



THE BORDERPLEX ALLIANCE



BORDERPLEX

2025 ASCEND PLAN



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I. EXECUTIVE SUMMARY

The Borderplex Alliance's vision is to be the leading entity for regional economic development and policy advocacy that helps the community leverage assets of different states and countries to become a destination for commerce for the Americas. Its vision is also to be a model for responsible economic development and policy advocacy that leads to self-sustaining growth and prosperity, vitality and quality of life for all citizens within the Borderplex region.

This document is a regional economic development strategic plan for 2025 that sets out to accelerate the region's economic growth through evidence-based and industry-driven strategic recommendations that achieve the Borderplex Alliance's mission to bring more jobs, better wages and smarter policies.

The Borderplex region has a diverse economy with a range of assets that make it full of potential that is yet to be realized. Going forward, business attraction, retention and expansion activities will be focused on those companies that generate higher revenue and high skilled, high paying jobs, particularly through the use of advanced technology. Companies that leverage new technology can create efficiencies in business operations, thereby increasing output and revenues while creating higher paying jobs. These companies also support the greater economy by becoming potential customers for suppliers and financial services providers, building wealth for individuals to improve their quality of life and create new customers for a host of businesses, and generating higher tax revenue for greater investment in community and quality of life projects.

The following is a summary of the Borderplex 2025 Ascend Plan's strategic recommendations:

Business Resilience and Sustainability

Goal #1 Help retain businesses and assist them in recovering from the shocks of the COVID-19 pandemic.

- Action 1.1 Establish Business Recovery Centers in each jurisdiction to serve as a central location for business recovery information and support; include case management services and business recovery workshops to connect businesses with local, state and federal monetary and non-monetary resources.
- Action 1.2 Create a bridge loan program for disaster relief. This program could assist funding while companies wait for other disaster funding. Similar programs, such as the Florida Small Business Emergency Bridge Loan Program and The Birmingham Strong Fund, are interest-free, repaid within a brief period (e.g. 12 months), and may evolve into other types of loans.
- Action 1.3 Provide short-term and long-term financial literacy education and planning services; work with local financial institutions to provide workshops on financial products and services available locally.

Goal #2 Develop a community-wide, cooperative system for ongoing support of business retention and expansion (BRE).

- Action 2.1 Form a task force for business retention and expansion and invite professionals who are dedicated to working on BRE.
- Action 2.2 Collectively research and share data on business needs. Use economic impact analyses, surveys, interviews and focus groups with businesses, and other economic research.
- Action 2.3 Publish the group's data analysis and recommendations for the community to act upon in support of businesses. Publish this white paper quarterly, or on a monthly basis during more severe economic downturns (including for the duration of the COVID-19 pandemic).
- Action 2.4 Build BRE professionals' capacity for effective business consulting through professional development training.

- Action 2.5 Build an online website or use existing resources such as InnovationFrontera.com or The Founder Institute's portal to advertise resources available to businesses.

Life Sciences Industry

Healthcare Services

Goal #3 Develop a full talent continuum to support the healthcare services industry.

- Action 3.1 Build a community-wide education and workforce development program for the Life Sciences Industry. Address issues as skills gaps identified by the industry, lack of in-demand training programs, the need to form more articulation agreements between two- and four-year colleges, the need for clear education pathways to specific careers in emerging clusters, and the demand for high-quality internship programs.
- Action 3.2 - Develop professional associations for medical personnel.
- Action 3.3 - Create a marketing plan that promotes the region and targets medical talent living both inside and outside the region.

Goal #4 Develop a reputation for having a high-quality healthcare system.

- Action 4.1 Work with the Medical Center of the Americas Foundation to complete an assessment of the quality of the regional healthcare system, including numbers and types of medical providers, medical services offered, medical supply chain, outcomes, etc.
- Action 4.2 Create a regional strategic plan that addresses the issues and gaps that emerge from the quality of healthcare assessment.
- Action 4.3 Leverage the positive findings from the healthcare assessment and regional strategy as a marketing tool to attract talent and medical tourists.
- Action 4.4 Become known for being a leader in health equity and inclusion and biomedical research for Hispanic populations by publishing articles and by holding largescale healthcare conferences.

Goal #5 Develop a policy advocacy agenda to address healthcare companies' urgent issues.

- Action 5.1 Identify waivers given to Centers for Medicaid and Medicare Services during the pandemic that have helped the system work more effectively and ensure that they are made permanent. For example, waivers for telehealth services have become critical for many people's health, particularly those living in remote rural areas.
- Action 5.2 Ensure State of Texas provides consistent funding for 1115 Medicaid demonstration waiver, which the Texas government has used to create a five-year agreement that allows hospitals to recoup losses from treating the uninsured. The funding under this waiver will partially expire in 2021, which will jeopardize the healthcare providers who help many uninsured people.

Goal #6 Grow a cluster of telehealth firms in the Borderplex region.

- Action 6.1 Attract startup telehealth companies that can offer complimentary services to large hospitals.
- Action 6.2 Facilitate partnerships between small and medium sized healthcare firms with IT companies to enable the firms to provide telehealth services.
- Action 6.3 Provide digital transformation workshops for healthcare firms that want to begin providing telehealth services.
- Action 6.4 Hold telehealth hackathons to tackle real business challenges through technology.
- Action 6.5 Build talent pipeline for telehealth by working with regional computer science departments to integrate knowledge of healthcare industry regulations into the curriculum.
- Action 6.6 Encourage the creation of startups in the telehealth field by advocating for policy changes that would allow greater adoption of advanced technologies.

Biomedical Research

Goal #7 Create a biomedical research cluster based on research strengths.

- Action 7.1 Using surveys, roundtables and one-on-one interviews, validate previously identified regional research expertise (e.g. cancer, infectious diseases, diabetes and obesity, and neuroscience) and form a consensus of what the region's research themes should be for economic development purposes.

Goal #8 Create a thriving biomedical research cluster through attracting small, high technology companies.

- Action 8.1 Attract bio storage facilities to grow a fundamental element of the research supply chain.
- Action 8.2 Methodically attract small and medium-sized research companies in the field, e.g. drug discovery and development, compound screening and development, infectious diseases, and clinical research, etc. Give special attention to contract research organizations, which are being used more frequently by major pharmaceutical companies.
- Action 8.3 Market established small and medium sized companies to large pharmaceutical companies to attract those companies or present the SMEs as merger and acquisition opportunities.

Goal #9 Achieve a well-developed talent pipeline for automated biomedical drug discovery and development.

- Action 9.1 Conduct a skills gap analysis to determine specific skills and educational programs needed to grow this industry.
- Action 9.2 Identify opportunities for project-based internships to develop students' practical skills and industry knowledge.
- Action 9.3 Create a certificate program for artificial intelligence for drug discovery.

Goal #10 Create a strong policy structure and steady capital flow for biomedical research.

- Action 10.1 Create public and private-funded drug discovery and development business expansion programs to fund a transition to automated labs, including money for software, equipment and employee training. The region can create automation transition programs by utilizing existing lab automation services such as Sunset Resources Group.
- Action 10.2 Cultivate a broad network of investors interested in the pharmaceutical field.
- Action 10.3 Form policies and incentives at the state and local government levels that encourage small and medium sized enterprises in this field to relocate or be created in this region.

Medical Device Manufacturing

Goal #11 Develop an enviable talent pipeline that easily attracts medical device manufacturing companies and supports the growth of local companies.

- Action 11.1 Work with BioEPJ to identify skills gaps in this field and ensure that educational programs and curricula are adjusted to meet the demand.
- Action 11.2 Create a career crosswalk for students to follow to more easily chart a path to a career in the field. Should include a general educational path that notes the region's available programs.
- Action 11.3 Integrate industry jargon into educational curriculum and ensure course outcomes align with target industry skills needs.

Goal #12 Develop a strong support system to grow existing medical device companies.

- Action 12.1 Create a marketing plan to promote local suppliers by leveraging the supply chain inventory developed by BioEPJ. The marketing plan can also highlight gaps in the supply chain as business expansion opportunities, which can help attract companies to the region.
- Action 12.2 – Clearly define existing and target competencies to be able to achieve excellence with limited resources.
- Action 12.3- Develop an online platform that connects local innovators, particularly the many PhDs in the region, with local companies who are looking for consultants to collaborate on research and development projects.

Business Services Industry – Finance and Insurance

Goal #13 Build a workforce pipeline with high-demand industry skills and knowledge.

- Action 13.1 As a follow-up to the inventory of educational programs that was recently developed, work with industry leaders to evaluate the relevancy of current educational programs discovered and ensure high demand skills are integrated.
- Action 13.2 Work with employers to update the in-demand certification list and share with educational institutions.
- Action 13.3 Create or expand project-based internship programs to develop soft skills, form relationships with potential candidates, and solve real company problems. Encourage a diverse workforce pipeline by targeting underrepresented demographic groups for internships and mentoring programs.
- Action 13.4 Integrate bilingual education in schools, especially postsecondary, with an emphasis on professional jargon for the business services industry.

Goal #14 Create an empowered business community with extensive knowledge of community resources to build their ideal industry.

- Action 14.1 Develop an online portal with recruiting resources specific to this industry, e.g. available educational programs, best practices for talent recruiting and retention, and lists of public funds available for training.
- Action 14.2 Establish a publicly funded management training program, such as a toolbox for succession planning, along with business consulting services, to assist employers in building their local leadership bench strength.

Goal #15 Fully realize potential business relationships with local exporting companies and small and medium sized enterprises.

- Action 15.1 Form a committee dedicated to creating trade financing workshops for community development financial institutions and financial literacy programming for SMEs. This committee may be used for additional goals such as identifying burdensome regulations and innovating new technology for business competitiveness.
- Action 15.2 Conduct workshops for SMEs to educate them on the financial products and services that are available from local companies as well as how to write a successful business loan application and how to become an exporting company.
- Action 15.3 Advocate for regulation changes that could alleviate community banks' risk associated with extending trade financing services to SMEs and provide incentives for larger banks to become more involved in SME trade financing.

Goal #16 Cultivate an environment that enables regional financial companies to create technology solutions to business problems.

- Action 16.1 Attract fintech startup companies that can partner with financial institutions to expand their digital services.
- Action 16.2 Identify fintech companies that can partner with CDFIs to offer digital financial services.
- Action 16.3 Hold fintech hackathons to tackle real business challenges through technology.
- Action 16.4 Build talent pipeline for fintech by working with regional computer science departments to integrate knowledge of banking industry regulations into the curriculum.
- Action 16.5 Advocate for regulatory changes that allow the introduction of new technology in the industry.

Business Services Industry – Information Technology

Goal #17 Establish a robust IT talent pipeline to build niche opportunities.

- Action 17.1 Complete and pilot a teacher survey with interested education partners.
- Action 17.2 Complete a "heat map" showing the presence of IT-related courses across education in the region.
- Action 17.3 Build a steady talent pipeline for cybersecurity by integrating skills training and certificates into the secondary and postsecondary educational programs.

- Action 17.4 Build talent pipeline for fintech and telehealth by working with regional computer science departments to integrate knowledge of pertinent banking industry and healthcare industry regulations into the curriculum.

Goal #18 Establish Borderplex region as the ideal location for small IT firms and data centers.

- Action 18.1 Attract cybersecurity firms through a marketing campaign that highlights the high demand for cybersecurity talent nationally and the region's oversupply of cybersecurity talent.
- Action 18.2 Attract fintech startup companies that can partner with financial institutions to expand their digital services.
- Action 18.3 Attract IT startup companies that can provide products and services for regional target industries to increase their business competitiveness.
- Action 18.4 Attract data centers to rural areas. Data centers can draw large investments to boost the economic development of an area.
- Action 18.5 Conduct business retention and expansion efforts targeted at small firms in potential niche IT clusters such as cybersecurity, automated biomedical research, fintech, ag tech, and telehealth.

Goal #19 Make the region known for having an inclusive digital economy.

- Action 19.1 Expand digital skills training programs to reach families or households.
- Action 19.2 Expand broadband infrastructure, especially in rural areas.
- Action 19.3 Develop or expand public-private partnerships to subsidize internet costs for low-income households.
- Action 19.4 Develop or expand programs to purchase or rent out computers and MiFi devices for low-income households.
- Action 19.5 Build a digital inclusion coalition to align all digital inclusion initiatives, providing support for the organizations through shared resources, policy advocacy, and funding.

Goal #20 Make the Borderplex region a leader in technology-related workforce policy development and collaborative innovation.

- Action 20.1 Create a Resilient Workforce System Policy Committee to collect data on businesses' future skills needs and develop policy recommendations that prepare for rapid changes due to advancing technology and other disruptions; include specific recommendations around AI.
- Action 20.2 Start a Collaborative Innovation Forum to highlight R&D in the region and foster collaboration. Include diverse stakeholders, e.g. academia, industry, and government.

Advanced Manufacturing Industry

Goal #21 Establish a guaranteed workforce pipeline that is well-suited for advanced manufacturing and very attractive for expanding companies.

- Action 21.1 Build a regional manufacturing talent pipeline program based on the Arizona Advanced Technology Network; offer Industrial Technology certificates from the National Institute of Metalworking Skills (or Mexican equivalent) and an Associates of Applied Sciences in Automated Industrial Technology (or equivalent). Use a common third-party vendor for equipment along with common course titles, descriptions and numbering systems.
- Action 21.2 Ensure industry leader participation in the Resilient Workforce System Policy Committee under the Binational Technology Council to assist educational and workforce development institutions in preparing, upskilling and reskilling the workforce for the adoption of advanced technology in manufacturing.
- Action 21.3 Create an industry-specific skills proficiency test for secondary and postsecondary school students; direct students toward specializations based on individual capacities.
- Action 21.4 Replicate the successful CONREDES model for internships throughout the region. Develop or expand an online platform to track students' internship experiences and skills progression, coordinate business facility tours, and host workshops to showcase careers in the industry.
- Action 21.5 Conduct an analysis to predict new skills needed by 2025.

Goal #22 Establish full supply chains for regional manufacturing clusters.

- Action 22.1 Create an online directory of suppliers to encourage more regional sales. This may include advanced features such as direct business-to-business sales and virtual showcasing.
- Action 22.2 Complete a supply chain analysis of high value manufacturing clusters, e.g. auto, electronics, medical device, aerospace, and value-added agriculture.
- Action 22.3 Create a marketing and sales plan to highlight the business opportunities found through the supply chain gap analysis; include all regional economic development organizations to ensure clear and united messaging.

Goal #23 Establish an outstanding support structure to help suppliers thrive.

- Action 23.1 Develop a general supplier development certification and work towards wide adoption of the certification; model after the medical device supplier certification established by TMAC and BioEPJ.
- Action 23.2 Create a business-to-business matching program, leveraging the proposed online directory of suppliers. Develop a marketing and sales plan to highlight specific clusters and businesses with strong differentiating qualities, e.g. use of sustainable practices and the achievement of quality certifications.
- Action 23.3 Create an annual supplier showcase; consider a virtual showcase to reach companies both inside and outside the region.
- Action 23.4 Develop a Regional Export Plan to include an export council and foreign direct investment marketing plan.
- Action 23.5 Create a committee to build community banks' knowledge about export financing.
- Action 23.6 Create a Manufacturing Supplier Association to manage the previously mentioned projects and committees and equip it with a governance framework and staff to ensure project follow through.

Aerospace and Defense Industry

Goal #24 Become a top destination for the aerospace and defense industry.

- Action 24.1 Conduct a supply chain gap analysis of aerospace manufacturing suppliers and MRO companies in the area to identify areas for effective business attraction and policymaking efforts.
- Action 24.2 Create a marketing plan to advertise gaps in the value chain as business opportunities.
- Action 24.3 Create a marketing plan to attract MRO companies and cybersecurity defense companies based on the availability of talent as well as many federal government customers.
- Action 24.4 Build an online platform with a directory of manufacturing suppliers and original equipment manufacturers (OEM) to allow regional companies to find each other.
- Action 24.5 Leverage money from the Defense Economic Readjustment Zone to build amenities on Fort Bliss.
- Action 24.6 Conduct a skills gap analysis by comparing skill availability in the Borderplex region with another region that has a well-established aerospace and defense industry.

Goal #25 Create a support structure to enable local entrepreneurs to excel in the aerospace and defense industry.

- Action 25.1 Develop a regional aerospace alliance to coordinate the gathering and publishing of A&D data, advise on viable business opportunities, and run supplier development programs.
- Action 25.2 Create or expand supplier development programs. These programs will connect companies with resources to obtain quality certifications, information on becoming a defense contractor, information on exporting, and financing available through grants and special loan programs.
- Action 25.3 Launch a dedicated news source that researches and highlights potential business opportunities in the region related to new developments in the aerospace industry.

Advanced Logistics Industry

Goal #26 Make the region a renowned binational logistics hub.

- Action 26.1 Advocate for greater public investment in trade infrastructure.

- Action 26.2 Add FDA testing facilities (governmental) for agriculture and medical devices.
- Action 26.3 Add medical grade cold storage facilities within the Customs and Border Protection ports at Tornillo and Santa Teresa.
- Action 26.4 Build commercial real estate for warehousing and bonded space.
- Action 26.5 Expand the foreign trade zone.
- Action 26.6 Invest in autonomous vehicle stations.
- Action 26.7 Improve all rail service properties and expand current rail infrastructure.
- Action 26.8 Complete the highway loop south of Ciudad Juarez to the Tornillo port.
- Action 26.9 Support advocacy efforts by the Chambers and others to secure funding for trade-related highway infrastructure projects.
- Action 26.10 Develop a list of cities with similar industries and economic drivers to target as sister cities for the purpose of negotiating direct flights; include medium-sized international destinations that cannot support direct service from cities (known as “hubbing”).
- Action 26.11 Rename the El Paso airport to Las Cruces-El Paso International airport or Las Cruces-El Paso-Juarez International airport to project hub status.
- Action 26.12 Coordinate the cities’ port authorities or similar entities to ensure infrastructure projects are realized.

Goal #27 Become the destination of choice for advanced logistics companies.

- Action 27.1 Focus business attraction efforts around logistics companies who apply automation technologies.
- Action 27.2 Develop a business attraction strategy aimed at distribution and fulfillment centers. Leverage larger trends and build local capacity by especially targeting companies in the e-commerce, medical device, biomedical research and agriculture space.
- Action 27.3 Target digital freight forwarding companies and other companies that use digital technology to improve logistics and trade activities.
- Action 27.4 Target autonomous and electric vehicle companies.

Goal #28 Establish a pool of sophisticated logistics professionals that can help businesses achieve and exceed their goals.

- Action 28.1 Create industry certifications for blocks of mid and higher-level skillsets, particularly around customs brokerage, that can be attached to existing programs at universities and colleges.
- Action 28.2 Coordinate an industry forum to educate professionals on developments in the field.
- Action 28.3 Advocate for any changes needed to the NAFTA/USMCA visa if there are provisions that limit talent from being able to work easily on either side of the border.

Talent Pipeline Development

Goal #29 Create a peerless workforce in the Borderplex region.

- Action 29.1 Form a resilient workforce system policy committee to build a more resilient workforce system.
- Action 29.2 Create a Talent Committee to oversee industry-specific talent initiatives and a University Presidents’ Roundtable.
- Action 29.3 Include industry jargon into educational curriculum and ensure course outcomes align with target industry skills needs.
- Action 29.4 Develop education and career crosswalks for target industry employers and job candidates.

Goal #30 Make the Borderplex region a top choice for skilled workers.

- Action 30.1 Market fields with an oversupply of talent to attract suitable companies and develop talent-driven industry niches.
- Action 30.2 Ask companies to sign a letter of commitment indicating their willingness to work towards providing 100% pay equity for Hispanic women.
- Action 30.3 Create a marketing campaign geared towards workers living both inside and outside the

- region to promote the region's quality of life.
- Action 30.4 Increase university completion rates by offering flexible, paid work and recognized credentials for students.
- Action 30.5 Hire non-traditional workers for hard to fill positions, including veterans, military spouses, individuals with disabilities, and previously incarcerated individuals looking for a second chance.
- Action 30.6 Create a Skilled Immigrant Integration Program modeled after the program at the World Education Forum.
- Action 30.7 Advocate for comprehensive immigration reform to ensure that DREAMers and immigrants who provide a necessary talent pipeline for the region are protected.
- Action 30.8 Create an incentive program to encourage high-demand workers to relocate to the region.

Research, Development and Entrepreneurship

Goal #31 Create a government policy framework that fortifies the entrepreneurial and innovation ecosystem.

- Action 31.1 Align government and private funding opportunities with entrepreneurs who are willing to fill gaps in the supply chain for the target industries. The medical device supplier development program, funded by the City of El Paso, is one such example.
- Action 31.2 Create a level playing field between new companies and established entrepreneurs when determining incentives.
- Action 31.3 Create a single list of all requirements to start any business and easy-to-read guides that walk entrepreneurs through the permitting process. These should be translated into multiple languages and posted in public offices and in an easy-to-find location online.
- Action 31.4 Ensure government processes are as streamlined as possible for small businesses. Require coordination across agencies to simplify all local procedures, forms, licenses, and permits required to start a business.
- Action 31.5 Establish a rapid prototyping center where businesses can connect with engineers to solve business problems with technology.
- Action 31.6 Establish a startup visa that authorizes foreign entrepreneurs to start businesses in the United States.
- Action 31.7 Create statewide funds dedicated to research and development within a target industry, such as advanced manufacturing or IT, similar to existing funds like the New Mexico Small Business Innovation Research Grant and the Cancer Prevention and Research Institute of Texas.

Targeted Marketing

Goal #32 Become known as the best region to work and do business.

- Action 32.1 Coordinate all regional economic development organizations to define clear and unified messages that promote the region and handle negative press. Integrate common location decision factors. Audience: executives from companies within target industries.
- Action 32.2 Promote supply chains to draw companies. Use established and soon-to-be established supplier inventory lists. Marketing materials should not only promote the existence of the supply chain but the quality of goods and services as well. Audience: Executives within all targeted industries.
- Action 32.3 Promote supply chain gaps to draw suppliers from outside the region. Audience: suppliers from outside the region who can fill the gaps and local supplier/entrepreneurs who are willing to start producing new products. For FDI campaigns, the materials can be tailored for certain countries.
- Action 32.4 Promote talent oversupplies or "niche" target industries. Marketing materials will be used as evidence of a guaranteed talent pipeline for companies within these niches. Audience: executives from companies within the aerospace (MRO and defense contractors), medical device, life sciences (biomedical research), cybersecurity, and professional, scientific and IT services industries.
- Action 32.5 Promote successful technology entrepreneurs. The purpose of this is 1) to attract investors from outside the region, and 2) to encourage tech entrepreneurship as a viable career option within the Borderplex region. Audience: investors from outside the region and the local community.

- Action 32.6 Promote region to cities with similar industries and attributes for direct flights. Having these materials along with a detailed targeted cities list can support attempts at negotiating more direct flights. Audience: government officials from targeted cities.
- Action 32.7 Create a marketing campaign directed at skilled workers. The campaign can be tailored for various audiences, including medical personnel, workers and graduates in the target industries. Audience: citizens from Juarez, El Paso and southern New Mexico and the surrounding region as well as outside the region. School-aged children K-12, college, and adults; materials should be in both Spanish and English.
- Action 32.8 Promote strong community pride in the presence of military bases. This is to foster goodwill with soldiers transitioning out of the military to encourage them and their families to remain in the area. This can also be used when advocating for the attraction of more missions to the regional bases. Audience: military families, transitioning soldiers, high level military officials.
- Action 32.9 Build a data trust or shared economic development data platform to create uniform and publicly available economic data that can help keep marketing materials up to date. This data trust can also be used as a way to identify new business opportunities.

The 2025 Ascend Plan also includes a section on policy that defines the scope of The Borderplex Alliance's policy advocacy activities and summarizes the policy advocacy recommendations found in this document. The Plan concludes with a section on implementation that outlines the initial steps for executing the strategic recommendations.



II. INTRODUCTION

The Borderplex Region is a remarkable place with endless opportunities. In recent years, regional leaders have steadily moved their strategic focus away from low-skilled, low wage jobs and set their sights on attracting and growing more technologically advanced companies with higher skilled, higher paying jobs. Investments in many quality of life projects, infrastructure, industrial parks and downtown redevelopment have contributed to the region's growing economic success. Greater investments and focus on workforce in the last few years, such as through the creation of CONREDES in Cd. Juarez, The Bridge of Southern New Mexico, and CREEED in El Paso, demonstrate a desire to push the economy to the next level. Across the region, multiple organizations are beginning to engage in economic development efforts and the energy behind this momentum has manifested itself in many positive developments.



"El Paso is where I started. I don't feel like I'd be making the music I'm making now if I hadn't gone there."

- Khalid

The economic impact of the COVID-19 pandemic is certainly severe, causing some businesses to fold while others struggle to stay afloat. This has led to tens of thousands of people in the region getting laid off or furloughed. As regional stakeholders take steps to mitigate the economic damage of the fallout, certain opportunities have emerged. The community at large has been pushed to adopt some of the latest technology, such as digital technologies and robotics, and this has moved the region and the world closer to realization of the Fourth Industrial Revolution, known as Industry 4.0. The shift toward greater technology adoption is expected to both dramatically increase profits while dislocating many workers. That said, the region must put the infrastructure and programs in place immediately to help workers and businesses withstand the accelerated use of new advanced technologies. With proper preparation and execution, the region can advance to the next level of economic prosperity armed with the latest, most economically impactful technologies.

Further, the Covid-19 pandemic's disruption of global supply chains, along with the signing of US-Mexico-Canada Trade Agreement (USMCA) and the U.S.-China trade war have created new opportunities for the Borderplex region. This may be true particularly in the areas that have an immediate impact on the lives of those in North America, notably in healthcare supply chains where the availability of such materials are of a national security interest (medical devices and pharmaceuticals). The localization of these supply chains will result in a mix of higher costs and cost savings, e.g. higher wages and environmental compliance versus tariffs and transportation costs. To offset costs and exponentially increase output, a greater adoption of automated processes is expected to become increasingly prevalent. Generally, the greater demand for digital skills and knowhow in artificial intelligence will require widespread training for businesses and individuals in addition to the growth and deployment of digital transformation and AI consulting services.

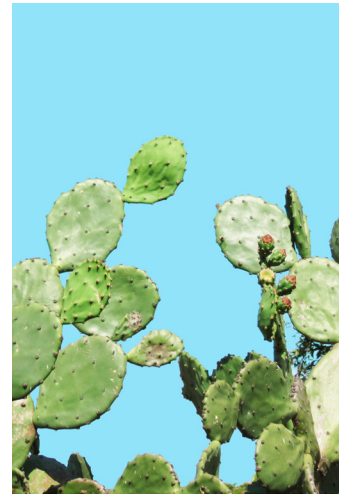
The region has many assets in its favor that are discussed in depth in the sections below; however, the community also has several key challenges that must be addressed to build its competitiveness. Community-wide surveys conducted during the strategic planning process illuminated some of these challenges, including misperceptions about quality of life (safety, entertainment options, etc.), a low percentage of goods and services purchased from suppliers in the region, difficulty in attracting headquarters, and talent issues related to talent retention and attraction such as low STEM job availability, wide underemployment and less competitive wages. Certain changes in policies and funding priorities are needed to accelerate economic growth. For example, in order to improve the flow of people and goods across the border, the international ports of entry are in need of funding for infrastructure improvement, technology enhancements, and border patrol staff increases. To spur the growth of locally owned, high technology companies, policies are needed that promote the commercialization of patents.

The Borderplex Alliance will play a key role in driving future economic growth along with its many partners across the region. Since its inception in 2013, along with its partners, The Borderplex Alliance has taken a lead role in advancing the following achievements:

- Over 50 companies located or expanded into the region
- Estimated \$1.1 Billion in investments
- New jobs: over 12,000

In the past five years, the Borderplex Alliance has also

- Successfully led a coalition of non-profit organizations to advocate for the U.S. ratification of the USMCA trilateral trade agreement
- Established strong relationships with regional public economic development organizations
- Created the Borderplex Economic Council
- Led a successful educational program in Juarez that facilitates customized training for manufacturing companies





Through the creation and implementation of this regional economic development strategy, the Borderplex Alliance aims to align existing strategies to ensure that regional actors take advantage of major market opportunities and to address challenges to sustainability and growth.

In preparing the 2025 Ascend Plan, target industries developed under the Borderplex2020 were validated against a list of common economic indicators and other qualitative factors, and emerging clusters within the target industries were identified and included. Several research methods were used to collect a large amount of quantitative and qualitative data. The information was analyzed to unearth new opportunities and to coordinate and systematize existing initiatives and assets across the region to realize a more prosperous regional economy.

Methods of research for the strategic planning process:

- Surveys - used to determine economic development priorities, strengths, weaknesses, opportunities and challenges
- One-on-one interviews
- Industry leader roundtables with formalized facilitation process
- Quantitative economic data supplied largely by EMSI and some by internal researchers
- Review of the region's existing economic development plans
- Research on macro trends in the target industries
- A Borderplex Skills Cluster Analysis was conducted to identify oversupplies of talent
- A Cross Border Group was formed to develop specific binational initiatives.

III. ECONOMIC OVERVIEW

Recent, significant changes in the world have spurred both monumental opportunities and major challenges. The COVID-19 pandemic has changed the world as we know it. It has caused an economic downturn that will be arguably more severe than the Great Recession in terms of businesses closing and jobs lost. In the short term, our communities will have to work towards rebuilding what was lost. Many industries will rebound and new ones will emerge while others decline. Given the continuous change in the economy due to the pandemic, the quantitative data provided in this section is merely a baseline from where to begin; statistics are based on pre-pandemic conditions.



Before the COVID-19 pandemic, technological disruption was already on the horizon, known as the Fourth Industrial Revolution or Industry 4.0. Preparations had slowly begun to be made for the anticipated adoption of advanced technology and the inevitable layoffs and changing job roles that are expected to follow. Ironically, much of the technology that many feared would displace workers has also been a saving grace for companies adapting to lockdowns by enabling them to continue operations using remote workers. It has even increased the productivity of some industries and enabled some companies to experience accelerated growth.

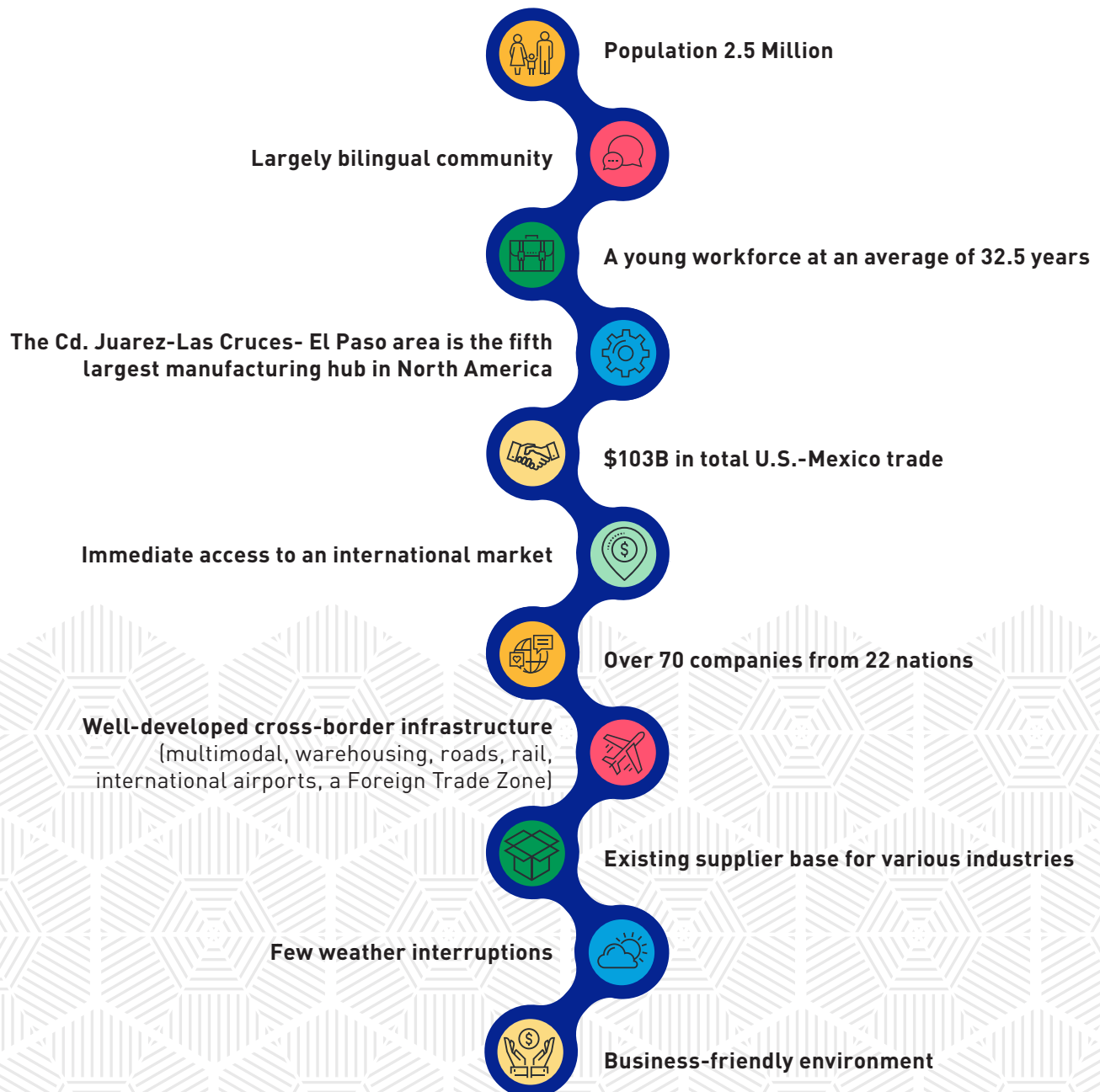
Aside from the pandemic, conditions at the national and international levels have been favorable for the Borderplex region's economy, creating a variety of market opportunities for regional businesses. For example, trade policies and tariffs on Chinese goods, the passage of the USMCA at the end of 2019, and the disruption of global supply chains have all created opportunities for North America to attract supply chains currently scattered around the world.

With the recent loss of jobs from the pandemic, it is imperative that economic developers find ways of creating new jobs through business attraction and expansion and by entrepreneurship. The quicker the region can coordinate and strengthen its supporting systems, the more likely that it will successfully create more high paying jobs, prepare our region for Industry 4.0, re-employ dislocated workers, and attract skilled talent from outside the region. The Borderplex region has its own assets to exploit that will be especially powerful if the three states and two countries work together. Working together can give it the leverage it needs to beat competitors in other regions who are also attempting to bring home suppliers and are fighting for the best talent.

This section and the data herein are meant to establish a baseline from which to move forward while recognizing the fluid nature of the economy and economic data especially due to the upcoming 2020 census results, the pandemic-induced lockdown and continuous economic uncertainty at the time this Plan is written. The subsequent Implementation Plan that follows the completion of this document will be a living document capable of adjusting to uncertain and unpredictable changes in the economy.

BORDERPLEX REGION

The Cd. Juarez-Las Cruces- El Paso area is the fifth largest manufacturing hub in North America with \$103B in total U.S.-Mexico trade. El Paso is the 10th largest exporting Metropolitan Statistical Area (MSA) in the United States with over \$30B in imports in 2018, making it the second largest importing MSA in Texas.² This rank would be higher if it included the Santa Teresa port of entry, which had over \$14B in exports for 2018 (this would make it tied at #6 with Detroit-Warren-Dearborn). The region has a unique combination of advantages, including immediate access to an international market, well-developed cross-border infrastructure (warehousing, roads, rail, international airports, a Foreign Trade Zone), and an existing supplier base for various industries. The region also has a comparatively young workforce, few weather interruptions, and a business-friendly environment.



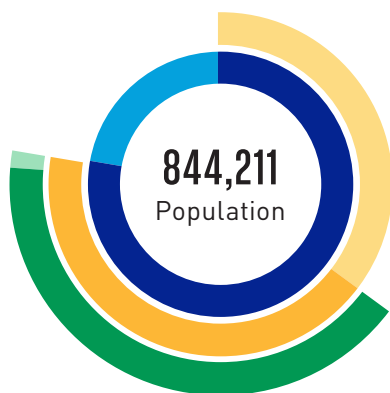
EL PASO

In El Paso, the top three industries, by employment share, are Education and Hospitals; Restaurants and Other Eating Places; and Federal Government, Military.

The Labor Participation Rate (LPR) is expected to increase by 0.8% to 54.6% by 2024. The U.S. average LPR is 63.2%.



2019 LABOR FORCE BREAKDOWN

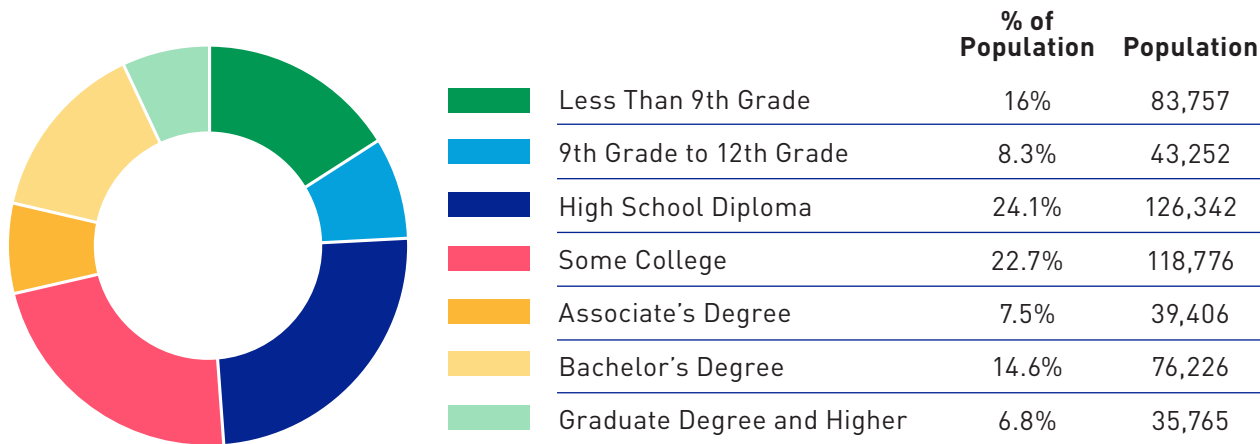


	Population
Total Working Age Population	654,738
Not in Labor Force (15+)	296,995
Labor Force	357,743
Employed	343,256
Unemployed	14,487
Under 15	189,472

EL PASO

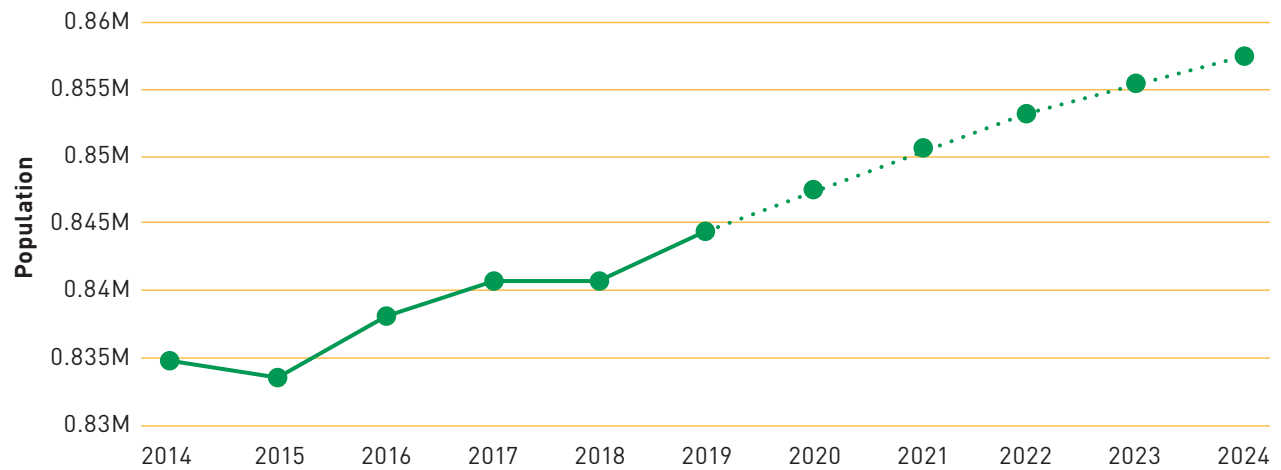
According to U.S. Census data, El Paso’s Bachelor’s Degree attainment rate was 14.6%, which is 4.3% below the national average. Furthermore, 7.5% of the population has an Associate Degree, which is 0.6% below the national average.

EDUCATIONAL ATTAINMENT



As of 2019, the region’s population increased by 1.1% since 2014, growing by 9,220. The population is expected to increase by 1.5% between 2019 and 2024, adding 12,491 people by 2024.

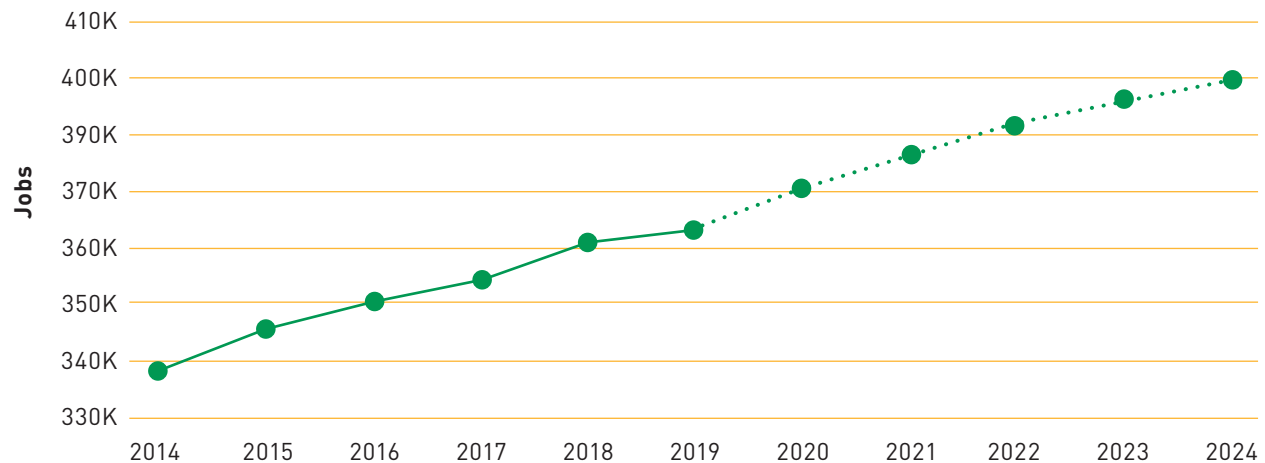
POPULATION TRENDS



EL PASO

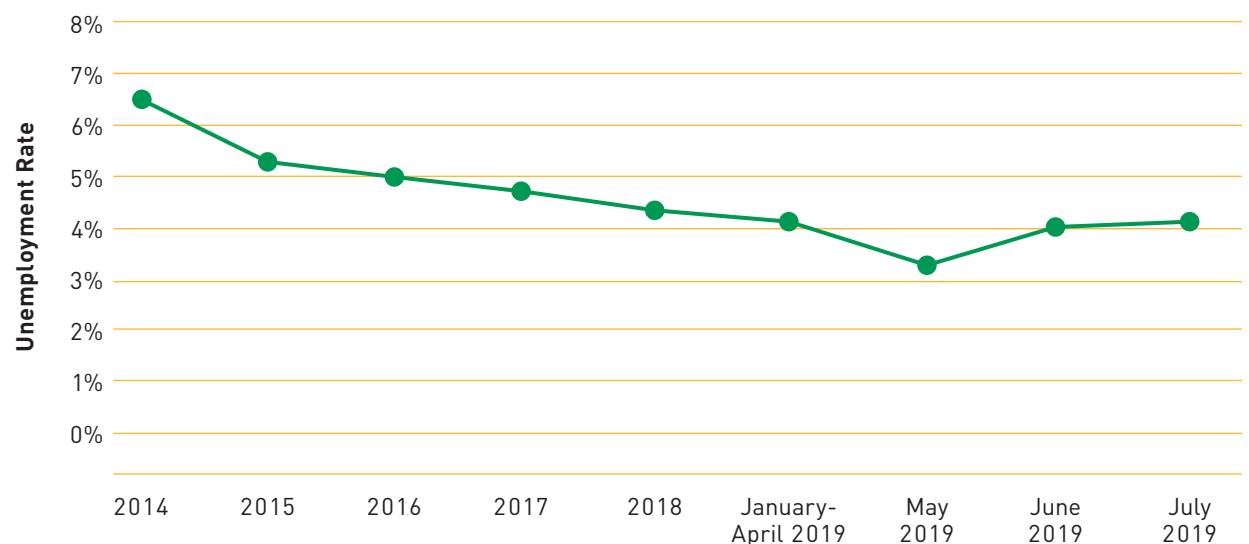
From 2014 to 2019, jobs increased by 7.6% in El Paso County, TX from 344,399 to 370,654. This change outpaced the national growth rate of 6.9% by 0.7%.

JOB TRENDS

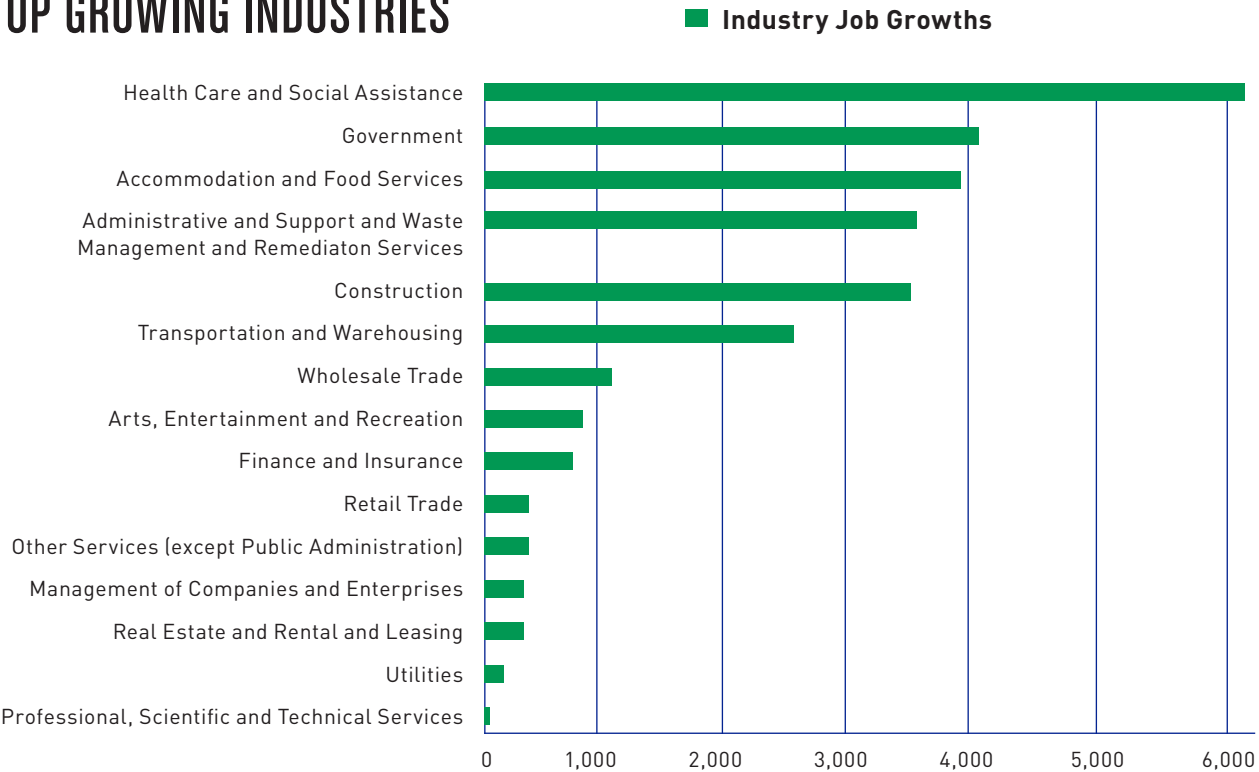


El Paso County, TX had a July 2019 unemployment rate of 4.05%, decreasing from 6.41% 5 years before. This is a benchmark to aim for once the COVID-19 pandemic has winded down.

UNEMPLOYMENT RATE TRENDS

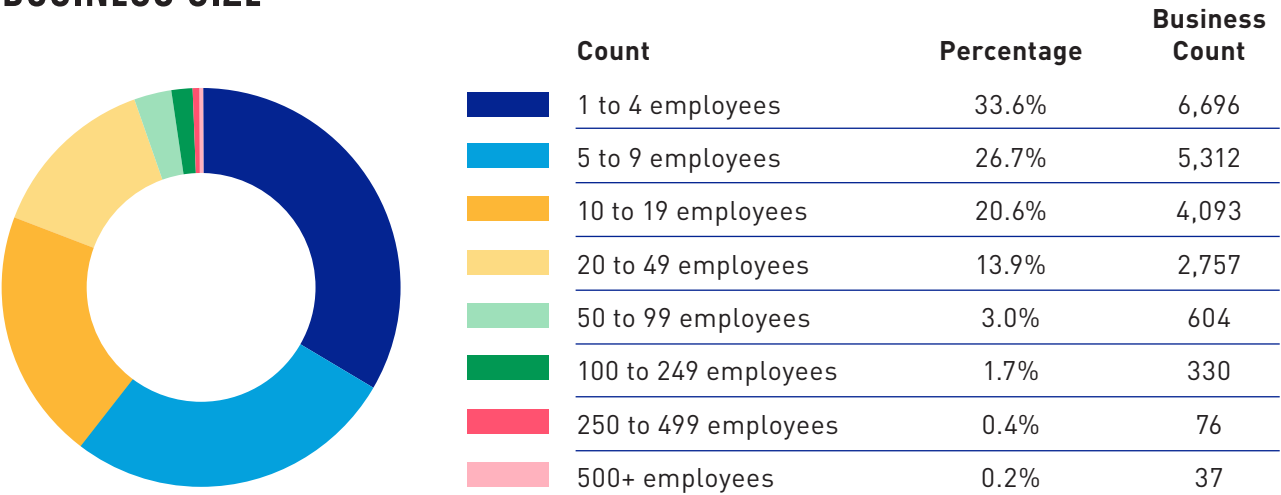


TOP GROWING INDUSTRIES



There are 53,314 companies that employ workers. In 2019, 9,647 companies in El Paso County, TX posted job postings.

BUSINESS SIZE



**Business Data by DatabaseUSA.com is third-party data provided by Emsi to its customers as a convenience, and Emsi does not endorse or warrant its accuracy or consistency with other published Emsi data. In most cases, the Business Count will not match total companies with profiles on the summary tab.*

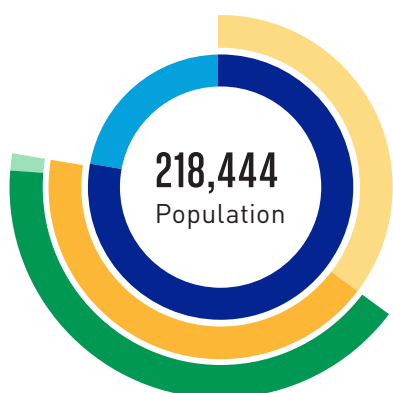
LAS CRUCES

In Las Cruces¹, the top three industries by employment share in 2019 are Restaurants and Other Eating Places, Education and Hospitals (State Government), and Education and Hospitals (Local Government).

Due to an increase in jobs between 2014 and 2019, the labor force participation rate increased from 55.9% to 56.4% over the same period.



2019 LABOR FORCE BREAKDOWN

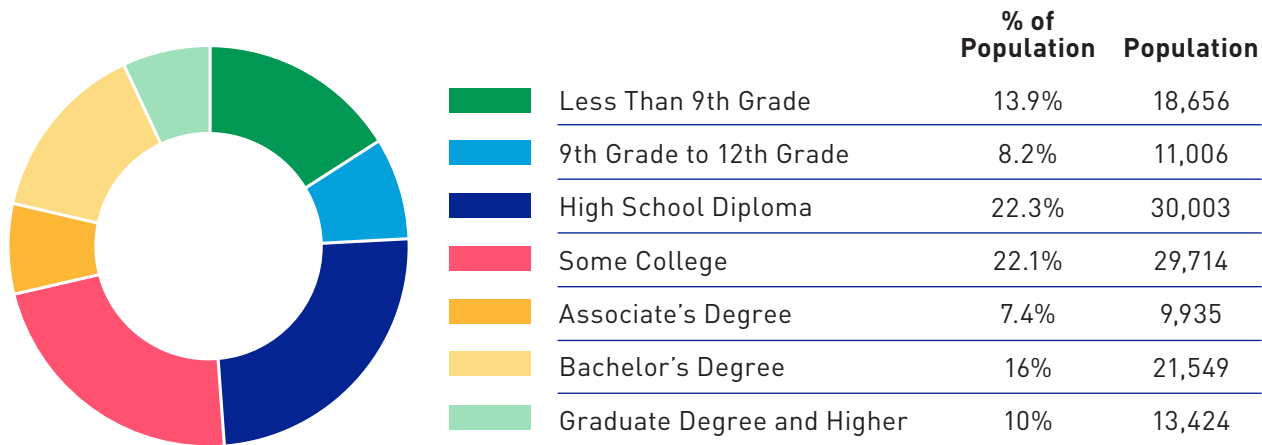


	Population
Total Working Age Population	174,033
Not in Labor Force (15+)	75,909
Labor Force	98,124
Employed	91,814
Unemployed	6,310
Under 15	44,412

LAS CRUCES

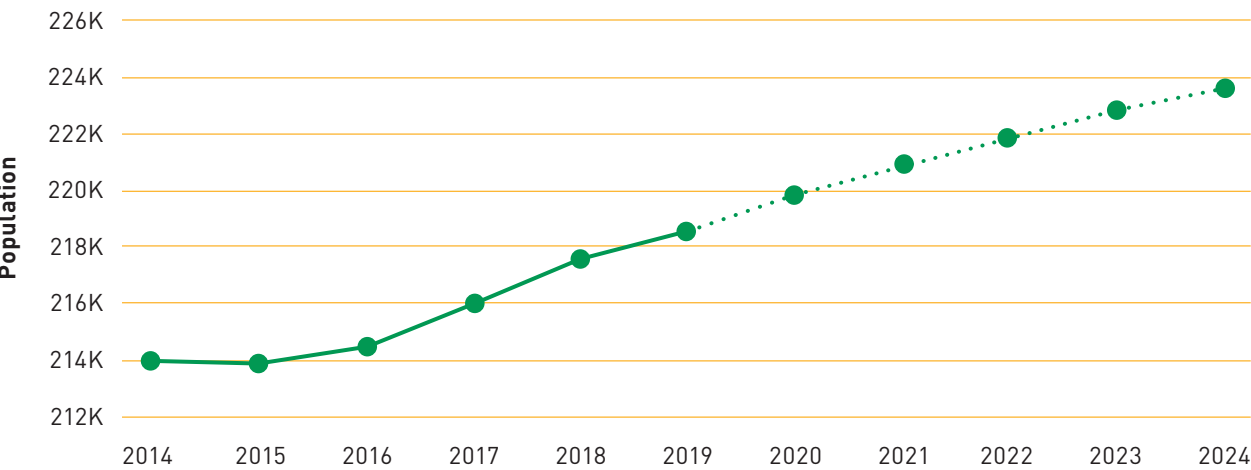
Concerning educational attainment, 16.0% of Las Cruces, NM residents possess a Bachelor's Degree (2.8% below the national average), and 7.4% hold an Associate's Degree (0.7% below the national average).

EDUCATIONAL ATTAINMENT



By 2019, the region's population increased by 2.0% since 2014, growing by 4,364. Population is expected to increase by 2.2% between 2019 and 2024, adding 4,879.

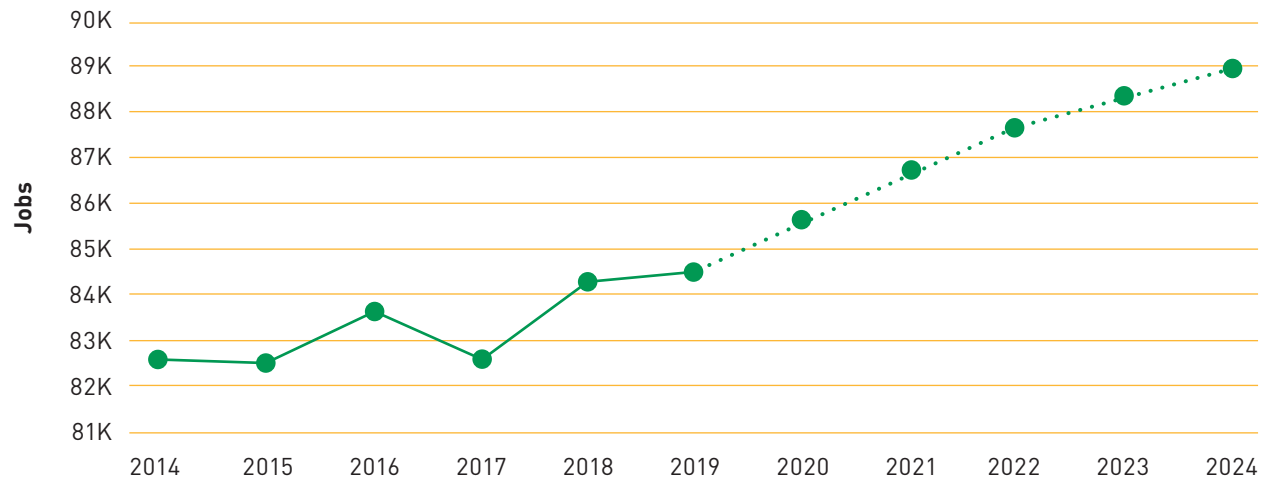
POPULATION TRENDS



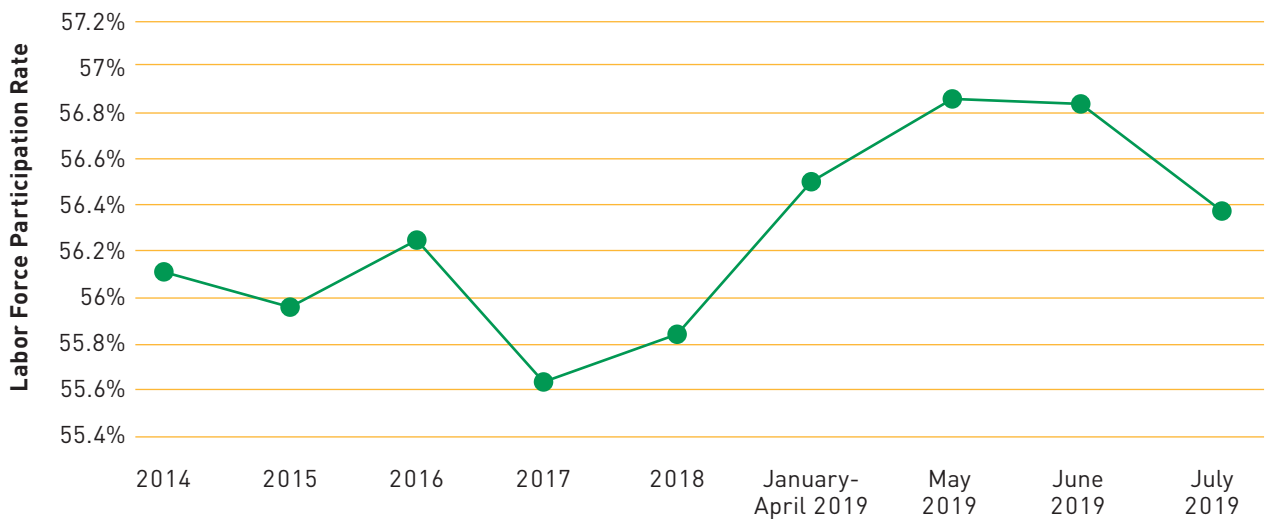
LAS CRUCES

From 2014 to 2019, jobs increased by 2.1% in Las Cruces, NM from 82,788 to 84,558. This change fell short of the national growth rate of 6.9% by 4.8%.

JOB TRENDS



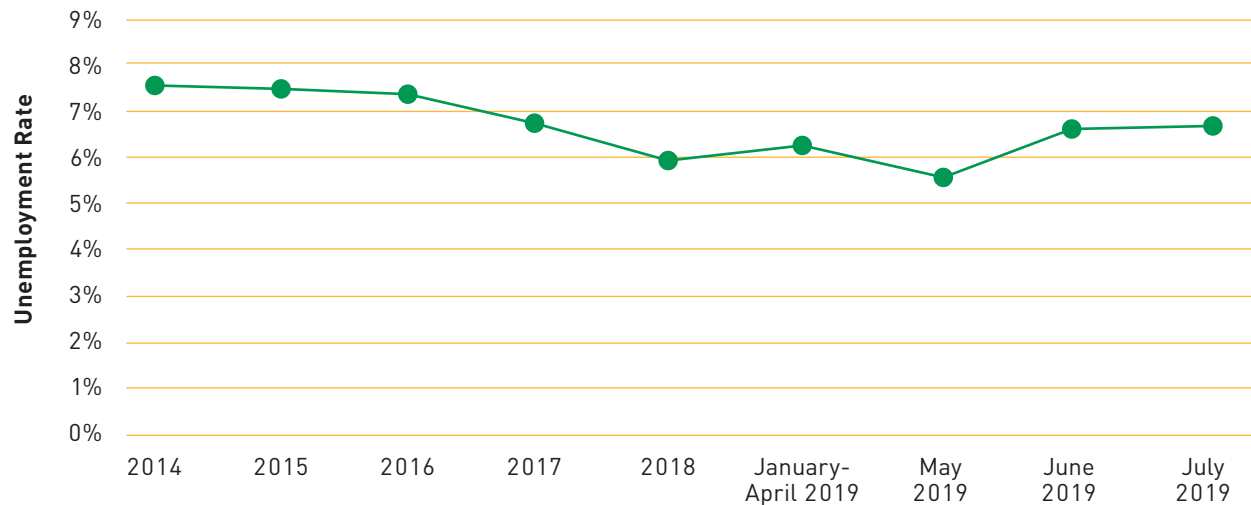
LABOR FORCE PARTICIPATION RATE TRENDS



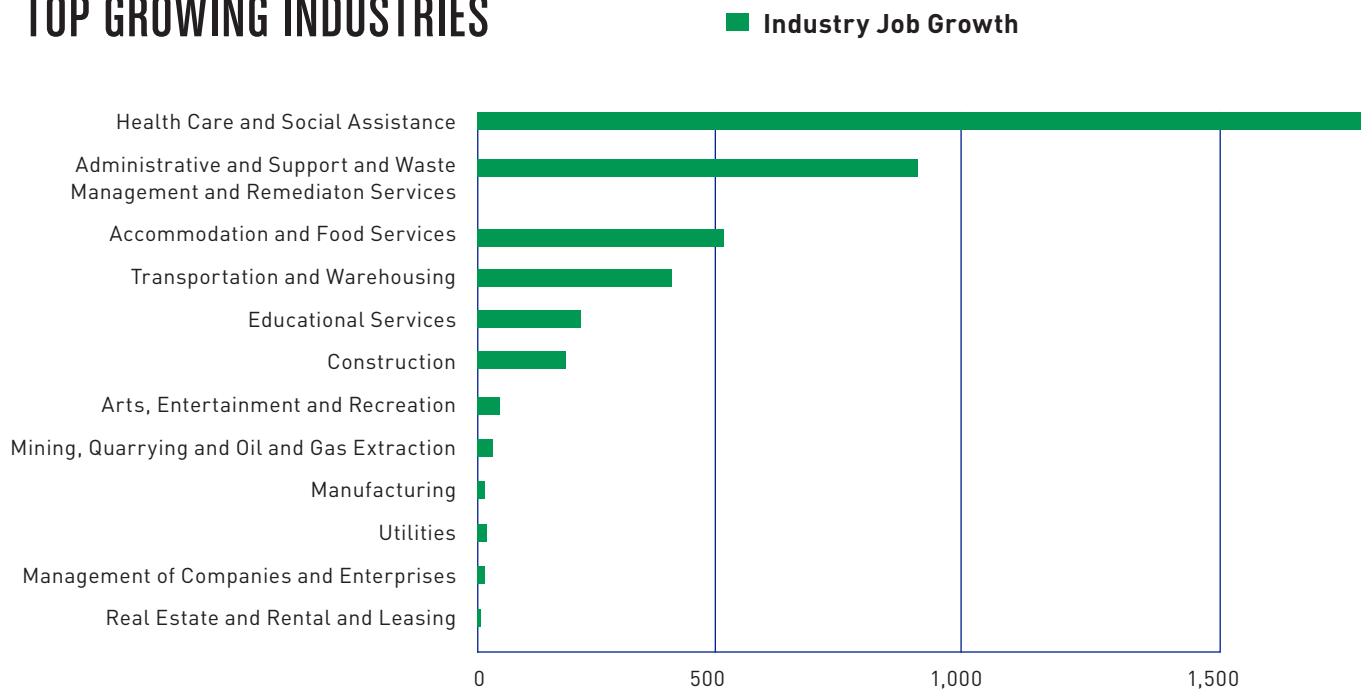
LAS CRUCES

In July 2019, Las Cruces' unemployment rate of 6.43%. Five years prior, Las Cruces' unemployment rate was 7.30%. This is a baseline to return to after the COVID-19 pandemic winds down.

UNEMPLOYMENT RATE TRENDS



TOP GROWING INDUSTRIES

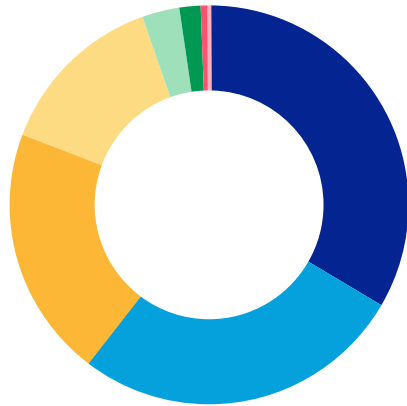










LAS CRUCES

In Las Cruces², the top three industries by employment share in 2019 are Restaurants and Other Eating Places, Education and Hospitals (State Government), and Education and Hospitals (Local Government).

There are 17,450 companies in Las Cruces. From 2017-2018, 3,384 companies posted job openings.

BUSINESS SIZE



	Count	Percentage	Business Count
	1 to 4 employees	36.6%	1,923
	5 to 9 employees	25.9%	1,361
	10 to 19 employees	20.2%	1,062
	20 to 49 employees	12.4%	652
	50 to 99 employees	3.1%	163
	100 to 249 employees	1.4%	73
	250 to 499 employees	0.3%	14
	500+ employees	0.2%	10

CIUDAD JUAREZ

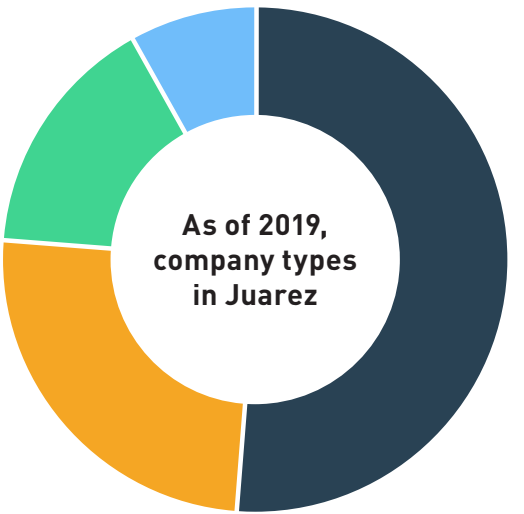
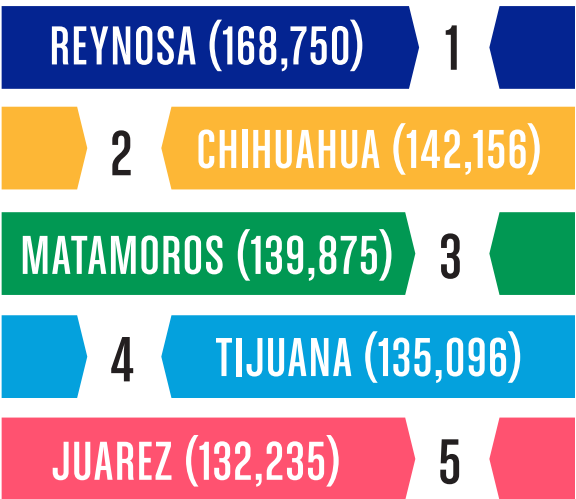
In Cd. Juarez, the top three industries by employment are Manufacturing, Trade, and Business Services. Cd. Juarez has a population size of 1.5 million people, and between 2013 and 2018 their employment rate increased by 4.3%.³ In 2018, Juarez's GDP was 259,176 million pesos, which was up 37% from 2010-2018. It most likely dipped in 2010 due to a surge in violence and rebounded well as peace returned. Wages fluctuated dramatically between 2015-2018.⁴ In 2016, GDP per capita in Cd. Juarez was 132,235 pesos, ranking it fifth for wages among major border cities.⁵ The enrollment for Electrical and Mechanical Engineering (2014-2019) is 1,091, which is an increase of 9.8% for that same time period. Business Administration program enrollment for 2014-2019 was 2,383, which was an increase of 21.5%.



CIUDAD JUAREZ

From 2010-2018, the average job growth was 4.3%; however, during that same period the overall job rate fluctuated significantly and is not stable.¹⁰ Cd. Juarez has well over 500 manufacturing plants, nearly 20 Fortune 500 companies represented and over 75 related facilities in El Paso and Southern New Mexico.

Ranking of GDP per capita among major border cities:



	Company Types	Percentage
	Retail	39%
	Repair Services	19%
	Hospitality	12%
	Manufacturing	6%

“The \$185 million manufacturing plant will be the company’s third in Juárez and create up to 1,000 new permanent jobs,” said José Boisjoli, Bombardier Recreational Product’s president and chief executive officer.

IV. BUSINESS RESILIENCE AND SUSTAINABILITY

There are a variety of business retention and expansion strategies throughout this document, from talent pipeline development to policy advocacy and initiatives to introduce business owners to new markets. As the COVID-19 pandemic rages on and takes its toll on businesses, however, companies are in need of greater support from the community than ever before. This challenging situation creates an opportunity to build a support system that can help companies recover from the effects of the pandemic and remain in place well after the COVID-19 pandemic is gone.

This section takes a deeper look at how to improve the business and retention support system from the economic development organization level to ensure businesses are well-supported whether they are in growth mode or facing disruptive events that threaten the business.

Strategic Recommendations

GOAL #1 Help retain businesses and assist them in recovering from the shocks of the COVID-19 pandemic.

OBJECTIVE & STRATEGY: Increase government and community response time and effectiveness by forming a one stop shop to connect businesses with all recovery resources.

PRIORITY LEVEL: High **POTENTIAL PROJECT LEADS AND PARTNERS:** Economic development and workforce development organizations

ACTIONS:

- 1.1** Establish Business Recovery Centers in each jurisdiction to serve as a central location for business recovery information and support; include case management services and business recovery workshops to connect businesses with local, state and federal monetary and non-monetary resources.
- 1.2** Create a bridge loan program for disaster relief. This program could assist funding while companies wait for other disaster funding. Similar programs, such as the Florida Small Business Emergency Bridge Loan Program and The Birmingham Strong Fund, are interest-free, repaid within a brief period (e.g. 12 months), and may evolve into other types of loans.
- 1.3** Provide short-term and long-term financial literacy education and planning services; work with local financial institutions to provide workshops on financial products and services available locally.



GOAL #2

Develop a community-wide, cooperative system for ongoing support of business retention and expansion.

OBJECTIVE & STRATEGY:

Form a new business retention and expansion advisory group to increase information sharing and to increase community leaders' ability to make data-driven, high impact solutions for companies and industries.

PRIORITY LEVEL:

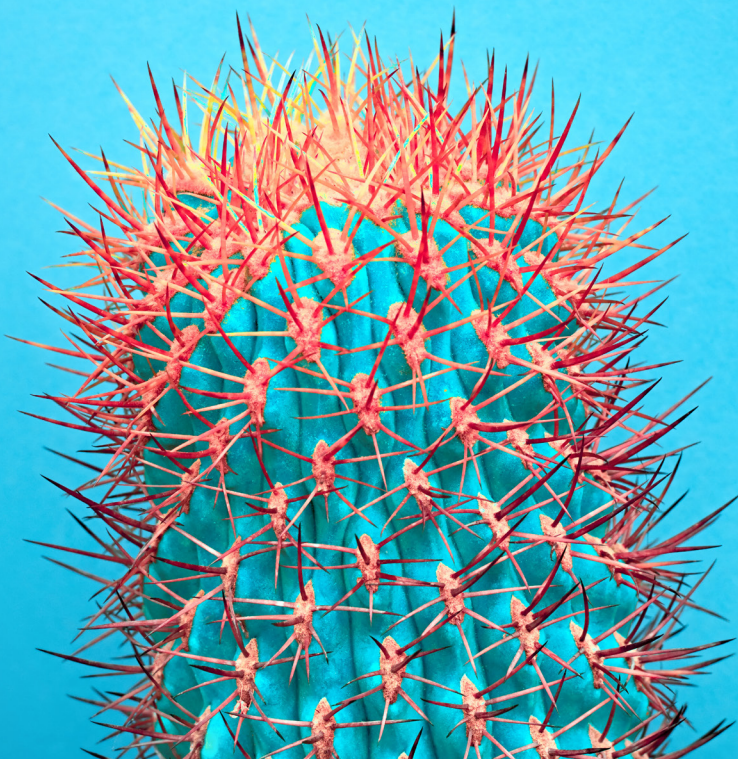
High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, regional economic development organizations, Chambers, workforce boards, U.S. Small Business Development organizations, U.S. Small Business Administration

ACTIONS:

- 2.1** Form a task force for business retention and expansion and invite professionals who are dedicated to working on BRE.
- 2.2** Collectively research and share data on business needs. Use economic impact analyses, surveys, interviews and focus groups with businesses, and other economic research.
- 2.3** Publish the group's data analysis and recommendations for the community to act upon in support of businesses. Publish this white paper quarterly, or on a monthly basis during more severe economic downturns (including for the duration of the COVID-19 pandemic).
- 2.4** Build BRE professionals' capacity for effective business consulting through professional development training.
- 2.5** Build an online website or use existing resources such as InnovationFrontera.com or The Founder Institute's portal to advertise resources available to businesses.



V. TARGET INDUSTRY PLANS

Target Industry Selection

Target Industries were established under the Borderplex 2020 Plan for optimizing the region's limited resources and supporting industries with the best infrastructure and promise for growth. The 2025 Ascend Plan will continue to follow these target industries. Those industries are: Life Sciences, Business Services, Aerospace and Defense, Advanced Logistics, and Advanced Manufacturing. The only exception to the 2020 target industries is the tourism and hospitality industry; this industry is not included in the 2025 Ascend Plan because it was not validated under the economic indicator ranking system and also the effort will be led by other entities such as the city and county economic development agencies and convention and visitors bureaus.

The target industries were validated by using a simple formula for ranking all industries by economic indicators: (Location Quotient rank + Market Share rank + 2019-2029 Job Growth rank + Median Earnings Per Job rank + Industry GRP rank)/5.⁶ Other qualitative factors were taken into account as well, such as automation threat level, favorable macro trends, established assets across the region, and career advancement opportunities.

Additionally, niche opportunities within the target industries have emerged, which are defined as having a significant amount of assets, particularly talent, which give these areas a strong case for business expansion. The oversupply of talent in certain industries was identified in the Skills Cluster Analysis completed in July 2020. The areas of talent oversupply are cybersecurity, aerospace and defense, healthcare, and professional, scientific and technical services. Along with these niches, medical device manufacturing and biomedical research have emerged as another niche due to the passage of the USMCA, the decoupling of medical supply chains from China due to recent tariffs and COVID-19, and institutional support from several biomedical research institutions and the newly created BioEPJ trade association. The implementation of the 2025 Ascend Plan will remain flexible in the event that systemic disruptions give way to other emerging target industry clusters.

Process for Completing Target Industry Plans

The Target Industry Plans were developed largely by industry leaders with the help of Collaborative Economics and the NextGen Model for developing industry partnerships. These groups considered the challenges and opportunities facing their industry and the region's capacity to address them. This was in addition to one-on-one interviews and surveys. National and global trends were considered separately. The information was then combined and analyzed and formed the basis of the strategic recommendations.

Economic Development Priorities

In a binational survey conducted, respondents were asked to choose their top priorities that they think are most important for economic development. Respondents from each of the three cities named business attraction, retention and expansion as their number one priority. All three cities also identified increasing wages and new business creation as a top five priority. El Pasoans and Las Crucesans named international trade promotion as a top five priority, and respondents in Cd. Juarez and El Paso prioritized quality of life improvements.

Regardless of the rankings, respondents in all three cities named the same top five priorities: Business attraction, retention and expansion; new business creation, international trade promotion, increasing wages, and improving the quality of life. This plan offers strategic recommendations in direct support of each of those priorities, while quality of life is addressed only indirectly (taxable investments made through business attraction efforts help fund quality of life projects).

A. LIFE SCIENCES INDUSTRY

The life sciences industry has vast potential and is a key industry for growing the region's overall economy to make it globally competitive. A majority of survey respondents from El Paso and Las Cruces named the life sciences industry as the industry that has the most potential for global competitiveness, while respondents from Cd. Juarez named it second after advanced manufacturing. Further, the availability of healthcare providers and healthcare professionals can affect both the health and wealth of the community, giving this industry special significance. This is why one third of the Ascend Plan's goals are found in this section.

As noted throughout the following Life Sciences section, many assets have been developed recently or are being developed in healthcare and it has many growth drivers regionally. There are also promising opportunities emerging in medical device manufacturing, biomedical research and telehealth. A wide variety of occupations and career advancement opportunities exist in the life sciences field as well, including business and service roles, making it an attractive industry for the region's many business and IT graduates as well as for lower skilled workers. Overall, the data and survey results show this is a steadily growing industry with low automation risk and innovation potential. For these reasons, the life sciences industry should be given a high priority.

The life sciences industry section addresses three separate areas – healthcare services, biomedical research and medical device manufacturing. Each subsection addresses industry assets, drivers and trends that are specific to that industry.

Industry Snapshots:

EL PASO



2019 jobs: **45,323**



Job Growth: **up 16% since 2014**



Projected # of jobs added through 2029: **12,716**



2019 LQ: **.96**



Average earnings per worker: **\$43,975**



2018 GRP: **\$2.41B**

LAS CRUCES



2019 Jobs: **15,451**



Job growth: **up 13% since 2014**



Projected # of jobs added through 2029: **3,587**



2019 LQ: **1.44**



GRP: **\$843.78M**

Source: EMSI and BLS

Regional Assets

- Several major hospitals and an abundance of physicians firms
- Medical schools at UACJ, Texas Tech Health Sciences, Burrell College and School of Public Health at University of Houston in El Paso
- Recently built schools: Texas Tech Health Sciences Center, UTEP School of Pharmacy, and the Burrell College of Osteopathic Medicine; new dental school at TTHSC coming in 2021.
- New and expanded nursing programs across the region
- UTEP College of Health Sciences
- NMSU College of Health and Social Services
- Technical programs at El Paso Community College and Dona Ana Community College



A. HEALTHCARE SERVICES

Overview and Analysis

Today, the healthcare services industry provides more jobs than any private sector employer in El Paso and Las Cruces while offering high paying jobs and many opportunities for career advancement. Cd. Juarez has an opportunity to expand its physicians firms through the use of technology and telemedicine. The geographic positioning of this region presents other opportunities as well. With the growing Hispanic population across the United States and the world, the region has an opportunity to be known as a leader on how to provide culturally sensitive and ultimately better quality healthcare services to Hispanic patients. The region's growing research specializations around chronic diseases commonly found along the border can become topics for large medical conferences.

Around 20 years ago, the community at large began working towards building the healthcare industry. Since then, major investments have been made and multiple institutions have been built. The region has long had a shortage of physicians, with several entities working for years to resolve the issue. Having an adequate number of physicians with the needed specializations can enable local healthcare service providers to expand their service offerings and ultimately improve public health. In an effort to increase the number of physicians, the Paul L. Foster School of Medicine at Texas Tech Health Sciences Center was built. Eventually it was discovered that the region had too few residency slots to keep much of this talent from leaving the region to do their residency elsewhere. By 2026, the number of residency slots is expected to increase by at least 100.⁷ Until then, area healthcare companies will need to continue to find ways of attracting physicians from outside the region. Overall, for the continued sustainability and growth of this industry, a strong and guaranteed talent pipeline is critical. Regions that have developed a large-scale coordinated effort around talent development for a single industry have been enormously successful in attracting companies.⁸ Following this successful model could lead to the attraction of more companies and high paying jobs for graduates, resulting in a high return on investment for participating institutions. The region must also emphasize the quality of life opportunities in the region as a way to retain medical professionals. Quality of life initiatives, such as K-12 schools and luxury amenities, have shown to be an important factor for physicians and their families to choose the area as their home, as is an effective marketing campaign to highlight these types of amenities that already exist.⁹

Many healthcare services companies and nonprofit organizations provide free medical care to uninsured individuals who cannot afford to pay their medical bills. Funds can help people without the ability to afford medical insurance to get the care they need while protecting the business' bottom line. Some states, such as Texas, temporarily offer a waiver to companies, which allows Medicare to cover these costs. Where such a waiver exists, the budget for the waivers must be allocated and reallocated on a continual and short-term basis. This has created uncertainty for companies in El Paso where there is a large low-income population.

Telehealth is an emerging market opportunity. The adoption of telehealth has been accelerated by the COVID-19 pandemic, with it potentially sustaining and growing demand in urban communities as well as in rural communities. Las Cruces has new telehealth companies and a film industry tax credit that can potentially be applied to such companies.¹⁰ El Paso and Cd. Juarez have companies with the capacity to apply digital technology to telemedicine. Wide market opportunity exists across the region in the rural communities. Technological innovation will create efficiencies and increase access to care and reduce overall expenses. In particular, the rising prominence of telehealth services in ambulatory care settings is expected to bridge the gap between urban and rural communities that have limited access to healthcare while presenting a significant cost savings to healthcare providers.

A. HEALTHCARE SERVICES

Strategic Recommendations

GOAL #3 Develop a full talent continuum to support the healthcare services industry.

OBJECTIVE & STRATEGY:

Increase attraction and retention of healthcare professionals and providers by strengthening the system for developing, retaining and attracting top talent.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, workforce boards, secondary and postsecondary schools, alumni associations, Progress321, Chambers

ACTIONS:

- 3.1** Build a community-wide education and workforce development program for the Life Sciences Industry. Address issues as skills gaps identified by the industry, lack of in-demand training programs, the need to form more articulation agreements between two- and four-year colleges, the need for clear education pathways to specific careers in emerging clusters, and the demand for high-quality internship programs.
- 3.2** Develop professional associations for medical personnel.
- 3.3** Create a marketing plan that promotes the region and targets medical talent living both inside and outside the region.

GOAL #4 Develop a reputation for having a high-quality healthcare system.

OBJECTIVE & STRATEGY:

Attract healthcare professionals, attract high caliber healthcare-focused students, and encourage companies and individuals to want to live in the region based on quality healthcare services.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, The Medical Center of the Americas Foundation, hospital leadership, and regional health sciences academic leadership.

ACTIONS:

- 4.1** Work with the Medical Center of the Americas Foundation to complete an assessment of the quality of the regional healthcare system, including numbers and types of medical providers, medical services offered, medical supply chain, outcomes, etc.
- 4.2** Create a regional strategic plan that addresses the issues and gaps that emerge from the quality of healthcare assessment.
- 4.3** Leverage the positive findings from the healthcare assessment and regional strategy as a marketing tool to attract talent and medical tourists.
- 4.4** Become known for being a leader in health equity and inclusion and biomedical research for Hispanic populations by publishing articles and by holding largescale healthcare conferences.

A. HEALTHCARE SERVICES

GOAL #5 Develop a policy advocacy agenda to address healthcare companies' urgent issues.

OBJECTIVE & STRATEGY: Increase government support of the healthcare industry by advocating for policies that are favorable to industry sustainability and growth.

PRIORITY LEVEL: High **POTENTIAL PROJECT LEADS AND PARTNERS:** The Borderplex Alliance, local, state and federal public officials.

ACTIONS:

- 5.1** Identify waivers given to Centers for Medicaid and Medicare Services during the pandemic that have helped the system work more effectively and ensure that they are made permanent. For example, waivers for telehealth services have become critical for many people's health, particularly those living in remote rural areas.
- 5.2** Ensure State of Texas provides consistent funding for 1115 Medicaid demonstration waiver, which the Texas government has used to create a five-year agreement that allows hospitals to recoup losses from treating the uninsured. The funding under this waiver will partially expire in 2021, which will jeopardize the healthcare providers who help many uninsured people.¹¹

GOAL #6 Grow a cluster of telehealth firms in the Borderplex region.

OBJECTIVE & STRATEGY: Focus business development efforts on small and medium sized healthcare firms as well as aspiring entrepreneurs in both healthcare and IT.

PRIORITY LEVEL: Med. **POTENTIAL PROJECT LEADS AND PARTNERS:** The Borderplex Alliance, Binational Technology Council, healthcare-focused foundations, IT-focused life sciences firms, and business development organizations.

ACTIONS:

- 6.1** Attract startup telehealth companies that can offer complimentary services to large hospitals.
- 6.2** Facilitate partnerships between small and medium sized healthcare firms with IT companies to enable the firms to provide telehealth services.
- 6.3** Provide digital transformation workshops for healthcare firms that want to begin providing telehealth services.
- 6.4** Hold telehealth hackathons to tackle real business challenges through technology.
- 6.5** Build talent pipeline for telehealth by working with regional computer science departments to integrate knowledge of healthcare industry regulations into the curriculum.
- 6.6** Encourage the creation of startups in the telehealth field by advocating for policy changes that would allow greater adoption of advanced technologies.

B. BIOMEDICAL RESEARCH

Overview and Analysis

The Borderplex region has significant market opportunities in the biomedical research industry due to its large Hispanic population, its talent pipelines in health sciences and computer science, and the recent reshoring of pharmaceutical supply chains. Currently, bio supply chains are concentrated in China and India, including suppliers of bio samples and compounds needed to conduct research for vaccines and treatments of diseases; however, the COVID-19 pandemic has caused these supply chains to become at times inaccessible and unreliable. A Bank of America Global Research Report from August 2020 indicates that that reshoring of pharmaceutical supply chains to North America has already begun and is being accelerated by the signing of the USMCA along with the COVID-19 pandemic.¹² Luckily, the region has been steadily growing its expertise in this field over the last several years. In 2009, a study known as the Flour Report was conducted to assess the region's readiness to develop a biomedical research cluster and it presented a plan for building the cluster. It predicted that it would take 10 years for the infrastructure to mature; it also pointed to several weaknesses that the region had to overcome. However, conditions for the biomedical research cluster have improved since the Flour report was written. In recent years, the region has built significant assets to support this industry, including the Border Biomedical Research Center and Colleges of Science and Engineering at UTEP; NMSU's lead role with the State of New Mexico's IDEA Network of Biomedical Research Excellence; Burrell College of Osteopathic Medicine; the Texas Tech medical schools and graduate biomedical research program; UACJ's medical school, biomedical research projects and engineering programs; and the School of Public Health at University of Houston in El Paso. Most of the universities mentioned are conducting biomedical research, and some have obtained millions of dollars in grant funding for this research. The Juarez Artificial Intelligence Center and Center for Innovation and Integration of Advanced Technologies (CIITA), along with the other computer science programs across the region, are other major assets that can be leveraged for the attraction, creation and growth of drug discovery companies with a special focus on AI applications. The recently built Cardwell Collaborative in El Paso provides wet and dry lab space ideal for drug research companies.

NMSU IDEA NETWORK OF BIOMEDICAL
RESEARCH EXCELLENCE

UTEP BORDER BIOMEDICAL RESEARCH
CENTER

BIOMEDICAL RESEARCH AT UACJ AND
TEXAS TECH HEALTH SCIENCES CENTER

JUAREZ AI CENTER

MEDICAL SCHOOLS AT BURRELL COLLEGE,
UACJ AND TEXAS TECH

UTHEALTH SCHOOL OF PUBLIC HEALTH AT
UNIVERSITY OF HOUSTON IN EL PASO

STRONG ENGINEERING AND COMPUTER
SCIENCE PROGRAMS AT ALL MAJOR
UNIVERSITIES IN THE REGION

LAB SPACE IN THE CARDWELL
COLLABORATIVE BUILDING IN
EL PASO, TEXAS



B. BIOMEDICAL RESEARCH

The region's competitive advantage lies in part with its large Hispanic population, a medically underserved demographic. In the U.S., Hispanics and Latinos represent 18.1% of the population,¹³ they have a higher rate of chronic disease¹⁴ and are more susceptible to cancer, diabetes, hypertension, among other disorders. Hispanic-focused research is important given that the effectiveness of treatment and impact of diseases varies according to factors such as genetic background and lifestyle. The continued growth of this demographic across the world and the need for more closely tailored drugs present a large and expanding market for drug research services. Biobanks are required for the first phase of drug discovery, which involves collecting bio samples and testing with compounds; it is necessary to have this capacity to collect and store compounds and bio samples from the Borderplex's community to take advantage of having a largely Hispanic population.

The Borderplex is poised to develop a competitive edge for drug discovery and translational research by applying AI technology in this field. By marrying its capacities in computer science and biomedical research, the Borderplex region can build its local capacity in "total lab automation" in biomedical research. Total lab automation is the automation of the repetitive functions performed in a laboratory, which improves operational efficiency and accuracy, leading to faster turnaround times and greater success in approvals by the U.S. Food and Drug Administration (FDA). Automation can exponentially increase a laboratory's throughput or volume. Automation also dramatically improves reproducibility of experiments, which is a widespread and costly challenge right now in drug discovery.¹⁵ Facing a very competitive market with stringent FDA regulations, drug companies in North America are increasingly adopting robotics and automation in labs to gain a competitive edge.¹⁶ The existence of lab automation capacity in the Borderplex region will make the region attractive for small-to-medium sized research companies who want less expensive operating costs while taking advantage of the latest technology.



B. BIOMEDICAL RESEARCH

Artificial intelligence is also a rapidly growing market within this field. In 2020, the global market value of AI in drug discovery is \$343.78 million and future growth predictions are at a Compounded Annual Growth Rate of 43.24%.¹⁷ AI has numerous applications across the biomedical research field, presenting wide-ranging opportunities for research and design and business creation and attraction.

At the macro level, fundamental forces driving capital investment in the near future include the rising prevalence of chronic disease, as well as an aging population and longer life expectancy due to advancing technologies and drugs.¹⁸ Further, almost every industry player took part in some sort of merger and acquisition activity over the past five years. Mergers and acquisitions of small firms is a trend that is expected to continue if not accelerate over the next five years, and so attracting automated contract research organizations could lead to future acquisitions and large investments.

The region can expedite its overall competitiveness in this field by leveraging its research strengths in the chronic diseases found in this region as well as through the use of automated labs. Companies and institutions who utilize automation technology will exponentially increase reproducibility, volume, accuracy, and dramatically cut the time to discover viable samples, giving them a major advantage over their competitors. A business development program would help smooth the transition to automated labs. Likewise, a firm talent pipeline around AI for drug development will accelerate the region's capacity to create, attract and retain companies that are prime for scaling and merger and acquisition. The Borderplex region can take advantage of innovation opportunities in the emerging AI for drug development field. The region should also focus attraction efforts on contract research organizations because large pharmaceutical companies are beginning to outsource their drug discovery processes to contract research organizations more often to save costs.¹⁹

Strategic Recommendations

GOAL #7 Create a biomedical research cluster based on research strengths.

OBJECTIVE & STRATEGY: Increase number of companies in biomedical research by leveraging the region's established research capacities.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, regional schools with biomedical research and computer science departments, local research companies, healthcare focused foundations, professors and other researchers with patents in the field.

ACTIONS:

7.1 Using surveys, roundtables and one-on-one interviews, validate previously identified regional research expertise (e.g. cancer, infectious diseases, diabetes and obesity, and neuroscience) and form a consensus of what the region's research themes should be for economic development purposes.

B. BIOMEDICAL RESEARCH

GOAL #8 Create a thriving biomedical research cluster through attracting small, high technology companies.

OBJECTIVE & STRATEGY: Increase the number of biomedical research companies in the region by pursuing small and medium sized companies for business relocation or expansion.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS: The Borderplex Alliance, regional economic development organizations

ACTIONS:

- 8.1** Attract bio storage facilities to grow a fundamental element of the research supply chain.
- 8.2** Methodically attract small and medium-sized research companies in the field, e.g. drug discovery and development, compound screening and development, infectious diseases, and clinical research, etc. Give special attention to contract research organizations, which are being used more frequently by major pharmaceutical companies.
- 8.3** Market established small and medium sized companies to large pharmaceutical companies to attract those companies or present the SMEs as merger and acquisition opportunities.

GOAL #9 Achieve a well-developed talent pipeline for automated biomedical drug discovery and development.

OBJECTIVE & STRATEGY: Increase number of graduates prepared to support an advanced and automated biomedical drug research and development cluster.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS: The Borderplex Alliance, workforce boards, employers in the field, technical schools, community colleges and other certificate-granting institutions.

ACTIONS:

- 9.1** Conduct a skills gap analysis to determine specific skills and educational programs needed to grow this industry.
- 9.2** Identify opportunities for project-based internships to develop students' practical skills and industry knowledge.
- 9.3** Create a certificate program for artificial intelligence for drug discovery.

B. BIOMEDICAL RESEARCH

GOAL #10 Create a strong policy structure and steady capital flow for biomedical research.

OBJECTIVE & STRATEGY: Increase public and private funding to attract and grow new biomedical research companies.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

Local and state governments, workforce boards, regional foundations, U.S. Small Business Administration, U.S. National Institute of Health, The Borderplex Alliance, Sunset Resources Group.

ACTIONS:

- 10.1** Create public and private-funded drug discovery and development business expansion programs to fund a transition to automated labs, including money for software, equipment and employee training. The region can create automation transition programs by utilizing existing lab automation services such as Sunset Resources Group.²⁰
- 10.2** Cultivate broad network of investors interested in the pharmaceutical field.
- 10.3** Form policies and incentives at the state and local government levels that encourage small and medium sized enterprises in this field to relocate or be created in this region.



C. MEDICAL DEVICE MANUFACTURING

Overview and Analysis

Medical device manufacturing is an emerging industry in the Borderplex region that has seen an increase in market demand more recently both inside and outside the region.²¹ A rise in demand for personal protective equipment related to the Covid-19 pandemic has skyrocketed. Further, the pandemic combined with tariffs on imports from China (under the Trump Administration), and the expected reshoring of many companies to North America. Additionally, medical device innovation that addresses health issues in Hispanic populations, e.g. chronic diseases and disorders, and elderly populations will have a large market demand across the U.S. and Mexico. This presents a unique market opportunity for the Borderplex region due to its largely Hispanic population and aging population. Opportunities in this area include the application of new digital technology as well such as artificial intelligence, laboratory automation and data analytics.

Many programs exist that are linked to this industry; however, programs may exist at various institutions and be confusing for students to piece together by themselves. After completing an inventory of needed skills, certifications and degrees that exist and looking at the gaps,²² schools, companies, and intermediary organizations can create education and career crosswalks for employers and job candidates. There is also a need to develop the supply chains for this nascent industry. While there are many areas of medical device manufacturing that the region can build, it would be well-served to first clearly define existing and target competencies to be able to achieve excellence with limited resources. Then the region can identify gaps in the supply chain to support existing companies and court the right companies for expansion. Medical devices are prime for innovation and the market demand is very high. With the region's large number of individuals with PhDs and well-developed engineering and medical talent pools, the region is prime to innovate in this space.

- **Established manufacturing hub**
- **International location**
- **Competitive operations costs**
- **Several healthcare institutions (e.g., Texas Tech Health Sciences Center and the El Paso Children's Hospital)**
- **Clinical trials (e.g. Cardinal Health)**
- **Large pool of engineering talent from several universities across the region**
- **El Paso's Free Trade Zone**

KEY ASSETS



C. MEDICAL DEVICE MANUFACTURING

Strategic Recommendations

GOAL #11

Develop an enviable talent pipeline that easily attracts medical device manufacturing companies and supports the growth of local companies.

OBJECTIVE & STRATEGY:

Increase the number of students pursuing careers in this field by coordinating and fortifying existing educational programs and by creating new relevant programs.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

BioEPJ, The Borderplex Alliance, workforce boards, high schools and postsecondary schools.

ACTIONS:

- 11.1** Work with BioEPJ to identify skills gaps in this field and ensure that educational programs and curricula are adjusted to meet the demand.
- 11.2** Create a career crosswalk for students to follow to more easily chart a path to a career in the field. Should include a general educational path that notes the region's available programs.
- 11.3** Integrate industry jargon into educational curriculum and ensure course outcomes align with target industry skills needs.

GOAL #12

Develop a strong support system to grow existing medical device companies.

OBJECTIVE & STRATEGY:

Increase market opportunities for suppliers by marketing local suppliers, filling in the value chain, and by facilitating new product development.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

BioEPJ, The Borderplex Alliance, regional economic development organizations.

ACTIONS:

- 12.1** Create a marketing plan to promote local suppliers by leveraging the supply chain inventory developed by BioEPJ.²³ The marketing plan can also highlight gaps in the supply chain as business expansion opportunities, which can help attract companies to the region.²⁴
- 12.2** Clearly define existing and target competencies to be able to achieve excellence with limited resources.
- 12.3** Develop an online platform that connects local innovators, particularly the many PhDs in the region, with local companies who are looking for consultants to collaborate on research and development projects.

B. BUSINESS SERVICES INDUSTRY

The business services industry was primarily based on the financial services industry for many years. Back office call centers began to arrive within the last ten years, and later, some of those companies expanded to include more sophisticated lines of business. Local IT companies have sprung up across the region and IT startup companies have started expanding to the region from other areas such as Silicon Valley. Overall, the region is seeing significant momentum in this industry with much hope for additional growth.

This section focuses on two industry areas: financial services and information technology. Each subsection addresses specific industry assets, drivers and trends.



“There are perhaps only a few places in the country where opportunity and talent can converge harmoniously in a hyper-local manner. El Paso is one of those places. As a growth stage start-up that expanded into the borderplex area, we are fortunate that the talented graduates from UTEP feed directly into our core business and engineering requirements. We are proud to provide options for local El Pasoans to join the elusive tech start-up without having to relocate to Austin or Houston,” said Steven Khuong, CEO at Curacubby.

A. FINANCE AND INSURANCE

Overview and Analysis

The Borderplex region's finance and insurance industry is a high impact industry, pulling in a high gross regional product that is comparable with other larger industries and offering higher paying jobs than many other industries. The region holds a competitive advantage, one that can be expanded on, with its large and growing bilingual population and overall understanding of the Hispanic culture. In recent years, several business services companies have moved to the region in part because these attributes, which demonstrates the value of the region's culture in the business services industry. Local companies can use this advantage as a business strategy and break into under-tapped markets outside the region where there are large percentages of Latinos or growing Hispanic populations.

For the first time ever in a U.S. trade agreement, the new USMCA agreement incorporated a section dedicated to promoting trade by small and medium sized enterprises (SMEs).²⁵ With regional businesses having immediate access to USMCA trading partners, SMEs have a tremendous opportunity to engage in exporting. These factors in turn create an opportunity for financial services companies to finance SMEs that want to expand their companies through trade. Community Development Financial Institutions (CDFIs) have greater flexibility with regard to regulations and are prime for trailblazing in this area.²⁶



Macro industry trends show customers increasingly expect to access financial services through digital technology. Fintech startup companies are prevalent and new entrepreneurs are likely to continue to join the sector in hopes of solving complex issues with programs and technologies that will help meet customer demand and result in cost savings for companies. Companies will need to find ways to integrate new technologies into their daily business operations to keep up with customer expectations and to take advantage of the efficiencies gained through technology applications. Companies can embrace technological advancement through a variety of partnerships. The workforce will need to be trained in coding, artificial intelligence, and data analytics, among other skills, to be able to operate new technology and to create technological solutions for employers.

A combination of industry leader roundtables, skills gap analyses from 2017 and 2019, a 2019 business services education program inventory list, and a 2020 skills cluster analysis, has illuminated challenges and opportunities in the talent pipeline that should be addressed to accelerate the progress of the business services industry in the Borderplex region. Generally, employers have expressed the need to ensure that educational programs result in in-demand skillsets and certifications. Industry leaders consistently note that their applicants and new hires are missing soft skills. The expansion of internship opportunities would empower employers to help future job candidates develop their soft skills and company and industry-specific knowledge.


A. FINANCE AND INSURANCE


Employers in the business services industry have noted difficulty in finding individuals with professional-level English and Spanish language skills. This can hamstring the growth of existing companies and undermine the region's ability to attract business services companies that provide higher level business services. Professional language training is available through local education providers; however, courses will need to be tailored to fit the needs and skill levels of individuals. Ultimately, professional and proper bilingual education should be taught in public schools and postsecondary education to build the region's competitive differentiation with regard to bilingual skills with an emphasis on professional jargon.


While there is a demand for highly skilled individuals in the business services industry, many individuals with preferred credentials leave the region for job opportunities. An industry skills gap analysis conducted in 2017 showed that employers tackle talent attraction and retention differently and inconsistently. Given the pervasiveness of business services programs, the high number of graduates, and the outward migration of talent, employers would benefit from receiving greater community support through the provision of locally and culturally tailored best practices for talent attraction and retention.

Industry Snapshots:


EL PASO


 2019 jobs: **8,632**

 Job Growth since 2014: **9%**


 Projected # of jobs added through 2029: **1,321**


 2019 LQ: **.58**


 Average earnings per worker: **\$64,549**


 2018 GRP: **\$1.421B**


LAS CRUCES

 2019 Jobs: **1,951**

 Job Growth since 2014: **-47**

 Projected # of jobs added through 2029: **130**

 2019 LQ: **.58**

 Average earnings per worker: **\$60,549**

 GRP: **\$284.03M**

Source: EMSI and BLS

Key Assets

EL PASO

- UTEP -New banking degree and actuarial degree programs and financial services bootcamp to prepare for FINRA series 6 and 7 certifications.
- Talent base developed to attract companies with more advanced services
- Talent base developed due to early entries in call centers.
- Investments in our transportation and quality of life assets for employee attraction and retention.
- Microsoft TechSpark
- New binational IT council

LAS CRUCES

- NMSU Arrowhead Center
- NMSU business and computer sciences programs
- Established banking institutions

JUAREZ

- UACJ business school
- Microsoft TechSpark
- Binational IT Council
- AI Center and CIITA



A. FINANCE AND INSURANCE

Strategic Recommendations

GOAL #13

Build a workforce pipeline with high-demand industry skills and knowledge.

OBJECTIVE & STRATEGY:

Increase alignment of regional programs to ensure the workforce is prepared with the skillsets that employers need to sustain and grow their businesses.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, regional secondary and postsecondary schools, and industry leaders.

ACTIONS:

- 13.1** As a follow-up to the inventory of educational programs that was recently developed, work with industry leaders to evaluate the relevancy of current educational programs discovered and ensure high demand skills are integrated.
- 13.2** Work with employers to update the in-demand certification list and share with educational institutions.
- 13.3** Create or expand project-based internship programs to develop soft skills, form relationships with potential candidates, and solve real company problems. Encourage a diverse workforce pipeline by targeting underrepresented demographic groups for internships and mentoring programs.
- 13.4** Integrate bilingual education in schools, especially postsecondary, with an emphasis on professional jargon for the business services industry.

GOAL #14

Create an empowered business community with extensive knowledge of community resources to build their ideal industry.

OBJECTIVE & STRATEGY:

Increase talent retention in the region and decrease talent attrition in the industry by developing and promoting high-value talent recruitment resources.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, municipal and state governments, workforce boards, community colleges, and four-year universities.

ACTIONS:

- 14.1** Develop an online portal with recruiting resources specific to this industry, e.g. available educational programs, best practices for talent recruiting and retention, and lists of public funds available for training.
- 14.2** Establish a publicly funded management training program, such as a toolbox for succession planning, along with business consulting services, to assist employers in building their local leadership bench strength.

A. FINANCE AND INSURANCE

GOAL #15

Fully realize potential business relationships with local exporting companies and small and medium sized enterprises.

OBJECTIVE & STRATEGY:

Increase number of banking and insurance business customers by expanding banks' trade financing capabilities and by building SMEs' financial literacy.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance Supplier Association, the Business Retention and Expansion (BRE) task force, individual BRE organizations, community development financial institutions

ACTIONS:

- 15.1** Form a committee dedicated to creating trade financing workshops for community development financial institutions and financial literacy programming for SMEs. This committee may be used for additional goals such as identifying burdensome regulations and innovating new technology for business competitiveness.
- 15.2** Conduct workshops for SMEs to educate them on the financial products and services that are available from local companies as well as how to write a successful business loan application and how to become an exporting company.
- 15.3** Advocate for regulation changes that could alleviate community banks' risk associated with extending trade financing services to SMEs and provide incentives for larger banks to become more involved in SME trade financing.

GOAL #16

Cultivate an environment that enables regional financial companies to create technology solutions to business problems.

OBJECTIVE & STRATEGY:

Build upon financial services expertise and leverage computer science talent to increase number of fintech patents and number of customers of digital services.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, The Binational Technology Council, community development financial institutions (CDFIs), local insurance companies, current and aspiring fintech entrepreneurs

ACTIONS:

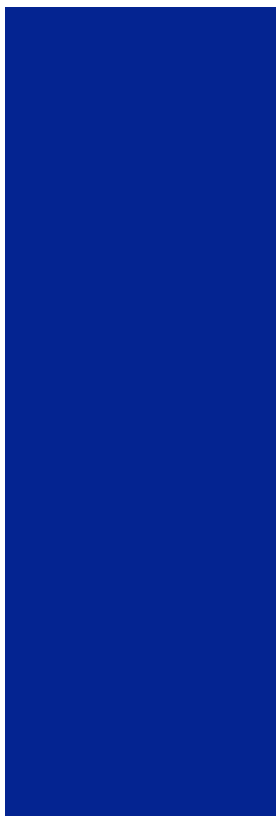
- 16.1** Attract fintech startup companies that can partner with financial institutions to expand their digital services.
- 16.2** Identify fintech companies that can partner with CDFIs to offer digital financial services.
- 16.3** Hold fintech hackathons to tackle real business challenges through technology.
- 16.4** Build talent pipeline for fintech by working with regional computer science departments to integrate knowledge of banking industry regulations into the curriculum.
- 16.5** Advocate for regulatory changes that allow the introduction of new technology in the industry.

B. INFORMATION TECHNOLOGY

Overview and Analysis

The information technology industry holds great promise for the region as businesses and entire industries continue to be transformed by information technology. While a handful of regions have well-developed IT clusters, many cities are still striving to achieve the same level of success. In the Borderplex region, jobs in information technology are generally held within departments of businesses across industries but the region has relatively few IT-focused companies. Recently, El Paso has had some success in attracting startup companies from Silicon Valley, California, and all three cities in the region have seen the creation of a few locally owned IT startup companies. Notably, places such as Silicon Valley have seen significant growth in their IT industries thanks to companies developing freestanding apps.²⁷ The Borderplex region can differentiate itself by putting resources towards developing IT solutions for legacy industries like healthcare, finance and manufacturing. The region can attract and grow such companies by leveraging and building upon existing assets such as its strong computer science talent pipeline and favorable local business environments.

The region will be more successful in attracting and growing IT companies if the companies are carefully matched with local demand for their services. Given the location of multiple federal agencies in the El Paso and Las Cruces areas, federal and state governments constitute a significant portion of demand for IT services. Security issues will continue to remain a top priority for many businesses.²⁸ According to a 2020 Borderplex Skills Cluster Analysis,²⁹ El Paso has an oversupply of talent in cybersecurity, which is a significant advantage because in other markets there is a shortage of cybersecurity talent and very high demand. Here lies a distinct opportunity to attract and create cybersecurity firms to meet regional as well as national and international demand for cybersecurity services.



Key Assets

EL PASO

- Skills Cluster Report shows oversupply of talent in cybersecurity, AI/deep machine learning, and UX design
- IT education programs in big data analytics, bioinformatics, AI, cybersecurity
- Microsoft TechSpark
- Binational IT council
- 5G infrastructure

LAS CRUCES

- New companies in telehealth and video games
- New Mexico film credit can be applied to mobile apps and video games
- NMSU Arrowhead Center and Computer Sciences program

JUAREZ

- Microsoft TechSpark
- Binational IT council
- Juarez AI Center and Center for Innovation and Integration of Advanced Technologies (CIITA)
- Computer science programs at the universities



B. INFORMATION TECHNOLOGY

Significantly, AT&T is laying the groundwork for 5G in El Paso by expanding its FirstNet network, which is “for first responders and creating next-generation mobile 5G.”³⁰ By expanding its wireless coverage, the company is laying the foundation for 5G.³¹ If the 5G infrastructure is fully leveraged, many new innovation opportunities will emerge, particularly around IoT and AI. For example, it can enable heavy manufacturing companies and utilities to automate their core processes more efficiently than ever before.³² Research and development should be incentivized to take advantage of this new infrastructure. In general, city and state governments should amend policies to foster R&D and commercialization of digital technology. This issue is discussed more in depth in the Research, Development and Entrepreneurship section.

Demand for IT skills from the finance and insurance sector, which is among the industry’s largest downstream markets, will likely continue to expand over the next five years in line with improving macroeconomic conditions. The financial services industry is strong in the region; this market demand presents another opportunity for local IT consulting and innovation companies to grow their businesses.

The availability of broadband infrastructure, computers and digital skills training is critical for a fully functioning economy due to the need for completing essential tasks like paying bills, searching for jobs, and doing homework. During the pandemic, businesses have had to adopt an online presence and require their employees to work remotely; remote work may even become the norm after the pandemic has ended. Services such as e-learning and telehealth have also become indispensable for countless people. The region should ensure that all three resources- infrastructure, training and devices- are available to all households.

Strategic Recommendations

GOAL #17 Establish a robust IT talent pipeline to build niche opportunities.

OBJECTIVE & STRATEGY:

Build upon success in talent development and in attracting startup companies by increasing the number of local college students and graduates in key IT careers. Increase number of high schools offering computer science courses and number of students taking computer science courses.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, regional universities, region 19, CONREDES, The Bridge of Southern New Mexico.

ACTIONS:

- 17.1** Complete and pilot a teacher survey with interested education partners.
- 17.2** Complete a “heat map” showing the presence of IT-related courses across education in the region.
- 17.3** Build a steady talent pipeline for cybersecurity by integrating skills training and certificates into the secondary and postsecondary educational programs.
- 17.4** Build talent pipeline for fintech and telehealth by working with regional computer science departments to integrate knowledge of pertinent banking industry and healthcare industry regulations into the curriculum.

B. INFORMATION TECHNOLOGY

GOAL #18

Establish Borderplex region as the ideal location for small IT firms and data centers.

OBJECTIVE & STRATEGY:

Increase presence of small IT firms and data centers by capitalizing on strengths in cybersecurity and AI talent, friendly business environment, and land availability.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, Binational Technology Council, West Texas INFOSEC Society, secondary and postsecondary educational institutions, workforce boards.

ACTIONS:

- 18.1** Attract cybersecurity firms through a marketing campaign that highlights the high demand for cybersecurity talent nationally and the region's oversupply of cybersecurity talent.
- 18.2** Attract fintech startup companies that can partner with financial institutions to expand their digital services.
- 18.3** Attract IT startup companies that can provide products and services for regional target industries to increase their business competitiveness.
- 18.4** Attract data centers to rural areas. Data centers can draw large investments to boost the economic development of an area.
- 18.5** Conduct business retention and expansion efforts targeted at small firms in potential niche IT clusters such as cybersecurity, automated biomedical research, fintech, ag tech, and telehealth.

GOAL #19

Make the region known for having an inclusive digital economy.

OBJECTIVE & STRATEGY:

Increase number of households and businesses with connectivity by coordinating existing digital inclusion efforts and fill the gaps where needed.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, Federal Reserve Bank of Dallas, CONREDES, Desarrollo Economico, El Paso County, STTE Foundation, public libraries, regional schools.

ACTIONS:

- 19.1** Expand digital skills training programs to reach families or households.
- 19.2** Expand broadband infrastructure, especially in rural areas.
- 19.3** Develop or expand public-private partnerships to subsidize internet costs for low-income households.
- 19.4** Develop or expand programs to purchase or rent out computers and MiFi devices for low-income households.
- 19.5** Build a digital inclusion coalition to align all digital inclusion initiatives, providing support for the organizations through shared resources, policy advocacy, and funding.

B. INFORMATION TECHNOLOGY

GOAL #20

Make the Borderplex region a leader in technology-related workforce policy development and collaborative innovation.

OBJECTIVE & STRATEGY:

Improve workforce system response time to business needs related to technology adoption and increase number of patents by creating forums for sharing ideas.

PRIORITY LEVEL:

High

POTENTIAL PROJECT LEADS AND PARTNERS:

Binational Technology Council, The Borderplex Alliance, Microsoft TechSpark, workforce boards, governmental agencies, Arrowhead Center, Pioneers21, Technology HUB.

ACTIONS:

- 20.1** Create a Resilient Workforce System Policy Committee to collect data on businesses' future skills needs and develop policy recommendations that prepare for rapid changes due to advancing technology and other disruptions; include specific recommendations around AI.
- 20.2** Start a Collaborative Innovation Forum to highlight R&D in the region and foster collaboration. Include diverse stakeholders, e.g. academia, industry, and government.



C. ADVANCED MANUFACTURING

Overview and Analysis

The Borderplex region is the fifth-largest manufacturing hub in North America with a strategic location on the U.S. - Mexico border, making it an ideal international trading hub. Cd. Juarez is home to the majority of major manufacturers in the region and there are well-developed supply chains located throughout the region. The industry is further supported by established infrastructure and quick access across borders among a wealth of other industry assets. The automotive manufacturing cluster is particularly well-developed. The passage of the USMCA, new tariffs on China, and the Covid-19 pandemic have all pointed to the reshoring of supply chains to North America. Notably, there is expected growth in specific product markets, such as personal protective equipment (PPE), solar equipment, fluid-testing equipment, sanitizing products, and cybersecurity applications.

The continued advancement of technology in manufacturing is anticipated to drive change in the structure of the manufacturing sector. Greater software focus in products will necessitate shifts in company structure, job skills and value chains.³³ The industry's movement towards automation and smart factories, or factories that have interconnected information technology and operational technology, presents a series of opportunities and challenges. While some companies are reshoring their operations, and new trade agreements have created a favorable environment to attract these companies to the region, manufacturing companies have become increasingly automated and digitalized, and there will be a correlated increase in demand for a workforce that has the necessary digital skills. Thus, to maximize broader opportunities and adjust to major changes in workforce demand, the region will need to systematically prepare, upskill and reskill the workforce.

Industry Snapshot:

Source: EMSI and BLS

EL PASO



2019 jobs: **17,322**



Job Growth since 2014: **-2%**



Projected # of jobs added through 2029: **857**



2019 LQ: **.59**



Average earnings per worker: **\$59,114**



2018 GRP: **\$2.7B**

LAS CRUCES



2019 Jobs: **2,703**



Job Growth since 2014: **0%**



Projected # of jobs added through 2029: **366**



2019 LQ: **.40**



Average earnings per worker: **\$60,219**



GRP: **\$340.03M**

TOP MANUFACTURING HUBS IN NORTH AMERICA

RANK	AREA	EMPLOYMENT
1	Los Angeles-Long Beach-Anaheim	486,400
2	Chicago-Naperville-Elgin	412,000
3	New York-Newark-Jersey City	359,000
4	San Diego-Carlsbad-Tijuana	349,823
5	El Paso-Las Cruces-Juarez	295,362
6	Detroit-Warren-Dearborn-Windsor	290,200
7	Dallas-Fort Worth-Arlington	288,100
8	Seattle-Tacoma-Bellevue-Vancouver	280,900
9	Houston-The Woodlands-Sugar Land	230,300
10	Minneapolis-St. Paul-Bloomington	197,600



Key Assets

EL PASO

- 4,500 engineering students from Tier 1 research university, UTEP
- Operating costs 28% below national average
- Fort Bliss military base
- BioEPJ trade association for medical device manufacturing

LAS CRUCES

- NMSU Physical Sciences Lab
- NMSU AgTech Center of Excellence
- White Sands Missile Range, Holloman Air Force Base (nearby) and military R&D
- Land space for testing
- Engineering talent pipelines from NMSU
- Relatively low operating costs

JUAREZ

- Talent pipelines from four universities; higher education laboratories and equipment
- CONREDES program
- Center for Innovation and Integration of Advanced Technologies
- High schools with access to technicians
- Supplier development programs such as The Bridge Accelerator in Cd. Juarez and El Paso
- Trade associations

C. ADVANCED MANUFACTURING

If regional higher education institutions coordinate and synchronize efforts to build a uniform program for this industry, the Borderplex will be able to more easily attract companies because it will have a well-developed talent pipeline with guaranteed skillsets. In 2019, Expansion Solutions Magazine named Arizona the number one place for manufacturing companies due to its assured talent pipeline. The State of Arizona formed the Arizona Advanced Technology Network, which is comprised of four colleges within three counties, who formed a charter to establish the coordinated program. Through the program, students can attend any school in the Network and earn Industrial Technology certificates from the National Institute of Metalworking Skills (NIMS) as well as an Associates of Applied Sciences in Automated Industrial Technology. The group uses a common third-party vendor for equipment along with common course titles, descriptions and numbering systems. This creates a consistent pipeline of highly skilled talent and a very attractive bargaining chip when trying to bring companies to their region.

Various macro trends may provide new opportunities. With the region being abundant in both cattle and produce, and given the COVID-19 pandemic's exacerbation of food security issues, the Borderplex region is well-positioned to become a leader in value added agriculture for North America. Similarly, medical device manufacturing and aerospace and defense are emerging sectors particularly because of the creation of a trade organization and established talent pipelines, respectively. As noted in the Life Sciences section, medical device manufacturing companies are already beginning to re-shore their operations and move to the region. Aerospace manufacturing is relatively light in the region but strong talent pipelines, availability of maintenance, repair and overhaul companies, and government demand for products and services together present an opportunity for the region to attract and develop more companies (discussed further in the Aerospace and Defense Industry section). Solar energy panel designers, manufacturers and installers will likely see accelerated demand as more companies and governments set net-zero carbon emissions targets. Companies in these manufacturing clusters should be fostered through business development programs and exporting education and marketing support, and through other forms of business retention and expansion activities.

The region can greatly expand its economy by reaching deeper into global markets and strategically targeting foreign direct investment opportunities. As an example, the City of Los Angeles, consistently a top city in the U.S. for exports, established a Regional Export Plan³⁴ that has three main initiatives: 1) establish a Regional Export Council, 2) target high opportunity market segments (identifying prime export industries and identify geographic area for export promotion, and 3) market region to the world (through global trade fairs, mission trips, PR, and collateral materials). A foreign direct investment plan could integrate an export plan similar to Los Angeles and also leverage regional assets such as a supplier directory and marketing materials can be tailored to specifically fit the countries targeted.

Finally, regional business leaders are interested in improving the quality of local companies, gaining more local customers, and buying more products locally. Approximately three percent of all goods and services sold in the region are purchased from local suppliers, and so local businesses have an enormous opportunity to increase their sales to other local companies and to buy from local companies. Regional suppliers might benefit from having an online platform or third party that purposefully matches local buyers and sellers to facilitate more local sales. Business development programs can be created for companies to help them achieve quality certifications and enable the shift towards automation and smart factories. This will help make companies be more competitive, which will increase products and services sold locally.

C. ADVANCED MANUFACTURING

Strategic Recommendations

GOAL #21

Establish a guaranteed workforce pipeline that is well-suited for advanced manufacturing and very attractive for expanding companies.

OBJECTIVE & STRATEGY:

Improve workforce system response time to business needs related to technology adoption and increase number of patents by unifying efforts across borders.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance's manufacturing supplier association, The Bridge of Southern New Mexico, the El Paso Collaborative for Academic Excellence, CIITA and CONREDES.

ACTIONS:

- 21.1** Build a regional manufacturing talent pipeline program based on the Arizona Advanced Technology Network; offer Industrial Technology certificates from the National Institute of Metalworking Skills (or Mexican equivalent) and an Associates of Applied Sciences in Automated Industrial Technology (or equivalent). Use a common third-party vendor for equipment along with common course titles, descriptions and numbering systems.
- 21.2** Ensure industry leader participation in the Resilient Workforce System Policy Committee under the Binational Technology Council to assist educational and workforce development institutions in preparing, upskilling and reskilling the workforce for the adoption of advanced technology in manufacturing.
- 21.3** Create an industry-specific skills proficiency test for secondary and postsecondary school students; direct students toward specializations based on individual capacities.
- 21.4** Replicate the successful CONREDES model for internships throughout the region. Develop or expand an online platform to track students' internship experiences and skills progression, coordinate business facility tours, and host workshops to showcase careers in the industry.
- 21.5** Conduct an analysis to predict new skills needed by 2025.

C. ADVANCED MANUFACTURING

GOAL #22 Establish full supply chains for regional manufacturing clusters.

OBJECTIVE & STRATEGY: Leverage a variety of new tools to increase overall sales for regional suppliers and increase products and services sold locally.

PRIORITY LEVEL: High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, Microsoft, Southwest Maquila Association, the City of El Paso, the State of Chihuahua, TMAC, and BioEPJ.

ACTIONS:

- 22.1** Create an online directory of suppliers to encourage more regional sales.³⁵ This may include advanced features such as direct business-to-business sales and virtual showcasing.
- 22.2** Complete a supply chain analysis of high value manufacturing clusters, e.g. auto, electronics, medical device, aerospace, and value-added agriculture.
- 22.3** Create a marketing and sales plan to highlight the business opportunities found through the supply chain gap analysis; include all regional economic development organizations to ensure clear and united messaging.



C. ADVANCED MANUFACTURING

GOAL #23 Establish an outstanding support structure to help suppliers thrive.

OBJECTIVE & STRATEGY:

Increase the percentage of products and services sold by regionally by creating business development programs and facilitating business-to-business introductions.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, Mesilla Valley Development Alliance, Desarrollo Economico, municipal economic development departments, NMSU's Manufacturing and Engineering Technology Center, Texas Manufacturing Assistance Center, CIITA

ACTIONS:

- 23.1** Develop a general supplier development certification and work towards wide adoption of the certification; model after the medical device supplier certification established by TMAC and BioEPJ.
- 23.2** Create a business-to-business matching program, leveraging the proposed online directory of suppliers. Develop a marketing and sales plan to highlight specific clusters and businesses with strong differentiating qualities, e.g. use of sustainable practices and the achievement of quality certifications.
- 23.3** Create an annual supplier showcase; consider a virtual showcase to reach companies both inside and outside the region.
- 23.4** Develop a Regional Export Plan to include an export council and foreign direct investment marketing plan.
- 23.5** Create a committee to build community banks' knowledge about export financing.
- 23.6** Create a Manufacturing Supplier Association to manage the previously mentioned projects and committees and equip it with a governance framework and staff to ensure project follow through.

"The Borderplex region makes perfect sense for Prent. It's an area ripe for innovation and partnership," Mark Rothlisberger, Sr. Vice President of Manufacturing for Prent Corporation, said in an announcement to expand operations in Santa Teresa, New Mexico.

"For over three years we've worked closely with partners in the region to make this a reality. Over and over, we heard that the strength of the region is its collaboration across borders. Today's announcement is a vindication of that model, one integrated region working together towards success," Rothlisberger said.



D. AEROSPACE AND DEFENSE INDUSTRY

Industry Snapshots:

EL PASO



2019 jobs: **17,322**



Job Growth since 2014: **-2%**



Projected # of jobs added through 2029: **857**



2019 LQ: **.59**



Average earnings per worker: **\$59,114**



2018 GRP: **\$2.70B**

LAS CRUCES



2019 Jobs: **2,703**



Job Growth since 2014: **0%**



Projected # of jobs added through 2029: **366**



2019 LQ: **.40**



Average earnings per worker: **\$60,219**



GRP: **\$340.03M**

Source: EMSI and BLS. This information is based on the manufacturing sector only.

Key Assets

NEW MEXICO

- Spaceport America
- Holloman Air Force Base
- White Sands Missile Range
- NMSU's Physical Science Laboratory and UAS Flight Test Center
- Annual space symposium
- Annual space festival
- Virgin Galactic Headquarters, UP Aerospace, Exos Aerospace, and Payload Specialties located at Spaceport America
- International Spaceport America Cup
- SpaceX
- Strong talent pipelines from NMSU

JUAREZ/GREATER MEXICO

- National Aerospace Supplier Development Program
- Center for Innovation and Integration of Advanced Technology
- Strong talent pipelines
- Strong aerospace manufacturing clusters in the cities of Chihuahua and Queretaro

EL PASO/FAR WEST TEXAS

- Strong talent pipelines from UTEP, EPCC and Western Technical College
- UTEP cSETR-Horizon City Aerospace and Defense Small Business Incubator (with \$1.1M from NASA) and Tech Park at Fabens Airport
- Unrestricted airspace for UAV/EV airplane testing
- UAV education programs
- Million Air Aviation
- Blue Origin
- Strong MRO company presence



D. AEROSPACE AND DEFENSE INDUSTRY

Overview and Analysis

The aerospace and defense industry is one that is full of incredible potential. The region has two major military bases and several federal agencies across southern New Mexico and far west Texas as well as an emerging commercial space industry. Governmental operations have driven job growth and economic stability in the region and that is in large part due to the availability of national defense-related jobs. However, despite favorable conditions, such as the availability of defense contracts, strong talent pipelines and a large manufacturing hub, the region has yet to gain a foothold in aerospace manufacturing and it has room to grow the aerospace supply chain overall. Here lies an opportunity to conduct a deep analysis of the strengths and weaknesses of the industry to determine what decisions should be made to make the area attractive for aerospace companies. This should include an analysis of talent pipelines, commercial real estate, infrastructure, and supplier availability.

On the other hand, the City of Chihuahua has an established aerospace manufacturing cluster. Southern New Mexico is slowly beginning to attract companies related to commercial spaceflight and tourism, unmanned aerial vehicles, heavy lift space launch vehicles and satellites. In El Paso, there are several aerospace maintenance, repair and overhaul companies (MRO). A coordination of these entities under a single umbrella organization may uncover a critical mass of challenges to be addressed by tailored programs, such as those related to workforce development, defense contractor education and regulatory barriers. Likewise, a coordinated marketing and sales effort between regional economic development organizations can bolster overall knowledge of the region's assets and lead to a clearer and more unified pitch for the region.

A 2020 Borderplex Skills Cluster Analysis revealed that there is an oversupply of talent in the areas of MRO36 and cybersecurity.³⁷ According to the skills analysis, various aerospace alliances throughout the U.S. initially built their industries by growing their MRO and cybersecurity clusters, e.g. the Oklahoma Aerospace Alliance and the Idaho Aerospace Alliance. Considering the difficulty in producing such talent at the magnitude that it exists, the region has a competitive advantage, and local economic development organizations can leverage the existing talent to grow the aerospace MRO and cybersecurity clusters.

Other emerging opportunities exist around unmanned aerial vehicles and commercial space. Unmanned aerial vehicles are gaining traction for commercial purposes, particularly in e-commerce delivery. Extensive UAV testing is being conducted in El Paso (e.g. Fabens Airport) and southern New Mexico (e.g. NMSU's Unmanned Aircraft Systems Flight Test Center), which is generating a strong UAV pilot talent pool that is an advantage to use for attracting companies who are utilizing UAV technology.

The world's first purpose-built spaceport, Spaceport America is in southern New Mexico; its anchor tenant is the headquarters of the commercial space line, Virgin Galactic. Virgin Galactic plans to have completed 270 commercial spaceflights by 2023 and could have flights as early as 2021.³⁸ Blue Origin plans to conduct human spaceflight and it has a regional location in Van Horn, Texas. Both companies are expected to begin full operations by 2026. Local entrepreneurs can capitalize on this opportunity by offering concierge-level hospitality services that target the high-end clientele of these two companies.

NASA is expected to start allocating more money toward the Boeing Company and SpaceX for the development of manned spacecraft to able to fly to the International Space Station. While these particular partnerships are occurring outside the region, this is a good example of NASA's recent increased partnership activity with private companies. Close communication with the Agency could reveal new opportunities for local entrepreneurs.

D. AEROSPACE AND DEFENSE INDUSTRY

Given the quickly evolving commercial space industry, it is important to stay abreast of new developments to timely identify new business opportunities. For example, southern New Mexico boasts the world's first centrifuge built for space flight, which is currently under construction by SpinLaunch. The centrifuge is expected to hurl payload into space at an accelerated rate (e.g. five satellites per day versus an average of one per month). If the centrifuge works, this could be attractive infrastructure for variety of companies such as SpaceX, Amazon, and U.K.-based OneWeb that are trying to create satellite constellations for widespread broadband availability. This will create a major business opportunity, both for companies that would directly use the centrifuge as well as for suppliers that those companies may need. News of this kind would be useful to plan private investment and economic development activities. An industry newsletter or similar medium could focus on gathering significant developments and highlighting business opportunities.

There are many aerospace manufacturing and business service opportunities in the Borderplex region that are connected to the U.S. Federal Government; however, both the government and large original equipment manufacturers with defense contracts tend to have longstanding contracts with well-established businesses. Suppliers who want to compete for defense contracts or become suppliers to defense contractors will need to acquire quality certifications, be purposefully matched to large manufacturers who are open to finding new suppliers or find other differentiators to help them stand out. Companies need community support to assist them in gaining a competitive advantage.

Each jurisdiction can create programs to increase the number of companies with quality certifications and assist them with finding potential customers.³⁹ Recently, the UTEP cSETR-Horizon City Aerospace and Defense Small Business Incubator was developed to support aerospace suppliers and similar programs can be developed in Cd. Juarez and Las Cruces. Additionally, local governments and economic development organizations might consider supplementing the cost of expensive quality certifications. Quality certifications are critical in the aerospace industry, such as AS9100 Quality Management Systems – Requirements for Aviation, Space and Defense Organizations. For MRO companies, a lesser known but equally important standard specifically for MROs is the AS9110.⁴⁰ Certifications of quality such as these enhance the credibility and trustworthiness of companies, which make them a top choice for customers. Further, the availability of companies with these certifications will also make it easier to attract companies who prefer to buy from certified companies.

Fort Bliss Army Base is a significant economic driver in El Paso and the surrounding region. One out of 16 jobs is tied to the Base and its economic impact on the state of Texas is \$23.13B. The area benefitted from the last Base Realignment and Closure (BRAC) in 2005; however, such consolidations are regularly considered and the full scope of the Base's operation is not guaranteed. Further, bringing additional missions to Fort Bliss would be a major boon for the regional economy, although it is a highly competitive effort to successfully expand base operations, e.g. bringing a cyber unit or a three-star command. In order to prevent the scaling down of operations and to promote the expansion of the Base, the community can take advantage of funding under the Defense Economic Readjustment Zone to make quality improvements in the Zone's designated area. This benefit was created in 1997 but was found to be significantly underutilized. Leveraging funds to build up this area could result in major investments later. It is also important to demonstrate the community's support for the Base, military personnel and their families, and for veterans. Finally, the region should align advocacy efforts across organizations and state lines to attract both missions and defense contractors because they can result in major investments and thousands of jobs that can transform the regional economy.⁴¹

D. AEROSPACE AND DEFENSE INDUSTRY

Strategic Recommendations

GOAL #24 Become a top destination for the aerospace and defense industry.

OBJECTIVE & STRATEGY: Create a well-developed value chain to improve sales of local suppliers and increase number of companies that move to the region.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, NM Spaceport Authority, NASA, City of El Paso

ACTIONS:

- 24.1** Conduct a supply chain gap analysis of aerospace manufacturing suppliers and MRO companies in the area to identify areas for effective business attraction and policymaking efforts.
- 24.2** Create a marketing plan to advertise gaps in the value chain as business opportunities.
- 24.3** Create a marketing plan to attract MRO companies and cybersecurity defense companies based on the availability of talent as well as many federal government customers.
- 24.4** Build an online platform with a directory of manufacturing suppliers and original equipment manufacturers (OEM) to allow regional companies to find each other.
- 24.5** Leverage money from the Defense Economic Readjustment Zone to build amenities on Fort Bliss.
- 24.6** Conduct a skills gap analysis by comparing skill availability in the Borderplex region with another region that has a well-established aerospace and defense industry.



D. AEROSPACE AND DEFENSE INDUSTRY

GOAL #25

Create a support structure to enable local entrepreneurs to excel in the aerospace and defense industry.

OBJECTIVE & STRATEGY:

Increase local knowledge and business opportunities by creating new institutional resources to support entrepreneurs.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

Cybersecurity, MRO, commercial space, and other aerospace and defense companies in southern New Mexico, west Texas, and Chihuahua, Mexico; TMAC, the Chihuahua Aerospace Cluster, the aerospace cluster in Queretaro, Mexico, the Mexican Aerospace Federation, and the Manufacturing Technology and Engineering Center (M-TEC) at NMSU.

ACTIONS:

- 25.1** Develop a regional aerospace alliance to coordinate the gathering and publishing of A&D data, advise on viable business opportunities, and to run supplier development programs for the region.
- 25.2** Create or expand supplier development programs. These programs will connect companies with resources to obtain quality certifications, information on becoming a defense contractor, information on exporting, and financing available through grants and special loan programs.
- 25.3** Launch a dedicated news source that researches and highlights potential business opportunities in the region related to new developments in the aerospace industry.

"I am honored for METI to receive this prestigious recognition. To be selected as the number one firm in the U.S out of over 8 million minority owned businesses is truly humbling," said Renard Johnson, CEO/President at METI, Headquartered in El Paso, Texas, upon receiving the U.S. Department of Commerce's 2019 Minority Business Enterprise of the Year Award.



E. ADVANCED LOGISTICS INDUSTRY

Industry Snapshots:

EL PASO



2019 jobs: **16,728**



Job Growth since 2014: **+18%**



Projected # of jobs added through 2029: **2,076**



2019 LQ: **1.22**



Average earnings per worker: **\$56,790**



2018 GRP: **\$1.47B**

LAS CRUCES



2019 Jobs: **2,225**



Job Growth since 2014: **+24%**



Projected # of jobs added through 2029: **301**



2019 LQ: **.71**



Average earnings per worker: **\$50,823**



GRP: **\$193.70M**

Source: EMSI and BLS.

E. ADVANCED LOGISTICS INDUSTRY

Overview and Analysis

The Borderplex region is prime to become a prominent binational logistics hub given many recent favorable trends and its well-established talent, infrastructure and supply chains. Its central location makes it a natural gateway to the Americas for trade. The region conducts \$103B in total U.S.-Mexico trade. With the recent passage of USMCA trade agreement along with tariffs on China and the COVID-19 pandemic's severe disruption to global supply chains, more companies are expected to re-shore their operations to North America over the coming years.⁴²

Assets



REGION

- **Six international ports of entry in the region**

EL PASO/FAR WEST TEXAS

- **International airport**
- **Warehousing infrastructure and expertise**
- **Foreign Trade Zone**
- **Access to rail**

LAS CRUCES/SANTA TERESA

- **Port in Santa Teresa and The Border Overweight Zone**
- **Union Pacific intermodal facility**
- **International airport**

JUAREZ

- **International airport**
- **Access to several U.S. ports of entry via road and rail**

The continued upkeep and expansion of specific port infrastructure projects is critical for trade growth and sustainability. These projects include improvements in all infrastructure needed for agriculture and medical devices and biomedical samples along the border, e.g. FDA-approved testing facilities and cold storage units for agriculture, medical devices and biological samples, greater utilization of technology for both north and south bound border traffic across all ports (e.g., AI and blockchain), and more customs bonded warehouse space. In addition to improvements for the El Paso and Santa Teresa ports of entry, significant population growth in Horizon City and far east El Paso presents an opportunity to increase trade through the utilization of the Tornillo Port of Entry with infrastructure improvements primarily on the Mexican side.

To attract new headquarters to the area, and to attract and retain companies with headquarters in other cities, the region should strive to obtain many nonstop and direct flight options. In creating a city that is attractive for company expansion, getting direct flights is considered essential by many. Looking through this lens, an effort to bring more direct and nonstop flights will be essential for economic growth. The effort to bring more direct and nonstop flights will likely be even more important as the region faces the challenge of losing flights due to the Covid-19 pandemic. A coordination between the region's international airports could help the region achieve international hub status. If the region improves all rail service properties and expands current rail infrastructure, this will expand the region's ability to enhance its trade capacities and attract major companies who are interested in expansion but require enhanced rail capacity.

E. ADVANCED LOGISTICS INDUSTRY

Investment in autonomous vehicle charging stations, particularly for re-fueling autonomous vehicles such as tractor trailers, would position the region as an ideal crossing point for future traffic from autonomous vehicles and enable more local trucking companies to utilize the technology in place of traditional trucks. The Borderplex Skills Cluster Analysis found that the region needs eleven times more truck drivers than are available. Also, the years leading up to 2025 may also bring further investment into fuel-efficient vehicles, such as electric vehicles, as companies try to reduce fuel costs (one of the largest costs for the sector) and respond to more stringent environmental regulations. Investments that encourage more unmanned and electric trucks could resolve or alleviate talent shortages and fuel costs. An investment in autonomous vehicle charging stations can support local companies' transition to autonomous trucks and attract similar, advanced companies.

Trade-related interstate highway infrastructure will need to be improved to account for wear and tear and expanded to accommodate increased traffic.

The Texas-Mexico Border Trade Advisory Committee (BTAC) through the Texas Department of Transportation is developing a binational port infrastructure master plan that will lead to the construction of a binational multimodal corridor designation. The plan will include infrastructure in the El Paso region and Santa Teresa. Likewise, in October 2020, a \$14 billion infrastructure investment plan was announced in Mexico, which may include funding for trade infrastructure on the Cd. Juarez side such as the highway loop that connects to the Tornillo port of entry. Ideally, the port infrastructure needs identified in this section will be included in these infrastructure plans, but any international port projects not included can be funded through additional advocacy efforts.

Another method for funding and managing the region's infrastructure needs is through the region's port authorities. The coordination between the region's port authorities or similar entities in each of the region's cities could enable the region to achieve major binational or international logistics hub status. The region could form a collaborative plan to include programs, marketing and advocacy.

To promote more exporting activity in the area, the region should create a talent pipeline for customs brokers and logistics professionals with knowledge of customs brokering because this is a critical service that helps businesses navigate trade laws. First, front-line clerical and warehouse workers need a better basic knowledge of international trade processes and standards. Next, there needs to be more mid-level logistics workers who can understand how to help manage global supply chain issues.



E. ADVANCED LOGISTICS INDUSTRY

TOTAL EXPORTS & IMPORTS

2019	El Paso, TX	Santa Teresa, NM	Regional Ports (RP)
Total Exports Value (\$US)	\$31,719,376,966	\$14,098,109,953	\$45,817,486,919
Total Imports Value (\$US)	\$47,265,147,158	\$16,403,966,944	\$63,669,114,102
Exports + Imports	\$78,984,524,124	\$30,502,076,897	\$ 109,486,601,021

2019	Texas	RP% of TX Trade
Total Exports Value (\$US)	\$328,863,813,668	13.9%
Total Imports Value (\$US)	\$294,899,965,176	21.6%
Exports + Imports	\$623,763,778,844	\$17.6%

2019	U.S.	RP% of U.S. Trade
Total Exports Value (\$US)	\$1,643,160,852,937	2.8%
Total Imports Value (\$US)	\$2,497,531,484,105	2.5%
Exports + Imports	\$4,140,692,337,042	2.6%

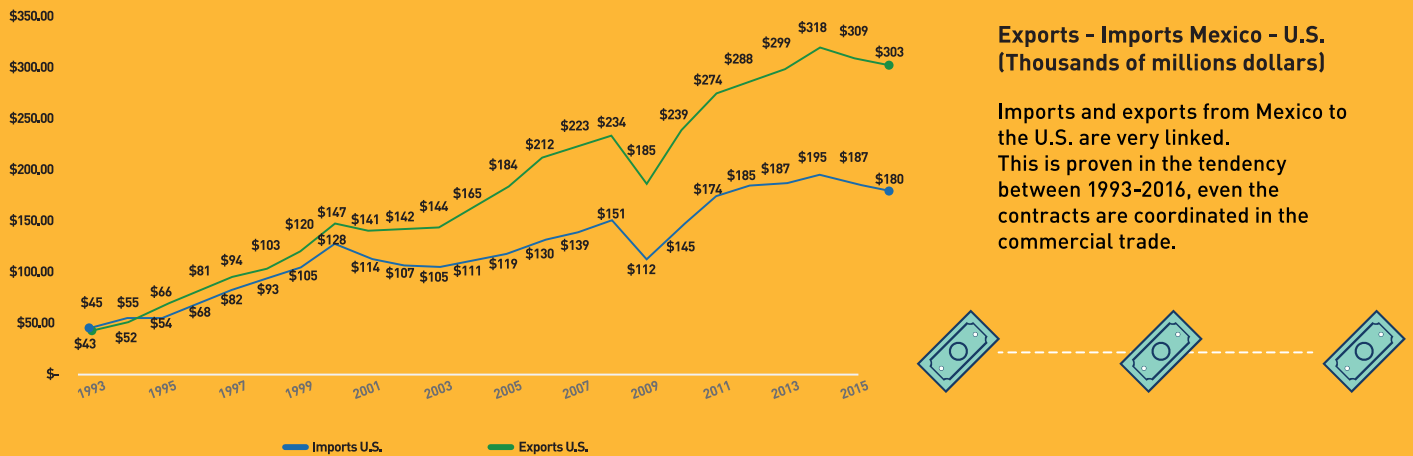
TOP THREE EXPORTS

El Paso, TX (Port)	Total Exports Value (\$US)
85 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	\$8,983,718,941
84 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$5,771,748,330
39 Plastics And Articles Thereof	\$2,364,122,675

Santa Teresa, NM (Port)	Total Exports Value (\$US)
84 Electric Machinery Etc; Sound Equip; Tv Equip; Pts	\$9,892,714,314
85 Nuclear Reactors, Boilers, Machinery Etc.; Parts	\$3,803,614,359
39 Plastics And Articles Thereof	\$143,916,540

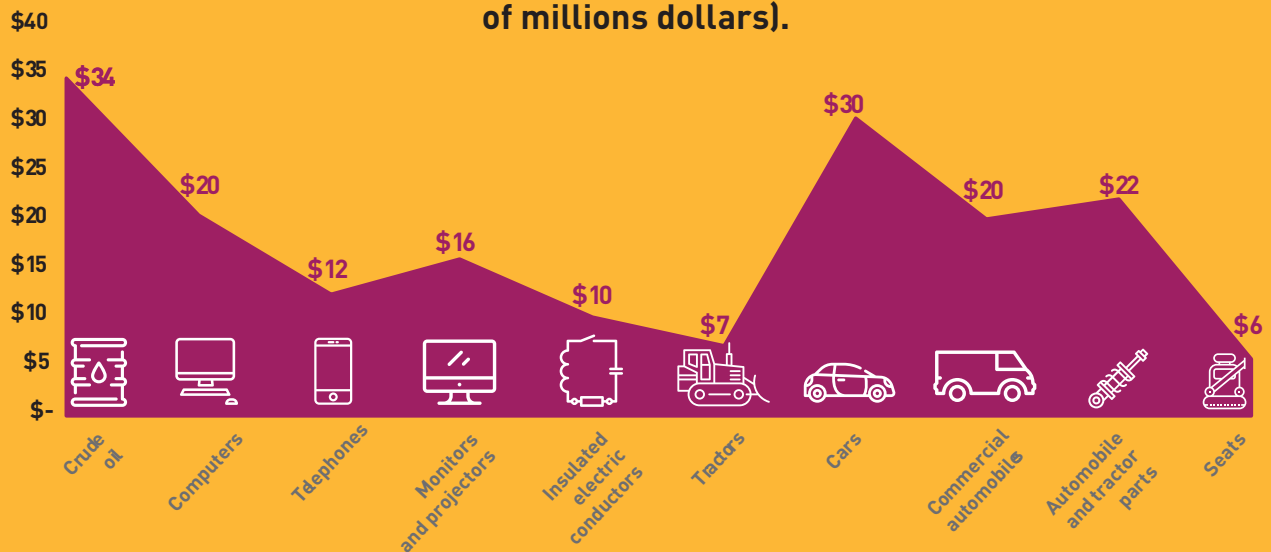
E. ADVANCED LOGISTICS INDUSTRY AND TRADE

IMPORTS AND EXPORT IN CIUDAD JUAREZ, MEXICO

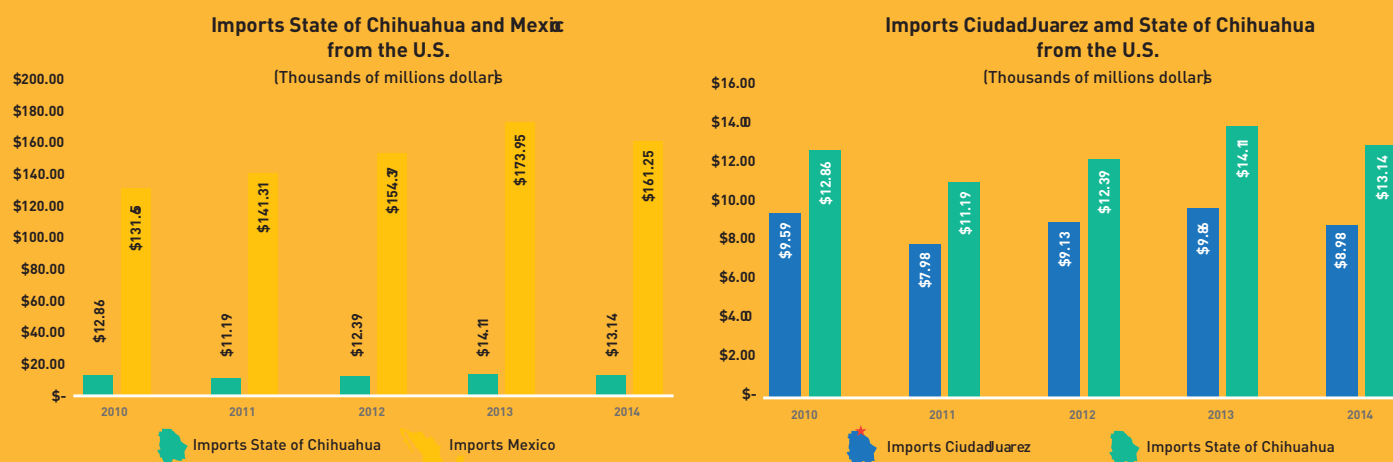


Main exports from Mexico 2014 (Thousands of millions dollars)

At a national level, the leading exports were **crude oil (\$34 thousands of millions dollars)**, followed by exports in cars (\$30 thousands of millions dollars), and automobile and tractor parts (\$22 thousands of millions dollars).

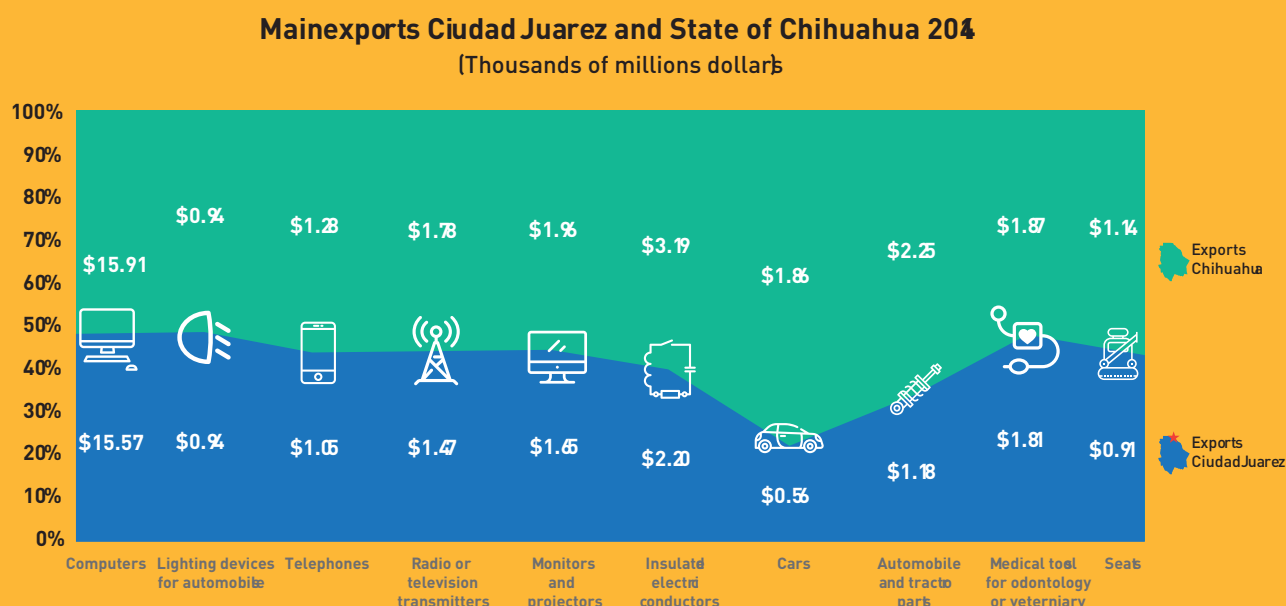


E. ADVANCED LOGISTICS INDUSTRY AND TRADE



Specific to Ciudad Juarez, the products most exported are **computers (\$15.57 thousands of millions dollars)**, **insulated electric conductors (\$2.20 thousands of millions dollars)**, and **medical tools for odontology or veterinary (\$1.81 thousands of millions dollars)**.

The State of Chihuahua focuses its exports mostly in **computers (\$15.91 thousands of millions dollars)**, **insulated electric conductors (\$3.19 thousands of millions dollars)**, **automobile and tractor parts (\$2.25 thousands of millions dollars)**.



E. ADVANCED LOGISTICS INDUSTRY

This could involve establishing a new associates degree in global logistics or expanding existing programs. Lastly, there is also a need to develop customs broker talent. Currently, companies need to send products to warehouses for a pre-check, which is done by Mexican customs brokers. This will require a better understanding of Mexican legal regulations and international trade language, principles, insurance, and best practices. Advanced skills needed in customs brokering are auditing, bonds and writing entries, and international trade law. Finally, a visa permit must be secured to work across the border to perform these functions (i.e. a valid visa under the new USMCA).

The industry's progressive adoption of advanced technology signals the need for a strategy to take advantage of this shift. Warehouses and ports have increasingly invested in automated cranes and robots that can handle freight. Trucking companies in the Borderplex region plan to purchase unmanned trucks within the next few years. The workforce will need to be upskilled to enable them to operate new advanced logistics technology. The widespread adoption of technology in this industry demonstrates the need to cultivate research and development in this space to spur business creation; for example, there is a need to improve efficiency of international bridge traffic and AI and blockchain technology could be utilized to achieve that goal.

The region is prime to attract advanced retail fulfillment centers similar to those companies that recently located in the Borderplex region. Also, according to the Skills Cluster Analysis, skills in cloud computing, deep machine learning, and AI are prevalent in the region.⁴³ Further, supply chain and logistics and e-commerce are expected to benefit most from automation technology.⁴⁴ Therefore, automated supply chain and logistics companies would benefit from having a talent pipeline with these skillsets. The continued surge in e-commerce has provided another driver for certain segments. These types of companies draw major investment and provide many jobs while also creating the opportunity to attract other supportive logistics companies.

The region's emerging medical device manufacturing and biomedical research industries along with its well-established agricultural sector make it an attractive place for more distribution centers in this space. Notably, pharmaceutical companies and food companies are found among the major players in distribution, including McKesson, Cardinal Health, Inc. and Sysco.⁴⁵ The medical device industry has expressed the need for more logistics companies in cleaning services, internal supplies, and third-party logistics.⁴⁶ There is also a trend in the medical device manufacturing industry to outsource supply chain tracking services, which can be an area where business attraction activities are focused. Both the attraction and use of digital freight forwarding companies would help manufacturing and logistics companies streamline their operations, making their activities more transparent and potentially more efficient and profitable.



E. ADVANCED LOGISTICS INDUSTRY AND TRADE

Strategic Recommendations

GOAL #26 Make the region a renowned binational logistics hub.

OBJECTIVE & STRATEGY: Build a sustainable trade infrastructure transportation system by increasing public funding and project oversight and organization.

PRIORITY LEVEL: High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, City of El Paso International Bridges Department, Texas-Mexico Border Trade Advisory Committee (Texas Department of Transportation), Border Industrial Association, Camino Real Regional Mobility Authority, New Mexico Border Authority, Chambers of Commerce, U.S. CBP Agency, Mexican and U.S. Consulates, and public officials.

ACTIONS:

- 26.1** Advocate for greater public investment in trade infrastructure.
- 26.2** Add FDA testing facilities (governmental) for agriculture and medical devices.
- 26.3** Add medical grade cold storage facilities within the Customs and Border Protection ports at Tornillo and Santa Teresa.
- 26.4** Build commercial real estate for warehousing and bonded space.
- 26.5** Expand the foreign trade zone.
- 26.6** Invest in autonomous vehicle stations.
- 26.7** Improve all rail service properties and expand current rail infrastructure.
- 26.8** Complete the highway loop south of Ciudad Juarez to the Tornillo port.
- 26.9** Support advocacy efforts by the Chambers and others to secure funding for trade-related highway infrastructure projects.
- 26.10** Develop a list of cities with similar industries and economic drivers to target as sister cities for the purpose of negotiating direct flights; include medium-sized international destinations that cannot support direct service from cities (known as “hubbing”).
- 26.11** Rename the El Paso airport to Las Cruces-El Paso International airport or Las Cruces-El Paso-Juarez International airport to project hub status.
- 26.12** Coordinate the cities’ port authorities or similar entities to ensure infrastructure projects are realized.

E. ADVANCED LOGISTICS INDUSTRY AND TRADE

GOAL #27 Become the destination of choice for advanced logistics companies.

OBJECTIVE & STRATEGY: Increase the number of advanced logistics companies by leveraging the strengths of the region's assets and momentum of recent expansions.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS: The Borderplex Alliance and regional economic development organizations.

ACTIONS:

- 27.1** Focus business attraction efforts around logistics companies who apply automation technologies.
- 27.2** Develop a business attraction strategy aimed at distribution and fulfillment centers. Leverage larger trends and build local capacity by especially targeting companies in the e-commerce, medical device, biomedical research and agriculture space.
- 27.3** Target digital freight forwarding companies and other companies that use digital technology to improve logistics and trade activities.
- 27.4** Target autonomous and electric vehicle companies.

GOAL #28 Establish a pool of sophisticated logistics professionals that can help businesses achieve and exceed their goals.

OBJECTIVE & STRATEGY: Increase pool of higher-level customs brokering talent and increase number of local businesses engaging in exporting/importing by expanding existing programs for all levels of talent.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS: The Borderplex Alliance, UTEP, NMSU, UACJ, EPCC, DACC.

ACTIONS:

- 28.1** Create industry certifications for blocks of mid and higher-level skillsets, particularly in customs brokerage, that can be attached to existing programs at universities and colleges.
- 28.2** Coordinate an industry forum to educate professionals on developments in the field.
- 28.3** Advocate for any changes needed to the NAFTA/USMCA visa if there are provisions that limit talent from being able to work easily on either side of the border.

VI. TALENT PIPELINE DEVELOPMENT

Overview and Analysis

Each target industry section contains workforce-related recommendations that are specific to industry needs. This section provides a series of general recommendations that focus on improving the education and workforce development system overall to support and accelerate the growth of regional businesses.

Talent availability is often the highest priority of most companies, whether a company is trying to sustain and grow its operation or deciding where to expand its business. A strong economy depends on having a skilled labor force for the growth and sustainability of companies. Creating a strong and attractive workforce will entail employing a variety of strategies to optimize current talent, keeping that talent in the region, and attracting skilled workers from outside the region.

To create a peerless workforce, the region must address its talent retention challenges. Each city regularly competes with other similar locations for talent.

While the region produces thousands of high school and college graduates per year, the overall educational attainment percentages show the region falls well behind in educational attainment when compared to U.S. and Mexican averages. One reason behind this paradox is what is known as the “brain drain” or the migration of educated individuals to other cities. In Fall 2019, The Borderplex Alliance conducted a survey that revealed that many people in the region are concerned about the brain drain and believe educated individuals are moving to other cities. This assumption appears to be supported by low net migration numbers.

Historically, all three cities have been concerned about retaining individuals with STEM degrees; however, the respective cities built their economies on low skilled, low wage jobs and the shift towards a knowledge economy has been difficult while dealing with a loss of workers with STEM degrees. Workers who remain in the area are often underemployed. Data shows that workers in Las Cruces and El Paso are underemployed in four out of six educational categories and they are working in jobs that require less education than they have obtained.⁴⁷

A series of recent industry skills gap analyses revealed persistent underlying issues. One issue is a misalignment between the degrees obtained and those requested by employers; the supply of people educated in certain popular degrees far exceeded the demand for workers with those particular credentials. In other cases, students did not have obtain the particular skills sets employers require. It is also possible students are not able to articulate transferrable skills sets.

The Economic Overview section of this Plan revealed that the average wages in the Borderplex cities lag behind many other comparable cities and national averages. While many strategic recommendations will lead to an increase in productivity in the target industries, leading to greater revenue and GDP, evidence shows that throughout the world, productivity has accelerated while wages have remained relatively flat in growth.⁴⁸ In other words, an increase in productivity and profits in the region may not necessarily lead to competitive median wages. Significantly, Hispanic women earn an average of 53% of a white male’s salary for any given profession (or 44% in Texas). With Hispanic women making up a large percentage of the Borderplex region’s population, businesses’ commitment to raising the wages for this segment of society could not only change the lives of individuals but also accelerate the region’s progress towards having average wages that are competitive with other cities.⁴⁹ Due to recent turmoil in the U.S. around racial equity, more companies are interested in making a measurable impact through their diversity, equity and inclusion programs, making this a prime moment to engage companies on this issue.

Quality of life is consistently recognized as an important factor for both attracting and retaining top talent, which is why the local governments should continue investing and supporting existing quality of life projects and generating new quality of life projects. Many quality of life projects developed in the last few years may be unknown to both residents and people outside the region; historical and natural amenities may also be unknown. Therefore, a marketing campaign to promote these quality of life assets should be created and geared towards local and non-local residents.

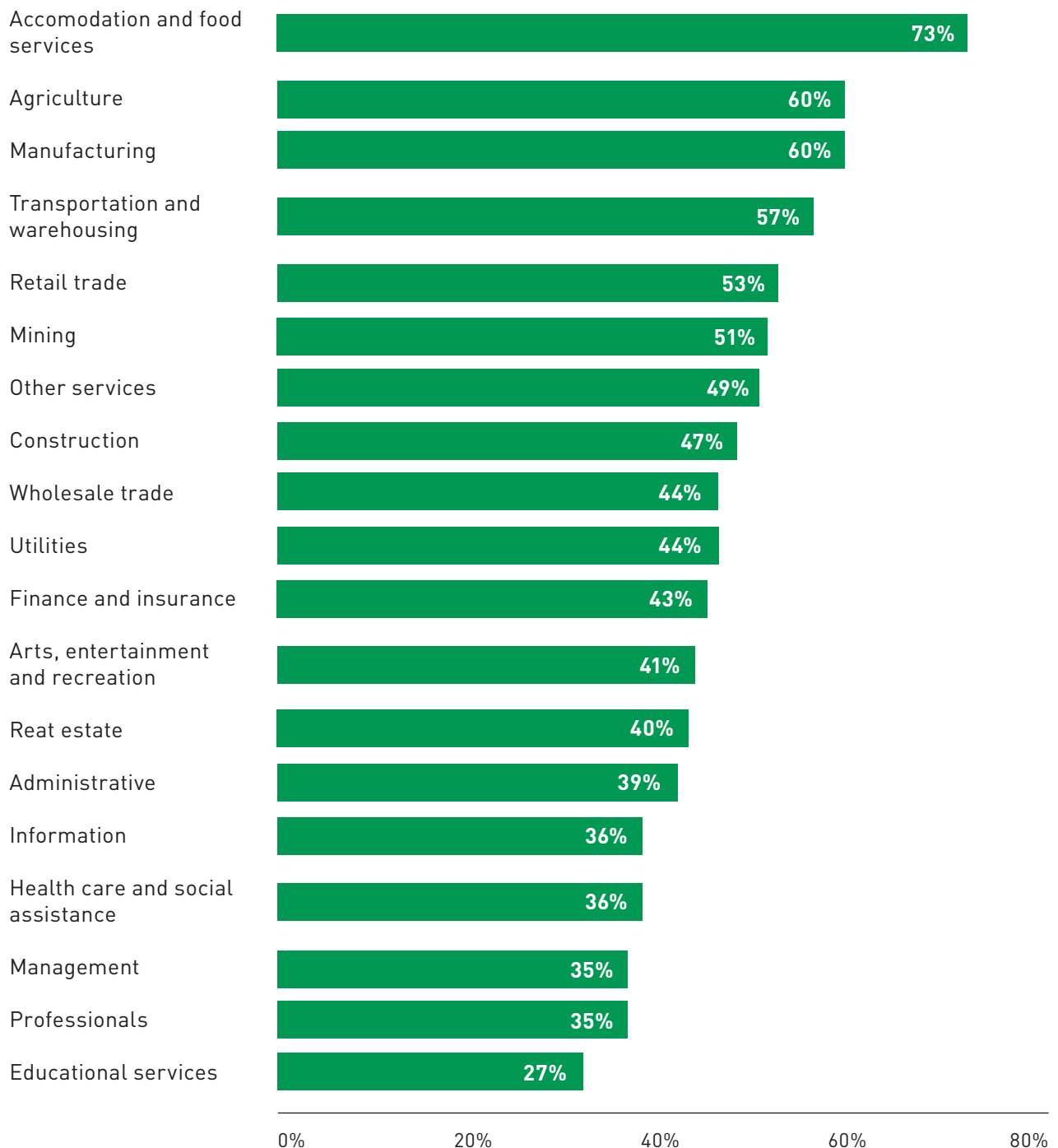
In July 2020, The Borderplex Alliance completed a Skills Cluster Analysis that identified areas where there is an oversupply of talent in Las Cruces and El Paso. In fields where there is an oversupply of talent, economic development organizations can market those available talent pipelines as a differentiating factor for attracting companies. This would fully leverage high numbers of graduates in particular fields for business attraction while also keeping those workers in the region.

The Borderplex region needs a systematic way of obtaining the latest information on jobs availability, skills requirements, and new technology used in target industries. This will prepare the workforce for companies' imminent adoption of new advanced technologies and automation's threat to traditional work, and help workers adapt to changes in job availability and skills demands resulting from the COVID-19 pandemic. A resilient workforce system policy committee should be created to collect and analyze data that can help regional actors stay abreast of a constantly changing economy and work environment and to create policies that ensure the systems in place are continuously improving and adapting to meet the needs of industry.⁵⁰ The committee could include a special focus on AI as evidenced by the previous sections of this Plan that outline the massive potential that AI presents for the region.⁵¹

The region must address the digital divide to ensure that individuals and businesses have the digital infrastructure they need to be productive. A recent report from the Federal Reserve Bank showed the area to have a digital divide, or a deficiency in one of the three key resources: internet access, hardware to access the internet, and training on how to use the hardware and internet. The COVID-19 pandemic and the need to stay home has exacerbated challenges for those who are without access to the three digital resources. The continued digitalization of many industries will spark high demand for skilled and technical talent. Aside from career opportunities and limitations related to digital skills, digital inclusion is necessary for completing many common activities, such as completing homework, searching for a job, and paying bills on time. It is crucial for every person to have access to all three digital resources.



SHARE OF TIME SPENT IN TASKS THAT COULD BE AUTOMATED



Source: McKinsey via Bridgewater Associates

BUSINESS INSIDER

The students in the region are considered largely nontraditional in the sense that they often work while in school because they are older, taking care of family, and must pay the bills. According to Workforce Solutions Borderplex, 60% of graduating UTEP seniors work at least 30 hours per week, demonstrating that college students in the area are available for part-time and full-time work. The jobs students often have been in retail and food service, which are jobs not typically conducive to keeping a student in school given these jobs' irregular schedules and the need for a student to have several jobs to make ends meet. As a result, several of the regional higher education institutions have high attrition rates. This worsens poverty cycles because a college dropout cannot get a higher paying job to pay off school loans. Businesses can actively promote a stronger economy by offering student-employees paid internships (versus unpaid), part-time jobs (versus unpaid internships), flexible hours to align with school schedules, and offer remote work options. Colleges and universities can give students the skills they need for paid work options by offering industry recognized credentials for students that they can obtain during the course of their two and four-year degrees.

Transitioning soldiers and veterans from the various military installations are an important talent resource for the region given the intense training they received while in the armed forces. Other special populations are underutilized as well, such as persons with disabilities.

Additionally, for positions that are difficult to fill with local talent, companies in the region could attract talent from outside the region. For example, the Savannah Economic Development Authority in Georgia created a program to pay \$2,000 to technology workers who were willing to relocate to the city and work in remote technology jobs.⁵²

Regional employers could also hire skilled migrants and immigrants for hard to fill positions. According to the Pew Research Center, the U.S. economy will require immigrants to fill jobs in order to keep up with employer demand. This is particularly due to the loss of baby boomers to retirement, declining birth rates and the slow growth rate of working age adults.⁵³ An article by the Federal Reserve Bank of Dallas states that there is a correlation between immigration and economic growth, which is likely because these individuals fill critical job roles and frequently start new job-creating businesses. Immigrants and their children have historically been an integral part of the labor force.⁵⁴ Given the region's experience with outward migration and slow population growth⁵⁵ relative to the rest of the U.S., the Borderplex cities would benefit from the retention of more skilled immigrants in the region who could fill the gaps where domestic workers are in short supply.

Many immigrants face the challenge of having professional credentials in their home countries that are not recognized in the United States, leading to underemployment and underutilization of their skills. Organizations such as the World Education Services and its related organizations offer Skilled Immigrant Integration Programs specifically designed to help skilled, foreign-born professionals apply their skills sets to in-demand jobs.



This type of program would be a natural fit for the Borderplex’s border cities. With its bi-national community and the continuous flow of migrants and immigrants across the border, the Borderplex is prime to be a leader for employing systems that could utilize skilled immigrant talent.

Lastly, the U.S. has recently struggled with maintaining the rights of Dreamers to work in the U.S.; and while gaining some victories, this demographic remains in limbo. Comprehensive immigration reform is needed to ensure that immigrants who provide a necessary talent pipeline for the region are protected.



Strategic Recommendations

GOAL #29 Create a peerless workforce in the Borderplex region.

OBJECTIVE & STRATEGY: Create an agile workforce system that easily adapts to new and shifting industry demands by increasing coordination between business and education and workforce entities.

PRIORITY LEVEL: High	POTENTIAL PROJECT LEADS AND PARTNERS: The Borderplex Alliance, workforce boards, secondary and postsecondary school representatives, trade associations, business retention and expansion teams, digital inclusion organizations.
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- ACTIONS:**
- 29.1** Form a resilient workforce system policy committee to build a more resilient workforce system.
 - 29.2** Create a Talent Committee to oversee industry-specific talent initiatives and a University President’s Roundtable
 - 29.3** Include industry jargon into educational curriculum and ensure course outcomes align with target industry skills needs.
 - 29.4** Develop education and career crosswalks for target industry employers and job candidates.

GOAL #30 Make the Borderplex region a top choice for skilled workers.

OBJECTIVE & STRATEGY: Decrease net migration rates by fostering an inviting environment for skilled workers.

PRIORITY LEVEL: Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

Progress 321, university alumni associations, Adult Education and Literacy Consortium, and young professional organizations.

ACTIONS:

- 30.1** Market fields with an oversupply of talent to attract suitable companies and develop talent-driven industry niches.
- 30.2** Ask companies to sign a letter of commitment indicating their willingness to work towards providing 100% pay equity for Hispanic women.
- 30.3** Create a marketing campaign geared towards workers living both inside and outside the region to promote the region's quality of life.
- 30.4** Increase university completion rates by offering flexible, paid work and recognized credentials for students.
- 30.5** Hire non-traditional workers for hard to fill positions, including veterans, military spouses, individuals with disabilities, and previously incarcerated individuals looking for a second chance.
- 30.6** Create Skilled Immigrant Integration Program modeled after the program at the World Education Forum.
- 30.7** Advocate for comprehensive immigration reform to ensure that DREAMers and immigrants who provide a necessary talent pipeline for the region are protected.
- 30.8** Create an incentive program to encourage high-demand workers to relocate to the region.

"El Paso is one of the leading sites for Prudential to recruit and hire a very diverse workforce, with a focus on veteran talent. We also have the first and only Spanish bilingual-facing service group across all of Prudential. Adding a fluent Spanish service team has allowed us to connect with our growing community — not only in El Paso, but across the country," said Shawn Ollis, VP of Operations, Prudential - El Paso site.





VII. RESEARCH, DEVELOPMENT AND ENTREPRENEURSHIP

An innovation ecosystem, including research, development and entrepreneurship, is one of the World Economic Forum's competitiveness indicators that will drive the economy forward. Small businesses are well known to be the most effective job creators. Importantly, new business creation will help heal the economy in a post-Covid-19 world. "Businesses that are less than five years old create nearly all of the net new jobs in the American economy, including fueling net new job creation during economic downturns."⁵⁶ Fostering a system that is supportive of research, development and entrepreneurship can also help keep talent in the region and empower underemployed or underutilized talent.

The region has many assets available to be leveraged to grow its R&D capacity. The AI Center and CIITA in Juarez, the interdisciplinary center and Mike Loya Center for Entrepreneurship at UTEP, the Arrowhead Innovation Center and Studio G at New Mexico State University, and the technology transfer offices at most of the regional universities. Professors from these universities are often sources of new intellectual property that can be commercialized.

To spur the growth of locally owned, high technology companies, policies are needed that promote the commercialization of patents and create a supportive environment for entrepreneurs. Ultimately, R&D and new business creation will also require strong, sustained financial commitments to be successful.

Additionally, there is plenty of compelling evidence to support the creation of an immigrant startup visa. Research shows that immigrants are twice as likely as native-born Americans to start a business.⁵⁷ More than fifty percent of startups in the U.S. that are valued at \$1 billion or more were started by at least one immigrant.⁵⁸ And immigrants are steadily becoming new business owners. Between 1995 and 2012, the share of employer firms started by immigrants grew from about 16% to 25%.

Interviews taken during the strategic planning process revealed that entrepreneurs in Juarez may face trouble finding financing for their companies; at the same time, El Paso and Las Cruces have few major headquarters in the area that generate significant amounts of revenue. As many Juarenses may want to start businesses in U.S., whether it is to find financing, tap into supportive entrepreneurship ecosystems, or other reasons, Las Cruces and El Paso would greatly benefit from having these entrepreneurs move to the area to start high value, job-creating startup companies. A visa for startup entrepreneurs would pave the way for this to happen.



Strategic Recommendations

GOAL #31

Create a government policy framework that fortifies the entrepreneurial and innovation ecosystem.

OBJECTIVE & STRATEGY:

Increase the number of startups and commercialized innovations by strengthening the government's support for entrepreneurs and innovators.

PRIORITY LEVEL:

Med.

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, TechHub, Pioneers 21, Arrowhead Center for Innovation, the MCA Foundation, and local, state and federal officials.

ACTIONS:

- 31.1** Align government and private funding opportunities with entrepreneurs who are willing to fill gaps in the supply chain for the target industries. The medical device supplier development program, funded by the City of El Paso, is one such example.
- 31.2** Create a level playing field between new companies and established entrepreneurs when determining incentives.
- 31.3** Create a single list of all requirements to start any business and easy-to-read guides that walk entrepreneurs through the permitting process. These should be translated into multiple languages and posted in public offices and in an easy-to-find location online.
- 31.4** Ensure government processes are as streamlined as possible for small businesses. Require coordination across agencies to simplify all local procedures, forms, licenses, and permits required to start a business.
- 31.5** Establish a rapid prototyping center where businesses can connect with engineers to solve business problems with technology.⁵⁹
- 31.6** Establish a startup visa that authorizes foreign entrepreneurs to start businesses in the United States.⁶⁰
- 31.7** Create statewide funds dedicated to research and development within a target industry, such as advanced manufacturing or IT, similar to existing funds like the New Mexico Small Business Innovation Research Grant and the Cancer Prevention and Research Institute of Texas.

The chart below shows research and development opportunities that were identified throughout this document.

BORDERPLEX R&D AND ENTREPRENEURSHIP OPPORTUNITIES

INDUSTRY	MARKET OPPORTUNITY
Life Sciences	<p>Applications of AI in all phases of drug discovery process.</p> <p>Telehealth has become more widely accepted and used during the Covid-19 pandemic, which will likely continue during the pandemic, and accelerate adoption rates.</p> <p>Medical devices are prime for innovation and the market demand is very high.</p> <p>Encourage the creation of startups in the telehealth field by advocating for policy changes that would allow greater adoption of advanced technologies.</p>
Advanced Logistics	<p>To accelerate the region's potential as a major international hub, it can begin applying new technology to the industry to solve problems that can then be commercialized. For example, local industry leaders named AI and blockchain as potential technology to be applied to improve efficiency of international bridge traffic. Based on www.transmetrics.eu, new technologies in transportation and warehousing include:</p> <ul style="list-style-type: none"> • Real-time supply chain visibility • Blockchain • Data standardization and advanced analytics • Autonomous vehicles • Warehouse robotics • Digital twins⁶¹
Manufacturing/IT	<p>Greater adoption of new technology, particularly in digital technology, presents an opportunity for R&D in IT/manufacturing. Immense opportunity exists here given the constant need for greater process efficiency and the ability of new technology to provide that efficiency.</p> <p>5g Research and development should be incentivized to take advantage of this new infrastructure.</p>
Business Services	<p>There is a growing market for fintech because there is a growing customer demand for digital financial services.</p> <p>Advocate for regulation changes that could alleviate community banks' risk associated with extending trade financing services to SMEs and provide incentives for larger banks to become more involved in SME trade financing.</p>
All target industries	<p>If the 5G infrastructure is fully realized in El Paso, it will open the door to many new hands on R&D opportunities, particularly around IoT and AI. For example, it can enable heavy manufacturing companies and utilities to automate their core processes and operate more efficiently.</p>

VIII. POLICY ISSUES

Several policy issues were highlighted in this Plan and each will need a dedicated strategy to successfully address them. The Borderplex Alliance will engage with local, state and federal governments to address these issues. It will form a legislative roundtable to provide a briefing to the El Paso County legislative delegation. This forum will include an opportunity to hear from area CEOs as well.

The following is a brief summary of the policy issues under the umbrella of The Borderplex Alliance and its partners:

- Funding for international port infrastructure
- Comprehensive immigration reform and refugee care
- Trade agreements
- Tariffs
- Policy issues related to the life sciences industry
- Funding for water infrastructure
- Funding for research and development
- Funding for broadband infrastructure
- Redrawing of El Paso's opportunity zones
- General border issues that affect regional businesses
- Workforce and taxation issues that impact all three states
- Tax breaks and incentives for the creation, attraction, retention and expansion of local companies.

The Borderplex Alliance will not engage in policy issues relating to the military, advocacy at the state level in New Mexico and Chihuahua, or money for highways.



SUMMARY OF POLICY ISSUES FOUND IN THE STRATEGIC PLAN

ISSUE AREA	POLICY ISSUES
Life Sciences	Identify waivers given to Centers for Medicaid and Medicare Services during the pandemic that have helped the system work more effectively and ensure that they are made permanent. Advocate for regulatory changes that allow the introduction of new technology in the industry.
	Ensure State of Texas provides consistent funding for 1115 Medicaid demonstration waiver.
Business Services	Advocate for regulation changes that could alleviate community banks' risk associated with extending trade financing services to SMEs and provide incentives for larger banks to become more involved in SME trade financing.
	Advocate for regulatory changes that allow the introduction of new technology in the business services industry.
Advanced Manufacturing	No established policy issues.
Aerospace and Defense	Align all efforts to attract more military missions.
Advanced Logistics	<p>Advocate for public investment for the following trade infrastructure:</p> <p>FDA testing facilities (governmental) for agriculture and medical devices.</p> <p>Medical grade cold storage facilities within the Customs and Border Protection port at Tornillo.</p> <p>Expansion of the foreign trade zone.</p> <p>Autonomous vehicle stations.</p> <p>Rail service properties improvement and expansion.</p> <p>Completion of the highway loop from south of Cd. Juarez to the Tornillo port.</p> <p>Trade-related interstate highway infrastructure.</p> <p>Advocate for any changes needed to the NAFTA/USMCA visa if there are provisions that limit talent from being able to work easily on either side of the border.</p>

SUMMARY OF POLICY ISSUES FOUND IN THE STRATEGIC PLAN

ISSUE AREA	POLICY ISSUES
Talent Pipeline Development	Policy issues to be determined by the resilient workforce system policy committee, including AI-related policies.
	Advocate for comprehensive immigration reform to ensure that DREAMERS and immigrants who provide a necessary talent pipeline for the region are protected.
	Create an incentive program to encourage high-demand workers to relocate to the region.
Research, Development and Entrepreneurship	Align government funding opportunities with entrepreneurs who are willing to fill gaps in the supply chains in the target industries.
	Create a level playing field between new companies and established entrepreneurs when determining incentives.
	Establish a startup visa that authorizes foreign entrepreneurs to start businesses in the United States to encourage immigrant startup companies.
	Ensure government processes are as streamlined as possible for small businesses.
	Create statewide funds for research and development similar to existing funds like the New Mexico Small Business Innovation Research Grant and the Cancer Prevention and Research Institute of Texas.

IX. TARGETED MARKETING

At the heart of many of the strategies in this Plan is the need to effectively market the region for specific purposes. These marketing efforts will have a variety of audiences to include the citizens of the Borderplex region as well as outside companies. It is important to note that the strategies below do not address tourism and quality of life promotion, and so these areas should be addressed separately.



IX. TARGETED MARKETING

Strategic Recommendations

GOAL #32 Become known as the best region to work and do business.

OBJECTIVE & STRATEGY: Leverage marketing resources to improve the reputation of the region.

PRIORITY LEVEL: High

POTENTIAL PROJECT LEADS AND PARTNERS:

The Borderplex Alliance, Wingo Sanders, convention and visitors bureaus, and regional economic development organizations.

ACTIONS:

- 32.1** Coordinate all regional economic development organizations to define clear and unified messages that promote the region and handle negative press. Integrate common location decision factors. Audience: executives from companies within target industries.
- 32.2** Promote supply chains to draw companies. Use established and soon-to-be established supplier inventory lists. Marketing materials should not only promote the existence of the supply chain but the quality of goods and services as well. Audience: Executives within all targeted industries.
- 32.3** Promote supply chain gaps to draw suppliers from outside the region. Audience: suppliers from outside the region who can fill the gaps and local supplier/entrepreneurs who are willing to start producing new products. For FDI campaigns, the materials can be tailored for certain countries.
- 32.4** Promote talent oversupplies or “niche” target industries. Marketing materials will be used as evidence of a guaranteed talent pipeline for companies within these niches. Audience: executives from companies within the aerospace (MRO and defense contractors), medical device, life sciences (biomedical research), cybersecurity, and professional, scientific and IT services industries.
- 32.5** Promote successful technology entrepreneurs. The purpose of this is 1) to attract investors from outside the region, and 2) to encourage tech entrepreneurship as a viable career option within the Borderplex region. Audience: investors from outside the region and the local community.
- 32.6** Promote region to cities with similar industries and attributes for direct flights. Having these materials along with a detailed targeted cities list can support attempts at negotiating more direct flights.⁶² Audience: government officials from targeted cities.
- 32.7** Create a marketing campaign directed at skilled workers. The campaign can be tailored for various audiences, including medical personnel, workers and graduates in the target industries.⁶³ Audience: citizens from Juarez, El Paso and southern New Mexico and the surrounding region as well as outside the region. School-aged children K-12, college, and adults; materials should be in both Spanish and English.

IX. TARGETED MARKETING

ACTIONS:

- 32.8** Promote strong community pride in the presence of military bases. This is to foster goodwill with soldiers transitioning out of the military to encourage them and their families to remain in the area. This can also be used when advocating for the attraction of more missions to the regional bases. Audience: military families, transitioning soldiers, high level military officials.
- 32.9** Build a data trust or shared economic development data platform to create uniform and publicly available economic data that can help keep marketing materials up to date. This data trust can also be used as a way to identify new business opportunities.

X. IMPLEMENTATION

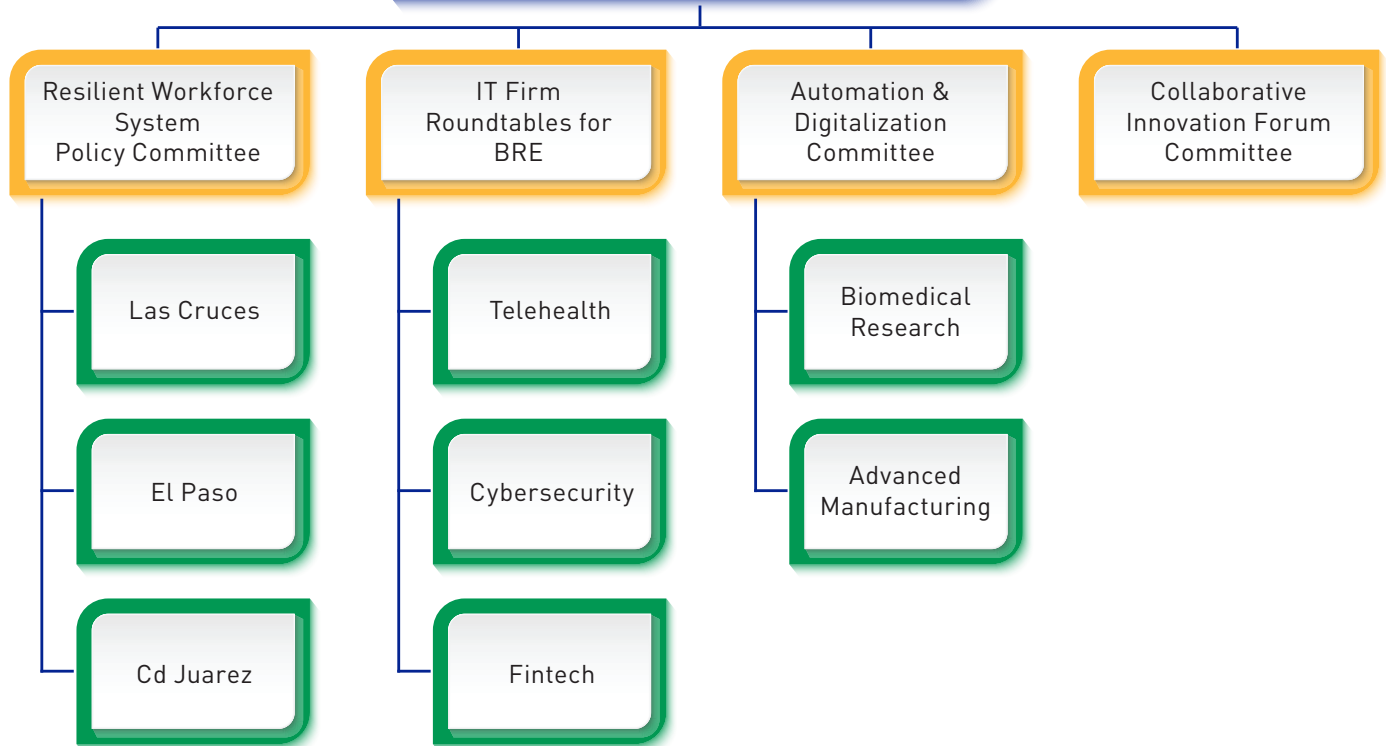
The initial steps to implementation should include the following activities:

- Form a governing body to meet once or twice a year to review progress on the metrics, consider larger trends and any disruptions and modify metrics and activities as needed.
- Consult each “Objective and Strategy” to identify relevant areas to be measured and conduct a trend analysis to form reasonable and achievable metrics.
- Build a dashboard to keep track of the metrics. Include community development partners and their metrics; meet regularly to discuss the context behind the numbers and identify areas of connection and potential partnership.
- Formalize the Binational Technology Council and the Manufacturing Supplier Association. These bodies will have subcommittees that are critical for strategy implementation. Set up the Business Retention and Expansion and Digital Inclusion committees. Form the Legislative Roundtable.
- Solidify project leads and partners for each action. Determine firm project timelines and costs.

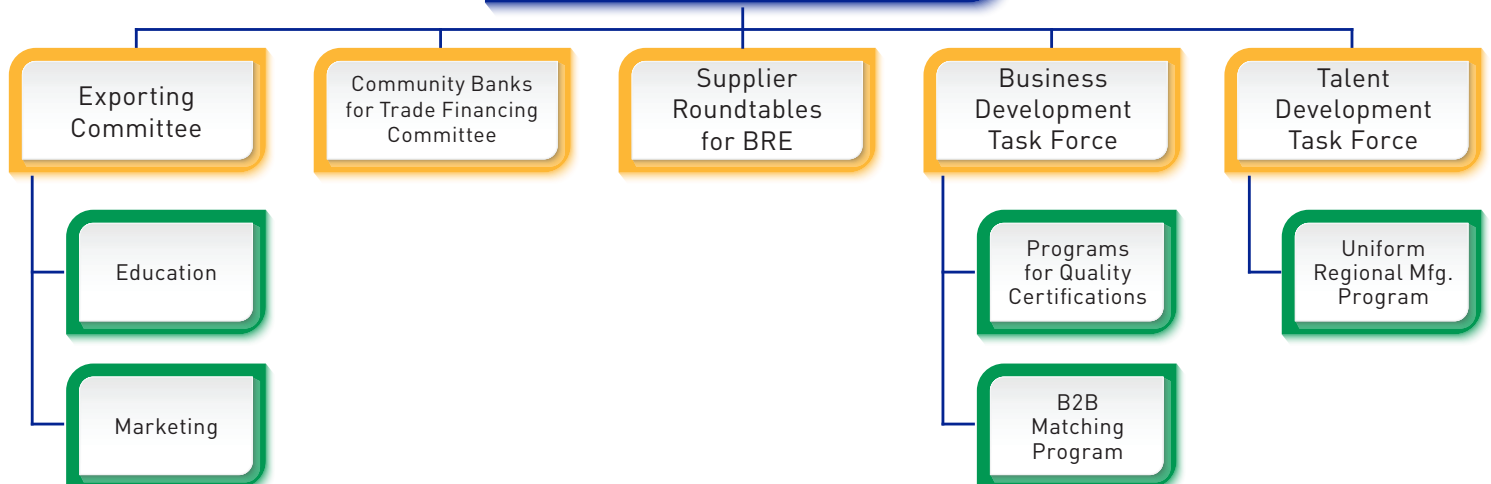
*Note on recommendation to coordinate between community development and economic development: Access to the internet, preventative healthcare, affordable housing, affordable and healthy food, reliable transportation, affordable child care, etc. can have a major impact on workers’ ability to successfully complete an educational degree or keep a job. Workforce boards, community colleges and even some businesses recognize this and offer monetary support to help people meet their basic needs so that they are empowered to complete their education and become successful workers. Recognizing the indirect linkages of community development with economic success is the first step to addressing the underlying causes of poverty and low productivity. Community development and economic development can work together to build stronger systems for an overall more inclusive and prosperous community.

X. IMPLEMENTATION

BINATIONAL TECHNOLOGY COUNCIL



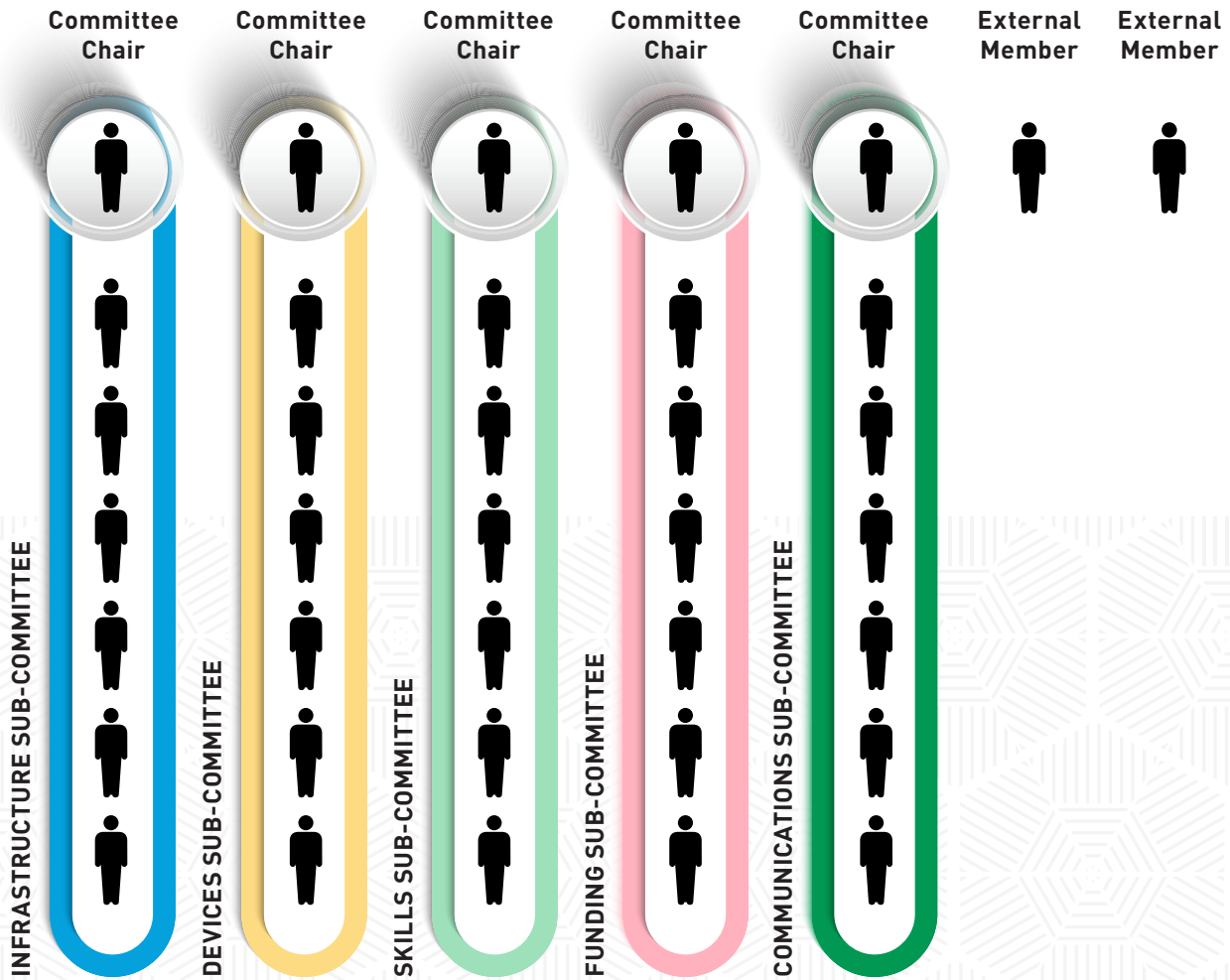
MANUFACTURING SUPPLIER ASSOCIATION



X. IMPLEMENTATION

PROPOSED COALITION STRUCTURE

COALITION STEERING COMMITTEE



XI. CONCLUSION

The strategic recommendations in this Plan aim to accelerate competitiveness by addressing the majority of the regional economic development priorities while paying careful attention to established benchmarks of economic competitiveness. The next steps will include the creation of a separate implementation plan or Volume II of the strategic plan. The Borderplex Alliance will work with industry leaders across the region who helped create the plan as well as many other community partners who can support the Plan's initiatives. Pilot projects will be developed as appropriate and assigned key performance metrics.

Transformational shifts from many directions, most notably from the COVID-19 pandemic and Industry 4.0, have exposed deficiencies in our systems and accelerated the need to embrace new ideas and perspectives. On the other hand, adopting new technology and innovating around changes in customer behaviors and expectations can lead to new profitable ventures for companies. If the region dedicates resources towards the target industries and diligently builds the systems that support its companies, then this investment will propel the region towards a quick recovery from the economic recession and enable it to capitalize on new and exciting opportunities. The Borderplex region is a place with a pioneer spirit and an intense devotion to family and community where people are full of authenticity, tenacity and grit. Along with many market opportunities, it is these qualities that will make the Borderplex region lead the nation through the recovery and emerge as a leader in inclusive prosperity.



ENDNOTES

1 Information is based on 2019 Q4 data (EMSI).

2 Information is based on 2019 Q4 data (EMSI).

3 Data on unemployment since the Covid-19 pandemic started is unknown.

4 IMSS

5 DECJ, INEGI

6 All target industry median wages fall within the “upper quartile” of jobs by median wage under the Bureau of Labor Statistics; this is a priority for many leaders in El Paso.

7 The Hospitals of Providence Transmountain Campus is expected to have 100 residency slots by around 2026.

8 See Expansion Solutions Magazine (July/Aug 2019).

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