that are self-employed, and about 23% are government employees, compared to 16% for the state overall. Government employment includes cities, counties, and local districts such as water districts, state agencies including colleges and universities, and federal agencies such as Immigration and Customs Enforcement, as well as school districts. Compared to the state as a whole, these numbers indicate that the Valley is highly dependent on government employment. Usually economists consider high government employment as a negative because it does not generate revenue but does affect taxes. However, in the Valley’s case, part of the high rate of public employment can be explained by the Valley’s location on the border with Mexico. This location requires a substantial number of border-protection personnel such as Customs and Border Patrol agents. Another reason for the high percentage of local government employees can be attributed to the fact that the Valley has four counties, 47 incorporated cities and 32 school districts. (See Section 1 for a description of these public entities.) The majority of public employees in local government are teachers, administrators and support personnel working for school districts. One positive factor for government employment is that these jobs are usually well-paying and stable. Many of the Valley’s higher-paying occupations can be found in the public sector.

Chart 2.9 2017 First-Quarter Valley and Texas Statewide Employment Distribution



Source: Chart created from data downloaded from the Quarterly Employment & Wages Texas LMCI TRACER Data Link

### Employment Distribution by NAICS Industry Sector

Table 2.8 shows the distribution of employment in the Valley counties by NAICS Industry Sector. As is evident, the majority of the CLF in the Valley (over half) is employed in four of these sectors. Over 40% of the Valley CLF work in Educational Services and Health Care and Social Assistance combined and about 15% work in Retail Trade. The fourth largest industry sector is Accommodations and Food Services; however, at approximately 9%, it is considerably smaller than the highest three. Administrative & Support, Waste Management and Remediation has a high level of employment, 20%, and Agriculture, Forestry, Fishing & Hunting, 11%, has a significant share of employment in Willacy County; however, its share of the employment in the other three counties is significantly less. The other 15 industry sectors each employ 5% or less of the Valley’s labor force.

Table 2.8 RGV Employment Distribution by NAICS Industry Sector and County

NAICS Industry Sector	Rio Grande Valley Counties							
	Cameron		Hidalgo		Starr		Willacy	
	Count	%	Count	%	Count	%	Count	%
Agriculture, Forestry, Fishing & Hunting	580	0.5%	3,742	1.7%	76	0.6%	348	11.1%
Mining, Quarrying, & Oil and Gas Extraction	139	0.1%	3,037	1.4%	142	1.1%	33	1.1%
Utilities	1,351	1.1%	1,728	0.8%	99	0.8%	30	1.0%
Construction	3,360	2.9%	7,665	3.5%	212	1.7%	41	1.3%
Manufacturing	5,347	4.5%	6,749	3.1%	33	0.3%	12	0.4%
Wholesale Trade	3,567	3.0%	7,776	3.6%	115	0.9%	53	1.7%
Retail Trade	15,382	13.1%	34,132	15.7%	1,297	10.4%	372	11.9%
Transportation and Warehousing	3,901	3.3%	6,647	3.0%	143	1.1%	166	5.3%
Information	1,140	1.0%	2,399	1.1%	17	0.1%	150	4.8%
Finance and Insurance	2,929	2.5%	6,334	2.9%	236	1.9%	46	1.5%
Real Estate and Rental and Leasing	1,772	1.5%	2,128	1.0%	17	0.1%	19	0.6%
Professional, Scientific and Technical Services	2,586	2.2%	4,508	2.1%	148	1.2%	30	1.0%
Management of Companies and Enterprises	249	0.2%	505	0.2%	1	0.0%	0	0.0%
Administration & Support, Waste Management and Remediation	7,943	6.7%	10,918	5.0%	190	1.5%	643	20.5%
Educational Services	18,680	15.9%	38,844	17.8%	3,656	29.3%	412	13.1%
Health Care and Social Assistance	28,834	24.5%	47,977	22.0%	3,883	31.1%	352	11.2%
Arts, Entertainment and Recreation	1,104	0.9%	2,199	1.0%	8	0.1%	12	0.4%
Accommodation and Food Services	10,406	8.8%	18,414	8.4%	547	4.4%	226	7.2%
Other Services (excluding Public Administration)	2,235	1.9%	3,592	1.6%	140	1.1%	61	1.9%
Public Administration	6,209	5.4%	8,786	4.1%	1,531	12.3%	133	4.0%
All	117,714	100.0%	218,080	100.0%	12,491	100.0%	3,139	100.0%

Source: U.S. Bureau of Labor Statistics



Table 2.9 is a comparison of the top five industries in the Rio Grande Valley with the other two large counties on the Texas-Mexico border, selected other counties and the State. This comparison shows that 55% of the Valley's labor force is employed in the top three industries and that almost 70% are employed in the top five industries. This high percent is not true for any of the other comparison counties or the state. The percent for the other two Border counties is in the 40s and the state and other counties are in the 30s. The Valley's high concentration in just a few industries is not ideal because disruption in just one industry can have a significant effect on the whole Valley economy. Harris County has the most diversified industry mix of the entire group

Table: 2.9 Top Five Industries in Valley, Selected Counties and the State of Texas by Rank and Percent

			Large Border Counties				Large Counties Geographically Close to RGV						State			
	RGV		Webb		El Paso		Bexar		Harris		Nueces		Travis		Texas	
Industry Sector		%		%		%		%		%		%		%		%
Health Care & Social Assistance	1	23.1	2	15.1	2	13.5	1	15.9	1	11.0	1	17.	1	11.5	1	12.6
Educational Services	2	17.5	1	15.9	3	12.8	4	9.5	5	8.3	5	9.9	3	11.0	3	10.5
Retail Trade	3	14.6	4	12.6	1	15.6	3	11.2	2	9.7	3	10.5	4	8.6	2	11.0
<b>Top 3 Sectors</b>		<b>55.2</b>		<b>43.6</b>		<b>41.9</b>		<b>36.6</b>		<b>29.0</b>		<b>37.6</b>		<b>31.1</b>		<b>34.1</b>
Accommodations & Food Services	4	8.4	5	9.4	4	11.0	2	11.4			2	11.2	5	8.6	4	8.6
Administration & Support, Waste Management and Remediation	5	5.6	-	-	5	8.1	5	7.4	-	-	-	-	-	-	-	-
Transportation & Warehousing	-	-	3	14.9	-	-	-	-	-	-	-	-	-	-	-	-
Manufacturing									3	9.0					5	8.3
Professional, Scientific and Technical Services	-	-	-	-	-	-	-	-	4	8.5	-	-	2	11.1	-	-
Construction											4	10.0				
<b>Top 5 Sectors</b>		<b>69.2</b>		<b>67.9</b>		<b>61.0</b>		<b>55.4</b>		<b>46.5</b>		<b>58.8</b>		<b>50.8</b>		<b>51.0</b>

Source: U.S. Bureau of Labor Statistics

## Geography and Comparative Advantage

Basic understanding of an area's existing industry mix starts with a look at its geography. The four counties comprising the Rio Grande Valley share climatological, topographical, and location characteristics that favor certain kinds of economic development and growth over other kinds of businesses. The geographic characteristics of this area, including its location at the U.S.-Mexican border and proximity to the Gulf of Mexico, predispose it to three main industries: agriculture, tourism and trade. This does not mean that these are the only industries in the Valley; however, these are the main industries that come "naturally" to the area. These industries are likely to employ a significant number of people in the area, and the types of occupations native to these industries will remain in high demand most of the time.

Unfortunately, the industries that have a comparative advantage in the Valley tend to produce private-sector jobs that are seasonal and low-paying. In the public sector, however, many of the jobs associated with the close proximity and trade with Mexico tend to be higher-paying federal jobs associated with

regulating imports and controlling illegal smuggling activity of both drugs and people. The following is a brief description of the economic impact of the industries with comparative advantage in the Valley.

- 1. Agricultural Production (Part of the Agriculture, Forestry, and Fishing & Hunting Industry Sector):** Agriculture and the businesses that support this industry remain significant contributors to the Valley’s economy. A substantial percent of the Valley’s land area is still dedicated to agricultural and livestock production (see Table 2.10). Cameron, Hidalgo and Willacy Counties’ farm land is used to grow crops, while the majority of Starr County’s farm land is really ranch land used to raise cattle. According to the 2012 Census of Agriculture conducted by the U.S. Department of Agriculture, in the Valley crop and livestock production combined brought in over \$800 million in sales that year.<sup>14</sup> Most of these sales were to areas outside the Valley, including exports to Mexico. Therefore, while not a significant source of direct well-paid employment, agriculture remains a vital component of the Valley’s economy. (The U.S. Department of Agriculture publishes a Census of Agriculture every five years. See <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>.)

Table 2.10 Acres in Farm Land by County

County	Acres in Farm Land
Cameron	309,700
Hidalgo	795,108
Starr	668,724
Willacy	336,075

Source: 2012 Census of Agriculture, U.S. Department of Agriculture [www.agcensus.usda.gov](http://www.agcensus.usda.gov)

According to a recent Census of Agriculture, the main crop in the Valley is sorghum for grain followed by cotton and sugarcane for sugar. Also, the Valley remains Texas’ greatest citrus- and winter-vegetable-growing region.<sup>15</sup> In the past low-skilled agricultural jobs such as harvesting vegetables and picking cotton were plentiful in the Valley, and many low-skilled individuals depended on them for their livelihood. Today, although some of these jobs (such as harvesting vegetables and citrus crops) are still available, other jobs (such as picking cotton and harvesting of the other main crops) have been taken over by mechanization. Therefore, except for farm and ranch owners and managers, most of the **direct** agricultural jobs that remain are seasonal and low- paying. The USDA Census of Agriculture also showed that Valley managers of farms and ranches reported that the total hires for that period were slightly less than 10,000 workers and 60% of those worked less than 150 days a year.

**Hospitality and Tourism (Part of the Accommodations and Food Services Industry Sector):** Tourism is a multi-billion-dollar industry in Texas; and even though the Valley is not among the top tourist destinations in Texas, tourism continues to have a tremendous impact on the Valley economy. Although the tourist industry in this area has been negatively affected by recent drug-related violence in Mexico, a recent study commissioned by the Texas Department of Tourism indicates that in 2012, tourism brought over \$2 billion<sup>16</sup> into the Valley economy (see Table 2.11). In addition to the typical tourists staying for short vacations, the Valley’s mild winters historically have attracted long-term visitors from colder northern states. Many, known as “Winter Texans,” reside temporarily

in the Valley during the winter months. Some “Winter Texans” buy second homes or relocate permanently to the Valley, thereby influencing real estate and construction activity.

Table 2.11 2012 Estimated Direct Travel Impacts by County

County	Total Direct Spending (in Millions)	Visitor Spending (in Millions)	Local Tax Receipts (in Millions)
Cameron	\$824.2	\$771.9	\$17.4
Hidalgo	\$1,317.5	\$1,230.7	\$21.8
Starr	\$31.5	\$31.5	\$4.8
Willacy	\$26.5	\$26.5	\$1.9
<b>Total</b>	<b>\$2,199.7</b>	<b>\$2,060.7</b>	<b>\$45.9</b>

Source: Table compiled from data in the report *The Economic Impact of Travel on Texas 1990-2012*

Unfortunately most of the **direct jobs** created by tourism are at the lower end of the pay scale and are subject to seasonal fluctuation (for example, custodial staff at hotels and motels, restaurant workers and sales people at souvenir shops). The higher-paying occupations in this industry are in the management of various establishments.

1. **International Trade:** International trade is not considered an industry sector; however, for purposes of understanding the true impact of trade in the Valley, it is more convenient to consider the two industry sectors that are part of this activity together. In the Valley, international trade is of two types. The first is the movement of wholesale products exported and imported from Mexico and other world regions through both land and sea. The second is the daily purchase of goods at retail establishments as well as the consumption of goods and services at restaurants, hotels and entertainment establishments by individuals on both sides of the border. The types of jobs and the wages paid for these jobs tend to be quite varied. For example, jobs associated with international trade range from retail clerks at the lower end of the pay scale to truck drivers and cargo clerks that are paid at a somewhat higher rate to the well-paid management positions at the ports and other entry points. This industry also includes government workers associated with customs and homeland security.

The following is a brief description of each of these two types of international trade:

**Transportation, Distribution & Logistics (Part of the Transportation and Warehousing Industry Sector):** Mexico is the United States’ second-largest trading partner in the world, and Texas border counties are the leading gateway for that trade. Texas has eleven ports of entry on the Mexican border, with five of those located in the Rio Grande Valley. In 2014 the Valley’s ports of entry accounted for approximately 22% of the truck crossings in Texas. Brownsville and Hidalgo border crossings handle most of the truck and rail cargo traffic. To a lesser extent, truck-borne cargo also passes through Progreso, Rio Grande City, and Roma. In addition, cargo in route to and from Mexico and the rest of the world is handled through the Port of Brownsville (Brownsville Navigation District). The annual economic impact on the Valley of this type of international trade runs into the millions of dollars. Recently a study by Martin Associates of Lancaster, Pennsylvania, estimated the Port’s

economic impact at \$925 million.<sup>17</sup> (See end of Section 5 for additional information about ports of entry in the South Texas area.)

The Valley is an important port of entry for both business and personal travel to the United States. Table 2.12 shows that during 2016 a significant portion of the border crossings from Mexico to Texas came through the Rio Grande Valley. The figures indicate that about 22% of the truck crossing came through the Valley and about 35% of the personal vehicle and pedestrian crossings also came through the Valley. At 52%, Laredo had the highest percent of truck crossings and at 39%, El Paso had the highest percent of pedestrian crossings.

Table 2.12: 2016 Border Crossing/Entry at Port Level for the State of Texas and the Rio Grande Valley

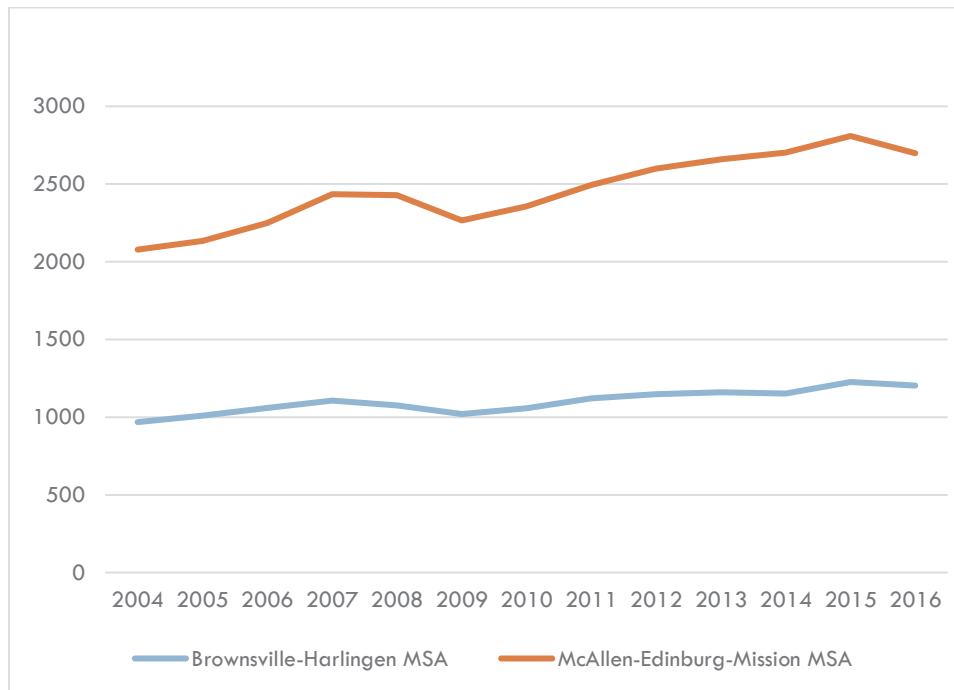
Port Name	Trucks	Trains	Buses	Bus Passengers	Personal Vehicles	Personal Vehicle Passengers	Pedestrians
Boquillas	NA	NA	NA	NA	NA	NA	14,099
Brownsville	217,331	758	10,217	46,395	4,635,919	9,428,627	2,550,833
Del Rio	74,290	NA	NA	NA	1,526,137	3,128,449	167,249
Eagle Pass	159,538	3,062	1,036	25,574	2,729,400	5,424,549	824,500
El Paso	763,868	1,652	15,050	199,819	12,525,548	20,767,737	7,032,715
Fabens	175	NA	NA	NA	313,390	654,652	31,957
Hidalgo	568,235	NA	25,045	288,020	4,721,387	9,635,092	2,414,852
Laredo	2,083,964	3739	41,856	1,039,605	5,092,204	10,745,977	3,573,992
Presidio	7,539	NA	538	6,163	671,492	1,403,327	71,160
Progreso	48,983	NA	NA	NA	1,244,130	2,747,205	844,327
Rio Grande City	35,996	NA	NA	NA	410,410	811,497	61,390
Roma	7,494	NA	385	7,996	800,270	1,510,619	245,307
<b>Texas Total</b>	<b>3,967,411</b>	<b>9,211</b>	<b>94,126</b>	<b>1,613,572</b>	<b>34,670,287</b>	<b>66,257,731</b>	<b>17,832,441</b>
<b>RGV Total</b>	<b>878,039</b>	<b>758</b>	<b>35,647</b>	<b>342,411</b>	<b>11,812,116</b>	<b>24,133,040</b>	<b>6,116,709</b>

Source: U.S. Department of Transportation Bureau of Transportation Statistics OMR database accessed on 9/1/2017.

**Sales and Retail Trade (Part of the Retail Trade Industry Sector):** Mexicans crossing the border to shop account for much of the pedestrian and personal vehicle passenger traffic described in Table 2.12. Although widely publicized drug-related violence in Mexico and related border- security discussions have had a negative impact on the number of Mexican citizens who cross frequently to shop in these retail establishments, figures from the U.S. Department of Transportation indicate that between 2014 and 2016 the total number of personal vehicles crossings increased by 6% and the number of passengers in those vehicles increased by 21 percent. Also, the number of pedestrian crossings increased by almost 10 percent. This was a good indication that the impact of the drug-related violence had decreased; however, recent reports from local economic development organizations and others indicate that the traffic may be slowing down again. A contributing factor may be the exchange rate of the Mexican peso plus the political strain between the two countries.

Chart 2.10 shows that since 2015, retail sales in both Valley MSAs have taken a downward trend. Another reason for this downward trend is the general national decline due to the growth of on-line shopping and other factors. Since one of the Valley's main employment areas is in Retail Sales, this downward trend in retail sales could result in significant negative consequences in the form of an increase in unemployment, especially for those without other marketable skills.

Chart 2.10 Annual Average Retail Sales (in millions)



Source: Chart created using Federal Reserve Bank of Dallas data

## Location Quotients

Location Quotients (LQs) provide another way of looking at trends in the distribution of employment in the local economy.<sup>18</sup> A location quotient measures the degree to which employment in a particular sector, industry cluster or specific industry is concentrated locally.

$$LQ = (\% \text{ of an area's employment in industry X}) / (\% \text{ of national employment in industry X})$$

If a “self-sufficient” local industry employs just enough workers to produce exactly as much as is consumed locally, its LQ will equal 1.0. An LQ greater than 1.0 suggests that a local industry produces more than is consumed locally. The surplus goods and services produced by a local industry with LQ higher than 1.0 can be sold to consumers outside the area to generate in-bound cash flow and local wealth creation. An industry is termed a “base” industry or “export” industry if its LQ is greater than 1.0. If a local industry's LQ is less than 1.0, then some portion of those goods and services bought locally, such as computers and televisions, must be imported from producers outside the region. (For example, an LQ of 1.2 suggests a high concentration of industrial employment in an area. An LQ of 0.8 suggests that employment demand for that industry is not very concentrated locally. This does not mean that there are no jobs in the low-LQ sectors; however, these jobs are more likely to be few and far between.)

**Section 2: Rio Grande Valley Labor Market Analysis**

Table 2.13 lists the location quotients for industries for the two MSAs in the Valley. Table 2.13 utilizes codes from North American Classification System (NAICS). NAICS is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The public sector is not part of this analysis; therefore, government jobs, such as law enforcement and public school teachers, do not appear on this list. The analysis in the table shows that the industries in the Brownsville-Harlingen MSA that have LQs higher than 1.0 are Retail Trade, Healthcare and Social Assistance, and Accommodation and Food Services. The industries that have an LQ higher than 1.0 in the McAllen-Edinburg-Mission MSA are Agriculture, Forestry, Fishing and Hunting, Mining, Quarrying and Oil and Gas Extraction, Retail Trade, and Healthcare and Social Assistance. Two of the industries with LQs higher 1.0 in the Brownsville-Harlingen MSA are those that are considered to have a comparative advantage in the Valley, and two of those in the McAllen-Edinburg-Mission MSA are in this comparative advantage category.

Table 2.13 Location Quotients Calculated September 2017 from Quarterly Census of Employment and Wages Data

<b>Industry</b>	<b>Brownsville-Harlingen, TX MSA</b>	<b>McAllen-Edinburg-Mission, TX MSA</b>
Base Industry: Total, all industries	1.00	1.00
NAICS 11 Agriculture, Forestry, Fishing and Hunting	.51	1.91
NAICS 21 Mining, Quarrying, and Oil and Gas Extraction	.18	1.21
NAICS 22 Utilities	.56	.82
NAICS 23 Construction	.44	.57
NAICS 31-33 Manufacturing	.43	.30
NAICS 42 Wholesale Trade	.61	.81
NAICS 44-45 Retail Trade	1.14	1.31
NAICS 54 Professional and Technical Services	.29	.33
NAICS 55 Management of Companies and Enterprises	.14	.15
NAICS 56 Administrative and Waste Services	.96	.67
NAICS 61 Educational Services	.56	.79
NAICS 62 Health Care and Social Assistance	2.05	1.88
NAICS 48-49 Transportation and Warehousing	.86	.84
NAICS 51 Information	.36	.42
NAICS 52 Finance and Insurance	.51	.61
NAICS 53 Real Estate and Rental and Leasing	.72	.55
NAICS 71 Arts, Entertainment, and Recreation	.54	.52
NAICS 72 Accommodation and Food Services	1.10	.95
NAICS 81 Other Services, except Public Administration	.53	.57
NAICS 99 Unclassified	.25	.45
<b>Location Quotient: Ratio of analysis-industry employment in the analysis area to base-industry employment in the analysis area divided by the ratio of analysis-industry employment in the base area to base-industry employment in the base area.</b>		

## Shift-Share Analysis

Shift-share analysis is a way to account for the competitiveness of a region's industries and to analyze the local economic base. This analysis is used primarily to deconstruct employment changes within an economy over a specific period of time. It paints a picture of how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. A shift-share analysis will provide a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster- or slower-than-average-growing industries, and the competitive nature of the local industries.

Like other analytical economic tools, the shift-share technique is only a descriptive tool that should be used in combination with other analyses to provide a summary of a region's key employment potential industries. The analysis provides a representation of changes in employment growth or decline, and it is useful for targeting industries that might offer significant future employment opportunities. By interpreting data provided by shift-share, one can explore the advantages a local area may enjoy, as well as identify growth or potential growth industries. The economic data used in this shift-share analysis comes from U.S. Bureau of Labor Statistics and show the changes over a one-year period from the fourth quarter of 2014 and the fourth quarter of 2015.

### **Cameron Workforce Investment District (WID) Region (Cameron County)**

The four industry sectors with the most growth in the Cameron County WID during this period were:

- Health Care and Social Assistance 591
- Retail Trade 467
- Manufacturing 203
- Accommodation and Food Services 173

The industries that lost the most jobs during this period were:

- Transportation and Warehousing 325
- Administration and Waste Services 310
- Wholesale Trade 204

### **Lower Rio Grande Valley WID Region (Hidalgo, Starr, and Willacy Counties)**

The four industry sectors with the most growth in the Lower Rio WID during this period were:

- Health Care and Social Assistance 787
- Educational Services 334
- Wholesale Trade 328
- Manufacturing 238
- Accommodation & Food Services 166

The industry sectors that lost the most jobs during this period were:

- Construction 653
- Agriculture, Forestry, Fishing & Hunting 405
- Administration and Waste Services 259

The shift-share analysis reports only what is and cannot explain why an industry lost or gained employment. However, review of those with the most growth does indicate that the other statistics such as comparative advantage and location quotients are correct. One positive addition to the industries experiencing growth in the Valley is manufacturing. This is an indication that the economic development organizations working to attract more manufacturing firms to this region have been successful.

The shift-share analysis also provides a prediction of the industries that have the greatest and least likelihood for potential job opportunities. This analysis is based on the activity between the first quarters of 2014 and 2015. These predictions do not mean that there will or will not be any jobs in those industries; rather, the analysis simply indicates which industries have the highest and lowest likelihood of job opportunities in the near future. Based on this activity the prediction is that in the near future the best chances for job opportunities in the Valley are in the following sectors and subsectors:

- Accommodations and Food Services
- Retail Trade
- Health Care & Social Assistance

This same analysis indicates that the sectors with the lowest chance of job opportunities are:

- Agriculture, Forestry, Fishing & Hunting
- Information
- Wholesale Trade

### Real-Time Valley Job Openings

Analysis of the local job openings indicates that the pattern observed by this analysis adheres closely to that of the other labor force analysis tools. Table 2.14 is a listing of the job openings in both workforce development areas in the Valley. While this brief analysis of job openings in the Valley is an interesting study and does provide useful information, it cannot be taken as a completely accurate depiction of the employment picture in this area. Job posting sites usually do not include job openings in the higher-paying and executive-type occupations. Most of those positions are usually advertised through the employers' own websites and/or with private-sector recruiting firms. Also, jobs in some of the "blue collar" occupations such as the Construction industry are also not always advertised because they may be filled by word of mouth or by candidates simply walking up to construction sites. In those cases the data from the Department of Labor and Bureau of Census are more accurate because they measure actual changes in employment rather than advertised job openings.



Table 2.14 Top 10 Occupations for Entry-Level Workers in the Valley by Workforce Development Area Between July 2016 and July 2017

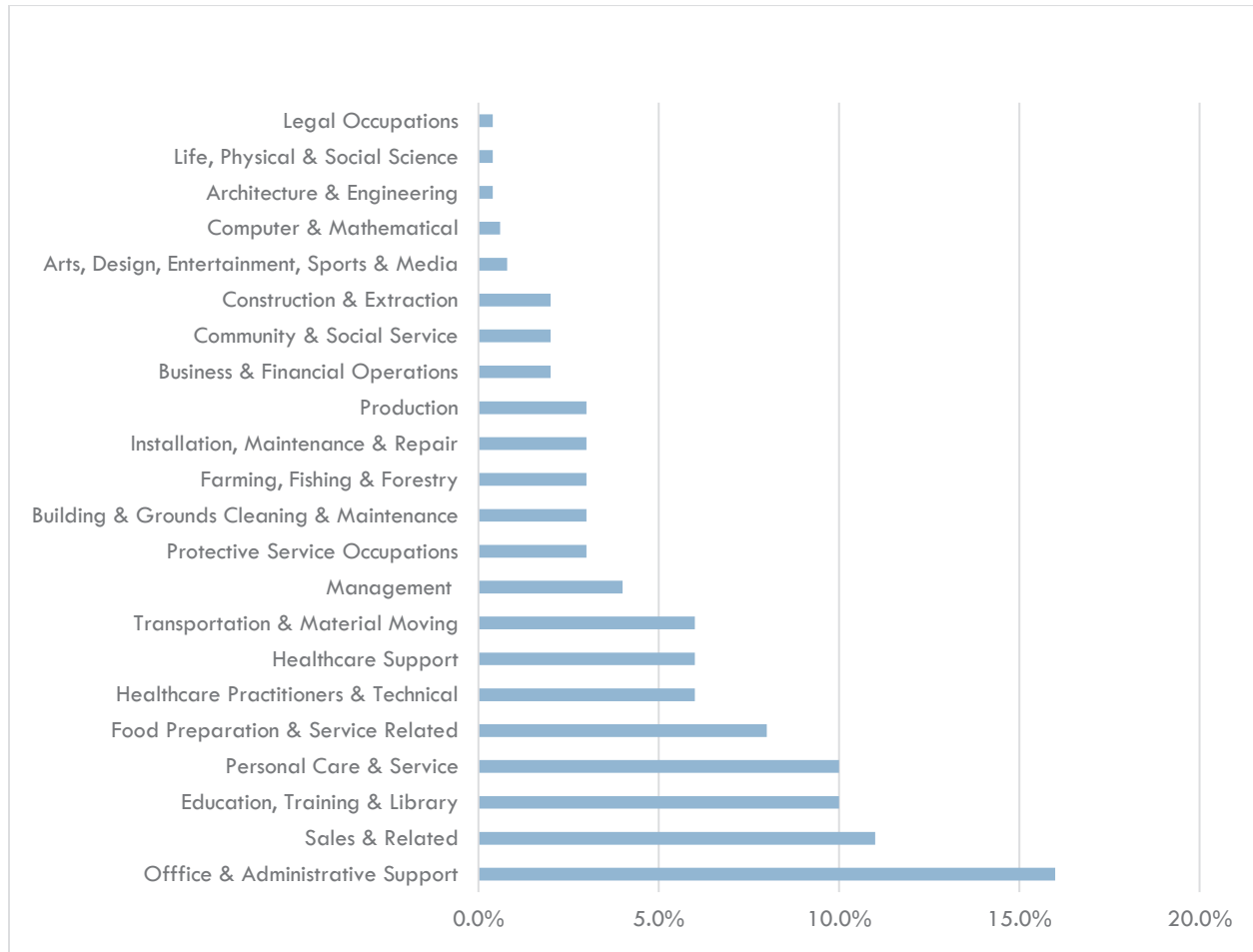
Occupation Title	Postings	Occupation Title	Postings
Cameron	Cameron	Lower Rio	Lower Rio
Registered Nurses	5,047	Registered Nurses	4,120
Truck Drivers, Heavy and Tractor-Trailer	1,669	Truck Drivers, Heavy & Tractor-Trailer	4,022
Retail Salespersons	1,051	Retail Salespersons	2,314
Customer Service Representatives	858	Customer Service Representatives	1,262
Nursing Assistants	542	Light Truck or Delivery Service Drivers	812
Maintenance and Repair Workers	482	Office Clerks, General	783
Medical Assistants	463	Licensed Vocational Nurses	706
Social and Human Service Assistants	448	Maintenance and Repair Workers	692
Licensed Vocational Nurses	368	Insurance Sales Agents	660
Insurance Sales Agents	367	Social and Human Service Assistants	632

Source: Table includes only titles without the words supervisor or manager.

### Employment Distribution by Occupational Group

In most cases occupational groups cross industry-sector lines. An occupational group is a body of people doing the same kind of work regardless of the industry in which they are employed. Occupational groups are important because the focus of students, parents and educators is often jobs rather than industries. As indicated in Chart 2.11, Office and Administrative is the largest occupational group in the Valley. This group includes all types of clerical work from office clerk all the way up to the higher-level administrative group. The second highest occupational group in the Valley is Sales and Related. Sales workers can be anywhere from retail clerks to highly paid sales representatives with advanced degrees in computer science. The third highest occupational group in the Valley is Personal Care & Service. Among others, this group includes recreation and entertainment workers, barbers and hairdressers, childcare workers and personal care aides (known locally as Providers). Unfortunately, most of the occupations in the three largest occupational groups in the Valley are among the lowest-paid. The Valley also has a large number of individuals working in the Education, Training & Library occupational group, and generally those are occupations that require a bachelor's degree or higher and have a higher wage than the first three occupational groups.

Chart 2.11 RGV 2014 Employment by Occupational Group



Source: Chart created from data supplied by the U.S. Bureau of Labor Statistics on April 15, 2015

## CONCLUSION

Like the growth rates for the state of Texas and the nation, the growth rate of the Civilian Labor Force in the Rio Grande Valley has slowed somewhat. This slowdown is partly due to changes in the nation’s and the Valley’s demography. The current labor force in the Valley has the following characteristics:

1. Labor Force Mobility with RGV: A significant percent, 22% for Cameron and Hidalgo to 90% for Starr and Willacy, live in one county and work in another.
2. Employment Growth: The 15-year employment figures show that actual employment (number employed) has grown steadily in both the Brownsville-Harlingen Metropolitan Statistical Area (MSA) and the McAllen-Edinburg-Mission MSA, but the McAllen-Edinburg-Mission MSA has grown at a much faster rate.
3. Labor Force Participation Rate: The region’s labor force participation rate is about 10% lower than that of the state and the nation; however, the Valley’s overall pattern of participation based on age and education is very similar to both the state and the nation.

4. Unemployment Rate: In May 2015, the unemployment rate in the Valley was about 2 percentage points higher than the state; however, the overall average figures show that the rate has returned to pre-recession levels.
5. Nativity of Population: The Valley and other Border counties have a significant presence of foreign-born residents.
6. Educational Levels: There is a significant difference between the educational levels of the native-born and foreign-born population and this results in a lower educational level for the whole region.

Simple percentage comparisons plus Location Quotients and Shift-Share Analysis indicate the following about the Industry Sectors in the Valley:

1. Most of the Civilian Labor Force in the Valley is employed in the private sector; however, a significant percentage (approximately 23%) is employed in the public sector. Compared to the state and the nation, the Valley's public-sector share of employment is higher than average. This can be a negative because this sector does not contribute to the growth of the economy. The Valley's location, however, predisposes it to a higher-than-average public employment to manage international trade and secure the border.
2. All industry sectors are represented in the Valley, but those with the greatest share are Educational Services, Health Care & Social Assistance, Retail Trade, Accommodation & Food Services.
3. The Valley's location results in a comparative advantage in the industries of Agriculture, Tourism and International Trade. All three of these industries contribute significantly to the Valley's economy; however, with the exception of international trade, the direct occupations generated by these industries are low-skilled and low-paying.
4. The top four occupational groups in the Valley are Office and Administration, Personal Care, Sales & Related and Education, Training & Library. Except for Office and Administration, the distribution in the Valley is more highly skewed toward the other three occupational groups than the nation.
5. Location Quotient analysis shows that the industries with an LQ higher than 1.00 are Retail Trade, Health Care & Social Assistance, Accommodation & Food Services, and Agriculture, Forestry, Fishing & Hunting. Two of those industry sectors are also part of the comparative advantage category.
6. Shift-Share analysis indicates that the industry sectors with the highest growth are Health Care and Social Assistance, Retail Trade, Accommodation & Food Services and Manufacturing.
7. The occupational groups with the highest share of employment in the Valley are Personal Care and Service; Education, Training & Library, Sales & Related and Office and Administrative Support.
8. From July 2016 through July 2017, the occupations with the highest number of postings were Registered Nurses; Truck Drivers, Heavy & Tractor-Trailer and Retail Salespersons.

After the analysis of the Valley's labor force, the next step is to generate a list of Targeted Occupations from those natural to these industries (see Section 3.)

## ENDNOTES—SECTION TWO

- <sup>1</sup> The CLF does not count, for example, those of working age who were in the military, incarcerated or too severely disabled to work. The Texas Workforce Commission provides a monthly estimate of the state's CLF and county-level breakdowns.
- <sup>2</sup> Metropolitan and micropolitan statistical areas (metro and micro areas) are geographic entities delineated by the Office of Management and Budget (OMB) for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics. The term "Core Based Statistical Area" (CBSA) is a collective term for both metro and micro areas. A metro area contains a core urban area of 50,000 or more population, and a micro area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.) This is the source: <http://www.census.gov/population/metro/>.
- <sup>3</sup> Executive Office of the President of the United States. July 2014. The Labor Force Participation Rate since 2007: Causes and Policy Implications.
- <sup>4</sup> Bureau of Labor Statistics. 2012. U.S. Department of Labor. "Employment Projections – 2010-20," News release, February 1, 2012.
- <sup>5</sup> Bowen, Willian G. and T. Aldrich Finegan. 2016. *The Economics of Labor Force Participation*. Princeton University Press.
- <sup>6</sup> IBID
- <sup>7</sup> QuickFacts provides statistics for all states and counties and for cities and towns with a population of 5,000 or more.
- <sup>8</sup> Zong, Jie and Jeanne Batalova. March 17, 2016. *Mexican Immigrants in the United States*, Migration Policy Institute. <http://www.migrationpolicy.org/print/15587#.WbFe8bKGNhE>; Pew Research Center. June 27, 2012. *Hispanics of Mexican Origin in the United States*, 2010.
- <sup>9</sup> Bowen & Finegan. 2016.
- <sup>10</sup> Zong & Batalova. 2016.
- <sup>11</sup> <http://www.census.gov/eos/www/naics/>
- <sup>12</sup> <http://www.bls.gov/soc/> accessed on July 16, 2015
- <sup>13</sup> (<http://www.careerclusters.org> accessed on July 16, 2015
- <sup>14</sup> U.S. Department of Agriculture. "2007 Census of Agriculture" Available at <http://www.agcensus.usda.gov> accessed on 9/6/2013
- <sup>15</sup> Texas ranks third behind Florida and California in citrus production as estimated by the U.S. Department of Agriculture (latest data from 2006). In the 2005-2006 growing season, sales of Texas grapefruit were approximately \$63.9 million and oranges at \$10.6 million. Of all the acres in Texas devoted to growing citrus, 85% are in Hidalgo County with the entire balance in the other three counties in the Rio Grande Valley.
- <sup>16</sup> Texas Tourism Office of the Governor, Economic Development and Tourism. *The Economic Impact of Travel on Texas 1990-2012*. Research by Dean Runyan Associates; Portland, Oregon. Available at <http://www.travel.state.tx.us/getattachment/bdfef528-cf22-4305-9427-db24a403fc17/TXImp12pRev.aspx> accessed on 1/24/2014
- <sup>17</sup> Report on the economic impact of the Port of Brownsville was released in January 2013—results quoted in the Rio Grande Valley Partnership 2013 publication *Rio Grande Valley Economic Development Guide*.
- <sup>18</sup> The LQ concept and comparable formulas can be applied to industries, sectors, clusters, occupations, sales, patent applications, loans, foreclosures, etc.

# Section 3: 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 Rio Grande Valley?
- 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 Rio Grande Valley targeted occupations, which are listed in Table 3.1. RGV LEAD's Targeted Occupations have been identified based on data available from state and national sources, then modified with input of Rio Grande Valley 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 Table 3.1 is arranged according to career clusters. (The 16 career clusters in this table are effective now but will change in 2020-2021. To learn more, go to the TEA website (<https://tea.texas.gov>); go to "Academics," then "College, Career & Military Preparation," then "Career and Technical Education.")

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 this: "By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree." For additional information, please visit [www.60x30TX.com](http://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 (2019), 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 Valley'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 August 2019. These leaders discussed the (1) changing economic landscape in the Valley, (2) jobs that economic development organizations are working to bring to the Valley, 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 2019 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 with a minimum of 10 estimated annual openings or
  - \$15.00 per hour with no requirement for number of estimated annual openings or
  - \$10.00 per hour if there are more than 15 estimated annual openings
- The occupations must pay an **average wage** of at least \$15.00 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 very 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 2019 selection criteria reflects the input of Rio Grande Valley 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 Rio Grande Valley.

The primary data source for RGV LEAD’s list of targeted occupations is the long-term employment projections for the Cameron and Lower Rio workforce development areas developed by the Texas Workforce Commission.

The Texas Workforce Commission uses a number of 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 updated from the 2017 wages to the 2018 wages listed in the most current report (see report at <http://www.texaswages.com>)

- **Mean Wage:** This is the average pay earned by all workers in the selected location.
- **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.
- **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 and Lower Rio Workforce Development Areas are downloaded and combined to form one data set for the Rio Grande Valley.
- The data in these tables are compared with other reports regarding the Valley's labor market such as agency reports and news reports plus the national trends and adjustments made as necessary.
- Occupations that are not entry-level because they require prior experience are deleted from the data set.
- Occupations that do not have an average wage of at least \$10.00 an hour 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 Rio Grande Valley leaders for feedback before it is finalized.

### **List of Targeted Occupations by Career Cluster**

Table 3.1 provides 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 Valley. 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 Rio Grande Valley as they make decisions about students' education and career plans. (Additional information for students and families is included in Section 5.) The higher education institutions named in the table provided the education and training information for their institutions.



### Explanation of Career Cluster Information Included in Table 3.1

The information included in Table 3.1 is organized according to 13 Career Clusters that are proposed for implementation in Texas in 2020-2021 school year. The Texas Education Agency has developed proposed new programs of study, incorporating the new 13 Career Clusters, to reflect transitions in the Texas economy and also to meet the requirements of the federal legislation known as the Strengthening CTE for the 21<sup>st</sup> Century Act (Perkins V).

For many years Texas has worked with the 16 Career Clusters that are identified on the website of the Occupational Information Network (O\*NET) at this link: <https://www.onetonline.org/find/career>. Those 16 Career Clusters, which remain in effect for the 2019-2020 academic year, are as follows:

- Agriculture, Food & Natural Resources
- Architecture & Construction
- Arts, Audio/Video Technology & Communications
- Business Management & Administration
- Education & Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

The relationship between the 16 Career Clusters and the Foundation High School Program currently in place in Texas Public Schools is illustrated in the crosswalk below.

Foundation High School Program Endorsement Area	Career Cluster (16 Career Clusters)
<b>Arts &amp; Humanities</b>	Arts, Audio Video Technology & Communications
<b>Business &amp; Industry</b>	Agriculture, Food & Natural Resources Architecture & Construction Arts, Audio Video Technology & Communications Business Management & Administration Finance Hospitality & Tourism Information Technology Manufacturing Marketing Transportation
<b>Multidisciplinary Studies</b>	Not applicable – Multidisciplinary Studies allows any combination of CTE courses to be utilized for the endorsement.
<b>Public Services</b>	Education & Training Government & Public Administration Health Science Human Services Law, Public Safety, Corrections & Security
<b>Science Technology Engineering and Mathematics (STEM)</b>	Architecture & Construction Manufacturing Science, Technology, Engineering & Mathematics

**Section 3: Targeted Occupations**

Texas developed its planned transition to 13 Career Clusters after extensive work with multiple groups. Although the proposed transition to 13 Career Clusters will not take effect in Texas until the 2020-2021 academic year; Table 3.1 utilizes the proposed new format because RGV LEAD’s labor market report is updated biennially, meaning that this report will not be updated again until 2021. The relationship between the 13 Career Clusters utilized in Table 3.1 and the 16 Career Clusters found in O\*NET appears in the crosswalk below:

<b>13 Career Clusters Projected for 2020-2021</b>	<b>16 Career Clusters Found in O*NET</b>
<b>Agriculture, Food &amp; Natural Resources</b>	Agriculture, Food & Natural Resources
<b>Architecture &amp; Construction</b>	Architecture & Construction
<b>Arts, Audio/Visual Technology &amp; Communications</b>	Arts, Audio/Visual Technology & Communications
<b>Business, Finance &amp; Marketing</b>	(1) Business Management & Administration (2) Finance (3) Marketing
<b>Education &amp; Training</b>	Education & Training
<b>Health Science</b>	Health Science
<b>Hospitality &amp; Tourism</b>	Hospitality & Tourism
<b>Human Services</b>	Human Services
<b>Information Technology</b>	Information Technology
<b>Law and Public Service</b>	(1) Government and Public Administration (2) Law, Public Safety, Corrections & Security
<b>Manufacturing</b>	Manufacturing
<b>Science, Technology, Engineering &amp; Mathematics (STEM)</b>	STEM (no change). However, for purposes of this report, Table 3.1 combines STEM with a new “Energy” Career Cluster created to address Texas’ diverse economic landscape.
<b>Transportation, Distribution &amp; Logistics</b>	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’s Career & Technical Education, 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)

Table 3.1 also provides information about programs of study available at the Valley’s public institutions of higher education that could help students prepare for entry into one of the careers included in RGV LEAD’s Targeted Occupations. Valley public institutions of higher education who shared information for this report are as follows:

South Texas College (STC) is a public [community college](https://southtexascollege.edu) and is accredited by the Commission on Colleges of the [Southern Association of Colleges and Schools](https://southtexascollege.edu) 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 <https://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](http://www.tsc.edu).

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 <https://www.tstc.edu>.

The University of Texas Rio Grande Valley (UTRGV) is a regional university that serves the entire 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 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 Boca Chica Beach, Brownsville, Edinburg, Harlingen, McAllen, Port Isabel, Rio Grande City, and South Padre Island. UTRGV also has a School of Medicine. To learn more, visit <https://www.utrgv.edu>.

### INFORMATION ABOUT THE PRESENTATION OF TARGETED OCCUPATIONS DATA IN TABLE 3.1

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 Valley for 2018, 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 "NA" 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 table are taken from government records and represent the average number of job openings projected to be available in the Valley each year for the 10-year period indicated.

For occupations in which the average number of job openings appears as "<5," this indicates that this is an occupation for which input received from local leaders indicates the demand for the occupation is growing in this region.

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 have to successfully complete on-the-job training for the job to become permanent.
- 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 yr. = 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 Table 3.1, are public institutions of higher education that are members of RGV LEAD:

STC = South Texas College

TSC = Texas Southmost College

TSTC = Texas State Technical College

UTRGV = The University of Texas Rio Grande Valley

Abbreviations used in this table 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: [http://reportcenter.theccb.state.tx.us/reports/data/understanding-credentials-in-texas-certificates-certifications/.](http://reportcenter.theccb.state.tx.us/reports/data/understanding-credentials-in-texas-certificates-certifications/))

Table 3.1 RGV LEAD's Targeted Occupations for 2019, Organized by Career Cluster

<b>AGRICULTURE, FOOD &amp; NATURAL RESOURCES</b>			
<b>Farmers, Ranchers and other Agricultural Occupations</b> <b>\$38.90/\$67.33/\$81.54</b>	Estimated Annual Openings 2016-2026	Education / Training Needed	Program Available at RGV Public College or University
	130	HS + OJT	
<b>Veterinary Technologists &amp; Technicians</b> <b>\$10.69/\$16.20/\$18.96</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	31	2 yrs.	
<b>Veterinarians</b> <b>\$36.29/\$53.43/\$62.00</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	PROF	UTRGV – Four-year bachelor's degree required for Veterinary School
<b>Welders / Cutters / Solderers / Brazers</b> <b>\$11.78/\$16.54/\$18.93</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	58	HS or 1 yr. or 2 yrs	STC (Certificates in Structural Welding and Combination Welding) TSC <ul style="list-style-type: none"> <li>• Workforce Training offers: 160-hour, 14 week Structural Welding continuing education (CE) program;</li> <li>• 80-hour 2 week Shipfitting CE training program</li> </ul> TSTC <ul style="list-style-type: none"> <li>• AAS in Welding Technology,</li> <li>• CER I in Structural Welding Technology,</li> <li>• CER II in Structural and Pipe Welding</li> </ul>
<b>ARCHITECTURE &amp; CONSTRUCTION</b>			
<b>Architects</b> <b>\$25.21/\$58.90/\$75.74</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	4 yr.	STC (AAS Specialization in Architectural/Civil Drafting--two-year related program, but not bachelor's) TSC (AS Architecture) UTRGV (offers 4-year bachelor's degree programs in multiple engineering fields that could lead toward advanced education in Architecture)
<b>Carpenters</b> <b>\$12.23/\$16.28/\$18.31</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	90	HS + OJT	STC (Certificate and AAS in Construction Supervision) TSC <ul style="list-style-type: none"> <li>• Level One Certificate in Construction Technology (27 SCH)</li> </ul> TSTC <ul style="list-style-type: none"> <li>• AAS in Building Construction Technology</li> </ul>

Section 3: Targeted Occupations

ARCHITECTURE & CONSTRUCTION (CONTINUED)			
<b>Construction Managers</b> \$18.45/\$36.32/\$45.26	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	28	4 yr.	STC (AAS in Construction Supervision—two-year related program, but not Bachelor’s)
			TSTC (AAS in Building Construction Technology) UTRGV (offers 4-year bachelor’s degree programs in multiple engineering fields that could lead toward careers in this field, but not a degree directly related to this occupation)
<b>Construction and Building Inspectors</b> \$12.93/\$18.56/\$21.38	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	25	HS + OJT	
<b>Cost Estimators</b> \$13.69/\$24.37/\$29.70	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	32	2 yr. or 4 yr. + OJT	STC (AAS-Construction Supervision)
			TSTC (AAS in Building Construction Technology) UTRGV <ul style="list-style-type: none"> <li>• BS in Civil Engineering</li> <li>• BS in Engineering Technology</li> <li>• BSCE in Computer Engineering</li> <li>• BSMFGE in Manufacturing Engineering</li> <li>• BSME in Mechanical Engineering</li> <li>• BSEE in Electrical Engineering</li> </ul>
<b>Drafters (Architectural &amp; Civil; Electrical &amp; Electronic; Mechanical)</b> \$11.72/\$16.11/\$18.30	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	19	2 yrs.	STC (AAS Specialization in Architectural/Civil Drafting)
			TSC (AAS in Computer-Aided Drafting Technology) TSTC (AAS in Architectural Design and Engineering Graphics)
<b>Electrical Power-Line Installers &amp; Repairers</b> \$19.48/\$28.59/\$33.15	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	42	HS	
<b>Electricians</b> \$12.94/\$18.72/\$21.61	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	98	HS + OJT	STC (certificate in Electrician Assistant and AAS in Electrician Technology)
		APP	TSC (Level One Certificate in Residential Electrician [24 SCH]; AAS program in Commercial and Residential Electrician; also, Workforce Training offers a 160-hour, CE 14-week Electrician training program) TSTC (Apprenticeship program, CE, through Workforce Training)
<b>Engineers, Civil, Electrical and Mechanical</b> \$43.67/\$47.72/\$56.38	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	33	4 yrs.	STC (AS in Engineering--two-year related AS program that could transfer into a bachelor’s program) UTRGV (BS in Civil Engineering)

ARCHITECTURE & CONSTRUCTION (CONTINUED)			
<b>Engineering Technicians, Civil and Electrical &amp; Electronics</b> \$16.04/\$21.36/\$23.01	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	33	2 yrs.	STC (AS in Engineering; AAS Specialization in Architectural and Civil Engineering)
<b>Excavating, Loading Machine and Dragline Operators</b> \$12.10/\$16.10/\$18.11	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	57	HS + OJT	
<b>Heating, Air Conditioning / Refrigeration Mechanics and Installers</b> \$13.02/\$16.85/\$18.77	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	86	2 yrs. or HS + OJT	STC (AAS in HVAC)
			TSC (AAS in HVAC; Level 1 Certificate in HVAC [24 SCH])
		TSTC (AAS in HVAC Technology, Level 1 Certificate in HVAC Technician)	
<b>Installation, Maintenance &amp; Repair Workers, All Others</b> \$11.88/\$17.94/\$20.97	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	24	HS	
<b>Logisticians</b> \$22.60/\$32.91/\$33.07	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	8	4 yrs.	STC (AAS Specialization in Import/Export/Logistics—two-year related program, but not a bachelor's)
<b>Maintenance Workers, Machinery</b> \$14.37/\$20.43/\$23.47	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	16	HS	
<b>Operators, Construction Equipment</b> \$11.12/\$14.11/\$15.61	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	105	HS	
<b>Pest Control Workers</b> \$10.17/\$15.08/\$17.53	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	27	HS	
<b>Plumbers, Pipefitters, and Steamfitters</b> \$11.01/\$16.22/\$18.83	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	92	OJT + APP	TSC (Workforce Training offers: 160-hour, CE 14 week Plumbing training program, and a 160-hour, CE 14 week Pipefitting training program; Apprenticeship option available, CE, through Workforce Training)
<b>Security &amp; Fire Alarm Systems Installers</b> \$15.53/\$22.00/\$25.23	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	9	HS	

Section 3: Targeted Occupations

<b>ARCHITECTURE &amp; CONSTRUCTION (CONTINUED)</b>			
<b>Welders/Cutters/ Solderers/ Brazers</b> \$11.78/\$16.54/\$18.93	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	73	HS or 1 yr. or 2 yrs.	STC (Certificates in Structural Welding and Combination Welding) TSC (Workforce Training offers the following: 160- hour, CE 14-week Structural Welding CE program; and an 80-hour, 2 week Shipfitting CE training program) TSTC (AAS in Welding Technology, CER 2 in Structural & Pipe Welding, CER1 in Structural Welding)
<b>ARTS, AUDIO/VISUAL TECHNOLOGY &amp; COMMUNICATIONS</b>			
<b>Graphic Designers</b> \$11.34/\$17.79/\$21.03	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	24	2 yrs. or 4 yrs.	STC (AA in Graphic Arts; AAS Specialization in Architectural and Visual Technology) TSTC (AAS in Digital Media Design) UTRGV (BFA with Graphic Design Concentration)
<b>Interpreters &amp; Translators</b> \$15.46/\$25.31/\$30.23	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	9	4 yrs.	STC (AA – American Sign Language – two-year related program that could transfer into a bachelor’s program; AAS Specialization in Sign Language Interpreter – two-year related program, but not bachelor’s) UTRGV – Bachelor of Arts in Spanish Language and Interpreting (also related certificate programs)
<b>Public Relations Specialists</b> \$11.72/\$22.05/\$27.21	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	90	4 yrs.	STC (AA in Advertising/Public Relations--Two-year related AS program that could transfer into bachelor’s program) UTRGV <ul style="list-style-type: none"> <li>• BA in Marketing</li> <li>• BA in Communication Studies,</li> <li>• BA in Mass Communication</li> </ul>
<b>Telecommunications Equipment Installers / Repairers Except Line Installers</b> \$17.49/\$24.72/\$28.33	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	42	1 yr.	STC (Certificate in Telecommunication Support Specialist and AAS Specialization in Computer Support and Telecommunication Specialist)
<b>Writers &amp; Authors</b> \$15.63/\$23.04/\$26.75	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	18	4 yrs.	STC (AA in English—two-year related program that could transfer into a Bachelor’s program) UTRGV (BA in English)



<b>BUSINESS, FINANCE &amp; MARKETING</b>			
<b>Accountants and Auditors</b> <b>\$19.16/\$30.65/\$36.40</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	211	4 yrs.	STC (AAS Specialization in Accounting—two-year related program, but not bachelor's)
			TSC (Level One Certificate in Accounting Technology [24 SCH]; AAS Accounting)
			TSTC (AAS in Business Management Technology, CER II in Business Management Technology) UTRGV (BBA in Accounting)
<b>Appraisers &amp; Assessors of Real Estate</b> <b>\$14.19/\$23.27/\$27.81</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	4 yrs.	UTRGV (BBA in Management; BBA in Entrepreneurship and Innovation; BBA in Finance)
<b>Bill &amp; Account Collectors</b> <b>\$10.30/16.29/\$19.29</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	41	HS	
<b>Bookkeeping / Auditing Clerks</b> <b>\$10.46/\$15.72/\$18.36</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	472	HS or 1 yr.	STC (Accounting Clerk Certificate, AAS Specialization in Accounting) TSC (AAS and Level One Certificate in Accounting Technology [24 SCH])
<b>Budget Analysts</b> <b>\$21.06/\$27.79/\$31.15</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	4 yrs.	STC (AA in Business Administration—two-year related program that could transfer into a Bachelor's program) UTRGV (BBA in Accounting)
<b>Business Operations Specialists, All Other</b> <b>\$18.93/\$30.18/\$35.80</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	69	4 yrs.	STC (BAT in Technology Management)
			TSC (AA in Business)
			TSTC (AAS in Business Management Technology, CER II in Business Management Technology) UTRGV (BBA in Management)
<b>Clerks (Multiple types: Including Administrative Support Clerks, General Office Clerks, Tellers, Interviewers, and Cargo &amp; Freight Agents)</b> <b>\$10.72/\$14.57/\$16.50</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	>4000	HS + or 1 yr. + OJT	STC (Certificate in Office Specialist, AAS in Administrative Office Assistant)
			TSC (Level One Certificate in Administrative Management [18 SCH]; Level One Certificate in Office Management; AAS in Business Management and Technology, AA in Business) TSTC (AAS in Business Management Technology; CER II in Business Management Technology)
<b>Computer, Automated Teller &amp; Office Machine Repairers</b> <b>\$11.52/\$16.89/\$19.57</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	34	1 yr.	

Section 3: Targeted Occupations

<b>BUSINESS, FINANCE &amp; MARKETING (CONTINUED)</b>			
<b>Credit Analysts</b> <b>\$21.21/\$35.09/\$42.02</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	12	4 yr.	STC (AA in Business Administration—two-year related program that could transfer into a bachelor’s program) UTRGV (BBA in Accounting; BBA in Finance; BBA in Economics)
<b>Dispatchers, Except Police, Fire &amp; Ambulance</b> <b>\$10.43/\$14.77/\$16.94</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	17	HS	
<b>Financial Analysts</b> <b>\$17.29/\$30.68/\$37.37</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	8	4 yrs.	STC (AA in Business Administration –two year related AA program can transfer to bachelor’s) UTRGV (BBA in Finance)
<b>Financial Specialists, All Other</b> <b>\$15.69/\$26.19/\$31.45</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	4 yrs.	STC (AA in Business Administration –two year related AA program can transfer to bachelor’s) UTRGV (BBA in Finance)
<b>Human Resources Specialists</b> <b>\$15.02/\$24.84/\$29.74</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	38	4 yrs.	STC (AAS in Human Resources Specialist—two-year related program, but not bachelor’s) UTRGV (BBA in Management)
<b>Insurance Sales Agents</b> <b>\$10.46/\$23.04/\$29.34</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	142	HS + OJT	STC (AAS in Business, Certificate in Marketing)
<b>Loan Officers</b> <b>\$16.40/\$34.92/\$44.18</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	32	4 yrs.	STC (AA in Business Administration—two-year related program that could transfer into a bachelor’s program) UTRGV (BBA in Finance)
<b>Market Research Analysts and Marketing Specialists</b> <b>\$17.31/\$30.75/\$37.46</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	31	4 yr	STC (AA in Business Administration –two year related AA program can transfer to bachelor’s) UTRGV (BBA in Marketing)
<b>Postal Service Mail Carriers</b> <b>\$17.09/\$24.28/27.87</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	40	HS	
<b>Purchasing Agents, Except Wholesale, Retail, &amp; Farm Products</b> <b>\$15.58/\$25.05/\$29.78</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	9	4 yrs.	UTRGV (BBA in Management; BBA in Finance; BBA in Accounting)
<b>Sales Representatives, Services, All Other</b> <b>\$11.15/\$19.35/\$23.45</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	386	HS	STC (Certificate in Marketing and AAS Specialization in Marketing)

<b>BUSINESS, FINANCE &amp; MARKETING (CONTINUED)</b>			
<b>Secretaries, Legal</b> <b>\$13.11/\$18.41/\$21.07</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	HS, 1 yr. or 2 yrs.	STC (AAS degrees in Legal Office Assistant and Paralegal. Certificate in Legal Office Specialist. Certificate in Medical Office Specialist)
			TSC (Microsoft Certified Specialist (18 SCH); Level One Certificate in Administrative Management (18 SCH); Level One Certificate in Office Management (21 SCH); AAS in Business Management and Technology, AA in Business)
			TSTC (AAS in Business Management Technology, CER II in Business Management Technology)
<b>Securities, Commodities &amp; Financial Services Agents</b> <b>\$16.07/\$26.94/\$32.37</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	86	4 yrs.	STC (AA in Business Administration –two year related AA program can transfer to bachelor's)
			UTRGV (BBA in Management; BBA in Finance; BBA in Accounting)
<b>Training and Development Specialists</b> <b>\$15.22/\$22.38/\$25.96</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	58	4 yrs. + OJT	UTRGV (BBA in Management; BBA in Human Resource Management)
<b>EDUCATION &amp; TRAINING</b>			
<b>Clinical, Counseling &amp; School Psychologists</b> <b>\$25.66/\$31.28/\$34.09</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	PROF + LIC	STC (AA in Psychology—two-year related program that could transfer into a bachelor's program)
			UTRGV (BS in Psychology; MS in Clinical Psychology)
<b>Coaches &amp; Scouts</b> <b>\$19.55/\$24.89/\$30.82</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	38	4 yrs. + CERT	STC (AA in Kinesiology—two-year related program that could transfer into a bachelor's program)
			UTRGV (BS in Kinesiology; BS in Exercise Science)
<b>Counselors – School</b> <b>\$20.77/\$29.50/\$33.86</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	202	5 yrs.+ CERT	UTRGV (M.Ed. in Counseling and Guidance)
<b>Health Educators (not public school teachers)</b> <b>\$12.42/\$21.50/\$26.04</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	18	4 yr.	UTRGV (BS in Health; BS in Biomedical Science)
<b>Librarians</b> <b>\$23.01/\$29.60/\$32.89</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	66	5 yrs. + CERT	UTRGV (Librarians require a graduate MLIS degree, but numerous bachelor' degrees can lead to this professional track)

Section 3: Targeted Occupations

EDUCATION & TRAINING (CONTINUED)			
<b>Teachers – Preschool (Except Special Education)</b> <b>\$10.25/\$18.92/\$23.25</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	147	2 yrs. (or 4 yrs. + CERT)	STC (AAS in Child Development; Certificate in Pre-School, and Certificate in Infant and Toddler)
			TSTC (AAS in Education and Training with opportunity to transfer to a bachelor’s program)
			UTRGV (BS in Elementary Education with or without bilingual certification)
<b>Teachers – Kindergarten, Except Special Education</b> <b>\$20.26/\$24.82/\$27.10</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	103	4 yrs. + CERT	STC (AA in EC-6 Generalist—two-year related program that could transfer into a bachelor’s program (Continuing Education—Alternative Teacher Certification)
			TSTC (AAS in Education and Training with opportunity to transfer to a bachelor’s program)
			UTRGV (BS in Elementary Education with or without bilingual certification)
<b>Teachers – Elementary, Except Special Education</b> <b>\$21.17/\$25.83/\$28.16</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	815	4 yrs. + CERT	STC (Associate of Arts in Teaching—two-year related program can transfer to bachelor’s)
			TSC (Associate of Arts in Teaching--two-year program for transfer to bachelor’s program; 4 <sup>th</sup> – 8 <sup>th</sup> Grade Teaching; Early Childhood EC- 6 <sup>th</sup> Grade)
			TSTC (AAS in Education & Training with opportunity for transfer to bachelor’s program)
			UTRGV (BS in Elementary Education with or without bilingual certification) <ul style="list-style-type: none"> <li>• BIS in Interdisciplinary Studies with specializations                             <ul style="list-style-type: none"> <li>○ Bilingual Education</li> <li>○ Special Education</li> <li>○ ESL EC-6</li> </ul> </li> <li>• BS Early Care and Early Childhood 0-8 years</li> <li>• BA in Art EC-12</li> <li>• BA English 4-8</li> <li>• BA Spanish EC-12</li> <li>• BA Theater EC-12</li> <li>• BM in Music with concentrations in Guitar, Piano, Vocal, Strings, Brass, EC-12</li> <li>• BS in Health EC-12</li> <li>• BS Kinesiology – EC-12</li> <li>• BS Life Science 4-8</li> <li>• BS Mathematics 4-8</li> </ul>

EDUCATION & TRAINING (CONTINUED)			
Teachers – Middle School, Except Special Education and Career & Technical Education \$20.75/\$25.92/\$28.50	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	462	4 yrs. + CERT	STC (Associate of Arts in Teaching—two-year related program can transfer to bachelor's)
			TSC (Associate of Arts in Teaching--two-year program for transfer to bachelor's program 4 <sup>th</sup> – 8 <sup>th</sup> Grade Teaching; Physical Education EC-12 <sup>th</sup> Grade)
			TSTC (AAS in Education & Training with opportunity for transfer to bachelor's program)
			UTRGV (Most Liberal Arts and Science Bachelor's Degrees carry a teacher certification option) <ul style="list-style-type: none"> <li>• BIS in Interdisciplinary Studies with specializations <ul style="list-style-type: none"> <li>○ Bilingual Education</li> <li>○ Special Education</li> <li>○ ESL EC-12</li> </ul> </li> <li>• BA in Art EC-12</li> <li>• BA in English 4-8</li> <li>• BA in History 7-12</li> <li>• BA in Social Studies Composite 7-12</li> <li>• BA in Spanish EC-12</li> <li>• BA Theater EC-12</li> <li>• BM in Music with concentrations in Guitar, Piano, Vocal, Strings, Brass, EC-12</li> <li>• BS in Biology 7-12</li> <li>• BS in Chemistry 7-12</li> <li>• BS in Health EC-12</li> <li>• BS in Kinesiology – EC-12</li> <li>• BS in Life Science 4-8</li> <li>• BS in Mathematics 4-8</li> <li>• BS in Physics 7-12</li> </ul>

Section 3: Targeted Occupations

EDUCATION & TRAINING (CONTINUED)			
Teachers – High School, Except Special Education and Career & Technical Education	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
<b>\$20.48/\$26.44/\$29.42</b>	665	4 yrs. + CERT	STC (Associate of Arts in Teaching--two-year program for transfer to bachelor's program)
			TSC (Multiple AAS Options with opportunity for transfer to bachelor's program [8 <sup>th</sup> – 12 <sup>th</sup> Grade Teaching; Physical Education EC-12 <sup>th</sup> Grade])
			TSTC (AAS in Education & Training with opportunity for transfer to bachelor's program)
			UTRGV (Most Liberal Arts and Science Bachelor's Degrees carry a teacher certification option) <ul style="list-style-type: none"> <li>• BIS in Interdisciplinary Studies with specializations Bilingual Education Special Education ESL EC-12</li> <li>• BA in Art EC-12</li> <li>• BA in Communication Studies 8-12</li> <li>• BA in Dance 7-12</li> <li>• BA in English 7-12</li> <li>• BA in History 7-12</li> <li>• BA in Mass Communication 7-12</li> <li>• BA in Social Studies Composite 7-12</li> <li>• BA in Spanish EC-12</li> <li>• BM in Music with concentrations in Guitar, Piano, Vocal, Strings, Brass, EC-12 BS in Biology 7-12</li> <li>• BS in Chemistry 7-12</li> <li>• BS in Health EC-12</li> <li>• BS in Kinesiology – EC-12</li> <li>• BS in Mathematics 7-12</li> <li>• BS in Physics 7-12</li> </ul>
Teachers, Special Education	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
<b>\$21.89/26.58/\$28.93</b>	114	4 yrs. + CERT	STC (AA in EC-7 Generalist or 4-8 Generalist or Grades 8-12—two-year related programs that could transfer into a bachelor's program)
			UTRGV – BS in Elementary Education—Special Education ; MS in Special Education (offered online)
Teachers – All Other Except Substitute Teachers	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
<b>\$9.55/\$17.13/\$20.91</b>	143	4 yrs. + CERT	STC (AA in EC-7 Generalist or 4-8 Generalist or Grades 8-12—two-year related programs that could transfer into a bachelor's program)
			UTRGV (Most Liberal Arts and Science Bachelor's Degrees carry a teacher certification option)
Teachers – Postsecondary (Mathematical Science, Biological Science, English Language & Literature)	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
<b>\$21.05/NA/\$56.11</b>	155	PROF	UTRGV (Most Liberal Arts and Science Bachelor's Degrees carry a teacher certification option; UTRGV also offers multiple master's program in Education and in Liberal Arts and Science)

HEALTH SCIENCE			
<b>Biological Technicians</b> \$13.65/\$17.86/\$19.97	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	22	4 yrs.	STC (AS in Biology—two-year related AS program can transfer to bachelor's)
			TSTC (AAS in Biomedical Equipment Technology) UTRGV (BS in Biology; BS in Biomedical Sciences; BAT in Health Services Technology)
<b>Cardiovascular Technologists &amp; Technicians</b> \$13.62/\$25.34/\$31.19	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	13	2 yrs.	
<b>Dental Assistants</b> \$11.65/\$15.54/\$17.49	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	115	1 yr.	TSTC (CER I in Dental Assistant)
<b>Dental Hygienists</b> \$20.44/\$30.34/\$35.29	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	43	2 yrs. + LIC	TSTC (AAS in Dental Hygiene)
<b>Dentists</b> \$46.95/\$99.23/\$125.37	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	5	PROF	UTRGV (Pre-Dental Bachelor's Programs)
<b>Diagnostic Medical Sonographers</b> \$25.95/\$33.47/\$37.23	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	11	2 yrs. + LIC	STC (Advanced Technical Certificate in Diagnostic Medical Sonography)
			TSC (AAS in Diagnostic Medical Sonography)
<b>Dieticians &amp; Nutritionists</b> \$21.90/\$28.57/\$31.91	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	19	4 yr. + CERT	STC (AS in Interdisciplinary Studies—two-year related program that could transfer into a bachelor's program)
<b>Emergency Medical Technicians &amp; Paramedics</b> \$11.41/\$14.42/\$15.92	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	87	1 yr. or 2 yrs. + LIC	STC (AAS in Paramedic, Certificate in Paramedic, Certificate in EMT Intermediate, Certificate in EMT Basic)
			TSC (AAS in Emergency Medical Science; Level Two Certificate in Emergency Medical Science; Level One Certificate in Emergency Medical Science [16 SCH])
			TSTC (only through continuing education)
<b>Health Technologists &amp; Technicians, All Other</b> \$13.24/\$20.72/\$24.47	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	30	HS	STC (AAS in Radiologic Technology; AAS in Health Information Technology)
<b>Licensed Practical and Licensed Vocational Nurses</b> \$18.35/\$22.24/\$24.18	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	381	1 yr. + LIC	STC (Vocational Nursing Certificate)
			TSC (Level Two Certificate in Vocational Nursing) TSTC (CER II in Vocational Nursing)
<b>Medical Equipment Repairers</b> \$12.95/\$15.61/\$16.94	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	2 yr.	TSTC (AAS in Biomedical Equipment Technology)



Section 3: Targeted Occupations

<b>HEALTH SCIENCE (CONTINUED)</b>			
<b>Medical / Clinical Laboratory Technicians</b> \$12.40/\$20.05/\$23.88	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	22	2 yr + LIC	TSC (AAS in Medical Laboratory Technology)
<b>Medical / Clinical Laboratory Technologists (also known as Medical Laboratory Scientists)</b> \$18.11/\$25.41/\$29.09	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	25	4 yrs. + LIC	UTRGV (BS in Clinical Laboratory Sciences) Graduate Certificate in Clinical Laboratory Sciences
<b>Nuclear Medicine Technologists</b> \$30.58/\$34.87/\$37.01	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	2 yrs. + CERT	
<b>Nurse Anesthetists</b> \$36.03/\$40.33/\$42.48	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	20	5 yr + LIC	UTRGV (BS in Nursing; MS in Nursing)
<b>Nurse Practitioners</b> \$36.64/\$56.35/\$66.20	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	33	5 yr + LIC	UTRGV (BS in Nursing; MS in Nursing)
<b>Occupational Health &amp; Safety Specialists</b> \$16.44/\$23.31/\$26.75	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	6	4 yr	UTRGV (BS in Environmental Sciences)
<b>Occupational Therapists</b> \$32.21/\$48.01/\$55.91	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	27	5 yrs + LIC	UTRGV (MS in Occupational Therapy)
<b>Occupational Therapy Assistants</b> \$28.97/\$38.81/\$43.73	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	2 yrs	STC (AAS in Occupational Therapy Assistant)
<b>Pharmacists</b> \$50.37/\$67.72/\$76.39	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	40	PROF	UTRGV (Cooperative PHARMD with UT Austin)
<b>Pharmacy Technicians</b> \$12.33/\$16.12/\$18.02	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	147	HS or 1 yr. + LIC	STC (AAS in Pharmacy Technology, Certificate in Pharmacy Technology)
<b>Phlebotomists</b> \$11.08/\$13.60/\$14.87	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	63	1 yr.	STC (Certificate in Patient Care Assistant, Certificate in Medical Assistant Technology; and also available through Continuing Education)
<b>Physical Therapists</b> \$35.84/\$52.28/\$60.49	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	34	PROF	UTRGV (BS in Biology, BS in Kinesiology, and BS in Exercise Science can lead toward graduate education in Physical Therapy)



<b>HEALTH SCIENCE (CONTINUED)</b>			
<b>Physical Therapy Assistants</b> \$22.30/\$35.73/\$42.44	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	44	2 yr	STC (AAS in Physical Therapist Assistant)
<b>Physicians – Family and General Practitioners; internists (General); Pediatricians (General); Other Physicians and Surgeons; and Psychiatrists</b> \$49.00/\$75.00/\$100	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	37	PROF	
<b>Physician Assistants</b> \$41.14/\$57.07/\$65.03	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	45	5 yrs. + LIC	UTRGV (MPAS in Physician Assistant Studies)
<b>Radiologic Technologists / Technicians</b> \$16.57/\$25.94/\$30.63	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	39	2 yrs + LIC	STC (AAS in Radiologic Technology) TSC (AAS in Radiologic Technology)
<b>Registered Nurses</b> \$25.89/\$34.66/\$39.05	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	587	2 yrs. or 4 yrs. or 6 yrs. + LIC	STC (AAS in Nursing)
			TSC (AAS in Nursing; LVN to RN Advanced Placement)
			TSTC (AAS in Nursing; Certificate 2 in Vocational Nursing)
			UTRGV (BS in Nursing, MS in Nursing)
<b>Respiratory Therapists</b> \$21.93/\$27.97/\$30.99	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	52	2 yrs.+ LIC	STC (AAS in Respiratory Therapy) TSC (AAS in Respiratory Care)
<b>Speech-Language Pathologists</b> \$26.54/\$37.80/\$43.44	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	41	5 yrs.	UTRGV (MS in Communication Sciences and Disorders)
<b>Surgical Technologists</b> \$18.24/\$24.74/\$27.99	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	31	1 yr + LIC	TSTC (AAS in Surgical Technology)
<b>HOSPITALITY &amp; TOURISM</b>			
<b>Chefs and Head Cooks</b> \$14.63/\$19.10/\$21.34	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	14	2 yrs + OJT	STC (AAS in Culinary Arts) TSTC (AAS in Culinary Arts, CER I in Culinary Specialist, CER I in Culinary Assistant, CER II in Culinarian)

Section 3: Targeted Occupations

HUMAN SERVICES			
<b>Community Health Workers</b> \$10.08/\$15.29/\$17.89	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	25	HS	
<b>Counselors: Substance Abuse / Behavioral / Mental Health</b> \$15.72/\$19.72/\$21.73	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	87	4 yrs. or 6 yrs.	UTRGV <ul style="list-style-type: none"> <li>• BS in Addiction Studies</li> <li>• BS in Rehabilitation Services</li> <li>• MS in Rehabilitation Counseling</li> <li>• Ph.D. Clinical</li> </ul>
<b>Life, Physical and Social Science Technicians, All Other</b> \$17.07/\$29.99/\$36.45	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	2 yrs.	
<b>Social &amp; Human Services Assistants</b> \$10.68/\$15.03/\$17.20	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	93	HS + OJT and/or 1 yr or 2 yr	STC (AA in Social Work--two-year related AA program can transfer to bachelor's) TSC (AA in Social Work)
<b>Social Workers – Child, Family &amp; School and Mental Health &amp; Substance Abuse</b> \$13.32/\$20.88/\$24.65	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	121	4 yr + LIC	STC (AA in Social Work-- two-year related AA program can transfer to bachelor's) TSC (AA in Social work) UTRGV (BSW in Social Work)
<b>Social Workers, Healthcare</b> \$17.53/\$25.31/\$29.20	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	51	5 yrs. + LIC	STC (AA in Social Work-- two-year related AA program can transfer to bachelor's) TSC (AA in Social Work) UTRGV <ul style="list-style-type: none"> <li>• BSW in Social Work</li> <li>• MSSW in Social Work</li> </ul>
INFORMATION TECHNOLOGY			
<b>Computer Network Support Specialists</b> \$15.89/\$22.37/\$25.60	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	2 yrs.	STC (AAS Specialization in Computer and Network Specialist)
<b>Computer Occupations, All Other</b> \$22.19/\$34.39/\$40.49	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	10	4 yrs.	STC (AS in Computer Information Systems—two-year related program that could transfer into a bachelor's program) UTRGV (BSCS in Computer Science; MS in Computer Science)

INFORMATION TECHNOLOGY (CONTINUED)			
<b>Computer Programmers</b> \$24.70/\$37.72/\$44.23	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	16	4 yrs.	STC (AS in Computer Science—two-year related AA program can transfer to bachelor's)
			TSTC (AAS in Computer Programming) UTRGV <ul style="list-style-type: none"> <li>• BSCE in Computer Engineering</li> <li>• BSCS in Computer Science</li> </ul>
<b>Computer User Support Specialists</b> \$12.41/\$18.81/\$22.00	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	94	1 yr.	STC (AAS in Specialization in Computer Support Specialist; Certificate in Computer and Information Technologies Specialist, and Certificate in Computer Applications Specialist)
			TSC (AS in Computer Science; AAS in Computer Information Systems, Level One Certificate in Computer Information Technology [30 SCH]) TSTC (AS in Computer Science; AAS in Cyber Security)
<b>Computer Systems Analysts</b> \$23.52/\$37.97/\$45.20	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	4 yrs.	STC (BAT in Computer & Information Technologies)
			TSC (AS in Computer Science, AAS in Computer Information Systems, Level One Certificate in Computer Information Technology [30 SCH])
			TSTC (AS in Computer Science) UTRGV <ul style="list-style-type: none"> <li>• BSCS in Computer Science</li> <li>• BS in Computational Science</li> <li>• BBA in Information Systems</li> <li>• MS Business Analytics</li> </ul>
<b>Database Administrators</b> \$22.14/\$37.13/\$44.62	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	8	4 yrs.	UTRGV (BBA in Information Systems)
<b>Network &amp; Computer Systems Administrators</b> \$21.36/\$30.61/\$35.24	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	16	4 yrs.	STC (AS in Computer Information Systems—two-year related program that could transfer into a bachelor's program); certificate program in Computer and Internet Specialist; AAS degree in Computer Support and Telecommunications Specialist UTRGV (BS and MS in Computer Science; MS in Information Technology)

Section 3: Targeted Occupations

INFORMATION TECHNOLOGY (CONTINUED)			
<b>Software Developers Applications</b> <b>\$23.15/\$43.59/\$53.81</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	4 yr	STC (AS in Computer Information Systems; two-year related program that could transfer into a bachelor's program)
			TSTC (AS in Computer Science with option for transfer)
			UTRGV (BS and MS in Computer Science; MS in Information Technology)
<b>Systems Software Managers</b> <b>\$33.28/\$48.29/\$55.75</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	14	4 yrs.	STC (AS in Computer Information Systems; two-year related program that could transfer into a bachelor's program)
			TSTC (AS in Computer Science with option for transfer)
			UTRGV (BS and MS in Computer Science; MS in Information Technology)
<b>Telecommunications Installers &amp; Repairers</b> <b>\$15.55/\$26.32/\$31.70</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	42	HS + OJT and/or 1 yr. or 2 yrs.	STC (Certificate in Telecommunication Technology Specialist; Certificate and AAS specialization in Computer Support and Telecommunications Specialist)
<b>Web Developers</b> <b>\$18.21/\$24.50/\$27.66</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	8	2 yrs.	STC (AS in Computer Information Systems; two-year related program that could transfer into a bachelor's program)
			TSTC (AS in Computer Science with option for transfer)
			UTRGV (BS and MS in Computer Science; MS in Information Technology)
LAW AND PUBLIC SERVICE			
<b>Compliance Officers</b> <b>\$21.35/\$34.75/\$41.44</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	199	4 yrs.	UTRGV, BBA in Management Minor in Public Administration
<b>Correctional Officers; Jailers</b> <b>\$14.35/\$18.11/\$19.99</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	44	HS or 1 yr.	STC (AAS in Law Enforcement, Basic Peace Officer Certificate)
			TSTC (Police Academy available through continuing education)
<b>Eligibility Interviewers, Government Programs</b> <b>\$14.67/\$17.00/\$18.17</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	87	2 yrs	STC (AAS in Public Administration)
			UTRGV (BBA in Management; Minor in Public Administration)

<b>LAW AND PUBLIC SERVICE (CONTINUED)</b>			
<b>Firefighters</b> \$17.26/\$23.83/\$27.11	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	39	2 yrs. + OJT	STC (Certificate in Basic Firefighter and AAS in Fire Science Technology) TSTC (Fire Academy available through continuing education)
<b>Lawyers</b> \$25.29/\$50.50/\$63.11	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	47	PROF	
<b>Legal Secretaries</b> \$13.11/\$18.41/\$21.07	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	21	1 yr. or 2 yrs.	STC (AAS in Paralegal, AAS in Legal Office Assistant) TSC (AAS in Paralegal Studies, Level One Certificate in Legal Assisting [18 SCH])
<b>Paralegals and Legal Assistants</b> \$12.50/\$22.34/\$27.25	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	104	2 yrs.	STC (AAS in Paralegal) TSC (AAS in Paralegal Studies)
<b>Police, Fire, &amp; Ambulance Dispatchers</b> \$10.60/\$13.96/\$15.64	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	44	HS	STC (AA in Criminal Justice or AA in Communications)
<b>Police / Sheriff / Patrol Officers (also federal jobs such as Border Patrol; most federal positions require 4-yr. degree)</b> \$15.68/\$24.29/\$28.59	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	228	HS + OJT or 1 yr. or 4 yrs.	STC (AAS in Law Enforcement, Basic Peace Officer Certificate, AS in Criminal Justice--two-year related AA program can transfer to bachelor's)
			TSC (Workforce Training Program, 6 Month Academy +LIC; AAS and AA in Criminal Justice)
			TSTC (Police Academy available through continuing education) UTRGV (BSCJ in Criminal Justice, Criminology and Criminal Justice)
<b>Tax Examiners, Tax Collectors, and Revenue Agents</b> \$16.56/\$25.49/\$29.95	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	6	4 yrs.	STC (AA in Business Administration—two-year related program that could transfer into a bachelor's program) UTRGV (BBA in Accounting)
<b>Urban and Regional Planners</b> \$18.76/\$30.17/\$34.88	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	5 yr	STC (AAS in Public Administration—two-year related program, but not bachelor's) UTRGV (BS in Civil Engineering; MPA in Public Administration)
<b>Water, Waste Water Treatment Plant and Systems Operators</b> \$11.09/\$15.42/\$17.59	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	55	HS + OJT	

Section 3: Targeted Occupations

MANUFACTURING			
<b>Engineers (Industrial)</b> <b>\$21.94/\$45.83/\$57.77</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	8	4 yrs.	STC (AS in Engineering--two-year related AS program that could transfer into a Bachelor's program)
			TSTC (AS in Engineering—could transfer into a bachelor's program)
			UTRGV <ul style="list-style-type: none"> <li>• BS in Civil Engineering</li> <li>• BS in Engineering Technology</li> <li>• BSCE in Computer Engineering</li> <li>• BSEE in Electrical Engineering</li> <li>• BSME in Mechanical Engineering</li> <li>• BSMFGE in Manufacturing Engineering</li> </ul>
<b>Engineering Technicians (Various Types)</b> <b>\$15.52/\$20.40/\$22.84</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	10	2 yrs	STC (AS in Engineering—two-year related program that could transfer into a bachelor's program; AAS Specialization in Architectural & Civil Engineering)
			TSTC (AS in Engineering that could transfer into a bachelor's program; AAS in Mechatronics Technology; Certificate 1 in Mechatronics Technology)
<b>Control &amp; Valve Installers &amp; Repairers, Except Mechanical Door</b> <b>\$12.65/\$18.80/\$21.87</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	15	HS	
<b>Electrical/Electronic Repairers, Commercial / Industrial Equipment</b> <b>\$13.58/\$18.69/\$21.22</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	1 yr.	
<b>Industrial Machinery Mechanics</b> <b>\$13.16/\$20.36/\$23.96</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	38	HS or 1 yr.	
<b>Structural Metal Fabricators &amp; Fitters</b> <b>\$11.18/\$14.68/\$16.42</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	40	HS	STC (Certificate in Structural Welding, Certificate in Combination Welding, AAS in Welding)
			TSTC (AAS degree in Welding Technology; Certificate 1 in Structural Welding)
<b>Tool &amp; Die Makers</b> <b>\$11.12/\$16.96/\$19.88</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	14	HS + OJT and/or 1 yr. or 2 yr.	STC (AAS in Precision Manufacturing Technology, Certificate in Precision Manufacturing Technology)

<b>MANUFACTURING (CONTINUED)</b>			
<b>Welders/Cutters/Solderers/ Brazers</b> \$11.78/\$16.54/\$18.93	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	95	HS or 1 yr. or 2 yrs. or APP	STC (Certificate in Structural Welding, Certificate in Combination Welding)
			TSC (Workforce Training offers the following: 160-hour, 14 week Structural Welding CE program; 80-hour, 2-week Shipfitting CE training program)
			TSTC (AAS in Welding Technology, CER I in Structural Welding. CER II in Structural & Pipe Welding)
<b>SCIENCE, TECHNOLOGY, ENGINEERING &amp; MATHEMATICS (INCLUDES ENERGY)</b>			
<b>Engineers (Civil Engineers; Electrical Engineers; Electronics Engineers (except Computer Engineers); Health &amp; Safety Engineers (except Mining Safety Engineers); Industrial Engineers; and Materials Engineers).</b> \$43.67/\$47.72/\$57.38	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	15	4 yrs.	STC (AS in Engineering—two-year related program that could transfer into a bachelor's program)
			TSTC (AS in Engineering—two-year related program that could transfer into a bachelor's program)
			UTRGV <ul style="list-style-type: none"> <li>• BS in Civil Engineering</li> <li>• BS in Engineering Technology</li> <li>• BSCE in Computer Engineering</li> <li>• BSEE in Electrical Engineering</li> <li>• BSME in Mechanical Engineering</li> <li>• BSMFGE in Manufacturing Engineering</li> <li>• MS in Civil Engineering</li> </ul>
<b>Engineering Technicians</b> \$15.52/\$20.40/\$22.84	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	10	2 yrs.	STC (AS in Engineering; AAS Specialization in Architectural & Civil Engineering)
			TSTC (AS in Engineering; AAS in Mechatronics Technology; Certificate 1 in Mechatronics Technology)
<b>Mechatronics Technicians</b> \$15.52/\$20.40/\$22.84	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	1 yr. or 2 yrs.	STC (Certificate in Mechatronics Technology)
			TSC (AAS in Industrial Mechanics and Maintenance Technology [pending approval by the Southern Association of Colleges and Schools Commission on Colleges])
			TSTC (AAS in Mechatronics Technology, AAS in Wind Energy Technology, CER 1 in Wind Energy Technician)



**Section 3: Targeted Occupations**

<b>TRANSPORTATION, DISTRIBUTION &amp; LOGISTICS</b>			
<b>Aircraft Mechanic &amp; Service Technicians</b> \$13.59/\$20.88/\$24.52	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	<5	1 yr.	TSTC (AAS in Aircraft Airframe Technology, CER II in Aircraft Airframe Technician, AAS in Aircraft Powerplant Technology, CER II in Aircraft Powerplant Technician)
<b>Automotive Body &amp; Related Repairers</b> \$12.36/\$18.50/\$21.57	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	29	2 yrs. or HS + OJT	TSC (Level One Certificate in Auto Body Repair Technology Specialist [30 SCH]) TSTC (AAS in Auto Collision & Management Technology with Refinishing Specialization 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)
<b>Automotive Service Technicians / Mechanics / Related Specialists</b> \$10.60/\$18.34/\$22.21	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	196	1 yr. or 2 yrs.	STC (AAS in Automotive Technology; AAS in GM-ASEP; Certificate in Automotive Technology; certificate in Ford Youth and Adult Training Program)
			TSC (AAS in Automotive Technology; Level One Certificate in Auto Mechanics Technology –Line Specialist [23 SCH]) TSTC (AAS in Automotive Technology, CER II in Automotive Technician, CER I in Automotive Maintenance & Light Repair)
<b>Bus / Truck / Diesel Mechanics</b> \$10.76 / \$14.75 / \$16.75	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	124	HS or 1 yr. + OJT	STC (AAS in Diesel Technology, Certificate in Diesel Technology)
<b>Truck Drivers, Heavy/Tractor-Trailer</b> \$11.61/\$19.80/\$23.90	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at RGV Public College or University
	867	1 yr.+ LIC	STC (Continuing Education Program)

**The Education Advantage**

Table 3.2 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 \$20.88 does not yield a return equal to that of a Financial Analyst at \$30.68 an hour. (Table 3.4 presents a list of RGV LEAD’s 2019 Targeted Occupations organized by education requirements.)



Table 3.2 Analysis of Average Hourly Wages for RGV LEAD's  
2019 Targeted Occupations by Level of Education

Level of Education	Average RGV Hourly Wage
High School Diploma or GED*	\$17.00
Associate's Degree	\$23.00
Bachelor's Degree	\$31.00
Master's Degree	\$34.00

Averages were rounded up to the nearest dollar. Averages calculated based on average wages as shown in Table 3.1.

Higher hourly salary rates translate to more income for an individual; for example, in Table 3.2, an individual earning \$31.00 per hour would earn \$14.00 per hour more than an individual earning \$17.00 per hour. If both individuals worked 40-hour weeks, that difference in hourly salary would translate to about \$2,400 a month in additional income.

On average, a Valley 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 \$12.00 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 \$17.00 an hour. In contrast, a person who invests a little more time in education and acquires a postsecondary degree in one of the targeted occupations can expect an entry-level wage of about \$16.00 an hour, and in time an average wage around \$23.00 an hour, or \$6.00 an hour more than a person with just a high school education, or about \$12,000 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 \$34.00 an hour, or \$3.00 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.**

## INFORMATION REGARDING SALARY RANGES

RGV LEAD’s Targeted Occupations List in Table 3.1 shows salary ranges in terms of 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. The supplemental information included in Section 5 may also be helpful in discussing targeted occupations and related salaries with students and their families.

Figure 3.1 How to Compute Salary Conversions—Annual, Weekly, and Hourly Salary Rates

<b>Part A. How to Compute an Annual Salary When Given an Hourly Salary</b>			
<b>Steps to Be Taken</b>	<b>Example</b>		
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
<b>Part B How to Compute an Hourly Salary When Given an Annual Salary</b>			
<b>Steps to Be Taken</b>	<b>Example</b>		
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 hour).	Weekly salary	÷ No. of Hours	= Hourly Salary
	\$423.08	÷ 40	= \$10.58

## INFORMATION REGARDING JOB DESCRIPTIONS FOR TARGETED OCCUPATIONS

Additional information including job descriptions of the targeted occupations is 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>

A comparison of RGV LEAD’s targeted occupations with those of Workforce Solutions, Workforce Solutions Cameron, and VIDA is provided in Section 5 of this report. (Workforce development boards and VIDA have funds that might help cover the cost of postsecondary education and training, although eligibility requirements must be met. This information may be useful for students as they make college-and-career plans. Please refer to Section 5 for additional information.)

# Section 4: Economic Development and Education

## USHERING IN A NEW ERA FOR THE RIO GRANDE VALLEY

Thanks to the hard work of many leaders and stakeholders here today, we are ushering in a new era of economic development and collaboration for the Rio Grande Valley. This region plays such an important role in growing the Texas economy and strengthening our international trade partnerships. I look forward to the tremendous new opportunities this agreement will create for the people of the Rio Grande Valley.

- The Honorable Greg Abbot, Governor of Texas  
Speaking at the Texas State Capitol on June 14, 2019

On June 14, 2019, in a ceremony at the Texas State Capitol in Austin, Governor Greg Abbott signed an agreement that redesignated and consolidated three separate Rio Grande Valley Metropolitan Planning Organizations into one consolidated entity. Many Rio Grande Valley leaders and stakeholders had worked a long time to create the agreement and were in Austin to celebrate the signing. The agreement created the **Rio Grande Valley Metropolitan Planning Organization (RGV MPO)**.

The RGV MPO agreement merges three MPOs into one. This new “one region” approach will provide many new opportunities for the Valley, encouraging economic development and providing opportunities for improved infrastructure through the region.

To learn more about the agreement, ceremony, and the work of Metropolitan Planning Organizations, see <https://gov.texas.gov/news/post/governor-abbott-signs-rio-grande-valley-metropolitan-planning-organization-merger-agreement>. Additional information can also be found online at sites such as these:

- <https://www.valleymorningstar.com/2019/07/19/new-rgv-mpo-taking-shape/>
- <https://www.facebook.com/rgvmpo/>.

Operating as one regional entity, the Rio Grande Valley has the potential to compete more successfully for the tax dollars needed to fund projects such as transportation, and the work of economic development organizations should be enhanced because economic developers will be able to point to the strengths of the entire region, not separate parts of the Valley.

## HOW ECONOMIC DEVELOPMENT WORKS

There are currently almost 30 separate entities working on economic development in the Rio Grande Valley. These organizations work to improve the quality of life in their communities and to attract jobs that will pay well enough to support the people who live there. When SpaceX began operations in Boca Chica in Cameron County in 2014, multiple economic development agencies—as well as the state—were involved in striving to bring that business to the Valley. Community leaders were pleased when their hard work paid off by bringing a new company that could help to enhance the aerospace industry in the region.

Businesses considering opening a Rio Grande Valley location have a checklist of features they must satisfy before locating their new service center, manufacturing plant, retail store, or rocket-launch facility here. These prospective employers ask for hard data on labor force size, wage rates, major employers, training programs and education demographics. These businesses often work with site-selection consultants who make decisions about the suitability of a location based on data as an initial screening tool. On the plus side, the Rio Grande Valley offers a relatively lower cost of living, a young bilingual, bicultural workforce, and dynamic educational facilities that include the University of Texas Rio Grande Valley, South Texas College, Texas Southmost College, Texas State Technical College, and others. The region's colleges and universities work closely with its public schools to fulfill the promise of an educated and ambitious workforce.

The negative side of the regional picture includes perceptions regarding educational attainment of the general population. Prospects typically ask how many students are in the school system, how many of them graduate from high school, and how many go on to community or technical colleges or universities.

The average Valley wage is lower than the national average, and the average educational attainment is lower as well. The two are directly related: better education levels bring better salaries. The way to attract more well-paid jobs—raising incomes and the economic vitality of the region—is to develop a skilled workforce. But the “chicken and the egg” dilemma comes into play. If there are no jobs for people with advanced technical skills in fields such as health care, manufacturing, and information technology, these people leave, creating a situation that many Valley leaders call a “brain drain.” Yet prospective employers are reluctant to relocate if the region cannot offer them skilled employees.

Valley economic development organizations frequently offer incentives to relocating companies to reduce the costs of starting at a new location. The incentives can include waiving property taxes for a period, providing assistance with financing or providing cash incentives as new benchmarks in employment or investment are reached. EDCs and their communities do this because they believe the salaries earned will bring more money and/or new money into the region. People who are gainfully employed will purchase more appliances, cars, homes and restaurant meals than those who are not. More sales and property taxes will come into local government coffers. Yet no amount of incentives can compensate for an otherwise poor business-location decision (i.e., where the labor pool cannot supply the types of workers sought).

While EDCs tend to focus on a single city's assets, there is also a regional economic development organization, the Rio South Texas Economic Council (RSTEC) that is working to market the border region as a whole, combining the strengths of the component cities and counties and their strategic location, which provides great weather, year-round recreational activities, port facilities, and access to Mexico, U.S. South

and Midwest, and other global markets (<http://www.riosouthtexas.com/>). RSTEC focuses on merging industries that the Valley as a region can pursue, such as manufacturing of medical products and renewable energy. That brings regional workforce issues to the forefront.

## THE PIVOTAL ROLE OF EDUCATION IN ECONOMIC DEVELOPMENT

Jobs with higher salaries go to individuals who have pursued higher education and emerged computer-literate and technically skilled with a strong academic foundation. Educators who guide their students to gain both academic and technical skills throughout high school and college are building the 21<sup>st</sup> century's knowledge-economy labor pool. Teachers and counselors may realize that the skills they teach enhance their graduates' future employability and salaries. Yet many educators are relatively unaware of their own significant contribution to the region's economic vitality.

Forward-looking educators—those who help students grasp the importance of developing academic and technical skills—greatly influence the economic future of the Rio Grande Valley. The educational level of the workforce is the make-or-break element for attracting new employers to the Rio Grande Valley. In fact, at the time this report was created, several Valley economic development leaders came together and provided information about emerging occupations—information that they asked RGV LEAD to share with educators, students, and students' families in this report. The information provided to RGV LEAD by these local leaders appears in the Emerging Occupations section that follows.

RGV LEAD, which serves the entire Rio Grande Valley, is positioned to capitalize on current successes and serve as a catalyst for raising the skill levels of the home-grown workforce. RGV LEAD fosters a highly literate workforce by serving as the intermediary between schools and businesses, two elements that would otherwise rarely interact. Businesses sometimes complain that graduates of Valley school systems are often unprepared to move into entry-level jobs, yet local school districts rarely receive information, feedback, or guidance on real-world needs.

Future workers moving through the education “pipeline” in public schools form a potential talent pool of skilled labor that constitutes this region's “intellectual capital.” State reports and research studies show that the Valley's students who participated in college-and-career-focused programs of study (tech prep and others) graduated from high school at rates higher than those of other students. Public schools work together in implementing these programs of study, and state laws have changed to support these systemic efforts. Valley students' academic achievement rates and college-transition rates also exceeded those of their peers. The increase in the young, technically-skilled workforce has likewise been significant and broad in scope. These developments are all good news for the work RGV LEAD and its partners are doing in the Rio Grande Valley—good news that will support the work being done by the region's new RGV MPO. However, despite the progress, there remains much work to be done.

## EMERGING OCCUPATIONS

RGV LEAD set up, and the Rio Grande Valley Partnership co-hosted, a meeting of regional leaders from chambers of commerce, economic development organizations, higher education, business, and regional development entities in August 2019. The purpose of this meeting was to gather input for the criteria utilized in selection of the RGV LEAD Targeted Occupations included in Section 3. During this meeting the group made the decision to do more – to include in the 2019 report information about the occupations economic development organizations are working to bring to this region to strengthen communities and create opportunities that will encourage young people to remain in the Valley, or to return to the Valley if they leave. The group created a survey, then worked with RGV LEAD to finalize the questions to be addressed. After the survey had been completed, RGV LEAD and the Rio Grande Valley Partnership worked together to disseminate the survey to all of the individual economic development organizations working in the region.

The results of the survey are summarized below. The students in the Valley’s public schools are this region’s “future workforce”; so having information about emerging occupations will provide valuable information for these students as they plan for the future, making decisions about the careers they will pursue and the education and training they will need to prepare for those future careers.

### RESULTS OF THE EMERGING OCCUPATIONS SURVEY

#### Survey Question 1: What is the industry breakdown of the projects that come to your jurisdiction?

**Responses:**

Industry	Percentage	Comments
<b>Health</b>	Between 5% and 20%	Percentages were different among the various respondents, depending on the geographic location of the entity that responded.
<b>Energy</b>	Between 10% and 20%	Percentages varied, depending on geographic location
<b>Manufacturing</b>	Between 15% and 55%	Percentages varied, depending on geographic location
<b>Retail</b>	Between 10% and 30%	Percentages varied, depending on geographic location
<b>Information Technology</b>	Between 0% and 10%	Percentages varied, depending on geographic location
<b>Logistics</b>	Between 0% and 20%	Percentages varied, depending on geographic location
<b>Other*</b>	Between 5% and 10%	Percentages varied, depending on geographic location
*Other industries listed included research, back office, customer care centers, construction, and retail (with an emphasis on tourism).		

**Survey Question 2: In your important work to bring new industry to the Valley, which of the following factors do you find most challenging to overcome: the education level of the workforce, the skill level of the workforce (such as technical skills), or something else?**

**Responses:**

All respondents stated that both the education level of the workforce and the skill level of the workforce were challenging to overcome. Most respondents ranked skill level as #1 and education level as #2. Individual comments:

“The lack of technically skilled workers with experience is a big challenge. The local educational institutions do a respectable job of teaching skills. A significant challenge is retaining that talent here so that they become part of the available labor pool for newcomers to this region.”

“We still have a significant percentage of the adult age (over 25) that does not have a high school degree.”

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**Survey Question 3: Based on your experience, which of the following levels of graduates/credentials should the educational institutions focus on? (1) Hourly (high school diploma or less); (2) Administrative / Office / Management; (3) Skilled Workers / Technicians (certification or two-year degree); (4) Engineers (four-year degree), or (5) something else.**

**Responses:**

Most respondents indicated that Skilled Workers were the greatest need. Some also expressed a need for Engineers. Individual comments:

“Looking into the future, the biggest need will be for skilled workers with continuing education beyond their certification as well as engineers with hands-on technical skills.”

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**Survey Question 4: Please list two emerging occupations that you believe will be in demand in the Rio Grande Valley within the next two to five years.**

**Responses:**

This question asked all respondents to send individual responses, listing individual jobs. Occupations listed by the respondents (listed in alphabetical order according to the name of the industry or occupation) were as follows:

- Aerospace (Engineers, Lawyers, Biologists, Etc.)
- Cyber Security
- Logistics and Supply Chain Occupations
- Mechatronics Technician Operator
- Programs Supporting Automation
- Robotic Equipment Maintenance/Repair Technician

**Survey Question 5: In your opinion, are there any occupations that will become obsolete within the next two to five years? If “yes,” please give examples.**

**Responses:**

Most respondents indicated that they did not believe any occupations would be going away altogether; however, some respondents did indicate that occupations would change, being impacted by the advent of new technologies. Individual comments:

“Both yes and no. Not fully obsolete, as smaller businesses will be slower to adjust, but the demand for front-line service personnel (cashiers, order takers, receptionists, etc.) will dramatically decrease as automation, mobile platforms, and Ai become better and more cost-effective at repetitive basic human interaction/service tasks.”

“Certain occupations may become totally obsolete, such as banking occupations and certain retail positions.”

“Somewhat obsolete—not altogether obsolete; it’s more of a reduction in occupation.”

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**Survey Question 6. Please share any comments/concerns or other feedback that will help educators plan their curriculum.**

**Responses:**

This question was an open-ended question, asking economic development leaders to share their ideas. Individual responses were as follows:

“The employers of the coming year and decades will require their incoming employees to be very flexible in adapting to change as well as have them capable to do multiple, diverse tasks at one workstation (or across multiple workstations). The ability to interact with technology and use higher-level thinking for technical tasks will be in very high demand, as jobs will evolve on an annual, monthly, or maybe even weekly basis. Basic repetitive tasks will be done by machines.”

“As changes in technology continue to accelerate, educators have to keep up with the changing workplace requirements. With all the demands on teachers, this will be difficult to do.”

“Continue to focus on current industry needs. Lack of skilled Tool/Die, Technicians, etc.”

“Continue incorporating internships and apprenticeship programs in high school classes to expose students to real world work scenarios.”



RGV LEAD works regionally and in communities, working in partnership with economic development organizations, chambers of commerce, school districts, workforce development boards, individual employers, and other partners, to expand proven programs. RGV LEAD strives to provide information that is relevant and accurate for the Rio Grande Valley, which is a unique region unlike any other region in the state as a whole. The input provided by economic developers and other regional and community leaders is invaluable in providing students, parents, and educators with accurate information about well-paying local opportunities, opportunities that could provide students with meaningful employment near their homes. The input provided by economic development professionals and other community leaders input is vital for ensuring that there is a strong correlation between the targeted occupations in this report and the college-and-career-focused programs of study available for Valley students.

## CONCLUSION

Economic developers cite many factors that make the Valley an attractive place for businesses to expand their current operations or locate new operations in this region, and the quality of the workforce is an important element. Existing and prospective businesses seek literate employees equipped with the skills necessary for helping their businesses grow. When high school and college graduates have in-demand academic and work-related skills, economic development efforts are poised for success. Students and their families also benefit because those academically and technically skilled graduates are positioned to secure well-paying jobs and to pursue careers in the Valley, near their families. This chain of successes can be traced back to the efforts of schools, colleges, local businesses, workforce development boards, and other partners who collaborate with RGV LEAD to make education relevant to students. When students have the ability to compete successfully for well-paying jobs that are available in aerospace, health care, and other Valley industries, economic development efforts will be supported and community prosperity will grow. The resulting positive progress will help to ensure that the work of organizations such as the RGV MPO will succeed in helping the Valley reach its full potential.

# Section 5: Supplemental Information

Sections 1 and 2 of this report provide accurate information about the Rio Grande Valley and its labor market based on data analysis.

Section 3 provides detailed information about RGV LEAD's Targeted Occupations and explains the process through which those occupations were identified—data analysis supplemented by input of Valley leaders. Understanding the local labor market is the foundation for understanding the economic “world of the future,” in which today's students will be seeking tomorrow's good jobs.

Section 4 provides information about the linkage between education and economic development. This section includes information about a regional metropolitan planning organization (the SOUTH TEXAS MPO) created in 2019, and it also presents the results of a survey of Valley economic development leaders about the Valley's “emerging occupations”—the jobs that Valley leaders are working to bring to the Valley.

Economic developers often lament what they describe as the Valley's “brain drain”—the situation that occurs when bright Valley students move away to live and work in other geographic locations. Economic developers are eager to have these individuals return to the Valley. When Valley natives who have moved away return and either move into well-paying jobs or become entrepreneurs (setting up their own businesses), those individuals contribute to the Valley's economic growth and help to reverse the Valley's “brain drain.” Students' decisions about where to live and work have an impact on the work of economic developers in this regard.

High school students are required to make many decisions, such as deciding what type of career to pursue, where to live and work, and what to do after high school graduation—whether to enroll in postsecondary education, go directly into the workforce, or enter the military. These are all very personal decisions.

*Section 5 provides information for students, their families, and the educators who work with them, as follows:*

Online Resources: *This section describes several free online resources designed to assist students with making college and career decisions.*

Paying for College: How Workforce Boards and VIDA Might Help. *Students who choose to pursue postsecondary education and training in the Valley may benefit from the services provided these organizations, which are described in this section.*

Making Decisions about Creating College Transcripts in High School. *High school students are given the opportunity to begin creating college transcripts before they graduate. Students and their families need to be informed consumers, making these decisions thoughtfully. This section provides information designed to help students in this decision-making process.*

Thinking Through Career Choice and Place of Residence. *This section provides an overview of personal financial management (earnings, paychecks, and debt) and information about the cost of living in the Valley compared with other places in Texas.*

Supplemental Information for Students from the South Texas Area. *Students from the Valley and students from the South Texas area need the same types of information, even though there are some variations between the two regions.*

Section 5 provides resources designed for use in that decision-making process, incorporating both information and tools for evaluating that information. This information is organized in the following way:

- *Online Resources to Support Decision-Making.* This subsection provides information about websites offered by the Texas Higher Education Coordinating Board, Texas Workforce Commission, and U.S. Bureau of Labor Statistics that may be useful for students as they research college and career options and begin submitting applications for higher education and/or scholarships and other types of financial aid.
- *Paying for College: How Workforce Boards and VIDA Might Help.* This subsection provides information about opportunities provided by Workforce Solutions, Workforce Solutions Cameron, and the Valley Initiative for Development and Advancement (VIDA). Workforce Solutions and Workforce Solutions Cameron are workforce development boards (Workforce Solutions serves Hidalgo, Starr, and Willacy counties; Workforce Solutions Cameron serves Cameron County). VIDA is a nonprofit organization that serves multiple communities. These organizations all manage funding for programs that could potentially help students pay for postsecondary education and training. Each organization has eligibility requirements that must be met, as well as limitations on dollar amounts and duration that must be followed, depending on funding sources.
- *Making Decisions About Creating College Transcripts in High School.* This subsection provides an overview of the types of courses students may take to earn college credits while they are still in high school. Some of these courses result in the creation of college transcripts for high school students, and others do not. The decisions students make about enrolling in these courses should be informed decisions because college transcripts are permanent records that have an impact on students' academic and financial standing in higher education, regardless of when and where courses were taken. This subsection provides information and tools to assist in that decision-making process.
- *Thinking Through Career Choice and Place of Residence.* This subsection provides an introduction to choosing a career, managing money, (how salaries are paid, how budgets are structured, and the importance of managing debt), and understanding the cost of living, all important factors in deciding where to live and work. The discussion of cost of living incorporates tools for comparing the cost of living in the Valley with the cost of living in other parts of Texas.
- *Supplemental Information for Students from the South Texas Area.* Students from the South Texas area (Jim Hogg, Webb, and Zapata Counties) face the same choices and must make the same decisions as students from the Valley (Cameron, Hidalgo, Starr, and Willacy Counties). Understanding the local labor market is the foundation for understanding the economic “world of the future,” in which today’s students will be seeking tomorrow’s good jobs. This subsection provides supplemental information to assist students from the South Texas area in that decision-making process.

## ONLINE RESOURCES TO SUPPORT DECISION-MAKING

As students think through their choices in setting college-and-career goals, many of those students will decide they need to continue their education after high school. As students consider career and postsecondary education options, they may find that these websites provide information that will be of assistance:

- [www.texasgenuine.org](http://www.texasgenuine.org): This website, supported by the Texas Higher Education Coordinating Board, the Texas Education Agency, and the Texas Association of Community College Marketers, is designed to help students explore career fields and related education and training offered by public community and technical colleges throughout Texas.
- <https://texasrealitycheck.com>: This interactive website, supported by the Labor Market & Career Information Department of the Texas Workforce Commission, is an interactive tool designed to help students make decisions about education and careers. The website has three entry points (Lifestyle Calculator, Occupation Calculator, and Quick View Calculator), all focused on helping students learn more about budgeting, occupations and earnings, education and training requirements for various careers, and identifying the income required to support the desired lifestyle in the community in which the student wishes to live and work.
- <https://bls.gov/ooh>: This website is supported by the United States Department of Labor, Office of Occupational Statistics and Employment Projections, and it provides information about occupation groups as well as individual occupations. The website houses the Occupational Outlook Handbook, in which students can find information about individual careers throughout the nation, including types of skills needed, working conditions, and other information.
- [www.collegeforalltexas.com](http://www.collegeforalltexas.com): This website, supported by the Texas Higher Education Coordinating Board, provides information about higher education for three different populations: students, military personnel, and adult learners. The website provides facts about paying for college, types of financial aid available, and other information designed to help the various target populations understand the decisions they are making in order to prepare for success in higher education and careers. This website incorporates links to other websites supported by the Coordinating Board, as follows:
  - [www.gentx.org](http://www.gentx.org) is a website that provides information about resources for the middle school students, high school students, and adults who are the future of Texas: Generation Texas. Information is available in both English and Spanish.
  - <https://texasoncourse.org> is a website supported by the Texas Education Agency, Texas Higher Education Coordinating Board, and Texas Workforce Commission in collaboration with The University of Texas at Austin. Texas OnCourse is Texas' definitive source of college and career planning, providing resources and information for educators and for students and families.
  - <https://www.applytexas.org> is a website created through a collaboration of the Texas Higher Education Coordinating Board and many of the colleges and universities in the state to help streamline the college-admissions requirements for students. Through this resource, students can review admission requirements for every Texas public university plus

participating private and two-year schools. This website makes it possible for students to complete one application that can be used for multiple Texas higher education institutions, applying both for admission and for scholarships.

- [www.60X30TX.com](http://www.60X30TX.com) provides a link to the Texas Higher Education Strategic Plan for 2015-2030. This website also includes progress reports for the entire state.
- <https://fafsa.ed.gov>. This website, supported by the U.S. Department of Education, provides information about federal student aid. Through this website, candidates can also learn about and/or complete a FAFSA (Free Application for Federal Student Aid) application that must be completed to apply for federal financial aid. (For additional information about financial aid, see the discussion of FAFSA and TASFA—the Texas Application for Student Financial Aid) that appears under the “Financial Aid” section of the [collegeforalltexas.com](http://collegeforalltexas.com) website.

## PAYING FOR COLLEGE: HOW WORKFORCE BOARDS AND VIDA MIGHT HELP

Most jobs that pay well enough to support a family require some sort of education or training after high school. For students who qualify, workforce development boards and VIDA have funds that students may be able to access to help cover the cost of postsecondary education and training. Workforce boards and VIDA target jobs for which adults and older youth can prepare in a relatively short period of time. The information that follows is included for the benefit of students and families as students plan for the future. Workforce Solutions, Workforce Solutions Cameron, and VIDA provided the information for their organizations that appears below.

Table 5.1 provides a comparison of RGV LEAD’s Targeted Occupations with those of Workforce Solutions, Workforce Solutions Cameron, and VIDA. Students who are interested in pursuing one of the occupations targeted by Workforce Solutions, Workforce Solutions Cameron, and VIDA may want to learn more about the potential opportunities available through those organizations. For each of these organizations, there are eligibility requirements that must be met. Each organization also has limitations on dollar amounts and duration, based on the funding source from which assistance with education expenses is provided. For students who qualify, these organizations might provide funds that would help pay for postsecondary education and training.

To learn more about eligibility requirements and the application process, contact the appropriate agency:

Workforce Solutions Cameron	<a href="http://www.wfscameron.org">http://www.wfscameron.org</a>	956.548.6700
Workforce Solutions	<a href="http://www.wfsolutions.com">http://www.wfsolutions.com</a>	956.928.5000
VIDA	<a href="http://www.vidacareers.org">http://www.vidacareers.org</a>	956.903.1900

**Section 5: Supplemental Information**

**Table 5.1 Comparison of RGV LEAD’s Targeted Occupations with the Targeted Occupations of Workforce Solutions, Workforce Solutions Cameron, and VIDA**

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>AGRICULTURE, FOOD &amp; NATURAL RESOURCES</b>			
Farmers, Ranchers and other Agricultural Occupations			
Veterinarians			
Veterinary Technologists & Technicians			
Welders / Cutters / Solderers / Brazers			Welders/Cutters/Solderers/ Brazers
<b>ARCHITECTURE &amp; CONSTRUCTION</b>			
Architects			Architects
Carpenters		Carpenters	Carpenters
Construction Managers		Construction Managers	Construction Managers
Construction and Building Inspectors			
Cost Estimators			
Drafters (Architectural & Civil, Electrical & Electronic, Mechanical)			Drafters (Architectural & Civil, Electrical & Electronic, Mechanical)
Electrical Power-Line Installers & Repairers			Electrical Power-Line Installers & Repairers
Electricians	Electricians	Electricians	Electricians
Engineers Civil, Electrical, & Mechanical			Engineers (Civil)
Engineering Technicians, Civil and Electrical & Electronics			Engineering Technicians, Civil and Electrical & Electronics
Excavating, Loading Machine and Dragline Operators			
Heating, Air Conditioning / Refrigeration Mechanics and Installers	Heating, Air Conditioning/Refrigeration Mechanics and Installers	Heating, Air Conditioning/ Refrigeration Mechanics and Installers	Heating, Air Conditioning/ Refrigeration Mechanics and Installers
			Helpers – Installation, Maintenance & Repair Workers
Installation, Maintenance & Repair Workers, All Others			Installation, Maintenance & Repair Workers, All Others
Logisticians			Logisticians
	Maintenance & Repair Workers, General	Maintenance & Repair Workers, General	Maintenance & Repair Workers, General

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>ARCHITECTURE &amp; CONSTRUCTION (CONTINUED)</b>			
Maintenance Workers, Machinery			Maintenance Workers, Machinery
Operators, Construction Equipment			Operators, Construction Equipment
Pest Control Workers			
Plumbers, Pipefitters, and Steamers	Plumbers, Pipefitters, and Steamers	Plumbers, Pipefitters, and Steamers	Plumbers, Pipefitters, and Steamers
Security & Fire Alarm Systems Installers			
			Sheet Metal Workers
Welders / Cutters / Solderers / Brazers	Welders / Cutters / Solderers / Brazers		Welders / Cutters / Solderers / Brazers
<b>ARTS, AUDIO/VIDEO TECHNOLOGY &amp; COMMUNICATIONS</b>			
			Audio & Video Equipment Technicians
Graphic Designers			Graphic Designers
Interpreters & Translators			Interpreters & Translators
Public Relations Specialists			
Telecommunications Equipment Installers / Repairers Except Line Installers			Telecommunications Equipment Installers / Repairers Except Line Installers
			Telecommunications Line Installers & Repairers
Writers & Authors			
<b>BUSINESS, FINANCE &amp; MARKETING</b>			
Accountants and Auditors	Accountants and Auditors	Accountants and Auditors	
Appraisers & Assessors of Real Estate			
Bill & Account Collectors			Bill & Account Collectors
Bookkeeping / Auditing Clerks	Bookkeeping / Auditing Clerks		Bookkeeping / Auditing Clerks
Budget Analysts			
Business Operations Specialists, All Other			
Clerks (Multiple types: Including Administrative Support Clerks, General Office Clerks, Tellers, Interviewers, and Cargo & Freight Agents)			Clerks (including Administrative Support Clerks, General Office Clerks, Tellers, Interviewers, and Cargo & Freight Agents)

**Section 5: Supplemental Information**

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>BUSINESS, FINANCE &amp; MARKETING (CONTINUED)</b>			
Computer, Automated Teller & Office Machine Repairers			
Credit Analysts			
	Customer Service Representatives		
Dispatchers, Except Police, Fire & Ambulance			
Financial Analysts			
Financial Specialists, All Other			
Human Resources Specialists	Human Resources Specialists		
Insurance Sales Agents			
Loan Officers			
Market Research Analysts & Marketing Specialists			
Postal Service Mail Carriers			
Purchasing Agents, Except Wholesale, Retail & Farm Products			
Sales Representatives, Services, All Other			
	Secretary and Administrative Assistants		Secretaries and Administrative Assistants, Except Executive, Legal, Medical
Secretaries, Legal			Secretaries, Legal
			Secretaries, Medical
Securities, Commodities & Financial Services Agents			
Training & Development Specialists			
<b>EDUCATION &amp; TRAINING</b>			
Clinical, Counseling & School Psychologists			
Coaches & Scouts			
Counselors – School			Counselors – School
Health Educators (not public school teachers)			
Librarians			
Teachers – Preschool (Except Special Education)			Teachers – Preschool (except Special Education)
Teachers – Kindergarten, Except Special Education			Teachers – Kindergarten, Except Special Education
Teachers – Elementary, Except Special Education	Teachers – Elementary, Except Special Education	Teachers – Elementary, Except Special Education	Teachers – Elementary, Except Special Education



<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>EDUCATION &amp; TRAINING (CONTINUED)</b>			
Teachers – Middle School, Except Special Education and Career & Technical Education	Teachers – Middle School, Except Special Education and Career & Technical Education	Teachers – Middle School, Except Special Education and Career & Technical Education	Teachers – Middle School, Except Special Education and Career & Technical Education
Teachers – High School, Except Special Education and Career & Technical Education	Secondary School Teachers, Except Special Education and Career & Technical Education	Secondary School Teachers, Except Special Education and Career & Technical Education	Teachers – High School, Except Special Education and Career & Technical Education
Teachers, Special Education			
Teachers – All Other Except Substitute Teachers			
Teachers – Postsecondary (Mathematical Science, Biological Science, English Language & Literature)			Teachers – Postsecondary (Mathematical Science, Biological Science, English Language & Literature)
	Teacher Assistants	Teacher Assistants	Teacher Assistants
<b>HEALTH SCIENCE</b>			
Biological Technicians			
Cardiovascular Technologists & Technicians			
Dental Assistants		Dental Assistants	
Dental Hygienists	Dental Hygienists		Dental Hygienists
Dentists			
Diagnostic Medical Sonographers	Diagnostic Medical Sonographers		Diagnostic Medical Sonographers
Dieticians & Nutritionists			
Emergency Medical Technicians & Paramedics	Emergency Medical Technicians & Paramedics	Emergency Medical Technicians & Paramedics	Emergency Medical Technicians & Paramedics
Health Technologists & Technicians, All Other			Health Technologists & Technicians, All Other
Licensed Practical and Licensed Vocational Nurses	Licensed Practical and Licensed Vocational Nurses	Licensed Practical and Licensed Vocational Nurses	Licensed Practical and Licensed Vocational Nurses
	Medical Assistants (Certified Only) PCA/PCT		Medical Assistants
Medical Equipment Repairers			Medical Equipment Repairers
	Medical Records & Health Information Technicians	Medical Records & Health Information Technicians	Medical Records & Health Information Technicians
	Medical Secretaries	Medical Secretaries	Medical Secretaries
		Medical Transcriptionist	Medical Transcriptionists
Medical/Clinical Laboratory Technicians			Medical/Clinical Laboratory Technicians

**Section 5: Supplemental Information**

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>HEALTH SCIENCE (CONTINUED)</b>			
Medical/Clinical Laboratory Technologists (also known as Medical Laboratory Scientists)			Medical/Clinical Laboratory Technologists (also known as Medical Laboratory Scientists)
Nuclear Medicine Technologists			
Nurse Anesthetists			
Nurse Practitioners			
Occupational Health & Safety Specialists			
Occupational Therapists			
Occupational Therapy Assistants	Occupational Therapy Assistants		Occupational Therapy Assistants
Pharmacists			
Pharmacy Technicians	Pharmacy Technicians		
Phlebotomists			Phlebotomists
Physical Therapists			
Physical Therapy Assistants	Physical Therapist Assistants		Physical Therapy Assistants
Physicians – Family and General Practitioners; internists (General); Pediatricians (General); Other Physicians and Surgeons; and Psychiatrists			
Physician Assistants			
Radiologic Technologists / Technicians	Radiologic Technologists		Radiologic Technologists / Technicians
Registered Nurses	Registered Nurses	Registered Nurses	Registered Nurses
Respiratory Therapists	Respiratory Therapists		Respiratory Therapists
Speech-Language Pathologists			
Surgical Technologists	Surgical Technologists		Surgical Technologists
<b>HOSPITALITY &amp; TOURISM</b>			
Chefs and Head Cooks			
<b>HUMAN SERVICES</b>			
Community Health Workers			
Counselors: Substance Abuse / Behavioral / Mental Health			
Life, Physical and Social Science Technicians, All Other			
Social & Human Services Assistants			Social & Human Services Assistants

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>HUMAN SERVICES (CONTINUED)</b>			
Social Workers – Child, Family & School and Mental Health & Substance Abuse			Social Workers – Child, Family & School and Mental Health & Substance Abuse
Social Workers, Healthcare			Social Workers, Healthcare
<b>INFORMATION TECHNOLOGY</b>			
Computer Network Support Specialists	Computer Network Support Specialists		Computer Network Support Specialists
Computer Occupations, All Other			Computer Occupations, All Other
Computer Programmers		Computer Programmer	Computer Programmers
Computer User Support Specialists	Computer User Support Specialists	Computer User Support Specialists	Computer User Support Specialists
Computer Systems Analysts			
Database Administrators			
			Digital Imaging Technicians / Graphic Designers
Network & Computer Systems Administrators			Network & Computer Systems Administrators
Software Developers – Applications			Software Developers – Applications and Systems Software
Systems Software Managers			
Telecommunications Installers & Repairers			Telecommunications Installers & Repairers
Web Developers	Web Developers		Web Developers
<b>LAW AND PUBLIC SERVICE</b>			
Compliance Officers			
Correctional Officers; Jailers	Correctional Officers; Jailers		Correctional Officers; Jailers
Eligibility Interviewers, Government Programs			
Firefighters			Firefighters
Lawyers			
Legal Secretaries			Legal Secretaries
Paralegals and Legal Assistants	Paralegals and Legal Assistants		Paralegals and Legal Assistants
Police, Fire & Ambulance Dispatchers			Police, Fire & Ambulance Dispatchers

**Section 5: Supplemental Information**

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>LAW AND PUBLIC SERVICE (CONTINUED)</b>			
Police / Sheriff / Patrol Officers (also federal jobs such as Border Patrol; most federal positions require 4-yr. degree)	Police and Sheriffs Patrol Officers	Police and Sheriffs Patrol Officers	Police / Sheriff / Patrol Officers (also federal jobs such as Border Patrol; most positions require 4 yrs.)
Tax Examiners, Tax Collectors & Revenue Agents			
Urban & Regional Planners			
Water, Wastewater Treatment Plant & System Operators			
<b>MANUFACTURING</b>			
Engineers (Industrial)			Engineers (Industrial)
Engineering Technicians (various types)	Engineering Technicians	Engineering Technicians	Engineering Technicians (various types)
Control & Valve Installers and Repairers, Except Mechanical Door			
			Crushing / Grinding / Polishing Machine Setters / Operators
			Electric Motor, Power Tool & Related Repairers
Electrical / Electronic Repairers, Commercial / Industrial Equipment			Electrical / Electronic Repairers, Commercial / Industrial Equipment
Industrial Machinery Mechanics	Industrial Machinery Mechanics	Industrial Machinery Mechanics	Industrial Machinery Mechanics
	Machinists	Machinists	Machinists
Structural Metal Fabricators & Fitters		Structural Metal Fabricators & Fitters	Structural Metal Fabricators & Fitters
Tool & Die Makers			Tool & Die Makers
Welders/Cutters/Solderers/Brazers	Welders/Cutters/Solders / Brazers		Welders/Cutters/Solderers/Brazers
	Computer-Controlled Machine Tool Operators, Metal and Plastic		

<b>RGV LEAD</b>	<b>Workforce Solutions</b>	<b>Workforce Solutions Cameron</b>	<b>VIDA</b>
<b>SCIENCE, TECHNOLOGY, ENGINEERING &amp; MATHEMATICS (INCLUDES ENERGY)</b>			
Biological Technicians			Biological Technicians
Engineers (Civil Engineers; Electrical Engineers; Electronics Engineers (except Computer Engineers); Health & Safety Engineers (except Mining Safety Engineers); Industrial Engineers; and Materials Engineers)			Engineers (Civil Engineers; Electrical Engineers; Electronics Engineers (except Computer Engineers); Health & Safety Engineers (except Mining Safety Engineers); Industrial Engineers; and Materials Engineers)
Engineering Technicians		Electrical and Electronics Technicians	Engineering Technicians
Mechatronics Technicians			Mechatronics Technicians
<b>TRANSPORTATION, DISTRIBUTION &amp; LOGISTICS</b>			
Aircraft Mechanic & Service Technicians	Aircraft Mechanic & Service Technicians		Aircraft Mechanic & Service Technicians
Automotive Body & Related Repairers			Automotive Body & Related Repairers
Automotive Service Technicians / Mechanics / Related Specialists	Automotive Service Technicians & Mechanics (Dealer-authorized programs)	Automotive Service Technicians & Mechanics (Dealer-authorized programs)	Automotive Service Technicians / Mechanics / Related Specialists
	Bus Drivers, Transit & Intercity		
Bus / Truck / Diesel Mechanics	Bus & Truck Mechanics, Diesel Engine Specialists	Bus & Truck Mechanics, Diesel Engine Specialists	Bus / Truck / Diesel Mechanics
Truck Drivers, Heavy / Tractor-Trailer	Heavy and Tractor-Trailer Truck Drivers	Heavy and Tractor-Trailer Truck Drivers	Truck Drivers, Heavy / Tractor-Trailer
			Truck Drivers, Light Delivery

## MAKING DECISIONS ABOUT CREATING COLLEGE TRANSCRIPTS IN HIGH SCHOOL

**Creating College Transcripts in High School:** Many high school students have the option to enroll in courses that provide both high school and college credit. Enrolling in these courses provides the opportunity for students to earn college credits prior to high school graduation, saving time and money for students and their families. Before enrolling in these courses, students and their families need to understand that, for some of these courses, the grades earned will be posted on **permanent** college transcripts at the time the courses are taken. Federal rules governing college academic standing and federal financial aid do not make a distinction between courses taken in high school and those taken at a college.

Students who plan carefully and use their elective choices wisely can graduate from high school with a significant number of college credit hours, perhaps even completing the requirements for a postsecondary certificate or associate degree. Students who do not plan carefully may be unpleasantly surprised by the impact of the grades posted on the college transcripts they created prior to high school graduation. It is vital that students and their parents understand the choices these students are making because the college transcripts students create in high school are permanent college transcripts that can impact students' financial aid eligibility and academic standing in college. **Students who begin creating college transcripts in high school need to be prepared to study like college students.**

*Students who plan carefully and use their elective choices wisely can graduate from high school with a significant number of college credit hours.*

*However, it is vital that students and families understand the choices they are making because the college transcripts students create in high school are permanent college transcripts that can impact students' financial aid eligibility and academic standing when the students enroll in college after high school graduation.*

An overview of the types of college-credit courses available to Rio Grande Valley high school students appears in Table 5.2 below. (NOTE: The ATC credits referenced in the table below are being phased out. The elimination of ATC courses makes it even more important that students understand the decisions they are making before they choose to create college transcripts prior to high school graduation.)

Table 5.2 Types of College-Level Courses Offered for Valley High School Students

Type of Course	Academic or Career and Technical	Grade Appears on High School Transcript at Time Course Is Taken	Grade Appears on College Transcript at Time Course Is Taken	What Must Happen for Grade to Appear on College Transcript	When does college credit transfer to another institution other than the one where credit was earned
<b>AP Credit</b>	Academic	Yes	No	Ensure that IHE receives the scores (may download test score/s from the College Board website and take to the college/university to request college credit).	Dependent on college/university admission policies (score of 3, 4, 5)
<b>ATC Credit</b>	Career and Technical (CTE)	Yes	No	Take high school transcript to college and request course credit, where applicable.	Upon request from student and if it applies to current field of study (within 15 months of graduation and at an institution identified as a participating institution)
<b>Concurrent Credit</b>	Both Academic and CTE	No*	Yes	Grade is already posted.	Upon completion of course and contingent upon the institution's admissions policy
<b>Dual Enrollment Credit (Dual Credit)</b>	Both Academic and CTE	Yes	Yes	Grade is already posted (send both high school and college transcript to institution of higher education).	Upon completion of course and contingent upon institution's admissions policy

\*Depends on district policy—student should check with high school counselor.

In making decisions about whether or not to begin creating college transcripts in high school, students and their families might benefit from discussing the “Top 11 List” that follows:

## THE “TOP 11” LIST: WHAT EVERY HIGH SCHOOL STUDENT SHOULD KNOW WHEN ENROLLING FOR DUAL/CONCURRENT ENROLLMENT CLASSES

### “Are students READY for Dual Enrollment Classes?”

1. In order to take dual/concurrent enrollment coursework, a student must meet enrollment eligibility requirements.
2. High school dual enrollment students are considered college students: they need to (1) know college vocabulary, (2) learn how to follow scholastic/financial aid policies and procedures, and (3) meet college deadlines for registration and drops. (Students should check with the Dual Enrollment office at the college or university offering the dual-credit courses to learn more.)

**One Size DOES NOT Fit All – Knowing Your Career Path and College Goal Is Vital!**

3. Students should explore careers and talk with counselors early in high school so they can select dual credit classes that align with their desired career paths.
4. The types of college-level courses students need to take in high school depends on the types of college/university graduation plans those students plan to pursue in college. **It is important for students and their parents to understand the difference because college transcripts created in high school are permanent college records!**
5. Students should select endorsements and enroll in courses that align to their college degree plans and are transferable to the colleges or universities of their choice.
6. Dual credit courses will impact the balance of courses students take each semester in college. Having a high school graduation plan with an appropriate endorsement with linkages to the student’s postsecondary goal serves as a road map that will help the student balance his or her choice of courses. **High school students must think ahead!**

**Dual Credit Courses ARE Different**

7. Dual enrollment credit is recorded on both high school transcripts and permanent college transcripts.
  - Credit for dual enrollment courses must meet high school graduation requirements.
  - Dual credit and concurrent credit courses should align with a college/university degree plan.
  - Students should look into a specific degree plan at a college or university. Every college/university has its own, unique requirements.



- College credit and college grades are recorded on permanent college transcripts. **NOTE:** Students must not **forget** to request that their **college** transcript(s) be sent to the college or university, along with their high school transcripts.
8. College grades and credits students receive in high school will have a permanent impact on students' college/university academic status. (Good Scholastic Standing, Scholastic Probation, or Scholastic Suspension.
    - College grades and credits students receive in high school will have a permanent impact on
      - 1) future college/university admission
      - 2) scholarships
      - 3) financial aid
  9. Dual enrollment courses are considered the foundation for upper-level coursework. If students are not serious about studying at a college level while in high school, they will not be developing the foundation required for the next level of college work.
  10. Once students graduate from high school, they must be ready to take coursework at the level of their college classification.
  11. Students must have college/university degree plans. **They must be ready to study like college students!**

### Consider These Scenarios, and Plan Ahead to Be Successful!

**A Successful Student Scenario:** Enrique was a dual enrollment student who graduated from high school on the plan recommended by his counselor. He realized his dual enrollment classes were for college credit so he spent at least four hours each week studying for each of his dual enrollment classes outside school time. He talked with his high school counselor about exploring various health field careers. When he graduated from high school, he had already earned 30 credits with a 3.5 college GPA toward his desired degree in nursing. When Enrique met with his college academic advisor, he was excited to hear he was a sophomore. He was ready to study with other sophomore college students. He had chosen his dual enrollment courses wisely, keeping in mind which courses he needed to take before applying for the nursing program.

**Another Student Scenario:** Ramiro was a dual enrollment student who graduated from high school on the plan recommended by his counselor. Ramiro had a "B" average in high school. He attended all his classes and did his homework, but he didn't really see any distinction between dual credit courses and his other high school classes. When he was talking with his high school counselor about graduating, he was surprised to discover that he had already earned 24 college credits. After high school graduation, Ramiro was excited to begin college. He knew college would be different from high school, but he was ready to study. He scheduled an appointment to meet with a college academic advisor and was informed he had a 1.87 GPA because two dual enrollment courses he thought he had dropped were on his college transcript as an "F." He also discovered he had taken three classes (nine credits) that he did not need for a major in nursing.

## THINKING THROUGH CAREER CHOICE AND PLACE OF RESIDENCE

Career choice is a personal decision that involves both internal factors, such as values and personal preferences, and external factors, such as family influence, socioeconomic status, and perceptions about occupations and the labor market. Choosing where to live is also a personal decision—one that is also influenced by multiple factors, such as the availability of opportunities, perceptions of quality of life in the Valley and other geographic locations, and the realities of the social world.

**Considering Available Employment Opportunities:** The information provided in Sections 1, 2, and 3 of this report should prove useful as students and their families analyze the employment opportunities that actually exist in the Valley, compare the availability of those opportunities with the students' career goals, and make informed decisions based on accurate information. (Students who leave the Valley and subsequently become interested in returning may also find a review of these factors to be helpful.)

*Choosing whether to remain in the Valley or move to another place to live and work is a personal decision.*

*When choosing whether to remain in the Valley, move away, or return, it is wise for students to consider several factors—not only the realities of the social world but also:*

- *availability of employment opportunities in students' chosen career fields;*
- *comparison of opportunities available in the Valley with opportunities available in other locations; and*
- *comparison of cost of living in the Valley with cost of living in other places.*

**Considering Cost of Living:** Some individuals may be interested in jobs for which there are employment opportunities available locally but choose to move away because they believe “the grass is greener” elsewhere due to higher salaries in other geographic locations. These individuals' perceptions may or may not be accurate, depending on the cost of living in those other geographic locations. To make informed decisions about where to live and work, students need to understand the relationship between income and cost of living. The information in this section is intended to provide data and tools that will help students make realistic assessments of the perceived differences in pay.

RGV LEAD's goal is not to persuade students to pursue any particular career or to live in any particular location but, rather, to help students make informed decisions. Each individual student will, of course, use this information within the framework of his/her own personal preferences and social world.

### The Relationship Between Income and Cost of Living

When students consider their options and make plans for their lives as working adults, the adults who are working with students to help guide them through that planning process have the opportunity to help them understand the realities of personal economic success. Factors to be considered include, but are not limited to, the following:

**Salary Paid Will Be “Net,” Not “Gross”:** Salaries that students earn when they are employees will be paid to them as “net,” not “gross.” For example, a worker who is paid \$12.00 per hour will earn \$480.00 in a week. However, if that worker were paid weekly, the worker would not receive a check for \$480.00. Although \$480.00 would be that individual's “gross” wage for one week, the paycheck the individual received would be the “net” amount payable. Income taxes, Social Security taxes, Medicare taxes, and

possibly other types of “deductions” would be subtracted from that individual’s salary before the check was issued.

**Managing Debt Is Important:** Students will find that many organizations begin to offer them credit cards and other types of credit accounts even while they are in high school. Using credit cards, or even acquiring college-loan debt, might seem like “free money,” but it is not. Bills have to be paid, and any individual who has any type of credit account needs to take those payments into consideration when considering how much money he/she will actually have for “discretionary spending” when he/she is an adult.

**Earnings Increase Over Time:** Both education and experience are important for workplace success. Students coming out of college sometimes expect to begin work earning a salary that is equivalent to that of a worker with several years of experience. An education is important, and, for most of the good jobs available today, some level of education beyond high school is a requirement, but experience is important too. However, even though there may be a few exceptions, most students will have to work and gain experience before they are earning the salaries that will allow them to have the standard of living they hope to enjoy.

**Understanding How Salary Is Computed:** Figure 5.1 explains the most common ways that salaries are computed.

Figure 5.1 How to Compute Salary Conversions—Annual, Weekly, and Hourly Salary Rates

Part A. How to Compute an Annual Salary When Given an Hourly Salary			
Steps to Be Taken	Example		
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
	\$14.43	X 40	= \$577.20
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
	\$577.20	X 52	= \$30,014.40
Part B How to Compute an Hourly Salary When Given an Annual Salary			
Steps to Be Taken	Example		
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 hour).	Weekly salary	÷ No. of Hours	= Hourly Salary
	\$423.08	÷ 40	= \$10.58

Once students understand these basic concepts, they still need to understand how the cost of living where they live affects them.

## Cost of Living Comparisons

The dilemma often faced by individuals making cost of living comparisons is finding reliable data and methods to make these comparisons. Fortunately, various organizations provide free online calculators to help individuals compare the cost of living in one location to another. Data used by these calculators comes from various sources, such as the U.S. Bureau of Labor Statistics and the U.S. Bureau of Census. However, most of the online calculators use data provided by The Council for Community and Economic Research (C2ER). This council is a private-sector organization that collects data from participating businesses and organizations throughout the United States in five categories: grocery items, housing and utilities, transportation, health care, and miscellaneous goods and services. C2ER then uses these data to calculate a Cost of Living Index (COLI) for each city in C2ER's database. Harlingen, Brownsville, McAllen, and many other Texas cities are included in the database.

Using this data and C2ER's own methodology that takes into consideration housing, utilities, grocery items, transportation, health care, and miscellaneous goods and services, C2ER develops a list ranking the cities with the highest and lowest cost of living. C2ER provides a copyrighted quarterly report listing the ten most expensive cities to live in and the ten least expensive, based on a Cost of Living Index (COLI) in which the national average is set at 100 and those cities with a COLI cost of 100 or more are the most expensive and those below 100 are the least expensive. The farther below 100, the lower the cost of living. C2ER consistently ranks Texas among the states with one of the lowest cost of living, and cities in the Valley consistently rank among the least expensive in Texas.

In its 2019 second quarter report, C2ER ranked Harlingen, Texas, with a COLI of 73.8, as the least expensive city in the nation. McAllen, Texas, with a COLI of 75.8, ranked second; and Kalamazoo, Michigan, with a COLI of 77.0, ranked third. New York City (Manhattan), with a COLI of 242.5; San Francisco, California, with 201.7; and Honolulu, Hawaii, with 191.4 were the three most expensive. These rankings vary by quarter. (See <http://www.coli.org> – under “Media”, click on COLI Release Highlights.)

Another way to think of cost of living is to compare the level of earnings necessary in different cities to enjoy a similar lifestyle. The following examples, which compare the cost of living in Harlingen, Texas, with six other Texas cities, are meant to help students understand the realities of the relationship between income and cost of living. The examples provided here use data from The Council for Community and Economic Research (C2ER). C2ER sells its cost of living formula, calculator, and data to businesses that offer it free of charge on their websites. The examples that follow were calculated using the <http://www.bankrate.com/calculators/savings/moving-cost-of-living-calculator.aspx> website calculator, which utilizes C2ER data for its calculations.

RGV LEAD's criteria for selecting targeted occupations include an average wage of \$10.00 an hour. It is important to remember that the \$10.00 hourly wage may not be a starting wage, but a wage earned after some experience on the job. See Section 3 of this report for the rationale for selecting this wage, as well as the other criteria used in the selection process. In constructing the comparison examples in Tables 5.3 and 5.4, both an hourly wage method and a salary method are provided.

Table 5.2 compares the cost of living in the Brownsville-Harlingen MSA with the cost of living in six of the largest cities in Texas, using an hourly wage structure. This comparison shows the hourly wage, for each

particular city, that a worker must earn to enjoy a similar lifestyle in any of these cities. Table 5.2 uses the hourly wage of \$12.50 per hour, in the Brownsville-Harlingen MSA, because of the criteria for selection of RGV LEAD's list of targeted occupations in Section 3 of this report, as explained above. (Note: An hourly wage of \$12.50 equates to an annual salary of \$26,000 per year.)

Table 5.2 Example Cost of Living Comparison for Hourly Wage Occupations

	Hourly Wage	City	Difference in Percent	Hourly Wage Needed to Maintain Similar Lifestyle
<b>Brownsville/Harlingen MSA</b>	\$12.50	Austin	+20.45%	\$15.05
<b>Brownsville/Harlingen MSA</b>	\$12.50	Corpus Christi	+19.45%	\$14.93
<b>Brownsville/Harlingen MSA</b>	\$12.50	Dallas	+20.58%	\$15.07
<b>Brownsville/Harlingen MSA</b>	\$12.50	Ft. Worth	+28.98%	\$16.12
<b>Brownsville/Harlingen MSA</b>	\$12.50	Houston	+23.21%	\$15.40
<b>Brownsville/Harlingen MSA</b>	\$12.50	San Antonio	+9.54%	\$13.69

Table 5.3 makes the same cost of living comparisons as Table 5.2, using an annual salary structure. The salary selected is \$42,000 because it is not unusual for some occupations in the fields of Health, Business, Education, and Technology to earn a salary of \$42,000 per year here in the Valley (see Targeted Occupations list in Section 3). (Note: An annual salary of \$42,000 per year equates to an hourly wage of \$20.20 per hour.)

Table 5.3 Example Cost of Living Comparison for Salaried Occupation

	Annual Salary	City	Difference in Percent	Salary Needed to Maintain Similar Lifestyle
<b>Brownsville-Harlingen MSA</b>	\$42,000	Austin	+20.45%	\$50,589
<b>Brownsville-Harlingen MSA</b>	\$42,000	Corpus Christi	+19.45%	\$50,168
<b>Brownsville-Harlingen MSA</b>	\$42,000	Dallas	+20.58%	\$50,642
<b>Brownsville-Harlingen MSA</b>	\$42,000	Ft. Worth	+28.98%	\$54,173
<b>Brownsville-Harlingen MSA</b>	\$42,000	Houston	+23.21%	\$51,749
<b>Brownsville-Harlingen MSA</b>	\$42,000	San Antonio	+9.54%	\$46,005

These comparisons show that the cost of living in the Brownsville-Harlingen MSA is approximately 19 to 28 percent lower than Corpus Christi and Ft. Worth. Austin, Dallas, and Houston all have a cost of living that is between 20 percent and 23 percent higher than the cost for a similar lifestyle in the Brownsville-Harlingen MSA.

## Costing Out Various Lifestyles

The cost of living comparisons provided above should be helpful to students considering moving out of the Valley (or returning to the Valley after moving away); however, students might also want to start from a different point. That is, they may want to select a style of living and figure out how much it would cost to achieve that style of living both in the Valley and in other Texas cities. The Texas Workforce Commission provides an online resource called Texas Reality Check (one of the online resources listed above) that teachers and counselors can use to help students make that type of comparison. Texas Reality Check is a tool designed to help students understand how much it costs to maintain various lifestyles in various regions. With this calculator, students can select a city in which they would like to live and then select the type of housing, transportation, food, entertainment, etc., they would like to have. After students enter those selections, the program calculates the monthly and annual salary necessary to maintain that lifestyle. Texas Reality Check even calculates the estimated taxes for that salary.

Table 5.4 uses the Texas Reality Check calculator to compare the income needed to maintain a middle class lifestyle by a single person living alone in either Weslaco or Houston, Texas. The items selected are for a generic middle class lifestyle. Individual students' preferences and life situations will require adjusting the amounts either up or down. For example, one individual may have an older automobile given to that individual free of charge by a relative. In that case, the transportation cost could be adjusted down to delete the car payment; but the other expenses would remain, and maintenance would be increased due to the vehicle's age. (It would also be prudent to increase the savings amount because the likelihood of expensive repairs would increase.) Living at home with parents who provide housing and utilities would reduce students' housing cost considerably, as would sharing housing costs with a roommate. The amounts for each of these items, as well as others, appear in the Texas Reality Check webpage ([www.texasrealitycheck.com](http://www.texasrealitycheck.com)). The Texas Reality Check resource was developed by researchers using data collected by various organizations.

The estimates in Table 5.4 are for a single person, usually at the beginning of his/her work life. Most people at this stage in life live alone for only a short period of time. In time, most marry and have children; therefore, it is important for students to understand that the amount required to maintain a similar lifestyle for a family can be much higher than for a single individual. (Also, the amount required for savings for the children's college as well as emergencies can have a significant impact on the minimum income necessary to maintain a similar lifestyle. Once the children leave home to live on their own, the requirements will decrease; however, other items such as the cost of health care will increase.) The Texas Reality Check calculator also provides the option to estimate the additional cost that a spouse and/or children would add to the total cost of living estimate. In Table 5.5 the estimated cost for a family of four is shown in the table's last two entries. It is important to understand that the estimates in Table 5.5 are just an example. Students should go to the Reality Check website to check out the estimate for their own preferences in cities and lifestyles.

Table 5.4 Expenses for a Middle Class Lifestyle for a Single Person  
Living Alone in Harlingen or Houston, Texas

Monthly Expense Items	Item Description	Amount - Harlingen	Amount - Houston
<b>Housing</b>	Average apartment (includes one bedroom, 1 bathrooms, unfurnished, and excluding all utilities).	\$523.00	\$773.00
<b>Utilities</b>	Electricity, Water and Gas, Cable, DSL and Basic Mobile Phone that includes 300 anytime minutes, texting, etc.	\$437.00	\$437.00
<b>Food</b>	On this plan you will be eating at home but also dining out at fast food places. This is just a sample, based on estimates produced by Texas Reality Check. You may or may not buy all of the items included, and you may or may not eat out. The amount that appears is the cost of the items multiplied by four weeks. Review the items included at the Texas Reality Check website.	\$400.00	\$400.00
<b>Transportation</b>	Buying a new, basic economy auto will allow you to have new, reliable transportation. Sample monthly expense includes: auto payment, insurance, gas and maintenance.	\$733.00	\$733.00
<b>Clothes</b>	This clothing budget includes maintaining your wardrobe and buying work clothes.	\$125.00	\$125.00
<b>Health Care</b>	Average amount you pay for a basic individual health coverage when your employer does NOT pay for any of your medical coverage. Does not include dental or vision care coverage.	\$140.00	\$140.00
<b>Personal Care</b>	This item includes soap, shampoo, haircuts, etc.	\$50.00	\$50.00
<b>Entertainment</b>	This estimate includes renting movies as well as going to the movies once or twice a month.	\$50.00	\$50.00
<b>Miscellaneous</b>	This item only includes "just stuff." Does not include furniture or electronics.	\$50.00	\$50.00
<b>Student Loan Payment</b>	Student Loan Payment for an Associate's Degree at a public college/university.	\$70.00	\$70.00
<b>Savings</b>	It is always important to have some money set aside for emergencies. This figure is 2% of income.	\$52.00	\$57.00
<b>Total Monthly expenses</b>		<b>\$2,630.00</b>	<b>\$2,885.00</b>
<b>Annual Expenses</b>		<b>\$31,560.00</b>	<b>\$34,620.00</b>
<b>Income Tax (25% of Annual Expenses)</b>		<b>\$4,734.00</b>	<b>\$5,193.00</b>
<b>Annual Salary Needed</b>		<b>\$36,294.00</b>	<b>\$39,813.00</b>
<b>Hourly Wage Needed</b>		<b>\$17.45</b>	<b>\$19.14</b>
<b>Estimated Additional Annual for a Family of Four</b>		<b>\$41,676.00</b>	<b>\$41,232.00</b>
<b>Total Annual Estimate for a Family of Four</b>		<b>\$77,970.00</b>	<b>\$81,045.00</b>

Source: Texas Workforce Commission's Reality Check website (<https://texasrealitycheck.com>)



## SUPPLEMENTAL INFORMATION FOR STUDENTS FROM THE SOUTH TEXAS AREA

There are regional variations in industries and occupations between the Valley and South Texas. For instance, the oil and gas industry has a much greater impact on the economy in South Texas than it does in the Valley. In addition, border crossings have a bigger impact in South Texas than in the Valley. In 2015, Laredo's five border crossings accounted for \$204 billion—32 percent—of all international trade in Texas in 2015. The Hidalgo area, which has three ports of entry, generated \$30 billion in trade in that same period. (See <https://comptroller.texas.gov/economy/economic-data/ports/2016/laredo.php>.) However, in spite of these regional variations, the majority of RGV LEAD's Targeted Occupations identified in Section 3 are applicable for students from both the Valley and South Texas. Students from both the Valley and South Texas will benefit from the information in this report.

Section 3 contains a crosswalk showing RGV LEAD's Targeted Occupations and information about related programs available at public institutions of higher education in the Valley. The information that follows provides a crosswalk of RGV LEAD's Targeted Occupations related programs of study available at the public institutions of higher education in South Texas.

**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, see [www.laredo.edu](http://www.laredo.edu) (also, for additional information about types of degrees and certificates offered, see <http://laredo.smartcatalogiq.com/2019-2020/Catalog/Workforce-Education-Division>).

**Texas A&M International University (TAMIU)** is a member of the Texas A&M University System. TAMIU is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, master's, and doctoral degrees. In addition, TAMIU's business programs are accredited by the 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. To learn more, visit the website at <https://www.tamiau.edu/>.

Information about the programs offered by Laredo College and Texas A&M International University appears in Table 5.5, below. The information is organized according to Career Clusters. (For complete information about Career Clusters, review the information preceding Table 3.1 in Section 3.)



**INFORMATION ABOUT THE PRESENTATION OF TARGETED OCCUPATIONS DATA IN TABLE 5.5**

**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 Valley for 2018, 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 "NA" 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 table are taken from government records and represent the average number of job openings projected to be available in the Valley each year for the 10-year period indicated.

For occupations in which the average number of job openings appears as "<5," this indicates that this is an occupation for which input received from local leaders indicates the demand for the occupation is growing in this region.

**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 have to successfully complete on-the-job training for the job to become permanent.
- 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 yr. = 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.

Abbreviations used in this table 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: [http://reportcenter.theccb.state.tx.us/reports/data/understanding-credentials-in-texas-certificates-certifications/.](http://reportcenter.theccb.state.tx.us/reports/data/understanding-credentials-in-texas-certificates-certifications/))

**Higher Education Institutions:** The institutions shown below are public institutions of higher education that serve the South Texas area:

LC = Laredo College

TAMIU = Texas A&M International University

Section 5: Supplemental Information

Table 5.5 RGV LEAD's 2019 Targeted Occupations and South Texas Area Higher Education Options

<b>AGRICULTURE, FOOD &amp; NATURAL RESOURCES</b>			
<b>Farmers, Ranchers and other Agricultural Occupations</b> \$38.90/\$67.33/\$81.54	Estimated Annual Openings 2016-2026	Education / Training Needed	Program Available at South Texas Public College or University
	130	HS + OJT	
<b>Veterinary Technologists &amp; Technicians</b> \$10.69/\$16.20/\$18.96	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	31	2 yrs.	
<b>Veterinarians</b> \$36.29/\$53.43/\$62.00	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	<5	PROF	
<b>Welders / Cutters / Solderers / Brazers</b> \$11.78/\$16.54/\$18.93	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at SOUTH TEXAS Public College or University
	58	HS or 1 yr. or 2 yrs	LC (Certificate in Welder Assistant; Certificate in Combination Pipe Welding; Certificate in Structural Welding)
<b>ARCHITECTURE &amp; CONSTRUCTION</b>			
<b>Architects</b> \$25.21/\$58.90/\$75.74	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	<5	4 yr.	
<b>Carpenters</b> \$12.23/\$16.28/\$18.31	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	90	HS + OJT	
<b>Construction Managers</b> \$18.45/\$36.32/\$45.26	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	28	4 yr.	
<b>Construction and Building Inspectors</b> \$12.93/\$18.56/\$21.38	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	25	HS + OJT	
<b>Cost Estimators</b> \$13.69/\$24.37/\$29.70	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	32	2 yr. or 4 yr. + OJT	TAMU (BS in Systems Engineering; MS in Systems Engineering; Pre-Engineering Transfer Program; Minor in Petroleum Engineering)
<b>Drafters (Architectural &amp; Civil; Electrical &amp; Electronic; Mechanical)</b> \$11.72/\$16.11/\$18.30	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	19	2 yrs.	LC (Certificate and AAS Degree in Computer Drafting and Design Technology)
<b>Electrical Power-Line Installers &amp; Repairers</b> \$19.48/\$28.59/\$33.15	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	42	HS	
<b>Electricians</b> \$12.94/\$18.72/\$21.61	Estimated Annual Openings 2014-2024	Education / Training Needed	Program Available at South Texas Public College or University
	98	HS + OJT APP	LC (Electrical Technology—certificate in Electrician Helper; certificate in Journeyman Electrician Assistant with concentration in Residential/ Commercial; certificate in Journeyman Electrician Assistant with concentration in Industrial)

<b>ARCHITECTURE &amp; CONSTRUCTION (CONTINUED)</b>			
<b>Engineers, Civil, Electrical and Mechanical</b> \$43.67/\$47.72/\$56.38	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	33	4 yrs.	TAMIU (BS in Systems Engineering; MS in Systems Engineering; Pre-Engineering Transfer Program; Minor in Petroleum Engineering)
<b>Engineering Technicians, Civil and Electrical &amp; Electronics</b> \$16.04/\$21.36/\$23.01	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	33	2 yrs.	LC (Two certificates in Oil and Gas Production Specialization)
<b>Excavating, Loading Machine and Dragline Operators</b> \$12.10/\$16.10/\$18.11	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	57	HS + OJT	
<b>Heating, Air Conditioning / Refrigeration Mechanics and Installers</b> \$13.02/\$16.85/\$18.77	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	86	2 yrs. or HS + OJT	LC (Certificate in Air Conditioning and Refrigeration)
<b>Installation, Maintenance &amp; Repair Workers, All Others</b> \$11.88/\$17.94/\$20.97	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	24	HS	
<b>Logisticians</b> \$22.60/\$32.91/\$33.07	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	8	4 yrs.	LC (Certificate and Degree in Logistics & Distribution) TAMIU (BAAS-TIL and MBA in Transportation & International Logistics; Doctor of Philosophy in International Business Administration)
<b>Maintenance Workers, Machinery</b> \$14.37/\$20.43/\$23.47	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	16	HS	
<b>Operators, Construction Equipment</b> \$11.12/\$14.11/\$15.61	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	105	HS	
<b>Pest Control Workers</b> \$10.17/\$15.08/\$17.53	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	27	HS	
<b>Plumbers, Pipefitters, and Steamfitters</b> \$11.01/\$16.22/\$18.83	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	92	OJT APP	

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<b>ARCHITECTURE &amp; CONSTRUCTION (CONTINUED)</b>			
<b>Security &amp; Fire Alarm Systems Installers</b> \$15.53/\$22.00/\$25.23	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	9	HS	
<b>Welders/Cutters/Solderers/ Brazers</b> \$11.78/\$16.54/\$18.93	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	73	HS or 1 yr. or 2 yrs.	LC (Certificate in Welder Assistant; Certificate in Combination Pipe Welding; Certificate in Structural Welding)
<b>ARTS, AUDIO/VISUAL TECHNOLOGY &amp; COMMUNICATIONS</b>			
<b>Graphic Designers</b> \$11.34/\$17.79/\$21.03	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	24	2 yrs. or 4 yrs.	LC (Certificate and AAS Degree in Computer Drafting and Design Technology)
<b>Interpreters &amp; Translators</b> \$15.46/\$25.31/\$30.23	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	9	4 yrs.	
<b>Public Relations Specialists</b> \$11.72/\$22.05/\$27.21	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	90	4 yrs.	TAMIU <ul style="list-style-type: none"> <li>• BA in Communication</li> <li>• BA in Communication and Spanish</li> </ul>
<b>Telecommunications Equipment Installers / Repairers Except Line Installers</b> \$17.49/\$24.72/\$28.33	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	42	1 yr.	
<b>Writers &amp; Authors</b> \$15.63/\$23.04/\$26.75	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	18	4 yrs.	TAMIU (BA in English; BA in Spanish)
<b>BUSINESS, FINANCE &amp; MARKETING</b>			
<b>Accountants and Auditors</b> \$19.16/\$30.65/\$36.40	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	211	4 yrs.	LC (AAS degree in Applied Accounting) TAMIU (BBA-ACC in Accounting; MPAcc in Professional Accountancy; Oil and Gas Accounting Certificate)
<b>Appraisers &amp; Assessors of Real Estate</b> \$14.19/\$23.27/\$27.81	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	4 yrs.	
<b>Bill &amp; Account Collectors</b> \$10.30/16.29/\$19.29	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	41	HS	
<b>Bookkeeping / Auditing Clerks</b> \$10.46/\$15.72/\$18.31	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	472	HS or 1 yr.	

<b>BUSINESS, FINANCE &amp; MARKETING (CONTINUED)</b>			
<b>Budget Analysts</b> \$21.06/\$27.79/\$31.15	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	4 yrs.	LC (AAS degree in Applied Accounting)  TAMIU (BBA-ACC in Accounting; MPAcc in Professional Accountancy; Oil and Gas Accounting Certificate)
<b>Business Operations Specialists, All Other</b> \$18.93/\$30.18/\$35.80	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<b>69</b>	<b>4 yrs.</b>	TAMIU: <ul style="list-style-type: none"> <li>• BBA in Management Information Systems and Data Analytics</li> <li>• BBA in Business Administration</li> <li>• BBA in International Economics</li> <li>• BBA in Finance</li> <li>• BBA in Management</li> <li>• BBA in Marketing</li> <li>• MBA in International Business</li> <li>• MBA in Banking and Finance</li> <li>• MBA International Trade and Logistics</li> <li>• MBA in Management</li> <li>• Masters of Science in Information Systems (MS-IS)</li> <li>• Doctor of Philosophy in International Business Administration (Ph.D.-IB)</li> </ul>
<b>Clerks (Multiple types: Including Administrative Support Clerks, General Office Clerks, Tellers, Interviewers, and Cargo &amp; Freight Agents)</b> \$10.72/\$14.57/\$16.50	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<b>&gt;4000</b>	<b>HS + or 1 yr. + OJT</b>	
<b>Computer, Automated Teller &amp; Office Machine Repairers</b> \$11.52/\$16.89/\$19.57	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	34	1 yr.	
<b>Credit Analysts</b> \$21.21/\$35.09/\$42.02	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	12	4 yr.	TAMIU (BBA in Finance; MBA in Banking and Finance)

Section 5: Supplemental Information

<b>BUSINESS, FINANCE &amp; MARKETING (CONTINUED)</b>			
<b>Dispatchers, Except Police, Fire &amp; Ambulance</b> <b>\$10.43/\$14.77/\$16.94</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	17	HS	
<b>Financial Analysts</b> <b>\$17.29/\$30.68/\$37.37</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	8	4 yrs.	TAMIU (BBA in Finance; MBA in Banking and Finance)
<b>Financial Specialists, All Other</b> <b>\$15.69/\$26.19/\$31.45</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	4 yrs.	TAMIU (BBA in Finance; MBA in Banking and Finance)
<b>Human Resources Specialists</b> <b>\$15.02/\$24.84/\$29.74</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	38	4 yrs.	LC (Certificate in Management; Certificate in Small Business Management; AAS degree in Management) TAMIU (BAAS in Management; MBA in Management)
<b>Insurance Sales Agents</b> <b>\$10.46/\$23.04/\$29.34</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	142	HS + OJT	
<b>Loan Officers</b> <b>\$16.40/\$34.92/\$44.18</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	32	4 yrs.	TAMIU (BBA in Finance; MBA in Banking and Finance)
<b>Market Research Analysts and Marketing Specialists</b> <b>\$17.31/\$30.75/\$37.46</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	31	4 yr	TAMIU (BBA-MKT in Marketing)
<b>Postal Service Mail Carriers</b> <b>\$17.09/\$24.28/27.87</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	40	HS	
<b>Purchasing Agents, Except Wholesale, Retail, &amp; Farm Products</b> <b>\$15.58/\$25.05/\$29.78</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	9	4 yrs.	TAMIU (BBA-FIN in Finance, BAAS-BA in Business, MBA in Banking and Finance, MBA in International Trade and Logistics)
<b>Sales Representatives, Services, All Other</b> <b>\$11.15/\$19.35/\$23.45</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	386	HS	
<b>Secretaries, Legal</b> <b>\$13.11/\$18.41/\$21.07</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	HS, 1 yr. or 2 yrs.	
<b>Securities, Commodities &amp; Financial Services Agents</b> <b>\$16.07/\$26.94/\$32.37</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	86	4 yrs.	TAMIU (BBA in Finance; MBA in Banking and Finance)
<b>Training and Development Specialists</b> <b>\$15.22/\$22.38/\$25.96</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	58	4 yrs. + OJT	TAMIU (BBA-BA in Administration)

<b>EDUCATION &amp; TRAINING</b>			
<b>Clinical, Counseling &amp; School Psychologists</b> \$25.66/\$31.28/\$34.09	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	PROF + LIC	TAMIU (BA in Psychology; MA in Counseling Psychology)
<b>Coaches &amp; Scouts</b> \$19.55/\$24.89/\$30.82	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	38	4 yrs. + CERT	
<b>Counselors – School</b> \$20.77/\$29.50/\$33.86	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	202	5 yrs.+ CERT	TAMIU (MS in School Counseling)
<b>Health Educators (not public school teachers)</b> \$12.42/\$21.50/\$26.04	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	18	4 yr.	TAMIU (Multiple BS, MA, and MS degree options for teachers)
<b>Librarians</b> \$23.01/\$29.60/\$32.89	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	66	5 yrs. + CERT	
<b>Teachers – Preschool (Except Special Education)</b> \$10.25/\$18.92/\$23.25	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	147	2 yrs. (or 4 yrs. + CERT)	LC (Certificate in Child Development Assistant; AAS degree in Child Development) TAMIU (Multiple BS, MA, and MS degree options for teachers)
<b>Teachers – Kindergarten, Except Special Education</b> \$20.26/\$24.82/\$27.10	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	103	4 yrs. + CERT	TAMIU (Multiple BS, MA, and MS degree options for teachers)
<b>Teachers – Elementary, Except Special Education</b> \$21.17/\$25.83/\$28.16	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	815	4 yrs. + CERT	TAMIU <ul style="list-style-type: none"> <li>• BS in Kinesiology (All Level Certificate)</li> <li>• BSIS in Elementary Education with EC-6 Certification and a Bilingual Emphasis</li> <li>• BSIS in Elementary Education with EC-6 Certification and Early Learning Emphasis</li> <li>• BSIS in Elementary Education with EC-6 Certification and an English as a Second Language Emphasis</li> <li>• BSIS in Elementary Education with EC-6 Certification and a Special Education Emphasis</li> </ul>

Section 5: Supplemental Information

<b>EDUCATION &amp; TRAINING (CONTINUED)</b>			
<b>Teachers – Middle School, Except Special Education and Career &amp; Technical Education</b> \$20.75/\$25.92/\$28.50	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	462	4 yrs. + CERT	TAMIU <ul style="list-style-type: none"> <li>• BA in Art EC-12</li> <li>• BA in English 7-12</li> <li>• BA in History 7-12</li> <li>• BA in Mathematics 7-12</li> <li>• BS in Science 7-12</li> <li>• BA in Spanish EC-12</li> <li>• BM in Music with concentrations in Guitar, Piano, Vocal, Strings, Brass, EC-12</li> </ul>
<b>Teachers – High School, Except Special Education and Career &amp; Technical Education</b> \$20.48/\$26.44/\$29.42	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	665	4 yrs. + CERT	TAMIU <ul style="list-style-type: none"> <li>• BA in Art EC-12</li> <li>• BA in English 7-12</li> <li>• BA in History 7-12</li> <li>• BA in Mathematics 7-12</li> <li>• BS in Science 7-12</li> <li>• BA in Spanish EC-12</li> <li>• BM in Music with concentrations in Guitar, Piano, Vocal, Strings, Brass, EC-12</li> </ul>
<b>Teachers, Special Education</b> \$21.89/26.58/\$28.93	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	114	4 yrs. + CERT	TAMIU (BS in Education with Interdisciplinary Studies, EC-6 Certification, and Special Education Emphasis)
<b>Teachers – All Other Except Substitute Teachers</b> \$9.55/\$17.13/\$20.91	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	143	4 yrs. + CERT	TAMIU (Multiple BS, MA, and MS degree options for teachers)
<b>Teachers – Postsecondary (Mathematical Science, Biological Science, English Language &amp; Literature)</b> \$21.05/NA/\$56.11	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	155	PROF	TAMIU (BA in Biology; MS in Biology; BA in Mathematics; MS in Mathematics; BA in English; MA in English)



<b>HEALTH SCIENCE</b>			
<b>Biological Technicians</b> \$13.65/\$17.86/\$19.97	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	22	4 yrs.	TAMIU (BA in Biology; MS in Biology)
<b>Cardiovascular Technologists &amp; Technicians</b> \$13.62/\$25.34/\$31.19	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	13	2 yrs.	
<b>Dental Assistants</b> \$11.65/\$15.54/\$17.49	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	115	1 yr.	
<b>Dental Hygienists</b> \$20.44/\$30.34/\$35.29	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	43	2 yrs. + LIC	
<b>Dentists</b> \$46.95/\$99.23/\$125.37	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	5	PROF	
<b>Diagnostic Medical Sonographers</b> \$25.95/\$33.47/\$37.23	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	11	2 yrs. + LIC	
<b>Dieticians &amp; Nutritionists</b> \$21.90/\$28.57/\$31.91	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	19	4 yr. + CERT	
<b>Emergency Medical Technicians &amp; Paramedics</b> \$11.41/\$14.42/\$15.92	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	87	1 yr. or 2 yrs. + LIC	LC (Emergency Medical Services programs including EMR course, EMT Certificate, AEMT Certificate, and AAS degree in Paramedic)
<b>Health Technologists &amp; Technicians, All Other</b> \$13.24/\$20.72/\$24.47	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	30	HS	
<b>Licensed Practical and Licensed Vocational Nurses</b> \$18.35/\$22.24/\$24.18	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	381	1 yr. + LIC	LC (Certificate in Vocational Nursing)
<b>Medical Equipment Repairers</b> \$12.95/\$15.61/\$16.94	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	2 yr.	
<b>Medical / Clinical Laboratory Technicians</b> \$12.40/\$20.05/\$23.88	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	22	2 yr + LIC	
<b>Medical / Clinical Laboratory Technologists (also known as Medical Laboratory Scientists)</b> \$18.11/\$25.41/\$29.09	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	25	4 yrs. + LIC	TAMIU (BA in Biology; MS in Biology)

Section 5: Supplemental Information

<b>HEALTH SCIENCE</b>			
<b>Nuclear Medicine Technologists</b> \$30.58/\$34.87/\$37.01	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	2 yrs. + CERT	
<b>Nurse Anesthetists</b> \$36.03/\$40.33/\$42.48	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	20	5 yr + LIC	TAMIU (BS in Nursing)
<b>Nurse Practitioners</b> \$36.64/\$56.35/\$66.20	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	33	5 yr + LIC	TAMIU (BS in Nursing; MS in Nursing—Family Nurse Practitioner)
<b>Occupational Health &amp; Safety Specialists</b> \$16.44/\$23.31/\$26.75	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	6	4 yr	LC (AAS in Occupational Safety and Health (General Industry); AAS in Occupational Safety and Health (Transportation; Certificate II in Occupational Safety and Health (General Industry); Certificate II in Occupational Safety and Health (Transportation); Certificate I in Occupational Safety and Health)
<b>Occupational Therapists</b> \$32.21/\$48.01/\$55.91	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	27	5 yrs + LIC	
<b>Occupational Therapy Assistants</b> \$28.97/\$38.81/\$43.73	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	2 yrs	LC (AAS-OTA degree in Occupational Therapy Assistant)
<b>Pharmacists</b> \$50.37/\$67.72/\$76.39	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	40	PROF	
<b>Pharmacy Technicians</b> \$12.33/\$16.12/\$18.02	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	147	HS or 1 yr. + LIC	
<b>Phlebotomists</b> \$11.08/\$13.60/\$14.87	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	63	1 yr.	
<b>Physical Therapists</b> \$35.84/\$52.28/\$60.49	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	34	PROF	
<b>Physical Therapy Assistants</b> \$22.30/\$35.73/\$42.44	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	44	2 yr	LC (AAS-PTA degree in Physical Therapy Assistant)

<b>HEALTH SCIENCE (CONTINUED)</b>			
<b>Physicians – Family and General Practitioners; internists (General); Pediatricians (General); Other Physicians and Surgeons; and Psychiatrists</b> \$49.00/\$75.00/\$100	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	37	PROF	
<b>Physician Assistants</b> \$41.14/\$57.07/\$65.03	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	45	5 yrs. + LIC	
<b>Radiologic Technologists / Technicians</b> \$16.57/\$25.94/\$30.63	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	39	2 yrs + LIC	LC (AAS-RT degree in Radiologic Technology; Enhanced Skills Certificate in Computed Tomography Medical Radiology)
<b>Registered Nurses</b> \$25.89/\$34.66/\$39.05	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	587	2 yrs. or 4 yrs. or 6 yrs. + LIC	LC (AAS in Nursing; AAS Nursing Transition Program; AND to BSN Nursing Program) TAMIU <ul style="list-style-type: none"> <li>• BSN in Nursing</li> <li>• RN/BSN in Nursing</li> <li>• MS in Nursing Administration</li> </ul>
<b>Respiratory Therapists</b> \$21.93/\$27.97/\$30.99	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	52	2 yrs.+ LIC	
<b>Speech-Language Pathologists</b> \$26.54/\$37.80/\$43.44	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	41	5 yrs.	TAMIU (BS in Communication Disorders)
<b>Surgical Technologists</b> \$18.24/\$24.74/\$27.99	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	31	1 yr + LIC	
<b>HOSPITALITY &amp; TOURISM</b>			
<b>Chefs and Head Cooks</b> \$14.63/\$19.10/\$21.34	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	14	2 yrs + OJT	LC (Certificate and AAS degree in Culinary Arts)

Section 5: Supplemental Information

<b>HUMAN SERVICES</b>			
<b>Community Health Workers</b> \$10.08/\$15.29/\$17.89	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	25	HS	
<b>Counselors: Substance Abuse / Behavioral / Mental Health</b> \$15.72/\$19.72/\$21.73	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	87	4 yrs. or 6 yrs.	TAMIU (BA in Psychology; MA in Counseling Psychology)
<b>Life, Physical and Social Science Technicians, All Other</b> \$17.07/\$29.99/\$36.45	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	2 yrs.	
<b>Social &amp; Human Services Assistants</b> \$10.68/\$15.03/\$17.20	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	93	HS + OJT and/or 1 yr or 2 yr	
<b>Social Workers – Child, Family &amp; School and Mental Health &amp; Substance Abuse</b> \$13.32/\$20.88/\$24.65	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	121	4 yr + LIC	
<b>Social Workers, Healthcare</b> \$17.53/\$25.31/\$29.20	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	51	5 yrs. + LIC	
<b>INFORMATION TECHNOLOGY</b>			
<b>Computer Network Support Specialists</b> \$15.89/\$22.37/\$25.60	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	2 yrs.	LC (Certificate and AAS degree in Computer Information Systems; Certificate and AAS degree in Computer Electronics Technology))
<b>Computer Occupations, All Other</b> \$22.19/\$34.39/\$40.49	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	10	4 yrs.	
<b>Computer Programmers</b> \$24.70/\$37.72/\$44.23	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	16	4 yrs.	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)
<b>Computer User Support Specialists</b> \$12.41/\$18.81/\$22.00	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	94	1 yr.	
<b>Computer Systems Analysts</b> \$23.52/\$37.97/\$45.20	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	4 yrs.	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)

<b>INFORMATION TECHNOLOGY (CONTINUED)</b>			
<b>Database Administrators</b> <b>\$22.14/\$37.13/\$44.62</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	8	4 yrs.	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)
<b>Network &amp; Computer Systems Administrators</b> <b>\$21.36/\$30.61/\$35.24</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	16	4 yrs.	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)
<b>Software Developers Applications</b> <b>\$23.15/\$43.59/\$53.81</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	4 yr	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)
<b>Systems Software Managers</b> <b>\$33.28/\$48.29/\$55.75</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	14	4 yrs.	TAMIU (BBA in Management Information Systems and Data Analytics; MS-IS in Information Systems)
<b>Telecommunications Installers &amp; Repairers</b> <b>\$15.55/\$26.32/\$31.70</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texan Public College or University</b>
	42	HS + OJT and/or 1 yr. or 2 yrs.	
<b>Web Developers</b> <b>\$18.21/\$24.50/\$27.66</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	8	2 yrs.	LC (Certificate and AAS degree in Computer Information Systems)
<b>LAW AND PUBLIC SERVICE</b>			
<b>Compliance Officers</b> <b>\$21.35/\$34.75/\$41.44</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	199	4 yrs.	TAMIU (BBA in Management)
<b>Correctional Officers; Jailers</b> <b>\$14.35/\$18.11/\$19.99</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	44	HS or 1 yr.	
<b>Eligibility Interviewers, Government Programs</b> <b>\$14.67/\$17.00/\$18.17</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	87	2 yrs	
<b>Firefighters</b> <b>\$17.26/\$23.83/\$27.11</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	39	2 yrs. + OJT	
<b>Lawyers</b> <b>\$25.29/\$50.50/\$63.11</b>	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	47	PROF	

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<b>LAW AND PUBLIC SERVICE (CONTINUED)</b>			
<b>Legal Secretaries</b> \$13.11/\$18.41/\$21.07	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	21	1 yr. or 2 yrs.	
<b>Paralegals and Legal Assistants</b> \$12.50/\$22.34/\$27.25	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	104	2 yrs.	
<b>Police, Fire, &amp; Ambulance Dispatchers</b> \$10.60/\$13.96/\$15.64	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	44	HS	
<b>Police / Sheriff / Patrol Officers (also federal jobs such as Border Patrol; most federal positions require 4-yr. degree)</b> \$15.68/\$24.29/\$28.59	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	228	HS + OJT or 1 yr. or 4 yrs.	LC (AAS degree in Criminal Justice; some courses will transfer to baccalaureate degrees in Criminal Justice or Law Enforcement) TAMIU (BA in Criminal Justice and Political Science; BAAS with Criminal Justice Concentration; MS in Criminal Justice)
<b>Tax Examiners, Tax Collectors, and Revenue Agents</b> \$16.56/\$25.49/\$29.95	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	6	4 yrs.	TAMIU (BBA in Finance; MBA in Banking and Finance)
<b>Urban and Regional Planners</b> \$18.76/\$30.17/\$34.88	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	5 yr	
<b>Water, Waste Water Treatment Plant and Systems Operators</b> \$11.09/\$15.42/\$17.59	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	55	HS + OJT	
<b>MANUFACTURING</b>			
<b>Engineers (Industrial)</b> \$21.94/\$45.83/\$57.77	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	8	4 yrs.	
<b>Engineering Technicians (Various Types)</b> \$15.52/\$20.40/\$22.84	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	10	2 yrs	LC (Two certificates in Oil and Gas Production Specialization)
<b>Control &amp; Valve Installers &amp; Repairers, Except Mechanical Door</b> \$12.65/\$18.80/\$21.87	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	15	HS	LC (Two certificates in Oil and Gas Production Specialization)

<b>MANUFACTURING (CONTINUED)</b>			
<b>Electrical/Electronic Repairers, Commercial / Industrial Equipment</b> \$13.58/\$18.69/\$21.22	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	1 yr.	LC (Two certificates in Oil and Gas Production Specialization)
<b>Industrial Machinery Mechanics</b> \$13.16/\$20.36/\$23.96	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	38	HS or 1 yr.	
<b>Structural Metal Fabricators &amp; Fitters</b> \$11.18/\$14.68/\$16.42	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	40	HS	LC (Certificate in Welder Assistant; Certificate in Combination Pipe Welding; Certificate in Structural Welding)
<b>Tool &amp; Die Makers</b> \$11.12/\$16.96/\$19.88	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	14	HS + OJT and/or 1 yr. or 2 yr.	
<b>Welders/Cutters/Solderers/Brazers</b> \$11.78/\$16.54/\$18.93	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	95	HS or 1 yr. or 2 yrs. or APP	LC (Certificate in Welder Assistant; Certificate in Combination Pipe Welding; Certificate in Structural Welding)
<b>SCIENCE, TECHNOLOGY, ENGINEERING &amp; MATHEMATICS (INCLUDES ENERGY)</b>			
<b>Engineers (Civil Engineers; Electrical Engineers; Electronics Engineers (except Computer Engineers); Health &amp; Safety Engineers (except Mining Safety Engineers); Industrial Engineers; and Materials Engineers).</b> \$43.67/\$47.72/\$57.38	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	15	4 yrs.	TAMU (BS in Systems Engineering; MS in Systems Engineering; Pre-Engineering Transfer Program; Minor in Petroleum Engineering)
<b>Engineering Technicians</b> \$15.52/\$20.40/\$22.84	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	10	2 yrs.	LC (Two certificates in Oil and Gas Production Specialization)
<b>Mechatronics Technicians</b> \$15.52/\$20.40/\$22.84	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	1 yr. or 2 yrs.	

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<b>TRANSPORTATION, DISTRIBUTION &amp; LOGISTICS</b>			
<b>Aircraft Mechanic &amp; Service Technicians</b> \$13.59/\$20.88/\$24.52	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	<5	1 yr.	
<b>Automotive Body &amp; Related Repairers</b> \$12.36/\$18.50/\$21.57	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	29	2 yrs. or HS + OJT	LC (Certificate in Automotive Collision & Repair Technology)
<b>Automotive Service Technicians / Mechanics / Related Specialists</b> \$10.60/\$18.34/\$22.21	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	196	1 yr. or 2 yrs.	LC (Certificate in Automotive Service Technician; Certificate in Automotive Electronics and Performance Technician)
<b>Bus / Truck / Diesel Mechanics</b> \$10.76 / \$14.75 / \$16.75	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	124	HS or 1 yr. + OJT	LC (Certificate in Diesel Engine Mechanics and Repair)
<b>Truck Drivers, Heavy/Tractor-Trailer</b> \$11.61/\$19.80/\$23.90	Estimated Annual Openings 2014-2024	Education / Training Needed	<b>Program Available at South Texas Public College or University</b>
	867	1 yr.+ LIC	

**Paying for College: How Workforce Solutions South Texas Might Help**

Most jobs that pay well enough to support a family require some sort of education or training after high school. Workforce boards target jobs for which adults and older youth can prepare in a relatively short period of time. Table 5.1 compares RGV LEAD’s Targeted Occupations with those of Workforce Solutions, Workforce Solutions Cameron, and VIDA. The workforce board serving students from the South Texas area provides services similar to those provided by Workforce Solutions and Workforce Solutions Cameron in the Valley. Table 5.6 provides a comparison of RGV LEAD’s Targeted Occupations with those of Workforce Solutions South Texas.



Table 5.6 Comparison of RGV LEAD's Targeted Occupations and Workforce Solutions South Texas Targeted Occupations

<b>RGV LEAD</b>	<b>Workforce Solutions South Texas</b>
<b>AGRICULTURE, FOOD &amp; NATURAL RESOURCES</b>	
Farmers, Ranchers and other Agricultural Occupations	
Veterinary Technologists & Technicians	
Veterinarians	
Welders / Cutters / Solderers / Brazers	Welders / Cutters / Solderers / Brazers
<b>ARCHITECTURE &amp; CONSTRUCTION</b>	
Architects	
Carpenters	
Construction Managers	
Construction and Building Inspectors	
Cost Estimators	
Drafters (Architectural & Civil, Electrical & Electronic, Mechanical)	
Electrical Power-Line Installers & Repairers	
Electricians	Electricians
Engineers Civil, Electrical, & Mechanical	
Engineering Technicians, Civil and Electrical & Electronics	
Excavating, Loading Machine and Dragline Operators	
Heating, Air Conditioning / Refrigeration Mechanics and Installers	Heating, Air Conditioning/Refrigeration Mechanics and Installers
Installation, Maintenance & Repair Workers, All Others	
Logisticians	
Maintenance Workers, Machinery	
Operators, Construction Equipment	
Pest Control Workers	
Plumbers, Pipefitters, and Steamers	Plumbers, Pipefitters, and Steamers
	Roustabouts, Oil and Gas
Security & Fire Alarm Systems Installers	
Sheet Metal Workers	
Welders / Cutters / Solderers / Brazers	Welders / Cutters / Solderers / Brazers
<b>ARTS, AUDIO/VIDEO TECHNOLOGY &amp; COMMUNICATIONS</b>	
Graphic Designers	
Interpreters & Translators	
Public Relations Specialists	
Telecommunications Equipment Installers / Repairers Except Line Installers	
Writers & Authors	

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RGV LEAD	Workforce Solutions South Texas
<b>BUSINESS MANAGEMENT &amp; ADMINISTRATION</b>	
Accountants and Auditors	Accountants and Auditors
Appraisers & Assessors of Real Estate	
Bill & Account Collectors	
Bookkeeping / Auditing Clerks	Bookkeeping, Accounting and Auditing Clerks
Budget Analysts	
Business Operations Specialists, All Other	
Clerks (including Administrative Support Clerks, General Office Clerks, Tellers, Interviewers, and Cargo & Freight Agents)	
Computer, Automated Teller & Office Machine Repairers	
Credit Analysts	
Dispatchers, Except Police, Fire & Ambulance	
Financial Analysts	
Financial Specialists, All Other	
	General and Operations Managers
Human Resources Specialists	
Insurance Sales Agents	
Loan Officers	
Market Research Analysts & Marketing Specialists	
Postal Service Mail Carriers	
Purchasing Agents, Except Wholesale, Retail & Farm Products	
Sales Representatives, Services, All Other	
Secretaries, Legal	
	Medical Secretaries
Securities, Commodities & Financial Services Sales Agents	
Training & Development Specialists	
<b>EDUCATION &amp; TRAINING</b>	
Clinical, Counseling & School Psychologists	
Coaches & Scouts	
Counselors – School	
Health Educators (not public school teachers)	
Librarians	
Teachers – Preschool (except Special Education)	
Teachers – Kindergarten, Except Special Education	
Teachers – Elementary, Except Special Education	Teachers – Elementary, Except Special Education
Teachers – Middle School, Except Special Education and Career & Technical Education	Teachers – Middle School, Except Special Education and Career & Technical Education
Teachers – High School, Except Special Education and Career & Technical Education	Secondary School Teachers, Except Special Education and Career & Technical Education
Teachers, Special Education	
Teachers – All Other Except Substitute Teachers	
Teachers – Postsecondary (Mathematical Science, Biological Science, English Language & Literature)	

RGV LEAD	Workforce Solutions South Texas
<b>HEALTH SCIENCE</b>	
Biological Technicians	
Cardiovascular Technologists & Technicians	
Dental Assistants	Dental Assistants
Dental Hygienists	
Dentists	
Diagnostic Medical Sonographers	
Dieticians & Nutritionists	
Emergency Medical Technicians & Paramedics	Emergency Medical Technicians & Paramedics
Health Technologists & Technicians, All Other	
Licensed Practical and Licensed Vocational Nurses	Licensed Practical and Licensed Vocational Nurses
	Medical Assistants
Medical Equipment Repairers	
Medical/Clinical Laboratory Technicians	
Medical/Clinical Laboratory Technologists (also known as Medical Laboratory Scientists)	
Nuclear Medicine Technologists	
Nurse Anesthetists	
Nurse Practitioners	
	Nursing Assistants
Occupational Health & Safety Specialists	
Occupational Therapists	
Occupational Therapy Assistants	
Pharmacists	
Pharmacy Technicians	
Phlebotomists	
Physical Therapists	
Physical Therapy Assistants	
Physicians – Family and General Practitioners; internists (General); Pediatricians (General); Other Physicians and Surgeons; and Psychiatrists	
Physician Assistants	
Radiologic Technologists / Technicians	
Registered Nurses	Registered Nurses
Respiratory Therapists	
Speech-Language Pathologists	
Surgical Technologists	
<b>HOSPITALITY &amp; TOURISM</b>	
Chefs and Head Cooks	

**Section 5: Supplemental Information**

<b>RGV LEAD</b>	<b>Workforce Solutions South Texas</b>
<b>HUMAN SERVICES</b>	
Community Health Workers	
Counselors: Substance Abuse / Behavioral / Mental Health	
Life, Physical and Social Science Technicians, All Other	
Social & Human Services Assistants	
Social Workers – Child, Family & School and Mental Health & Substance Abuse	
Social Workers, Healthcare	
<b>INFORMATION TECHNOLOGY</b>	
Computer Network Support Specialists	
Computer Occupations, All Other	
Computer Programmers	
Computer User Support Specialists	Computer User Support Specialists
Computer Systems Analysts	Computer System Analysts
Database Administrators	
Network & Computer Systems Administrators	
Software Developers – Applications	
Systems Software Managers	
Telecommunications Installers & Repairers	
Web Developers	
<b>LAW AND PUBLIC SERVICE</b>	
Compliance Officers	
Correctional Officers; Jailers	
Eligibility Interviewers, Government Programs	
Firefighters	
Lawyers	
Legal Secretaries	
Paralegals and Legal Assistants	
Police, Fire & Ambulance Dispatchers	
Police / Sheriff / Patrol Officers (also federal jobs such as Border Patrol; most federal positions require 4-yr. degree)	
Tax Examiners, Tax Collectors & Revenue Agents	
Urban & Regional Planners	
Water, Wastewater Treatment Plant & Systems Operators	
<b>MANUFACTURING</b>	
Engineers (Industrial)	
Engineering Technicians (Various Types)	
Control & Valve Installers and Repairers, Except Mechanical Door	
Electrical / Electronic Repairers, Commercial / Industrial Equipment	
Structural Metal Fabricators & Fitters	

<b>RGV LEAD</b>	<b>Workforce Solutions South Texas</b>
<b>MANUFACTURING (CONTINUED)</b>	
Tool & Die Makers	
Welders/Cutters/Solderers/ Brazers	Welders/Cutters/Solderers/ Brazers
<b>SCIENCE, TECHNOLOGY, ENGINEERING &amp; MATHEMATICS (INCLUDES ENERGY)</b>	
Engineers (Civil Engineers; Electrical Engineers; Electronics Engineers (except Computer Engineers); Health & Safety Engineers (except Mining Safety Engineers); Industrial Engineers; and Materials Engineers)	
Engineering Technicians	
Mechatronics Technicians	
<b>TRANSPORTATION, DISTRIBUTION &amp; LOGISTICS</b>	
Aircraft Mechanic & Service Technicians	
Automotive Body & Related Repairers	
Automotive Service Technicians / Mechanics / Related Specialists	Automotive Service Technicians & Mechanics (Dealer-authorized programs)
Bus / Truck / Diesel Mechanics	Bus & Truck Mechanics, Diesel Engine Specialists
	Cargo & Freight Agents
	Laborers & Freight, Stock & Material Movers
	Shipping, Receiving & Traffic Clerks
Truck Drivers, Heavy / Tractor-Trailer	Heavy and Tractor-Trailer Truck Drivers

Students can learn more about the services available through Workforce Solutions South Texas by going to the website at <http://www.southtexasworkforce.org/>.

- Click on “Youth” to read about services this organization provides for youth ages 14-24 (GED, Career Preparedness, and other services).
- Click on “Job Seekers” to find information about offices students or their parents can contact to learn more. Workforce Solutions South Texas is located in Laredo but also has offices in Zapata and Hebbronville.

For additional information about Workforce Solutions South Texas services, eligibility requirements, and the application process, contact the Workforce Center in Laredo (956.794.6500 or 956.794.6561), or contact one of the Workforce Centers in Hebbronville (361.231.7071) or in Zapata (956.765.1804).

## CONCLUSION

Students, assisted by their families, need to research careers that interest them and become informed as they make decisions about life after high school. There are many online resources that may be helpful, and information about some of those resources is included in Section 5.

For those students who choose to remain in the Valley, Workforce Solutions, Workforce Solutions Cameron, and VIDA might provide help with postsecondary education. Students who choose to remain in South Texas might receive assistance from Workforce Solutions South Texas. Students who choose to remain near their homes are encouraged to learn more about the opportunities available through these organizations.

Students can get a head start by earning college credits prior to high school graduation; however, students need to understand the choices they are making before they enroll in these courses. For students who plan wisely, enrolling in these courses can be helpful, saving students both time and money. For students who do not plan wisely, enrolling in these courses may not be a wise decision because the college transcripts these high school students create are permanent college transcripts.

Students need to understand how their salaries will be computed and how to manage their personal finances. Section 5 includes information designed to be helpful for students as they begin life after high school. Section 5 also provides information designed to be helpful as students decide whether to live and work in the Valley or South Texas or to move away after high school graduation. Finally, Section 5 provides information especially for students from the South Texas area (Jim Hogg, Webb, and Zapata Counties).

The examples provided here are illustrations designed to acquaint students with the comparison process. Students are encouraged to make their own comparisons using some or all of the websites provided in this report, as well as others they may find on their own. It is imperative that the data be collected and tabulated using an acceptable methodology. As a student decides where to live, it is also prudent to compare locales based on other aspects important to the individual, such as quality of schools, crime rates, climate, and other factors. In some cases, it might also be appropriate to consider other costs, such as traveling back and forth to the Valley or South Texas to visit family.

RGV LEAD has provided the information in Section 5 to help students make informed decisions and not to advocate for any particular decision, occupation, or location. The Valley and South Texas have long been providers of well-educated and trained personnel for the rest of the state; the result has been a “brain drain” that has left the region with a population that has one of the lowest educational levels in the nation. However, the situation in the region is changing. Much progress has been made, and the future is becoming brighter. Students who make informed decisions can help contribute to improving the quality of life in the Valley and South Texas for themselves and their families. It is RGV LEAD’s hope that providing these comparison tools will help those students who would like to remain near their families make realistic decisions that are favorable to the students, their families, and this region.

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### STATEMENT OF EQUAL OPPORTUNITY

No person shall be excluded from participation in, denied the benefits of, or be subject to discrimination under any program or activity sponsored by RGV LEAD on the basis of race, color, national origin, religion, sex, age, veteran status, or disability.

### STATEMENT OF FUNDING

RGV LEAD's programs are funded in part by grants from the Greater Brownsville Incentives Corporation, in part by funds provided by Workforce Solutions and Workforce Solutions Cameron, in part by agreements for regional services with school districts; and in part by contributions of supporters from businesses, public schools, institutions of higher education, and individuals.



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