The power of collaboration. One region, one voice.

2015 Strategic Recommendations

Presented to the Borderplex Alliance Board of Directors and the Borderplex Alliance Economic Development Strategic Plan Project Committee
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The Need for a Regional Economic Development Strategic Plan

The economy of the North American Borderplex Region that runs along the north-central Mexico, western Texas and south-central New Mexico borders, suffered significant decline during the years of the global recession. Post recession, the region has failed to share in the economic gains seen in the rest of the state. Heavy reliance upon manufacturing in Cd. Juárez has left it with a dangerous lack of industry diversification. That lack of diversification, along with a lack of cohesive regional economic development planning and marketing, has hampered post-recession progress and left communities at the precarious mercy of the health of a single industry. Both population and business growth has slowed to levels that cannot support a healthy and growing economy.

Large military bases have served the region well in the past, driving parts of the economy and insulating it from wider fluctuations during downturns. Activity in sensor development, atmospheric testing, laser firing, missile & artillery testing and astronaut training have advanced R&D in the area. An expected BRAC in 2017 will require the region to be prepared for cutbacks and opportunities arising from the closure of smaller bases in other areas.

Life Sciences is emerging as a strong sector in the region, driven by three major research universities, three medical schools, a bio-med innovation center and accelerator and research opportunities. It is time for the region to assess the potential of the growing industry sector and develop strong support and expansion strategies.

A major segment of the regional economy is beginning to grow again - new nearshoring maquila plants are choosing to locate in Cd. Juárez. Maquila numbers in the city increased in both 2013 and 2014. However, the nature of maquila production, by far the largest type of manufacturing active in Cd. Juárez, has led to underdeveloped local supply chains. Corporations ship needed production materials to their maquila plants from outside Mexico without tax implications and ship most of the production back to markets outside the country. The process has proven very successful for manufacturing, but it leads to little demand for local supply and does not encourage innovation or normal local entrepreneurial business development.

In the past, each of the major cities within the North American Borderplex Region; El Paso, Cd. Juarez, and Las Cruces; has worked independently to conduct economic development. This has led to silos of activity that have carried through to business, tourism, educational and research activities. On its own, each of the three
cities is limited in the assets it can bring to the table to attract new industries, and none has been a successful player in global markets. The North American Borderplex Region has been bypassed by new industries that should have located in the area and could have operated with great success. The uncoordinated struggle to develop economically has perpetuated the region’s reputation as simply a low-cost, low-quality labor basin. Unless the region acts to overcome this stigma quickly, it will fall far behind its competition in the transition to advanced manufacturing, and it will lose its leverage in attracting critically needed new industries.

Banded together as one coordinated region, the three major cities in the Borderplex offer a wide range of opportunities for development; El Paso with logistics, life sciences and retail sales, Cd. Juárez with manufacturing and Las Cruces with life sciences, tourism, agriculture and aerospace opportunities. Working regionally, the cities are more powerful than the sum of their parts. The region has significant opportunities and resources to be able to attract the attention of major industries throughout North America and abroad. These assets are not currently being adequately communicated and marketed.

Recognizing the need for better planning, in 2011, the city of El Paso commissioned a study of economic activity in the area. The study, conducted by Manchester Business School Professor Edward Feser, pointed out the critical need for coherent regional economic development action. It provided several major recommendations, including:

- The Formation of a Regional Public/Private Economic Development Organization
- The Development and Implementation of a Broad-based Economic Development Strategy

In the four years since the release of the Feser report, economic forecast for the Borderplex remains uncertain, and the area continues to lose important opportunities. The El Paso, Juárez and Las Cruces area must function collaboratively and become recognized as one well-oiled united economic region.

In 2012, a regional public/private economic development organization, the Borderplex Alliance (the Alliance), was born from the merger of the El Paso Regional Economic Development Corporation and the Paso del Norte Group. Working to promote regional efforts, the Alliance is working to help local EDO’s achieve their common goals, advance regional planning and market the North American Borderplex Region to new industries.

It is imperative that the Alliance garner the support of local economic development organizations so that it can market the region as a whole, advocate more powerfully for common goals and help coordinate planning. In order for all forces within the area to operate effectively as a region, they must act as partners following a collaborative strategic economic development plan bent on achieving regional goals.

The Alliance contracted AngelouEconomics (AE) in June 2014 to help create an economic development strategy based on an analysis of the greater market area and the identification of target industries that could advance diversification and leverage regional assets for competitive advantage. That strategy is contained within this report.
Executive Summary

The Borderplex Alliance Strategic Recommendations report is the last of a series of reports designed to develop an economic action plan for the El Paso/Cd. Juárez/Southern New Mexico region. The overriding goal of the strategic plan is to ensure the future economic prosperity and diversity of the region and build quality into all aspects of business and daily living environments.

The Strategic Recommendations are based on the findings of two earlier project studies - the Borderplex Market Assessment, dated Nov. 13, 2014, and a Target Industries Analysis, dated Jan. 15, 2015. Research for those studies was greatly aided through insight provided by more than 1,000 business and resident stakeholders in El Paso, Cd. Juárez and the Southern New Mexico area through interviews, focus groups and online surveys. The assets and issues included in this Strategic Recommendations report were identified in the Market Assessment. The sector industries referenced were identified in the Target Industries report. Detail on the previous reports can be found in the Appendix.

Market Assessment

The Market Assessment Report, delivered Nov. 13, 2014, uncovered several important aspects of region. It is:

- Ideally Located On the Mexico/U.S. Border
- A Top Trade Port, with $48.1 Billion Of Maquila Exports
- The Largest Contiguous Military Bases in the U.S.
- The Number One Border Area in Post-secondary Education
- Second Only to San Diego For Border University R&D
- The Only Border Area With Three Medical Schools
- The Highest Border College Student Population by Workforce
- The Second Largest Border Manufacturing Employment Center

To understand the diversities within the regional market, AE conducted quantitative analysis based on public data and in-house models. In addition, AE spoke with 150 stakeholders from El Paso, Cd. Juárez, Las Cruces and Santa Teresa during interviews and focus groups. An additional 865 businesses and residents provided input through online surveys. Their input strengthened the understanding of the area.

“Stop attracting companies (through) lower operating costs attributed to labor, but promote a more diverse and sophisticated work force, great infrastructure to move products and services, great technology and universities.”

-- Business Survey Respondent
Executive Summary

These factors translate into competitive assets the region will be able to use to advance and expand existing businesses and to garner advantage in attracting the new industries necessary for diversification. Key competitive assets include:

- Key North American Trade Location
- Key Border Manufacturing Area
- Large Bi-cultural, Bilingual Population
- Three Major Military Bases
- Bi-Modal Transportation Hub
- Three Major Research Universities
- Three Medical Schools
- Bio-med Centers of Excellence
- Significant R&D Expenditures
- Engineering, Medical Pipeline
- Abundant Low-Cost Workforce
- High Workforce Training Opportunity
- Low Cost of Doing Business

Target Industries

During further study into the determination of target industries, AE found clustering activity in industries other than manufacturing to be low, and an inadequate supportive environment for entrepreneurial business establishment. Those entrepreneurial businesses will be key to developing stronger clusters in the region that can attract larger businesses. Actions must be taken to encourage and foster new small businesses in the area.
Executive Summary

In the Target Industries Report delivered Jan. 15, 2015, six industries and their related niches were identified for concentration of limited economic development funds. Those industries were:

- Defense & Aerospace
- Life Sciences
- Tourism
- Advanced Manufacturing
- Business Support Services
- Advanced Logistics

Strategic Recommendations
Armed with this knowledge of its market area and focused on the six target industries for attraction and diversity, the Alliance should work to achieve three broad, overarching goals in order to ensure future economic prosperity and build a reputation for quality into all elements of the Borderplex market:

- Spearhead Regional Collaboration and Planning
- Become Known for Quality
- Spur Innovation & Entrepreneurism

These three goals, which form the backbone of this strategic plan, are supported by specific strategies for achievement. Each strategy is broken into implementable steps that are tracked on an implementation matrix. Best Practice examples are provided, illustrating how others have executed similar ideas with great success. Strategies are also provided for each of the six target industry sectors. Strategies and key actions are highlighted on the following pages.

“We need to commit to playing at a major league level . . . The focus on expansion of competitive economic choices and options starts with closing the gaps of educational attainment and promoting a vision that embraces best practices and the importation of skills and leaders from all over the nation.”

-- Business Survey Respondent
**Executive Summary**

**GOAL 1: SPEARHEAD REGIONAL COLLABORATION**

The Alliance is the organization that should serve to unify the Borderplex on a regional level. In doing that, the Alliance should support local EDOs in their common goals, help ensure that all economic development efforts are running in the same direction, reduce duplicated efforts, advocate more powerfully for the region and market the region with new leverage.

**Key Actions:**
- Aggressively Market and Advocate for the Coordinated Region
  - Become the Regional Source of Economic Data
  - Conduct Retention & Expansion for Major Employers
  - Establish Offices in Cd. Juárez and Las Cruces
- Create an Informal Regional Council of Planning Departments
- Leverage the Power of Camino Real Regional Mobility Authority
  - Regionalize the El Paso International Airport

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**BIG IDEA: Regionalize Border Policy Issues** – Take advocacy of border issues up a notch. Make border policy changes a shared concern for all U.S. states that border Mexico, not only Texas and New Mexico, but California and Arizona as well.

**BIG IDEA: Host an Advanced Manufacturing Exposition** - Bring an advanced manufacturing exposition to El Paso, in conjunction with the World Trade Center.

**BIG IDEA: Establish a World Trade Center Market Place** - Leverage the Alliance’s acquisition of the World Trade Center license to help the region become an international center for industry and trade. A WTC in El Paso could showcase maquila products on the U.S. side of the border and create a marketplace for buyers and sellers.
**Executive Summary**

**GOAL 2: BECOME KNOWN FOR QUALITY**

In order to attract and develop more industry clusters and high-skilled employees, the area must begin to change its reputation as a low-cost, low-quality workforce basin to one of quality, including quality of life, quality of place, quality of workforce, quality of government services, quality of schools and quality of products.

**Key Actions:**
- Increase Efficiencies of Border Crossings
- Secure Direct Air Service to Key Markets
- Aggregate Needed Workforce Skills
  - Align Training Programs
  - Re-Establish Cultural Tourism
- Create Arts & Culture Districts
- Study & Resolve Connectivity Issues

**BIG IDEA:** **Promote creation of a Western Theme Park** – Create a family-oriented replica wild west town in El Paso, complete with re-enactments of high noon shootouts, bank robberies, cowboy poetry, stage coach rides, blacksmith demonstrations and saloon shows. Incorporate regional history and characters.

**BIG IDEA:** **Establish a regional quality council** – Develop a local adaptation of the Malcolm Baldrige Award that recognizes organizations in the business, health care, education, public and nonprofit sectors for high standards of quality.
Executive Summary

GOAL 3: SPUR INNOVATION & ENTREPRENEURISM

To diversify and strengthen the economy in a sustainable way, the region must support the development of an ecosystem to grow and sustain entrepreneurship as an economic driver for the region. Entrepreneurial small businesses will help further develop clusters and attract larger businesses within target industries.

Key Actions:

- Regionalize Entrepreneurism
  - Build Angel Funding
  - Coordinate University Research

- Promote Joint Applications for Research Grants from Universities
  - Create Independent Contract Mfg. Association
  - Secure Bonding & Financing for SME’s

BIG IDEA: Make the North American Borderplex Region the Entrepreneurial Gateway to Latin America — The U.S. may approve a process to grant entrepreneurial visas by the end of 2015. The Borderplex can be an important force in establishing the region as an entrepreneurial hub equipped & powered by international innovation and collaboration.
Executive Summary

The Implementation Matrix that accompanies this report prioritizes actions, assigns ED partners, and sets the work to be done on a timeline, allowing the Alliance to review the progress and levels of success of the strategic plan. That matrix is divided into several sections that highlight priorities and actions for which the Alliance assumes a primary role.

An economic development strategic plan is a living, constantly evolving document that must be reviewed often and adjusted to changes in the local and global environments. Key Performance Metrics provided at the end of this report will help the Alliance effectively measure implementation of strategies within the plan.

Additionally, AE recommends that the Alliance and its economic development partners hold an annual meeting and keep scorecards to evaluate progress. The Alliance should consider creating a public website where performance metrics are tracked and results are periodically provided to maintain trust and accountability with stakeholders.

There is much to accomplish within this strategic plan, and the Alliance cannot implement it alone. The organization will need strong partners that can each assume responsibilities within their areas of expertise. Transformation in the North American Borderplex Region will only come through partners working together to capture a shared goal of economic prosperity.

To that end, diverse organizations and elements within the region will have to overcome a long history of mistrust and a culture of silo-building. Regional leaders will have to rise above the political issues involved in the complicated geographic DNA of three states and two countries.

The window of opportunity is limited in which to reposition the Borderplex as a leveraged player in the shifting world economy. Unless communities and organizations within the region are able to quickly form strong collaborative regional support, they stand little chance of catching up in the race for global economic standing or advancing past the current reputation for low-cost and low-quality. Failing to do that will silence the region’s voice in its own economic future.
New Vision for An International Region

Paso del Norte Bridge, Cd. Juárez
New Beginnings

For nearly 400 years, the border area of northeastern Mexico, West Texas and south central New Mexico has operated as a wide multicultural, bilingual, cooperative community. The area continues to act as a significant North American population center today, with more than 2.4 million residents and a workforce nearly 1 million strong.

For generations, the area thrived on tourism, attracting visitors from the U.S., Mexico, Europe and Asia. A new era began in 1964 with the passage of Mexico’s Maquiladora program, which established Free Trade Zones along the border, where foreign-owned factories could import supplies and equipment on a duty-free, tariff-free basis for assembly, processing or manufacturing. The number of maquila plants in Cd. Juárez exploded, and manufacturing overtook tourism as the greatest source of foreign exchange. With more than 310 maquilas currently operating in Cd. Juárez employing an estimated 217,000 workers, manufacturing activity in Cd. Juárez has become the engine for the region.

As manufacturing continues to grow, the North American Borderplex Region has lost important diversity in industries, a significant issue in economic prosperity today. Tourism in the area was hit hard by the U.S. recession in 2008 and by a simultaneous escalation in violent crime in Cd. Juárez that has captured international media attention.

In the 21st Century, El Paso has lost significance in the Texas economy. Between 2001 and 2013, El Paso dropped from 2.4% of statewide GDP to 1.8%. The city did not enjoy the high GDP growth Texas overall has experienced since the end of the recession. The gap between the El Paso and the statewide real GDP per capita has increased from $12,000 in 2001 to nearly $22,000 in 2013. El Paso has also lost ground as an employment center in Texas. Between 1990 and 2014, El Paso fell from 2.8% of total employment in Texas to 2.6%. During that same period, Las Cruces jumped from 8.3% of total employment in New Mexico to 10.1%.

The impact of the global recession is declining, maquila factories are again growing in establishments and employees. A new era of opportunity and positive change is now offered to the Borderplex area. It is the time to take stock and aim for a new beginning and redefinition – not as three small disconnected areas, but as a powerful coordinated region that leverages joint assets to act as a recognized force in competitive global markets. The potential strength of the region is much greater than the sum of its individual communities.

It is important that the North American Borderplex Region aggressively take advantage of the opportunity to reposition itself now, as international markets restructure post-recession. As a region, it must carefully understand and leverage the competitive assets at its disposal, and act to remedy issues that could hold the area back from optimal economic growth. If the region does not adopt and follow a new strategic plan for economic improvement, it risks falling further behind and suffering economic stagnation, increasing poverty and crime, declining work skills, persistent low wages and economic irrelevance. Failing to act quickly and cohesively could cost the region its chance to become a competitive player in world markets.
Fortunately, there are many weapons in the region’s arsenal. The area has strong assets at its disposal to grow existing businesses, attract new industries and thrive economically.

Cd. Juárez brings to play the Autonomous University, a large blue collar workforce, population and maquilas. El Paso brings logistics and distribution, the Medical Center of the Americas (MCA), the University of Texas El Paso, retail and Fort Bliss. Southern New Mexico adds available land, New Mexico State University, strong life sciences assets, Santa Teresa, Holloman Air Force Base and the White Sands Missile Range. For more detail on area assets, see Appendix pages 96 – 101.

**Key Regional Competitive Assets**
- International Border Location
- Large Bi-cultural Market
- Geographic Location On Major Highway Routes
- Leading Major Manufacturing Hub
- Bi-modal Transportation Network
- Abundant, Affordable Workforce
- Strong Research Universities
- Emerging Innovation and Creative Talent
- Growing Bio-Med Industry Cluster
- Largest U.S. Contiguous Military Bases
- Low Cost of Living
- Low Cost of Doing Business
- Bilingual Culture

While the Borderplex does have assets that will help it build competitive advantage in economic development, the area suffers from a number of persistent issues that must be addressed in order to move forward with success.

**Regional Challenges**
- Negative Image Of Low Quality And High Crime
- Lack of Industry Diversification
- Inadequate Workforce Skills
- Dysfunctional Border Crossings
- Logistical Impediments
- Underdeveloped Supply Chain
- Community Silos

The challenges facing the North American Borderplex Region are long-standing and complex. Strategies to address those challenges and begin to usher in solutions have been included within this plan. A chain is only as strong as its weakest link. In order to succeed as a region, all communities within the Borderplex area must participate in identifying, understanding and correcting issues that could hamper development and growth.

For more detail on regional challenges, see the Alliance Market Assessment Report dated Nov. 13, 2014, or Appendix pages 102 – 103.

“We need to be conscious of who we are and who we want to be.”

-- Borderplex Stakeholder Respondent
Target Industries

Target Industry Analysis for the North American Borderplex Region began with the examination of industries currently clustering within the area. Businesses cluster when proximity affords advantages, including increased opportunities for vertical and horizontal linkages. When businesses in the Borderplex Region increase connections to suppliers and consumers of their goods, clusters grow. Developing strong clusters will help attract other businesses from outside the region and promote critically needed diversification.

The challenge in strategic planning is to identify key assets that will support growth for particular industries and allow businesses within those industries to thrive. The strengths and assets identified within the Borderplex region provide competitive advantages that will help communities outperform other markets in attracting certain industries. The Alliance should use limited resources to target industries most aligned with regional assets and closely aligned with the organization’s goals of uniting the Borderplex area as one region and diversifying industries for stronger economic performance and protection.

Six target industry sectors have been identified that provide a high level of opportunity for the Borderplex Region:

- Defense and Aerospace
- Life Sciences
- Tourism
- Advanced Manufacturing
- Advanced Logistics
- Business Support Services

A full depiction of target industries, niche definitions, occupational analysis and comparative cost of operations was provided in the Target Industries Report dated Jan. 15, 2015. A summary of that report can be found in Appendix pages 105 – 123.

The Alliance should use all the tools at its disposal to aggressively market to target industries, including designing sector-specific marketing collateral, collecting reliable regional data for quick response to business inquiries, developing electronic collateral and a website with target industry sector pages, identifying supply chains and organizing marketing and FAM tours. Close attention must be paid to identifying and developing the higher work skills needed for each industry. Incentives should be reviewed and developed to compete for target clusters.

El Paso, Cd. Juárez
Regional Economic Development Organization

It is critical that the El Paso/Juárez/Las Cruces area function and become recognized as one well-oiled united economic region.

The Alliance should function as the primary economic development organization for the region as a whole, working to unify other local EDOs, chambers, and private and public offices to accomplish common goals. The Alliance needs to be the recognized initial point of contact for interested businesses and site selectors considering the area as a new location.

The Alliance should be the glue that holds the North American Borderplex region together, allowing each existing local organizations involved in economic development efforts to represent its own area on the local level. The Alliance will work in partnership with those local EDOs to implement the new strategic plan outlined within this report. Those partners include:

- Workforce Solutions Borderplex
- MVEDA
- Desarrollo Economico
- Greater El Paso Chamber of Commerce
- Greater Las Cruces Chamber of Commerce
- Las Cruces Chamber of Commerce
- El Paso Convention and Visitors Bureau
- The Hub of Human Innovation
- The City of El Paso
- Cuidad de Juárez
- The City of Las Cruces

In the role of primary regional EDO, the Alliance should spearhead region-wide:

- Marketing
- Lobbying and Advocacy
- Business Retention and Expansion for Major Employers
- Data Collection and Analysis
- Collaborative Regional Planning

Las Cruces Rodeo
## Borderplex Alliance Regional Collaborators

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Economic Development Strategy

In addition, the Alliance should work with its regional partners to assist them in their leadership efforts to:

- Strengthen Entrepreneurship (The Hub of Human Innovation)
- Develop Higher Workforce Skills (Workforce Solutions Borderplex)
- Improve Regional Infrastructure
- Improve Destination Factor (Convention & Visitors Bureaus)
- R&E and advocacy for Small-Medium Businesses (Local Chambers of Commerce)
- Leverage Military Presence (Greater El Paso Chamber of Commerce)

To reverse the overall weakening of economic prosperity from which the North American Borderplex Region has suffered during the last 15 years, and to take advantage of the opportunity to garner new competitive strength, the Alliance should lead the development of a stronger and more positive image of the region in the eyes of the world. That positive image, or new brand, should underlie all economic development efforts.

Moving away from a long-existing reputation as a low-cost, low-skill workforce area, the Borderplex Region should work to become recognized as a growing international region with:

- An Abundant And Diversely-Skilled Workforce
- An Established And Growing Manufacturing Hub
- A Strong Bio-med Cluster
- Emerging Centers Of Research Excellence
- Innovative And Creative Talent
- Low Costs Of Living And Doing Business
- Good Quality Of Place
Economic Development Strategy

In order to ensure the future economic prosperity and diversity of the region and build quality into all elements of the Borderplex market area, the Alliance should focus on three broad, overarching goals:

• Spearhead Regional Collaboration
• Become Known for Quality
• Spur Innovation and Entrepreneurs

Strategies have been designed to help the Alliance accomplish each goal. These goals form the framework of the Alliance’s economic development strategic plan.
Goals & Strategies

“The time is right for regional collaboration, but that door will not be open forever.”

-- Borderplex Stakeholder Respondent
Strategic Objectives

MISSION
To ensure the future economic prosperity and diversity of the region and build quality

Spearhead Regional Collaboration
Today’s domestic and international economic markets are increasingly complex and competitive. Economic development has become a challenging team sport that requires a higher level of strategic skill and better tools to play successfully. Operating as a region, cities within the area can offer a stronger and more diverse set of assets to industries looking for a new location. Banded together, the communities can more effectively address difficult long-term issues by providing policy makers with cohesive, cooperatively backed strategies and a powerful single voice.

The Alliance is the organization that should serve to unify the Borderplex on a regional level. In doing that, the Alliance should support local EDOs in their common goals, help ensure that all economic development efforts are running in the same direction, reduce duplicated efforts, advocate more powerfully for the region and market the region with new leverage.

Become Known for Quality in All Areas
The region is known as a manufacturing-driven, low-cost market, which offers low costs of living and low wages. It is also perceived as a low-skill workforce area. In order to attract and develop more industry clusters and valuable employees, the area must now begin to alter that reputation to one of quality, including quality of life, quality of place, quality of workforce, quality of government services, quality of schools and quality of products.

Spur Innovation & Entrepreneurs
Innovation is key to economic growth. To diversify and strengthen the economy in a sustainable way, the region must support the development of an ecosystem to grow and sustain entrepreneurship as an economic driver for the region. Entrepreneurial small businesses will help further develop clusters and attract larger businesses within those industries.
GOAL ONE:
Spearhead Regional Collaboration
Goal One: Spearhead Regional Collaboration

The world is a competitive place. Increasing globalization pits cities of all sizes against some of the largest competitors in the world to support and grow successful industries that will bring with them the promise of higher paying jobs and revenue for the local tax base.

Working with regional partners for economic development is smart; it multiplies marketable assets, increases market access, diminishes weaknesses and broadens the workforce base. The multi-cultural Borderplex area can particularly benefit from regionalization. Banding together allows the maquila manufacturing plants in Cd. Juárez to leverage the transportation and logistics companies in El Paso and Santa Teresa. It allows important research universities the opportunity to collaborate and develop Centers of Excellence that further empower research activities. Regional collaboration also allows land space in southern New Mexico to attract target industries that will benefit the economy of every city in the region.

Development of a regional identity also provides an additional important opportunity – the chance for the area to redefine itself in the eyes of industries around the world. The North American Borderplex Region, with 2.4 million consumers, now has a good opportunity to grow beyond a reputation as a low-wage, low-skill work basin to a vibrant center of Biomedical research, technology innovation, advanced manufacturing leadership and bi-modal transportation logistics.

As the region works to develop a recognizable identity as a strong and business-friendly location, the Alliance should act as the primary economic development agency for the region and the “go-to” point for site selectors and businesses looking for a new home. To better engage and serve the diverse communities within its borders, the organization would benefit from establishing offices in Cd. Juárez and Las Cruces.

Being a competitive player in global markets today requires more than good regional assets. It requires up-to-date economic development expertise. Economic planning and prosperity relies on strong leadership in the private and public sectors. It also depends on a campaign to get the word out to the world that the region is aggressively open for business.
Goal One: Spearhead Regional Collaboration

Each strategy to Spearhead Regional Collaboration has a series of action steps that will need to be implemented to make this goal a reality. A summary of those key action steps is provided below and further detail can be found in the following pages.

I. Empower the Alliance as the Regional EDO
   1. Aggressively Market a Distinct Region
   2. Advocate with the Power of Collaboration
   3. Head Retention & Expansion for Major Employers
   4. Become the Regional Data Source
   5. Support Entrepreneurship
   6. Align Staff Skills to Economic Development Needs

   **BIG IDEA: Regionalize Border Policy Issues**

II. Drive Regional Collaboration
   1. Create an Informal Regional Council of Planning Departments
   2. Strengthen Collaboration with Strong Regional Partners
   3. Establish Offices in Cd. Juárez and Las Cruces
   4. Leverage the Power of the Camino Real Regional Mobility Authority

III. Put the North American Borderplex on the Map
   1. Establish a World Trade Center Market Place
   2. Attract International Industry and Regional Conferences
   3. Regionalize the El Paso International Airport
   4. Become the Top Bilingual, Bi-National Center on U.S./Mexico Border

   **BIG IDEA: Establish a World Trade Center Market Place**
   **BIG IDEA: Host an Advanced Manufacturing Exposition**
Goal One: Spearhead Regional Collaboration

Strategy 1: Empower the Alliance as the Regional EDO

Key Actions

1) Aggressively Market a Distinct Region
2) Advocate with the Power of Collaboration
3) Head Retention & Expansion for Major Employers
4) Become the Regional Data Source
5) Support Entrepreneurship
6) Align Staff Skills to Economic Development Needs

BIG IDEA: Regionalize Border Policy Issues

1) Powerfully Market the Distinct Region:
The most important aspect of economic development is marketing. The Alliance’s
top priority is to vigorously market the region through the promotion of collective
assets to attract new businesses and grow the regional economy. The Alliance
should be the initial contact point, the “one-stop-shop” for all businesses and site
selectors interested in expanding or relocating in the area.

Conduct marketing trips each year for each target industry. Assemble a team of
expert ambassadors for each industry to accompany the Alliance on those visits,
including private industry leaders, government officials and educational leaders.

- Create A Regional Brand Collaborative With Juárez Branding Activity
- Hire A Professional PR Firm To Market A Powerful Regional Brand
- Develop A Marketing Toolbox That Incorporates New Brand
- Create a “SWAT Team” For Each Target Industry
- Conduct Marketing Tours
- Host FAM Visits

Best Practices

Regional Branding: Cleveland Plus
Cleveland, OH

Cleveland Plus is a marketing campaign that umbrellas Northeast Ohio and focuses on highlighting the
region’s assets in order to attract business and add jobs. The campaign works on attracting positive media
attention, encouraging economic development, and increasing awareness of existing programs. Cleveland
was chosen as the anchor of the brand due to its prominence and its position as the largest city in the
region. One of the most important hurdles the program vaulted was getting the other cities, namely
Akron, to buy into the concept.

http://www.clevelandplus.com/

FAMILIARIZATION TOURS
Des Moines, IA

Recently Des Moines gave a unique twist to the
traditional FAM tour idea by hosting a weeklong
bicycle tour across Iowa. RAGBRAI, as the tour is
known, exposed participants to Iowa hospitality, local
cuisine and much else that makes the state unique.
Careful event planning, covering everything from bike
maintenance and luggage shipping to communication
of attractions along the route, ensured a smooth ride.

http://ragbrai.com/
Goal One: Spearhead Regional Collaboration

Strategy 1: Empower the Alliance as the Regional EDO

2) Advocate with the Power of Collaboration: Leverage the Alliance staff expertise and political contacts by leading and coordinating lobbying for economic development in the region. The Alliance can assume the lobbying role for regional, state and federal activity, and partner with local Chambers of Commerce to advocate for changes at the local levels. Establishing a basic set of standard, region-wide incentives will improve competitiveness. Individual cities or states can add to the standard package with additional incentives if desired.

**BIG IDEA: Regionalize Border Policy Issues** — Take advocacy of border issues up a notch. Make border policy changes a shared concern for all U.S. states that border Mexico, not only Texas and New Mexico, but California and Arizona as well. As a participant in a more powerfully coordinated pact of all border states, help improve competition and change border infrastructure inadequacies from an immigration issue to an issue of national economic interest.

- Set Lobbying Goals and Create Strategic Advocacy Plan of Economic Opportunities and Competitiveness Issues
- Establish Relationships in Centers of Influence (Washington, D.C.; Mexico City, Austin, Chihuahua, Santa Fe)
- Regionalize Lobbying (TX,NM,AZ,CA) On Issues Related To Border Crossing
- Establish & Align Basic Common Regional Incentives

Best Practices

**Reno Area, Nevada**

The Reno region spent $1.1 million on federal lobbying in 2014. It has worked with some of the most powerful lobbying firms in Washington D.C. to receive funding for environmental research, infrastructure improvement projects, and manufacturing. The Desert Research Institute and the Washoe County Regional Transportation Commission receive 80% and 38% of their funding from federal sources respectively.

**First District Association of Local Governments**

First District Association of Local Governments is a voluntary association of local governments working cooperatively for the benefit of East Central South Dakota area. Established in 1971, First District’s purpose was the encouragement of a regional approach to planning and development, the improvement of the quality of governmental services, and the attainment of great savings from the technical assistance the District would provide.

http://www.1stdistrict.org/fd/aboutus.html
Goal One: Spearhead Regional Collaboration

Strategy 1: Empower the Alliance as the Regional EDO

3) Head Retention & Expansion for Major Employers: There is an old adage that still rings true for all economic markets, “You can tell a lot about a place by the companies it keeps”. Existing companies are just as important to the North American Borderplex Region as the new companies it can attract. Keep in close contact with companies doing business in the region. Through visits and surveys, find out what works for them and what is causing issues. What do they need to grow and expand? What are their plans for the future? What skills are they easily finding, and what skills are undersupplied by the regional workforce? With this knowledge, the Alliance can play a critical role in helping regional workforce agencies and educational institutions adjust and make the changes needed for a vibrant and growing economy.

- The Alliance Handles R&E for Top 100 Companies in the Region
- Local Chambers Take Charge of R&E for Smaller Companies
- Invite Regional Partners on Company Visits
- Conduct Annual Survey of Major Employers

4) Become the Regional Data Source: Data will back high-level expertise the Alliance needs to remain knowledgeable about and to respond quickly and competitively to RFPs and site location queries. The IEDC website carries a reference to all information site selectors may request. AE recommends that the Alliance begin its data collection by providing all data necessary to fulfill that IEDC list. Strong data will positively reinforce the role of the Alliance and the image of the North American Borderplex Region as a professional economic player.

- Identify Economic Information Data Sources
- Create and Maintain Databases
- Design Analytic Tools
- Adopt Site Selector’s Data Tools Developed by IEDC
- Publish Monthly Economic Indicators
- Publish an Annual Report

Best Practices

EconData.net

The website EconData.net is a one-stop reference for public regional economic data, providing quick links to major data sources at the federal, state and sub-state level. The site is sponsored by the Economic Development Administration. Data is organized by provider or by subject. More than 150 websites are referenced for sets of gathered data. The site also maintains a “10 Best Sites” that includes user-friendly access to the Bureau of Labor Statistics, the Bureau of the Census and the Bureau of Economic Analysis.

www.Econodata.net
Goal One: Spearhead Regional Collaboration

Strategy 1: Empower the Alliance as the Regional EDO

5) **Support Entrepreneurship**: Entrepreneurship is critically important to a region’s economic vitality and future prosperity. It is recommended that the Alliance not only support but also regionalize efforts to promote innovation and entrepreneurship

- Establish a Partnering Coordinator for Regional Entrepreneurial Activities
- Step Up Regional Support for a Local Angel Fund
- Partake in Efforts to Attract Talent

### Best Practices

**The Right Place**

**Grand Rapids, MI**

The Right Place, Inc. is a regional non-profit economic development organization started in 1985 with the purpose of fostering regional coordination and growth among West Michigan businesses. The Right Place assists over 1,000 companies on an annual basis, connecting them to the resources and services best suited to support their expansion or location needs. A program offered by The Right Place which promotes such regional coordination is the Innovation West Michigan (IWM) program. This guides companies through the innovation process and builds a package of state and local programs tailored to their specific goals. IWM also provides programs and services designed to support and promote the innovation and capabilities of West Michigan companies through collaborative learning. This is carried out via an extensive network of programs used to connect companies and entrepreneurs with potential mentors and peers. To that end, companies from a diverse set of industries work together to elevate the competitiveness of the entire Western Michigan region. For more information see: [http://www.rightplace.org/](http://www.rightplace.org/)

### Entrepreneurial Resources in the Borderplex Region

<table>
<thead>
<tr>
<th>Name</th>
<th>Associated With</th>
<th>Focus</th>
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<tbody>
<tr>
<td>Red Sky</td>
<td>MCA Medical Center of the Americas</td>
<td>Healthcare startups</td>
</tr>
<tr>
<td>Center for Research, Entrepreneurship, and Innovative Enterprises</td>
<td>University of Texas at El Paso</td>
<td>Entrepreneurship, technology transfer and commercialization</td>
</tr>
<tr>
<td>The HUB of Human Innovation</td>
<td></td>
<td>Clean energy, life science/bio med, defense/homeland security, aerospace, and advanced manufacturing</td>
</tr>
<tr>
<td>Arrowhead Center</td>
<td>New Mexico State University</td>
<td>Energy, natural resources, aerospace, commercial space, biosciences, digital media, and national security</td>
</tr>
<tr>
<td>Autonomous University</td>
<td>Cd. Juarez</td>
<td>Biomedical, sciences, engineering, and software</td>
</tr>
<tr>
<td>Monterrey Tech</td>
<td>Cd. Juarez</td>
<td>Technology startups</td>
</tr>
<tr>
<td>Instituto Tecnológico</td>
<td>Cd. Juarez</td>
<td>Meeting space for tech startups</td>
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<tr>
<td>Tech Hub - Juarez</td>
<td></td>
<td>Telecommunications and technology</td>
</tr>
<tr>
<td>3 Day Startup</td>
<td>University of Texas at El Paso</td>
<td>Entrepreneurial development on university campuses</td>
</tr>
</tbody>
</table>
Goal One: Spearhead Regional Collaboration

Strategy 1: Empower the Alliance as the Regional EDO

6) Align Staff Skills to Economic Development Service Needs: To serve as the organization spearheading regional marketing, advocacy, retention and expansion of major businesses, research and to properly support the advancement of entrepreneurship, the Alliance must have the appropriate staff and talent. Many of these positions are already in place and functioning in the organization. Key recommended staff positions are:

- **CEO**
- **Director of Business Attraction**
- **Director of Business Retention and Expansion**
- **Director of Entrepreneurship & Talent Development**
- **Director of Government Affairs**
- **Communications Manager**
- **Regional Coordination Manager**
- **Director of Research**

Any needed staff positions should be filled with experienced, highly-skilled people located through a national search. Key staff should have economic development certification and continue to regularly attend training updates and industry conferences.

- **Conduct National Search and Hire Key Staff**
- **Achieve ED Accreditation for Alliance**
- **Embark on a continuous staff development program**
- **Join key organizations such as the International Economic Development Council, the Industrial Asset Management Council, US Select, the Site Selector’s Guild, and targeted AmCham’s around the world**

Best Practices

The International Economic Development Council (IEDC) is a non-profit, non-partisan membership organization serving economic developers. With more than 4,500 members from the U.S., Canada, Europe, Australia, New Zealand, and other nations. The organization provides conferences, topical seminars and training in real estate development and commercial revitalization, workforce development, infrastructure and business finance, business marketing, attraction, expansion, and retention, community development, industrial rehabilitation and location, international trade, and tourism development.

IEDC offers certification programs for economic development professionals and an accreditation program for EDOs. Continuing education courses are also provided to retain certification, and online seminars and discussions.

http://www.iedconline.org/index.php
Goal One: Spearhead Regional Collaboration

STRATEGY 2: Drive Regional Collaboration

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Best Practices</th>
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<tbody>
<tr>
<td>1) Create an Informal Regional Council of Planning Departments</td>
<td>Economics Leadership Council</td>
</tr>
<tr>
<td>2) Collaborate with Strong Regional Partners</td>
<td>University of California San Diego</td>
</tr>
<tr>
<td>3) Establish Offices in Cd. Juárez and Las Cruces</td>
<td>The newly formed ELC, established by the UCSD department of economics, partners with top business</td>
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<tr>
<td>4) Leverage the Power of the Camino Real Regional Mobility Authority</td>
<td>leaders to work on new projects and initiatives. ELC members represent a broad spectrum, from investment and</td>
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<td></td>
<td>commercial banks to economic consultants to major regional firms such as Qualcomm and Sempra. The Council</td>
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<td></td>
<td>leverages the experience and innovation of university staff and economics students, alumni and private</td>
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<td>industry.</td>
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1) Create an Informal Regional Council of Planning Departments
   - Include Planning Councils and Development Departments From All Three Cities
   - Coordinate and communicate regional planning efforts, ensure high quality of services, streamline development processes and share know how

2) Engage Collaboration with Strong Regional Partners
   - Workforce Solutions Borderplex
   - MVEDA
   - Desarollo Economico
   - Greater El Paso Chamber of Commerce
   - Las Cruces Chamber of Commerce
   - Convention and Visitors Bureaus

http://economics.ucsd.edu/economicsinaction/issue-4/economics-leadership-council.php
Goal One: Spearhead Regional Collaboration

STRATEGY 2: Drive Regional Collaboration

3) Establish Alliance Offices in Cd. Juárez and Las Cruces
   • Explore Option Of An Office At NMSU
   • Find Appropriate Lease Space In Cd. Juárez
   • Consider Staffing, Including Research Staff In Cd. Juárez

4) Leverage the Power of the Camino Real Regional Mobility Authority: A port authority is a political subdivision, or government commission formed that assesses, conceives, builds, operates and maintains ports, airports, bridges, transit systems and other transportation infrastructure and operations within a designated area. Port Authorities can also identify issues, devise strategic plans for port infrastructure and operations and implement economic initiatives. Because the port issues are so significant and so negatively impact economic development in the North American Borderplex Region, the Alliance should work with the CCRMA to help identify issues and bring about needed improvement in border crossing logistics. Due to the involvement of two countries, key players in Mexico and New Mexico may need to be included to plan effectively and lobby with governmental with leverage. An effective RMA that can relieve the problems associated with two countries and three states will set the standard for international authorities in the future.

Best Practices

American Association of Port Authorities
Canada, the Caribbean, Latin America & the U.S.

Founded in 1912, the American Association of Port Authorities is a trade association which represents more than 130 public port authorities in the Western Hemisphere. AAPA promotes the common interests of the port community, and provides leadership on trade, transportation, environmental and other issues related to port development and operations. AAPA also works to educate the public, media, local, state and Federal legislators about the essential role ports play within the global transportation system.

AAPA provides port community leadership, advocacy, international port information, identification of port issues, publications and programs & events.

http://www.aapa-ports.org/index.cfm
Goal One: Spearhead Regional Collaboration

STRATEGY 3: Put the North American Borderplex on the Map

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Best Practices</th>
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<tbody>
<tr>
<td>1) Establish a World Trade Center Market Place</td>
<td><strong>Monterrey World Trade Center</strong></td>
</tr>
<tr>
<td>2) Attract International Industry and Regional Conferences</td>
<td>Established in 2005 as a non-profit organization, the WTC Monterrey is recognized as an International Trade Hub in the state of Nuevo León. It is located on one of the university campuses, in a beautiful building with all accommodations needed to hold business meetings, counseling and training seminars. The center showcases local industries - Technology, Financial &amp; Professional Services, Automotive, Capital Projects and Infrastructure, Engineering, R&amp;D: Architecture &amp; Construction and Industrial Manufacturing. Facilities include an auditorium, seminar and meeting rooms and temporary office space. Trade information and market research, trade counseling, referrals and business management services are offered.</td>
</tr>
<tr>
<td>3) Regionalize the El Paso International Airport</td>
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<tr>
<td>4) Become the Top Bilingual, Bi-national Center on U.S./Mexico Border</td>
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<tr>
<td><strong>BIG IDEA: Establish a World Trade Center Market Place</strong></td>
<td></td>
</tr>
<tr>
<td><strong>BIG IDEA: Host an Advanced Manufacturing Exposition</strong></td>
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**BIG IDEA: Establish a World Trade Center Market Place**
- Leverage the Alliance’s acquisition of the World Trade Center license to help the region become an international center for industry and trade. A WTC in El Paso could showcase maquila products on the U.S. side of the border and create a marketplace for buyers and sellers. A WTC will do much to bring the region to international attention, encourage public/private partnerships and increase foreign direct investment.

2) Attract International Industry and Regional Conferences

Work with cities and industry stakeholders along with the regional visitors and convention partners to:

- **Create A Three-year Conference Topic Plan**
- **Establish A Calendar For Conference Events**
- **Secure Speakers And Panelists**
- **Market Events**
Goal One: Spearhead Regional Collaboration

STRATEGY 3: Put the North American Borderplex on the Map

BIG IDEA: Host an Advanced Manufacturing Exposition - Bring an advanced manufacturing exposition to El Paso, in conjunction with the World Trade Center. Showcase leading advances from area manufacturers and provide regional production experts and quality engineers to interact with visiting businesses and industry leaders. Include international advanced manufacturing speakers, innovative new ideas and cutting edge processes and products.

3) Regionalize the El Paso International Airport: Further strengthen the image of the Borderplex area in the minds of visitors as one diverse, well-coordinated, multi-cultural region by creating a gateway to the entire region at the El Paso Airport.

Rent prominent space within the airport to house a regional tourism station. Include general regional business information, tourist attractions, cultural assets such as museums, hotels and accommodations, restaurants, day trip excursions, and natural resources. Also provide information on major industries such as manufacturing, biomedical and educational Resources

- Change the name of the El Paso International Airport to the El Paso/Las Cruces International Airport
- Develop necessary collateral
- Secure appropriate airport space
- Consider private/public funding of staff, volunteers and training

Best Practices

Advanced Manufacturing Expo 2014
Mississauga, Ontario, Canada

AMExpo features a RAPID Canada Conference and medical manufacturing innovation series, providing opportunities to gain insight from leading experts on current industry challenges and the latest manufacturing developments, best practice and new trends at one venue location over a two-day period. The Expo will cover more than 6,000 square feet in exhibitor space and this year features Canadian companies representing many of the major players in the 3D printing/scanning, advanced and medical manufacturing world such as; 3D Systems, Creaform, MakerBot, EnvisionTec, ExOne, Mitutoyo, Mitsubishi Laser, Nikon Metrology, Objet, SLM Solutions and Stratasys.

http://www.amexpo.ca/
4) Become Recognized as the Top Bilingual, Bi-National Center on the U.S./Mexico Border: The Borderplex area is one of the most culturally cohesive bi-national, bilingual communities in the world. Offer immersion environments to people interested in learning English or Spanish as a second language.

- Attract English-as-a-Second Language Immersion School
- Attract Spanish-as-a-Second Language Immersion School

Best Practices

**English Language Schools**
**Republic of Malta**

Malta is a popular language learning destination. The island’s sun and sea helps attract students, but it is mainly the tiny nation’s rigorous quality standards that set the industry standard and attract throngs of students. English is commonly spoken throughout the island of Malta, and Maltese teachers have developed an enviable reputation for offering quality instruction in various languages. There are more than 40 language schools in Malta and neighboring Gozo, offering a range of courses and fun leisure-time activities.

A government-run English as a Foreign Language (EFL) Monitoring Board serves as a quality assurance body that monitors services offered by all EFL schools. The board also created National Minimum Conditions for the schools. Such regulations ensure that all language schools in Malta are licensed and meet with strict guidelines. Currently, all 41 schools in Malta must be licensed by the EFL Board. In the future, they will likely also need to be accredited as well.

GOAL TWO: Become Known for Quality
Goal Two: Become Known for Quality

In economic development, perception is reality. The North American Borderplex Region has much to offer in terms of quality of life and business environment. It is a major center of trade between the U.S. and Mexico. Three universities and two medical schools are involved in major research activities. Commercialization of those activities and new entrepreneurial companies are emerging.

The region has a great story to tell, but that story is not getting out to the people who need to hear it. No longer simply a center of low-skill, low wage workforce, the Borderplex is now one region ready to participate with purpose and power in international economic markets. Continuing to improve regional quality in every area will help empower marketing and branding efforts to establish a new image in the minds of site selectors and industries and excite families considering relocation.

Establish a Regional Quality Council: Helping the world understand the true work ethic of the region, the creative talent available and the opportunity for design and advanced technology in industries will be an easier task if quality credibility is established at the outset. Establishing a regional quality council would go along way to advance business, academic and government services quality.

Engage in Region-Wide Beautification Programs: Though public/private partnerships engage on city beautification efforts, such as streetscaping, tree planting and sidewalk improvements, to ensure the physical environment is imbued with a sense of quality as well. Region-wide Planning, Parks and Recreation Departments along with Tourism organizations can lead these efforts.

Improve Regional Infrastructure: The North American Borderplex Region suffers from lack of appropriate attention from state and federal governments due mainly to the area’s distance from sites of political influence and a lack of understanding of the area’s major impact on state and federal economies. Changing that lack of attention and funding will be critical to improving port infrastructure, roadway improvements, and developing an appropriate multinational regional airport plan.

Develop Higher Workforce Skills: During interviews with stakeholders and the review of submitted surveys, it is clear that employers do experience a real inability to locate high skilled workers. Basic soft skills are also missing. Integrating skills into education processes is critical.

Improve Destination Factor: The tourism trade has virtually disappeared in the region due to competition with other border cities and a perception of violence in Cd. Juárez. The region’s many cultural and natural assets could support a much more vibrant tourism industry.
Goal Two: Become Known for Quality

Each strategy to Help The Region Become Known For Quality has a series of action steps that will need to be implemented to make this goal a reality. A summary of those key action steps is provided below and further detail can be found in the following pages.

I. Promote Overriding Regional Quality
   1. Adopt International Industry Quality Standards
   2. Certify Local Economic Development Partners
   
   **BIG IDEA: Establish a Regional Quality Council**

II. Improve Regional Infrastructure
   1. Increase Efficiencies of Border Crossings
   2. Integrate Regional Airports
   3. Secure Direct Air Service to Key Markets
   4. Study the Wireless Connectivity/Capacity Issue

III. Develop Higher Workforce Skills
   1. Aggregate Workforce Skills Needs from Local Businesses
   2. Align Training and Certification Programs & Other Options
   3. Attract New Talent

IV. Improve Destination Factor
   1. Re-establish Cultural Tourism
   2. Build Arts & Culture
   3. Leverage Natural Resources
   4. Reduce Violent Crime
   
   **BIG IDEA: Promote development of a Western Theme Park**
Goal Two: Become Known for Quality

STRATEGY 1: Promote Overriding Regional Quality

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Best Practices</th>
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<tbody>
<tr>
<td>1) <strong>Adopt International Industry Quality Standards</strong></td>
<td><strong>Greater Austin Quality Council</strong></td>
</tr>
<tr>
<td>2) <strong>Certify Local Economic Development Partners</strong></td>
<td>Fashioned after the Malcolm Baldrige National Quality Award, the Austin Chamber of Commerce created a local version of the award to recognize local businesses that meet or exceed quality control standards. In Austin, the awards are issued for three categories: business, health care, and education. The framework of the award consists of three main parts: the criteria for performance excellence, core values and concepts, and scoring guidelines. Through this framework, organizations are better able to assess their progress for improved quality control, identify strengths, detail opportunities for improvement, and achieve real results.</td>
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**BIG IDEA: Establish a Regional Quality Council:** Model a local Quality Council after the Malcolm Baldrige Award to encourage the expectation of quality and the improvement of processes and products throughout the region. Not only will the council lead to quality improvement, they will assist in changing the perception of the area to one of high-quality products, companies and workers.

- Establish a 501c3 to Operate as a Separate Entity
- Solicit Support from Local Universities and Businesses to Manage it
- Encourage Businesses, Government and Schools to Be Certified

1) **Adopt International Industry Quality Standards:** ISO 9000 Series is a set of international standards for quality management and assurance developed to help companies document and maintain efficient quality systems. The International Association for Six Sigma Certification provides accreditation and certifications, which will indicate regional businesses comply with rigorous industry standards. [http://www.iassc.org/](http://www.iassc.org/)

- Determine and adopt ISO 9000 Standards for each industry
- Encourage the Adoption of Six Sigma Programs by Local Businesses

At the national level, recipients of the award achieved average revenue growth of 93% and average job growth of 66%. The benefit to cost ratio is estimated to be 820 to 1. While the award is no longer issued in Austin, the North American Borderplex Region can create its own version of the Baldrige Excellence Performance Program. For more information see: [http://www.baldrigepe.org/](http://www.baldrigepe.org/)
Goal Two: Become Known for Quality

STRATEGY 1: Promote Overriding Regional Quality

2) Encourage Top-Level Certification of Regional Economic Development Experts:
Ensure that the region’s economic development professionals and chamber of commerce management pursue certification and accreditation by professional organizations in their industry. Such training will ensure that regional partners operate with the same high-level of economic development knowledge, are aware of trends and opportunities as they develop, and interact with interested businesses and site locators with expertise and confidence. Participating together in training and certification processes is advised, as is frequent updating of skills.

- Certify all Local Chambers of Commerce
- Certify Key Economic Development Staff at all Partnering Organizations
- Refresh Economic Development Skills through Attendance and Participation at Annual Economic Development Conferences

Best Practices

The Association of Chamber of Commerce Executives (ACCE) is a professional organization for chamber of commerce managers. The organization is dedicated to professional development and recognizing successful individuals and best practices. The Certified Chamber Executive (CCE) program assesses the competencies of chamber managers in four “core” areas: management, planning and development, membership and communications, and operations. Applicants to the program must have at least six years of experience at senior-level chamber management, which is described in detail at [http://www.acce.org/cce/](http://www.acce.org/cce/).

This certification can benefit both the management of a chamber of commerce, through the knowledge and professional standing gained by completing the program, as well as the chamber itself, through being recognized as an organization that values high quality leadership.

Similarly, the International Economic Development Council (IEDC) is the professional organization for economic developers. The organization provides leadership on the practices and issues at the heart of the economic development profession. The IEDC certifies economic development professionals through the Certified Economic Development (CEcD) program. The program is open to individuals with four consecutive years of economic development related experience. Individuals must complete training courses and pass an exam to become certified. The certification benefits professionals in economic development by building a base of knowledge in the multitude of disciplines connected to economic development and by increasing the prominence of the organization in the local community and the economic development profession.

Goal Two: Become Known for Quality

STRATEGY 2: Improve Regional Infrastructure

Whether talking to business stakeholders in Cd. Juárez, residents in Las Cruces or officials in El Paso, one issue sticks out from all the rest as the largest risk to economic development in the future – underfunded border infrastructure, including physical infrastructure such as highways, high tech infrastructure and softer infrastructure such as personnel and logistics.

Long wait lines at crossing stations severely impact manufacturers moving their product, putting them at a competitive disadvantage. The issue is complicated, involving national security considerations, lack of adequate attention from both state and federal governments, insufficient highway infrastructure, inadequate personnel and coordination.

Businesses, residents and visitors to the area complain with frustration about wireless Internet and phone connectivity, especially in El Paso. Reputation for this problem could severely hamper business attraction efforts.

As the region begins to attract new kinds of industries, prospers and grows, pressure will begin to build on airports, requiring more direct flights, more regional coordination and more transportation in place between airports and the outlying regions they serve. Addressing these needs will require long-term planning, focused collaboration by private industry and public officials, policy change and strong lobbying activity.

Key Actions

1) Increase Efficiencies of Border Crossings
2) Study & Resolve Wireless Connectivity/Capacity Issues
3) Integrate Regional Airports
4) Secure Direct Air Service to Key Markets

Best Practices

Vancouver 98-B Line

The ten-mile long 98-B Line serves four major activity centers on its route from downtown Vancouver to the airport. It is fully integrated with local bus, light rail and commuter rail along its route. Stops are more frequent in dense areas, less frequent in lower density areas. Route designed to save 20% of normal bus travel time. 23% of riders previously drove single occupant cars.


Cd. Juárez Airport
Goal Two: Become Known for Quality

STRATEGY 2: Improve Regional Infrastructure

1) Increase Efficiencies of Border Crossings: Border crossing times in El Paso/Cd. Juárez are long and unpredictable. There appears to be little integration between bridge open times, number of lanes open and staff in coordination to best accommodate manufacturing truck times, holidays or peak foot traffic. The stations appear severely understaffed, and the city of El Paso has even begun funding additional federal crossing personnel at what appears to be an unusually high cost. To function as a key logistics and transportation center for the Mexico/U.S. border, the problem must be addressed. Complicated by decades of acceptance and multiple distant government agencies, the issue will require considerable regionally collaborative effort and government interaction to correct. A Regional Port Authority entity needs to more effectively address port and roadway infrastructure issues.

- Review Existing Data & Launch An Independent Study If Necessary To Determine The Extent Of Border Delays, Government Agency Interaction, Staffing, Traffic Patterns And Root Causes And Determine Possible Solutions
- Explore Technology Improvements
- Consider New Bridge Crossing
- Build New Roads To And From Port Stations
- Increase Station Personnel And Hours Of Operation

2) Study & Resolve Wireless Connectivity & Capacity Issues:
Establish a committee to study problems relating to wireless Internet & phone connectivity & related capacity issues. Gather information from regional businesses to determine the extent of the problem and any other issues relating to broadband access or other connectivity, speed and capacity issues. The committee should report back detail of the problems and possible solutions. Priority should be given to resolving these issues, as they are an impediment to diversification.
Goal Two: Become Known for Quality

STRATEGY 2: Improve Regional Infrastructure

3) Integrate Regional Airports: Two major international airports serve the area, along with a small new international airport at Santa Teresa. They serve two countries, three states and a large regional area, including Las Cruces. A regional strategic plan is necessary to better leverage these airports together, grow cargo capacity and improve access.

- Consider A New Regional Strategic Plan For Airport Facilities
- Connect Airports To Outlying Areas
- Expand Cargo Activity
- Plan Optimal Ground Access By Rail, Roadway And Bus

4) Secure Direct Air Service to key Markets: A direct flight to Detroit, the center of the auto industry, is critical to smooth business operations and to the growth of auto related maquilas. A direct flight should be promoted either at the El Paso or Juarez Airports. Possible funding for these efforts could be generated from a rental car fee assessment.

“El Paso is called a gateway to Mexico. Juárez is the gateway to the U.S. These cities need to be considered destinations in themselves, not gateways to someplace more interesting.”
- Borderplex Stakeholder

Best Practices

Regional Aviation Strategic Plan & Airport Multimodal Accessibility Plan
SANDAG & the San Diego County Regional Airport Authority

AMSP and AMAP work to provide strategy to improve performance and coordinate all airports within the greater San Diego area. All coordinated infrastructure and airport access necessary to accommodate future traffic is considered. The plan includes a number of ground access improvements for increased capacity and direct connections to airports that may be necessary for expansion of commercial passenger service, general aviation and air cargo.

AMAP includes strategy to expand and add surface transportation (auto, rail, bus and future high-speed rail) that will improve access to and from airports within the region, including connections at the future Airport Intermodal Transit Center at Lindbergh Field and the Ontario International Airport. Strategies are designed to increase capacity and direct connections for commercial passenger service, general aviation and air cargo.
Goal Two: Become Known for Quality

STRATEGY 3: Develop Higher Workforce Skills

Key Actions

1) Aggregate Workforce Skills Needs from Local Businesses
2) Align Training and Certification Programs & Other Options
3) Attract New Talent

Making sure that the local workforce has the skills regional employers need to evolve into higher forms of industry and making sure that the area has the reputation for the high skills needed to attract new industries is a cornerstone of workforce development. The Alliance can pioneer the development of higher workforce skills by helping to put skills-based training online, using innovative available platforms and creating best case internship and apprenticeship programs open, not only to high school and college students, but to teachers as well.

The Alliance should work closely to support Workforce Solutions Borderplex and similar regional entities to provide tailored services to businesses and industries needing people with particular skills.

1) Aggregate Workforce Skills Needs: Use information gathered during Alliance/Chamber visits with regional businesses and surveys to determine needed workforce skill levels and changing workforce skill needs in the next 1-2 years. Communicate skill needs with educational partners. Encourage community colleges to apply more focus on skills building rather than simply providing pathways to four-year universities.

Best Practices

CareerEdge Funders Collaborative
Bradenton, FL

CareerEdge trains low-wage workers for high-demand, mid-skilled positions in healthcare, manufacturing, transportation and technology sectors. The collaborative helps ensure the region has a pipeline of talent for prospective employees, and makes sure workers are being trained in the right areas through a demand-driven approach that focuses on employer needs and industry skills gaps sector by sector.

http://www.careeredgefunders.org/

LogisticsART (Columbus, Ohio)

Local civic and business groups came together in Columbus to provide the logistics sector with a highly-qualified workforce. Columbus State Community College created the LogisticsART program, designed to attract, train and retain qualified individuals in the logistics and supply chain industry. The program has helped boost retention rates in the logistics sector and improve the health of the Columbus economy: 61.6% of graduates were unemployed for more than 6 months before entering the program.

Goal Two: Become Known for Quality

STRATEGY 3: Develop Higher Workforce Skills

2) Align Training and Certification Programs: Set the region as a best practice for monitoring and adjusting workforce skills training. Using feedback from businesses and research of skill levels needed for target industries, work effectively with colleges, universities and other institutions to develop mid and high level skill sets. Introduce high school students to the well-paying career-track jobs available in the area with skills training rather than a college degree.

- Create A Strong Substructure Of Trade & Technical Schools
- Identify In-demand And Coming Skills Needs
- Coordinate Existing Course And Training Information Regarding Workforce Skills
- Meet With Universities, Colleges And Other Educational Institutions To Create An Annual Plan For Meeting Changing Workforce Skills Needs
- Take Skills Training Online

➢ Provide Additional Training Support & Options:
- Teach Importance Of Soft Skills Early
- Create Regional Apprenticeship Programs
- Create A Regional Adopt-a-school Program For Businesses
- Consider Establishing An Entrepreneurial High School
- Explore Early College Concept (Gates Foundation)
- Create Massive Region-wide Internship Program For High School And College Students In El Paso And Las Cruces To Sister The Mandatory Cd. Juárez Program

Best Practices

SchooX
SchooX is an online education platform used by colleges, universities, and a wide range of private sector companies. It is a succinct and simplified platform to provide classes or courses. SchooX advantage over other MOOCs (Massive Open Online Courses), is the courses and course material can be flexible. Users do not have to virtually attend a class on a weekly basis. They are allowed to move through materials at their own pace, which enables them flexibility and the chance to adjust the materials to their own schedules. It comes equipped with message boards, “Facebook style, real time notifications,” and group libraries.

https://www.schoox.com/

Udemy
Founded in 2010, Udemy offers online courses, mostly free of charge, many were developed from leading field experts. Udemy currently has more than 25,000 courses available in over 80 different languages. In addition to the public offerings, businesses can create private, branded educational portals. These subdomains are used by employers to provide employees with the information they believe to be the most useful. Employers may also create their own courses with PowerPoints, PDFs, ZipDrives and live classes for internal use only. The platform offers analytics to track employee progress through courses.

https://www.udemy.com/
Goal Two: Become Known for Quality

STRATEGY 3: Develop Higher Workforce Skills

3) Attract New Talent: Devise regional programs to attract talent needed for new and existing businesses. For C-level executives being recruited by local major employers, organize a family matching program to integrate and immerse new executives and their families as quickly as possible into the region.

Annually organize one to two job fairs in one to two U.S. cities for up to 10 to 15 local employers to recruit key talent or high in-demand jobs for the region. The cost of such programming should be apportioned equally to each participating employer.

- Identify Skills Needed for Target & Existing Industries
- Conduct Job Fairs in Key U.S. Cities
- Organize Family Matching Programs

Best Practices

Skills Gap Analysis and Development: Texas Workforce Commission, TX
The Texas Workforce Commission's Skills Development Fund is an ongoing collaboration between employers, economic development organizations, local community and technical colleges, and the state. In short, a business, trade group, or economic development organization identifies a significant skill gap in their workforce. They then partner with local community colleges or technical schools to develop a program that will train workers to fill the identified gaps. The Texas Workforce Commission will then administer a grant to fund the program. The result is often more jobs, a better trained workforce, and enduring collaboration between businesses, EDOs, and educational institutions. For more information see: http://bit.ly/1NQaif1

Apprenticeship and Job Placement Programs: Germany
Germany’s Apprenticeship and Job Placement program is lauded as one of the finest in the world. There are hundreds of government funded vocational schools located throughout the countries. Students at these schools, often with a pre-existing contract from a local employer, split their time between studying traditional academics and trade specific skills at the school and apprenticing with a local business. Most of these students are hired after completing the program equipped with the specific skill set they need to succeed, often with the same company they apprenticed with. Employers also have the option to send promising apprentices back for additional education and training. For more information see: http://bit.ly/1pALddu
## Additional Best Practices: Workforce Training

### Intern to Earn

Intern To Earn is a regional program supported by HIRE (an alliance of colleges and universities in the Greater Louisville region), and the Greater Louisville Inc. (the metro area chamber of commerce). Thirty-one regional colleges and universities participate in the program, as do a number of regional employers. The program helps interns in multiple ways. First, it is a resource for identifying internship opportunities. Additionally, it helps interns meet other interns, find entertainment and leisure opportunities locally, and build relationships with a network of local professionals. The program works to improve the future pool of workers and young talent in the Louisville area by recognizing that interns tend to return to the communities in which they interned.

The program is not only an asset for interns, but is extremely beneficial to regional companies as well. It helps them find top young talent, get to know the next generation of local workers and customers, and acts as a local workforce recruitment and retention tool. Ultimately, the program is a positive for all parties involved; an intern-friendly environment for students, businesses, and the region.

For more information see: [http://www.greaterlouisville.com/InternToEarn/](http://www.greaterlouisville.com/InternToEarn/)

### Tulsa Achieves

Tulsa Achieves is a gap funding program for high school students in Tulsa County looking to attend Tulsa Community College. Funded through the college’s operating budget, the program is designed to ensure that all Tulsa students with a GPA of 2.0 or higher, who attended 4 years of high school in Tulsa County, are able to afford attendance at the community college for 3 years or 63 credit hours. Tulsa Achieves pays any remaining tuition balance that is not covered by federal or private grants. Students in turn must volunteer at approved non-profits, which aim to improve Tulsa County, for 40 hours a year. Students who attended less than 4 years of high school as a Tulsa resident are eligible for the program but receive a percentage of the funding.

For more information see: [http://www.tulsacc.edu/tulsaachieves](http://www.tulsacc.edu/tulsaachieves)
### Additional Best Practices: Workforce Development

#### CareerSource Palm Beach County

CareerSource, previously known as Career Alliance, is the Workforce Investment Board (WIB) in Palm Beach County, FL. After the recession, the WIB faced rising unemployment, declining capital investment, and federal funding cuts. The WIB responded through a series of innovations that was able to transform the community.

The first step was rebranding to align with the brand consistent throughout WIBs in Florida, which garnered awareness and engagement in the organization. CareerSource then implemented several technology platforms that allow job seekers to upload resumes, create electronic portfolios, and even conduct mock interviews. The talent acquisition unit hired recruiters with specific knowledge and relationships with target industries. CareerSource improved the pre-screening process to ensure quality candidates and even recommend training courses for individuals.

CareerSource now hosts 14,000 visitors per month and was able to place 30,000 job applicants in 2013 and 2014. The job placements have created an economic impact of $489 million for the local economy. The program has been so successful that AT&T requested that CareerSource take over its hiring statewide.

For more information see: [http://www.careersourcepbc.com/](http://www.careersourcepbc.com/)

#### Seattle-King County Partnership

The partnership between the Workforce Development Board of Seattle-King County and the Economic Development Council of Seattle and King County has built a successful pipeline for the region’s workforce. The heads of each organization serve on each other’s boards and are continually recommending key persons that can help support the organization’s initiatives. The boards are filled with private sector leaders who can articulate the current state of local industries and the challenges being faced.

Both organizations are members of local industry and trade groups. By being active participants in the local targeted industries, these organizations have an in-depth understanding of how local industries operate. Furthermore, they are continuously seeking feedback from private sector businesses on how they can best be served. These two organizations have also worked in tandem to obtain Work Start grants. These state grants are used for on-the-job training for the identified target industries. By working together, they are able to make a strong and unified case for their community.
**Goal Two: Become Known for Quality**

**STRATEGY 4: Improve Destination Factor**

### Key Actions

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<td>1)</td>
<td>Re-establish Cultural Tourism</td>
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<td>2)</td>
<td>Build Arts &amp; Culture</td>
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<td>3)</td>
<td>Leverage Natural Resources</td>
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<td>4)</td>
<td>Reduce Violent Crime</td>
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**BIG IDEA: Promote idea of a Western Theme Park**

To support the reinvigoration of the tourism industry and help build perception of high standards of lifestyle elements, quality of place should be a focus of immediate attention. The region has much to offer in culture and natural resources that are not well-known outside the area. It is important to remember that quality of place efforts address two very different populations, residents with extensive knowledge of the area and people who have never been to the North American Borderplex Region.

1) **Re-establish Cultural Tourism:** Develop a Cultural Tour Triad sponsored by public organizations partnered with the private tourism industry. Have certain time(s) of the year when tours occur, showcasing Old West (El Paso), Indian (Las Cruces) and Spanish (Cd. Juárez) events and infrastructure.

### Best Practices

**Memphis Area Association of Governments**

MAAG partnered with Heritage Tours for the West Tennessee Heritage and “Roots” Day Trippin’ Tour to encourage visitors and local residents to go beyond Memphis and experience the heritage and culture found in the area. Tours highlight the history of the African American experience by featuring historic stops on the Underground Railroad and the Alex Haley Museum. The three tours visited the Ripley Historic Downtown Square and Covington Downtown Square, home of the Annual Chocolate Tour. Building on the tour’s success, MAAG is developing three new themed tours highlighting the Civil War, Antebellum Architecture, Blues, and “Roots” in West Tennessee.

[www.westtndaytrippin.com](http://www.westtndaytrippin.com)
Goal Two: Become Known for Quality

STRATEGY 4: Improve Destination Factor

Promoting quality of place begins at home. Make sure all city websites and tourism websites have a modern look and information, beautiful images and a full description of regional assets. Develop tourism brochures that contain activities and sites throughout the region.

- Create A Website That Focuses On Regional Tourism Information
- Link Downtown Areas Together
- Create A Western-theme Park In El Paso
- Create A Native American Attraction In Las Cruces
- Promote Las Cruces Market
- Create Old Mexico Events In Cd. Juárez
- Promote Development Of New Hotels

2) Build Arts & Culture: Leverage the region’s vast and various cultural and fine arts assets and open them to all members of the broader regional community. Consider travelling cultural events with visits by combined civic organizations. Arrange and market 3-day tourist packages that include arts and entertainment. Grow existing festival events and create more. Link downtown areas together with transportation options so that residents and tourists can understand and enjoy the full spectra of the region. Designate cultural and entertainment districts in each city. Engage in streetscaping, sidewalks, public benches, etc. Provide a place for outdoor concerts and other events.

- Grow Las Cruces Arts District
- Include Arts Districts Information In Tour Packages
- Link Regional Cultural Industries – Opera, Orchestra, Theater, Etc.
- Establish Regional Entertainment & Cultural Districts
- Build Festival Events, Including Culinary Wineries And Chilies
- Progress With Downtown Revitalization & Development

Best Practices

City of Winter Garden, FL
Historic Downtown Arts & Culture District

The small city of Winter Garden began land banking property in its declining downtown area, to plan & create a vibrant historic district for arts, entertainment & culture that powered new interest in the city and relocation by entrepreneurs, innovation companies and young professionals. The city partners with The Winter Garden Arts Association and the Winter Garden Heritage Foundation to grow and improve the area, offering incentives to businesses that renovate old buildings and locate in the district and building parking facilities to handle large crowds.

The city initially purchased and spurred renovation of a historic theater that now operates as an independent public organization. Active city staff aggressively pursued and established numerous large festivals that take place in the district each year, including a popular visual arts festival, Music Fest and Culture Fest, which includes a film festival. The district has been so successful, it operates at 100% business occupancy and the city has begun to develop and adjacent area of abandoned warehouses into a separate and permanent arts district.

http://www.cwgdn.com/
Goal Two: Become Known for Quality

STRATEGY 4: Improve Destination Factor

3) Leverage Natural Assets: Secure public and private funding for infrastructure improvements and extensive trail development. Integrate the natural desert resources into tourism packages. Consider ecotourism focus for some package excursions.

- Franklin & Organ Mountains
- Samalayuca Dune Field & White Sands Monument
- Desert Peaks National Monument
- Desert Ecology

4) Reduce Violent Crime: Build on momentum of crime reduction in Juarez, which will improve quality of life, perceived safety and overall investment. Improve trust and coordination between institutions. Engage civic organizations to strengthen ties between citizens and authorities. Secure more funding for human and material resources. Adopt new mechanisms and strategies.

- Incorporate Civil Society Into Strategies
- Court Funding From The Private Sector
- Invest More In Intelligence
- Nurture Political Support For Policies
- Adopt Key “Hot Spot” Tactics

Best Practices

Artspace

Artspace is a leader in the development artist-led community development. It began in 1979 to serve as an advocate for artists’ space needs. By the late 1980s, it the organization made the leap from advocate to developer. Since then, the scope of Artspace's activities has grown dramatically, with development in 20 states across the U.S. Artspace is now a national leader in the field of developing affordable space that meet the needs of artists through the adaptive reuse of historic buildings and new construction.

http://www.artspace.org/

Operation Safe Streets, Philadelphia, PA

Initiated in 2002, this program installed law enforcement officers at 214 of the highest drug spots in the city around the clock. Weekly data isolated allowed law enforcement to ascertain crime “hot spots” and focus more aggressively on them. Program provided significant spatial diffusion of preventive benefits for violent crime, though less so for drug crime.

https://www.crimesolutions.gov/ProgramDetails.aspx?ID=161
GOAL THREE: Spur Innovation & Entrepreneurism
Goal Three: Spur Innovation & Entrepreneurs

With its spaceports, research universities, medical schools, an engineering pipeline and strong manufacturing base showcasing advanced manufacturing activities, the North American Borderplex Region should be known for innovation and strong business start-up culture. In fact, the area’s Hispanic culture is unusually entrepreneurial and creative. At present, the area has no outlet for that strong talent. Area universities produce a continual pipeline of engineering graduates capable and interested in design occupations, but those opportunities must be created to take advantage of the skills.

Creating the type of environment that spawns entrepreneurial activity throughout a large region will require considerable planning and collaboration. More education, work space and financing is needed for burgeoning companies.

The region hosts a growing number of incubators and accelerators. Connecting together the people involved in those organizations and creating districts where they can live and work will encourage others. More activities and seminars for entrepreneurs will help highlight the activity in the area. Encouraging more angel funds will spur the development of strong, successful companies and allow investors to put their money in projects close to home. Consider regionalizing The Hub of Human Innovation to act as the coordinator of entrepreneurial activity in the region.

One set of companies ready for growth are supply chain businesses in all three cities especially independent contract manufacturers in Cd. Juárez. Promoting the creation and growth of these companies will help diversify industry in the region, advance innovation and better support expanded forms of manufacturing.
Each strategy to Spur Innovation and Entrepreneurs has a series of action steps that will need to be implemented to make this goal a reality. A summary of those key action steps is provided below and further detail can be found in the following pages.

I. Create a Supportive Ecosystem
   1. Regionalize Entrepreneurial Events
   2. Develop Additional Co-Working Space
   3. Attract Angel Funding

   **BIG IDEA: Make the North American Borderplex Region the Entrepreneurial Gateway to Latin America**

II. Focus on Centers of Excellence
   1. Coordinate University Research
   2. Jointly Apply for State & National Grants

III. Support Supply Chain Development
    1. Create an Independent Contract Manufacturers Association in El Paso
    2. Help Secure Financing Sources in the U.S.
    3. Establish Contract Manufacturer’s Representative Office in the U.S.
Goal Three: Spur Innovation & Entrepreneurs

STRATEGY 1: Create a Supportive Ecosystem

Key Actions

1) Regionalize Entrepreneurial Events
2) Develop Additional Co-Working Space
3) Attract Angel Funding

BIG IDEA: Make the North American Borderplex Region the Entrepreneurial Gateway to Latin America

BIG IDEA: Make the North American Borderplex Region the Entrepreneurial Gateway to Latin America—The U.S. may approve a process to grant entrepreneurial visas by the end of 2015. The Borderplex can be an important force in establishing the region as an entrepreneurial hub equipped, powered by international innovation and collaboration.

- Coordinate Media Outreach
  - Help Create A Tech Monday Or Tech Week Section
  - Highlight Success Stories

- Create A Latin American Entrepreneurial Business Competition
  - Coordinate With Latin American Universities
  - Fund A $100,000 Annual Prize
  - Declare An Annual World Champion

Best Practices

Venture Labs Investment Competition
Known as “the Super Bowl of investment competition,” the Venture Labs Investment Competition (VLIC) brings together MBA students from about 25 “ivy league schools” from across the globe. Originally known as Moot Corp, the program was conceived as the business school equivalent of law school’s moot court. Students from around the world design business plans and present their entrepreneurial projects to a panel of judges made up of angel, equity investors and venture capitalists. Many finalists have used the competition to launch successful business ventures. Winners of the competition receive incentive packages, which are designed to encourage the entrepreneurs to launch their ventures in the Austin region.

A number of schools host similar, smaller competitions, many of which serve to qualify participants for the competition at the McCombs School. The University of Nebraska, for example, hosts the Nebraska Innovation Competition in order to encourage local and out-of-state entrepreneurs.

For more information see: http://www.mccombs.utexas.edu/Centers/Venture-Labs-Investment-Competition/
Goal Three: Spur Innovation & Entrepreneurs

STRATEGY 1: Create a Supportive Ecosystem

1) Regionalize Entrepreneurial Events
   - Keep A Calendar Of Activities
   - Organize Regional Entrepreneurship Meetings
   - Organize Regional Young Professional Events

2) Develop Additional Co-working Spaces: Shared coworking spaces are a growing phenomena worldwide and stimulate ideas that stimulate businesses and the economy. The region has many areas that could serve as attractive locations for innovate coworking environments. All three downtown areas have space available and different atmospheres conducive to creativity.
   - Identify Public/Private Funding Sources For Backing
   - Consider Incentives, Government Grants
   - Attract National Coworking Space Company

3) Attract Angel Funding: Angel investors are a critical part of any capital market, and particularly important in financing start-ups in the early stages of growth. The region has sufficient wealth to establish adequate angel funding to local entrepreneurs trying to kick-start new businesses. Angel organizations also provide investors with a advantages in working with others.
   - Profile The Regional Investment Community
   - Help Create A Regional $10 Million Angel Fund

Best Practices

WeWork
Founded in 2010, the New York based coworking company was the fastest growing lessee of new office space in New York in 2014. The company has expanded out of New York to 6 additional cities in the U.S. and 3 cities abroad with 30 locations in total. WeWork plans to open an additional 60 locations by the end of the year. The company attributes its rapid growth to its ability to foster a community amongst members of its coworking space. WeWork spaces hold happy hour events for their members, provide training through SkillShare presentations, and the company holds a yearly summer camp in New York for its employees and 1500 members. Members are also provided with discounts for a number of businesses.

In 2011, WeWork entered into the incubator business with their company WeWork Labs. Labs functions much like its parent company but with a heavier focus on facilitating entrepreneurship, providing startups with financial advice and office hours. Through sponsorships by major corporations, Labs is able to provide entrepreneurs space for lower rates than other incubators. The company does not take a share of equity from member startups and has helped launch Reddit and Fitocracy.

For more information see:
wework.com
## Additional Best Practices: Support Entrepreneurs

### Start-Up NY
This statewide collaboration between public and private universities and state and local governments is one of the most forward-looking and heavily marketed incentive programs for entrepreneurs in the nation. The program aims to increase innovation and entrepreneurship by offering a 10-year 100% state and local tax exemption for qualifying small businesses and start-ups operating on or near university campuses. Additionally, the proximity to universities is designed to inspire collaboration between these small businesses and academic institutions.


### Kaufmann Foundation Angel Fund Guidance
Established in the mid-1960s, the Kansas City-based Kauffman Foundation is among the largest private foundations in the U.S. with an asset base of $2 billion. The company provides grant funding and support for education and entrepreneurship. As part of its initiative, the foundation released and updates a guidelines for developing angel funds appropriate to communities. The foundation has best practice advice on building the right framework and establishing the fundamentals of the organization.


### Emerging Business Initiative/TAG Team
Southern Oregon Regional Economic Development, Inc. continuously works to expand the economic development potential of the region through the Emerging Business Initiative/TAG Team programs. The initiative is intended to identify prospective entrepreneurs, improve the deal flow surrounding an annual Angel Investment Conference, and identify a group of volunteer professionals to provide guidance and encouragement to help entrepreneurs move new concepts to viable commercial application.
Goal Three: Spur Innovation & Entrepreneurs

STRATEGY 2: Focus on Centers of Excellence

Key Actions

1) Coordinate University Research

2) Jointly Apply for State & National Grants

A significant amount of closely-related research in Life Sciences fields takes place in area research universities. The Texas Tech Foster School of Medicine already has established Centers of Excellence in research of cancer, diabetes and obesity, infectious diseases and neuroscience. NMSU has research ongoing in molecular biology, biochemistry and genetics. UTEP conducts extensive research in biomedicine and Hispanic health disparities, including diabetes. Autonomous University and its Medical School also conducts a number of research projects in biomedical areas.

1) Coordinate University Research: Increase collaboration among the medical schools and research universities to partner towards grant submission to state or federal entities and share equipment/facilities.

   • Create Regional Dashboards That Show Aggregate Budgets, Staffing, Number Of Undergraduate And Graduate Students And Corporate Sponsored Research Projects For Centers Of Excellence

   • Determine Ways In Which Collaboration Can Advance Capabilities And Results (Align Life Sciences Research both Public and Private)

2) Jointly Apply for State & National Grants

   • Encourage UTEP & NMSU To Join Forces To Apply For National Grants

Best Practices

Washington State Centers of Excellence

Washington's Centers of Excellence are flagship institutions designed to build and sustain competitive advantage. Each Center focuses on a targeted industry that drives the state's economy and is built upon a reputation for fast, flexible, quality education and training programs. The Centers help Washington maintain its lead in industries like Aerospace and Advanced Manufacturing, International Logistics, and Marine Manufacturing and Technology. These Centers bring together university and business leaders to discuss the most pressing threats to their respective industries, and provide opportunities for advanced workforce training.

http://bit.ly/1H7m5nu

Linking Innovation, Industry & Commercialization

West Virginia University

Launched in 2011, LIINC has connected 113 staff from 76 companies across the U.S. to meet 174 WVU faculty and 26 graduate students to explore novel commercialization opportunities and avenues for future research. LIINC activities have increased the likelihood for research funding, licensing of technologies, SBIR and STTR partnerships and patent activity. LIINC is a new WVU vehicle for advancing research-based innovation and commercialization efforts and the university’s economic impact on the state and region.
Goal Three: Spur Innovation & Entrepreneurs

STRATEGY 3: Support Supply Chain Development

**Key Actions**

1) Create an Independent Contract Manufacturers Association in El Paso

2) Help Secure Financing Sources in the U.S.

3) Establish Contract Manufacturer’s Representative Office in the U.S. (i.e. Detroit, other cities later)

Manufacturing drives the North American Borderplex Region. The nature of the maquila industry has established a well-working system of shipping supplies across borders to support corporate industries. During the decades of maquila-spurred production increases, local supply markets have not grown along with the industry. Small manufacturers that form the backbone of supply chain industries account for more than 40% of all manufacturing jobs in the U.S. They are essential to all healthy manufacturing sectors and increase innovation and exchange of ideas. Yet these small companies face stiff challenges, especially in Cd. Juárez, where small companies have a difficult time securing financing for receivables and equipment. Small companies in Cd. Juárez also face language and experience barriers in locating interested direct purchasers in the U.S.

There is significant opportunity to develop entrepreneurial businesses that will help strengthen the contract manufacturing supply chain. Helping small contract manufacturing businesses find and secure contracts directly with large US or global manufacturers and assisting in the location of long-term financing will create profitable small enterprises and further economic gains.

### Best Practices

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<tr>
<th>Smaller Manufacturers Association of Connecticut</th>
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<tr>
<td>SMA was incorporated in 1949 to promote the cause of smaller manufacturing firms. Today the association has grown to include more than 10 small supply chain companies and provides resources at monthly meetings that bring members important information to help them operate within their region. The association networks business owners together to develop leadership and provide them the advantages of larger companies. It also helps with marketing insight and taxes and regulation understanding.</td>
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<thead>
<tr>
<th>Manufacturing Modernization Loan Program Illinois</th>
</tr>
</thead>
<tbody>
<tr>
<td>The program is designed to provide manufacturers with access to adequate and affordable financing for upgrading and modernizing their manufacturing equipment and operations. The Department of Commerce and Economic Development (DCEO) will participate with local lending institutions in loan amounts between $10,000 and $750,000, or 25% of the total project, whichever is less. The participation amount will be at sub-prime rates. The term of the loan is a maximum of 10 years and a fee of 1-2% of loan amount may be required. Companies that employ less than 500 full-time workers and are retooling, upgrading, or expanding their business are eligible.</td>
</tr>
</tbody>
</table>
Goal Three: Spur Innovation & Entrepreneurs

STRATEGY 3: Support Supply Chain Development

1) Create an Independent Contract Manufacturer’s Association in El Paso: An association that represents small contract manufacturing businesses which is focused in identifying direct sales opportunities with US manufacturing corporations will go a long way in helping to spear entrepreneurship, increase wages and incomes in the region. Providing an office in El Paso will help Mexico companies understand and navigate U.S. regulations and markets. Initially, the association can focus on finding a means of long-term financing for Mexico companies and assist with the identification of prospective markets and businesses.

- Determine Industry Viability And Initial Services
- Open An Office In El Paso

2) Help Secure New Financing: As a small company, finding affordable financing can be a challenge. Small companies in Cd. Juárez report severe challenges in finding long-term financing that will provide them the affordable means to purchase critical equipment and expand their operations.

- Incentivize Manufacturers To Expand Or Upgrade Their Operations Through The Development Of A Modernization Loan Program.
- Work With Financial Institutions To Develop Financing For Mexico Companies
- Locate Private Equity Investors/Partners In The U.S.
- Consider The Creation Of A Regional Business Bonding Program Through Public/Private Partnership

3) Establish Manufacturer’s Representative Office in the US: Supply chain industries will need strong assistance in identifying potential markets and developing a customer base. Having boots on the ground in a major U.S. manufacturing hub connected to the North American Borderplex Region. A manufacturer’s rep knowledgeable with the market area could assist area companies generate more direct sales with U.S. corporations.

- Contract With An Experienced Manufacturer’s Representative In The Auto Industry In Detroit (Expand To Other Cities Based On Need)
### Additional Best Practices: Support Supply Chain Manufacturers

#### Certified Capital Company (CAPCO)

The CAPCO program is a government economic development tool designed to foster the development of a venture capital infrastructure to help provide the funding for innovative local companies that are without the means of obtaining financing. CAPCO programs allow governments to raise large pools of capital from insurance companies or other financial entities by offering tax credits for investments they make into approved CAPCO funds. The tax credits are taken over time and therefore they do not affect government tax revenues in the year that they are issued.

CAPCOs are typically venture capital groups with significant local knowledge and industry expertise and provide a leveraged (often a 4:1 ratio) capital match of their own to invest in innovative companies. Nine states currently have CAPCO programs. Notable success stories include Digium (AL), Medidata Solutions (NY), and T&K Machine (TX). After receiving CAPCO funding, all of these companies were able to attract additional funding and expand their presence.


#### Manufacturing Loan Programs

Illinois’ Manufacturing Modernization Loan Program is an incentive designed to support potential expansion and equipment upgrades by manufacturers. The goal of the program is to provide capital for small to medium-sized manufacturers so that they can remain competitive. In Illinois, manufacturers with 500 employees or fewer are eligible. Loans for approved building costs and machinery purchases are made available from $10,000 to $750,000. More detail can be found here: [http://www.illinois.gov/dceo/SmallBizAssistance/Financing/Pages/Loans.aspx](http://www.illinois.gov/dceo/SmallBizAssistance/Financing/Pages/Loans.aspx).

Louisiana has a similar program, called the Modernization Tax Credit, which provides a 5% refundable tax credit on capital expenditures for a five year period, or 1% per year. Investments must contribute to greater efficiencies for the facility. The goal of the program is to not only retain manufacturers in the state, but also keep their facilities on the leading edge within their own firm. Additional information about the program can be found here: [http://gnoinc.org/about/modernization-tax-credit/](http://gnoinc.org/about/modernization-tax-credit/).
Public Policy Considerations

Local
- Waive Property Taxes For Technology Startups For 5 Years
- Waive Property Taxes For Co-space Companies For 5 Years
- Allow public pension funds to voluntarily invest up to ½% of assets in high risk ventures (start ups)
- Consider Property Tax Abatement On New Equipment For Modernization Of Aging Manufacturing Facilities
- Waive property tax for façade improvements in downtown districts
- Establish minimum upkeep standards for unoccupied or vacated properties in downtown districts
- Develop Wi-Fi infrastructure in downtown districts and entrepreneur gathering places
- Allow live-work zoning in entrepreneurial zones
- Establish minimum regional incentive package guidelines

State
Texas
- Access Texas Growth Fund Resources
- Access Texas CAPCO funds
- Access CPRIT program funding for Cancer related research or attract top talent
- Secure funding from State and Federal sources for additional border staff resources

New Mexico
- New Mexico Small Business R&D Tax Credit
- New Mexico Financial Management Tax Credit

Federal
- Access Start up America Program incentives
- EDA Funding For Special Projects (Life Sciences Laboratory Equipment For Universities And Incubators, Border Infrastructure Improvements, Entrepreneurial Capacity Studies, Downtown Wifi Infrastructure)
- Access U.S. Rural Development Program Funding (Community Development Projects, i.e. Libraries, Museums, Medical Clinics, Street Improvements, Child Care Centers, Community Kitchens & Gardens Etc.)
- Access Instituto Nacional de Emprendedor y PyME
Sector-Specific Strategies
Understanding and Marketing Industry Clusters

Attracting new industries will be one of the most important activities the Alliance will conduct to improve economic conditions in the North American Borderplex Region. It is essential that the lack of diversity and the dependence almost solely on the manufacturing sector to continue to drive and carry the region be remedied or economic prosperity will be an unachievable goal. Concentrating marketing efforts, skills development, the vertical integration of supply chains and the creation of competitive incentives upon the six identified target sectors will allow the Alliance and its regional economic development partners to make the best possible use of limited funding and other resources.

Studying the activity of industry sectors in the region, attending industry conferences and seminars and establishing relationships with regional industry leaders will help the Alliance focus its marketing messaging and efforts to attract new companies. It will also help adapt the regional business environment to support companies now operating in the region within each sector.

Marketing materials must be created to showcase the appropriate regional assets and relay critical needed information such as estimated available infrastructure, rental costs, etc. for each sector. Materials should be developed for use online, distribution by hard copy, inclusion in pamphlets and brochures and use by marketing ambassadors and tour teams.

“Swat Teams” of regional government, education, workforce, private sector leaders, cultural and nonprofit representatives should be created to accompany Alliance staff on regular marketing tours to cities and regions with large concentrations of target industry clusters.

Identifying the workforce skills needed by employers and matching them with local educational and workforce training institutions by industry sector is critical to success in economic development.

Determine incentives and policy changes to increase the competitiveness of the region for each target sector. Work with public officials, private organizations and lobby for needed incentives and policy changes.

- Engage in Cluster Industry Development
- Make use of industry dashboards
- Organize local swat teams for marketing tours
- Undertake 1-2 marketing trips each year
- Invest in required infrastructure
- Develop industry cluster incentives
- Identify Industry Skills required
- Create Educational Programs & Initiatives for Missing Skills
Borderplex Alliance Strategic Recommendations

**Borderplex Dashboard**

**Competitive Assets**
- Largest U.S. Military Installations
- > 2 Million Acres Contiguous Military Space
- Largest U.S. Contiguous Airspace
- Research, Development, Testing, and Evaluation
- World’s Largest/Fastest Test Track
- Major Range Test Facility Base
- Largest U.S. Instrumented Open-Air Land Test Range
- 3 Major Research Universities
- Extensive Runways and Shuttle Landings
- First All Drone Army Airport

<table>
<thead>
<tr>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>24,025</td>
</tr>
<tr>
<td>Payroll (USD)</td>
<td>$1.3 B</td>
</tr>
<tr>
<td>Businesses</td>
<td>378</td>
</tr>
<tr>
<td>Total Sq. Feet (U.S. only)</td>
<td>11.6 M</td>
</tr>
</tbody>
</table>

*Does not include military bases*

**Sector-Specific Strategies**

1. Employ lobbying and marketing efforts to keep current military assets that may be under review in the upcoming BRAC plan
2. Support El Paso Chamber of Commerce in efforts to attract military assets from other base closures under the upcoming BRAC plan
3. Leverage testing facilities to attract additional manufacturing installations that focus on military applications
4. Promote NMSU and UTEP’s sensor development programs to attract top talent for sensor development and manufacturing
5. Market local industry strengths that align with military needs, such as boot and garment manufacturing
6. Become a known center for drone testing by attracting new talent, R&D facilities, and manufacturing companies
7. Leverage strength in systems integration
8. Tap solar and other renewable energies suitable for the region.

Sources: AE, BLS, ReferenceUSA
Target Industries & Niches – Aerospace and Defense

**Defense and Aerospace**

- Testing and Evaluation
- Defense Contracting

**Mature/Core Targets**
- Retention
- Expansion

**Diversification Targets**
- Attraction
- Entrepreneurship and Small Business Development

**Emerging Targets**
- Expansion
- Attraction
- Entrepreneurship and Small Business Development

- Border Security Training/ Bio Security
- Cyber Security/ Linguistics

- Sensors and Weapons Systems
- Enabling Tech/ Systems Integration
- General Aviation & Aircraft Maintenance
### Best Practices

<table>
<thead>
<tr>
<th>Space Florida (Space Authority and Spaceport)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the primary agent for aerospace growth and development, Space Florida offers opportunities both domestic and international by developing and promoting partnerships between the state’s most valuable assets to bolster existing businesses and assist prospective businesses. The uniqueness of the Space Florida entity is that it consolidates three previous industry organizations, creating an all inclusive program that supports R&amp;D and workforce development, business development, and spaceport operations. More specifically, as Florida’s premier advocate for the A&amp;D industry, some of the Space Florida’s responsibilities include arranging financial incentives, providing site selection services, and establishing relationships with the federal, state and local authorities in order to assist A&amp;D companies with contracting, grant, and funding opportunities. The organization also has the authority to issue revenue and assessment bonds and other debt instruments and can connect interested parties to powerful state connections such as Workforce Florida, the University of Florida’s ASTREC small satellite project, private corporations, and other state agencies. For more information see: <a href="http://www.spaceflorida.gov/">http://www.spaceflorida.gov/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mississippi’s Aerospace and Defense Global Marketing Efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enacted in 2010, Mississippi’s Aerospace Initiative Incentives program provides tax incentives to companies that manufacture or assemble components for the aerospace industry or provide research, for the sector. These incentives include a 10-year exemption from income and franchise taxes, as well as a sales and use tax exemption for the start-up of the facility. Mississippi has worked hard to be able to offer aerospace companies more than just tax incentives. Mississippi has also invested in public infrastructure, providing pad-ready sites, allowing companies to focus solely on building design and the equipment they need. It also has invested in developing workforce skill sets so the workforce is able to productively assist the industry. Mississippi markets its aerospace industry internationally. It is investing resources into marketing the state at major trade shows in Farnborough, UK and Paris. Discussions at the 2011 Paris Air Show led to GE Aviation’s decision to construct a composite components facility in Mississippi. Other companies have also taken notice. Rolls-Royce recently built its first engine test facility outside of the UK in Mississippi. Companies with manufacturing operations in Mississippi now include GE Aviation, Lockheed Martin, Northrop Grumman, Raytheon, and Rolls Royce. For more information see: <a href="http://aerospacemississippi.org/aerospace-in-ms.php">http://aerospacemississippi.org/aerospace-in-ms.php</a></td>
</tr>
</tbody>
</table>
## Best Practices & Conferences – Defense and Aerospace

<table>
<thead>
<tr>
<th>Conferences</th>
<th>Details</th>
<th>Dates</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerocon-Houston</td>
<td>Focusing on Aerospace and Defense Manufacturing, AeroCon Houston seeks to bring manufacturers, suppliers, experts and thought leaders together to show the latest tech. and ideas for aerospace and defense manufacturing. For more information see: <a href="http://aerocontexas.designnews.com/highlights">http://aerocontexas.designnews.com/highlights</a></td>
<td>October 13-14, 2015</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>AeroDef</td>
<td>Focusing on commercial and defense aerospace manufacturing, Aerodef convenes manufacturing OEMs, suppliers and potential partners to find solutions to meet surging demand for aircraft. For more information see: <a href="http://www.aerodefevent.com/about-aerodef/">http://www.aerodefevent.com/about-aerodef/</a></td>
<td>April 20-23, 2015</td>
<td>Dallas, TX</td>
</tr>
<tr>
<td>Aerospace &amp; Defense Manufacturing Summit</td>
<td>Focusing on topics related to the aerospace and defense industry including improved quality assurance systems, logistics, and cost reduction, this conference brings together senior level executives from the aerospace and defense industry. For more information see: <a href="http://www.aerospacedefensesummit.com/">http://www.aerospacedefensesummit.com/</a></td>
<td>October 5-6, 2015</td>
<td>Las Vegas, NV</td>
</tr>
<tr>
<td>Munitions Executive Summit</td>
<td>Attended by key leaders in the US Government acquisition, program management, technology and academic sectors, this summit will bring them together with industry leaders in the US munitions industrial base to create a meaningful interchange on the challenges facing the US Munitions Enterprise. For more information see: <a href="http://www.ndia.org/meetings/5650/Pages/default.aspx">http://www.ndia.org/meetings/5650/Pages/default.aspx</a></td>
<td>April 6-8, 2015</td>
<td>Parsippany, NJ</td>
</tr>
<tr>
<td>Science and Engineering Technology Conference</td>
<td>With pending budget sequestration, the Department of Defense has identified 7 critical areas of interest (Col). These Cols were tasked with creating a roadmap identifying trends and gaps in technology and defining the strategic direction in critical tech areas. Attendees at this conference will have the opportunity to meet with these teams to be able to better meet the needs of the DoD through the sequestration process. For more information see: <a href="http://www.ndia.org/meetings/5720/Pages/default.aspx">http://www.ndia.org/meetings/5720/Pages/default.aspx</a></td>
<td>March 24-26, 2015</td>
<td>Springfield, VA</td>
</tr>
</tbody>
</table>
## Competitive Assets
- 3 Research Universities
- Strong Additional Universities, Colleges
- 3 Medical Schools
- Biomedical Innovation Center & Accelerator
- Significant Medical Assets and R&D
- Institutional Research and Development
- Hispanic Research Hub
- Existing Medical Manufacturing

### Borderplex Dashboard

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Employees</td>
<td>70,200</td>
</tr>
<tr>
<td>2013 Total Payroll (USD)</td>
<td>$1.9 B</td>
</tr>
<tr>
<td>2013 Total Businesses</td>
<td>2,800</td>
</tr>
<tr>
<td>Current Total Square Feet (U.S. only)</td>
<td>15.4 M</td>
</tr>
<tr>
<td>Current Total Revenues (U.S. only)</td>
<td>$7.4 B</td>
</tr>
</tbody>
</table>

Sources: AE, BLS, ReferenceUSA

### Sector-Specific Strategies
1. Aggressively recruit new companies in the identified niche targets
2. Bridge the gap between R&D, patents and commercialization through a regional development services hub of the 3 universities, MCA and the Texas Tech Medical Center
3. Incentivize entrepreneurs to work in collaboration with universities with property tax waivers similar to Start-Up New York
4. Establish angel fund for life sciences
5. Forge collaborative research commercialization among all partners

---

**University of Texas at El Paso**
- Border Biomedical Research Center
- Interdisciplinary Health R&E
- Hispanic Health Disparities Research

**New Mexico State University**
- Microscopy Research Center
- Center for Bio Security & Food Safety
- Core University Research Laboratory

**Universidad Autónoma de Ciudad Cd. Juárez**
- Toxicology & Cancer Biology
- Biomedical Science Research Center
- Institute of Cell Physiology
## Target Industries & Niches – Life Sciences

<table>
<thead>
<tr>
<th>Economic Development Activities</th>
<th>Life Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mature/Core Targets</strong></td>
<td><strong>Healthcare Services</strong></td>
</tr>
<tr>
<td>• Retention</td>
<td><strong>Medical Research</strong></td>
</tr>
<tr>
<td>• Expansion</td>
<td><strong>Health IT</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Medical and Tissues Test Kits</strong></td>
</tr>
<tr>
<td><strong>Diversification Targets</strong></td>
<td><strong>Vaccines/ Pharmacology</strong></td>
</tr>
<tr>
<td>• Attraction</td>
<td><strong>Medical Devices</strong></td>
</tr>
<tr>
<td>• Entrepreneurship and Small Business Development</td>
<td><strong>Clinical Trials and Testing</strong></td>
</tr>
<tr>
<td><strong>Emerging Targets</strong></td>
<td><strong>Specialized Clinics &amp; Services</strong></td>
</tr>
<tr>
<td>• Expansion</td>
<td><strong>Clinical Trials and Testing</strong></td>
</tr>
<tr>
<td>• Attraction</td>
<td><strong>Specialized Clinics &amp; Services</strong></td>
</tr>
<tr>
<td>• Entrepreneurship and Small Business Development</td>
<td></td>
</tr>
</tbody>
</table>
# Best Practices & Conferences – Life Sciences

## Best Practices

### Austin Community College Biotechnology Program

The Biotechnology Program at Austin Community College (ACC) works in collaboration with the local bioscience industry to educate students in basic laboratory skills, math skills, genetic engineering, protein purification, cell culture, quality assurance and quality control principles, regulations, bioinformatics, computer skills, ethics, documentation, and teamwork. Students go on to work in positions that span the diverse range of biotechnology fields including Pharmaceutical, Molecular Diagnostics, Manufacturing, Cancer Research, Fisheries, Wildlife, and Cell Culture.

ACC Biotechnology Program offers a 1-Year Certificate, which provides students basic skills for entry-level positions; a 2-Year Associates of Applied Science (AAS) degree, which provides students with more advanced skills required to work as a biotechnician or to transfer to a university; and an Advanced Technical Certificate that educates post-baccalaureate students to work at the bench and is composed solely of biotechnology courses. For more information, visit: [http://www.austincc.edu/biotech/](http://www.austincc.edu/biotech/)

### Neuroscience Consortium

Founded in 2012 by the Massachusetts Life Sciences Center, the consortium leverages Massachusetts’ rich environment of neurobiology and neuroscience. Private industry members include Biogen, Merck, Pfizer and Janssen R&D. Funding is provided to short-term, results-oriented projects. Milestones, budgets, objectives and industry standards for research are clearly set. Project results are shared with all consortium members. In 2013, project awards included three on Alzheimer’s Disease, two on neuropathic pain and one on muscular sclerosis/Parkinson’s Disease. [http://www.masslifesciences.com/about/consortia/](http://www.masslifesciences.com/about/consortia/)

### Technology and Research Initiative Fund (TRIF)

The Technology and Research Initiative Fund was passed by Arizona voters in November 2000. It is part of a six-tenths-cent sales tax increase that funds Arizona public universities (Arizona State, Northern Arizona, and University of Arizona). The Fund is designed to finance research, commercial application, and work-force education in regards to high-technology.

The TRIF has supported a wide variety of unique programs, resulting in the creation of high-tech startup companies, the publication of research articles, the formation of U.S. Army/Arizona State University collaborations, and the development of sustainable energy advancements. For more information see: [http://azregents.asu.edu/public/specialprogramsandinitiatives/trif/TRIF.htm](http://azregents.asu.edu/public/specialprogramsandinitiatives/trif/TRIF.htm)
### Innovation Works Commercialization

Innovation Works' (IW) Commercialization Initiative, located in Pittsburgh, PA, is a set of programs that collectively meet the underserved commercialization needs of southwestern Pennsylvania’s universities and federal research laboratory. The programs that make up IW’s Commercialization Initiative are the University Innovation Grant program, in which IW partners with technology transfer offices to provide up to $25,000 to qualifying innovations to answer fundamental business questions regarding a technology’s viability; the i6 Agile Innovation System, a structured, scalable system of mentorship, coaching, and financial support designed in partnership with Carnegie Mellon University to help technology-driven startups thrive; and the Commercialization Alliance, a partnership with the National Energy Technology Laboratory, that is increasing the lab’s technology transfer success by applying IW’s proven commercialization methodologies.

These initiatives assist technology transfer offices in their commercialization efforts, increasing the number of companies formed as a result of innovative technologies and growing the overall economy of the region. Since 1999, the organization has invested over $60 million in more than 400 technology companies. These companies have gone on to raise over $1.4 billion in follow-on funding and have created thousands of jobs for the region. For more information see: [https://www.innovationworks.org/](https://www.innovationworks.org/)

### START-UP NY

New York State has struggled to alter the perception that it is home to a poor business climate, particularly because of its high tax rates. It consistently ranks near the top of the country in income, sales, and property tax rates.

To attract new and retain established businesses, Governor Cuomo introduced the START-UP NY initiative. Simply, START-UP NY eliminates all state and local taxes, including employee income taxes, for businesses that create new jobs in New York State through relocation, expansion, or start up. Requisite proximity to universities is designed to inspire collaboration between these businesses and academic institutions. The program officially launched in January 2014 and will accept applicants through December 2020. For more information see: [http://startup.ny.gov/](http://startup.ny.gov/)

### Seattle’s Success in Marketing the Life Sciences Cluster

Seattle is home to one of the fastest growing life sciences markets in the country and is a leading site of cancer research. Seattle has developed a reputation for having a highly-skilled workforce; this has allowed it to grow as a life sciences hub despite having very little actual manufacturing done in the region. The city has, instead, branded its life sciences industry as a center for research and development. Its image also plays a crucial role in retaining jobs – when Seattle companies like Zymogenetics are purchased by large out-of-state companies, the company location, along with its employees, often remain within the local Seattle market.

Seattle does a great job of marketing its strong life sciences cluster, but it has help from a diverse array of public and private research organizations, including the University of Washington Medicine, Fred Hutchinson Cancer Research, Seattle Cancer Care Alliance, Seattle Genetics, Amgen and Bristol-Myers Squibb. The industry has also been boosted by major grants from leading charitable organizations such as the Bill and Melinda Gates Foundation. For more information see: [http://www.seattle.gov/economicdevelopment/industry_biotech.htm](http://www.seattle.gov/economicdevelopment/industry_biotech.htm)
<table>
<thead>
<tr>
<th>Conferences</th>
<th>The largest health IT event in the industry, HIMSS15 brings together healthcare professionals, clinicians, and executives from around the world to explore and discover new ways to advance innovation, make a greater impact, and improve outcomes. For more information see: <a href="http://www.himss.org/Events/EventDetail.aspx?ItemNumber=27978">http://www.himss.org/Events/EventDetail.aspx?ItemNumber=27978</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>HIMSS</td>
<td>April 12-26, 2015</td>
</tr>
<tr>
<td>Interphex</td>
<td>Touting itself as the single source for complete biopharmaceutical manufacturing solutions, Interphex brings over 12,000 global pharmaceutical and biotech professionals and 600+ suppliers for exhibitions, education, workshops, partnering, and networking opportunities. For more information see: <a href="http://www.interphex.com/Show-Info/">http://www.interphex.com/Show-Info/</a></td>
</tr>
<tr>
<td>BioMedevice</td>
<td>Connecting top suppliers and new technology, BioMedevice is a trade show for those in the medical device manufacturing industry. BioMedevice also includes a speed-networking event that allows attendees to quickly connect. Event passes also include passes for related, co-located events. For more information, see: <a href="http://biomedevice.mddionline.com/highlights">http://biomedevice.mddionline.com/highlights</a></td>
</tr>
<tr>
<td>Interphex-Puerto Rico</td>
<td>A leading pharmaceutical centre in the western hemisphere, Interphex-Puerto Rico offers networking and learning opportunities unavailable at the New York conference. It brings people involved in all layers of pharmaceutical manufacturing from engineers and business developers to production and manufacturing. For more information see: <a href="http://www.interphexpuertorico.com/">http://www.interphexpuertorico.com/</a></td>
</tr>
</tbody>
</table>
## Tourism

### Borderplex Dashboard

<table>
<thead>
<tr>
<th>Competitive Assets</th>
<th>2013 Employees: 52,300</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reliable, Bilingual Workforce</td>
<td>2013 Total Payroll (USD): $605 M</td>
</tr>
<tr>
<td>• Natural, Historical, and Cultural Assets</td>
<td>2013 Total Businesses: 2,670</td>
</tr>
<tr>
<td>• Strong Highway Infrastructure</td>
<td><strong>Current Total Square Feet (U.S. only): 17.7 M</strong></td>
</tr>
<tr>
<td>• Two International Airports</td>
<td><strong>Current Total Revenues (U.S. only): $762 M</strong></td>
</tr>
<tr>
<td>• Low Wage Cost Factor</td>
<td></td>
</tr>
<tr>
<td>• Professional Sports</td>
<td>Sources: AE, BLS, ReferenceUSA</td>
</tr>
<tr>
<td>• Emerging Medical Tourism</td>
<td></td>
</tr>
</tbody>
</table>

### Sector-Specific Strategies

1. Create a regional website and other sources of calendar events and attractions (El Paso CVB)
2. Increase sports-related activities and facilities for children and adults
3. Improve airport information on tourism options
4. Expand the number and types of festivals held, especially cultural events, desert-related and specialty food and wine
5. Create and market 3-day and 1-week vacation packages that visit each area using safe transportation & accommodations
6. Facilitate the development of bed & breakfast establishments
7. Include passes to local museums & other cultural assets in vacation packages
8. Link downtown areas with regular shuttles and themed events
9. Create a Western Theme Park (Detailed in Destination Factor Section, page 49)

### Festivals and Events Suggestions

- IntiRaymi Festival of the Sun
- Neon Desert Art & Music Festival
- Southern New Mexico Wine and Chile Festival
- Endurance Mountain Bike Races, Marathons, Triathlons, etc.
- The Poppy Festival
- Dia de Los Muertos Festival
Target Industries & Niches – Tourism

Economic Development Activities

- Mature/Core Targets
  - Retention
  - Expansion

- Diversification Targets
  - Attraction
  - Entrepreneurship and Small Business Development

- Emerging Targets
  - Expansion
  - Attraction
  - Entrepreneurship and Small Business Development

Tourism
- Cultural Tourism
- Eco Tourism

Mature/Core Targets
- Medical Tourism
- Festivals
- Professional Conferences

Diversification Targets
- Aerospace/Space Port
- Sporting Events
- Themed Entertainment
## Best Practices & Conferences – Tourism

### Best Practices

**Building Rehabilitation and Modernization Grant**
The Burlington Downtown Corporation in Burlington, NC has created a program to improve the face of downtown retail. Unlike many façade-only improvement grants, this program offers a 50/50 matching grant of up to $25,000 for interior systems upgrades that are required to meet municipal building codes, along with other external and roof-related improvements. The application for the grant requires a business plan and awards are based on the size of investment and the size of the building.

Along with this, the Burlington Downtown Corporation also offers a Restaurant Up-Fit grant which provides 50/50 matching and funding based on square footage. The goal of this grant is to help ease start-up business in the downtown district. For more information see: [http://www.burlingtondowntown.com/do-business/grants-incentives/](http://www.burlingtondowntown.com/do-business/grants-incentives/)

**VisitPhilly**
VisitPhilly is the official visitor and travel website for Philadelphia. VisitPhilly markets and promotes the multi-faceted aspects of Philadelphia’s tourism industry. The organization uses social media to generate buzz about Philly’s most attractive tourist destinations and the website itself serves as an advertising platform for local events.

All marketing angles are covered, including “The City of Brotherly Love,” the Rocky Balboa statue, history, and culture. Moreover, there are multiple campaigns – or “Phillyosophies” as they call them – aimed at different types of visitors, including “Philly’s more fun when you sleep over,” “Philadelphia – get your history straight and your nightlife gay,” and “Hometown pride is best served by the pint.” The upbeat and clever marketing campaigns have generated nearly 100,000 Twitter followers and more than 450,000 likes on their Facebook page. All of this activity serves as marketing for the city of Philadelphia and its tourism industry. For more information see: [http://www.visitphilly.com/](http://www.visitphilly.com/)

**Texas Hill County Tourism: Fredericksburg**
Today, Fredericksburg ranks as one of the top rural cities for tourism in America, catering to both daytime visitors from major urban centers in Central Texas as well as overnight visitors coming in from farther away. As part of its tourism development strategy, Fredericksburg has developed a remarkable method for drawing in visitors for every aspect of its heritage and natural assets by showcasing both its German and Texas rancher roots and inspiring visitors to appreciate the peaches, lavender, wildflowers, wines, and natural landscapes for which the region has become well-known. The influx of tourists has allowed for a wide variety of small businesses to prosper: from cozy bed and breakfasts to small boutiques and wineries.

During the first half of the 20th century, there was nothing that differentiated Fredericksburg from the other ranching towns that dotted Texas. Today, the Fredericksburg Convention Bureau oversees the development of tourism for the city. Aggressive marketing campaigns showcase all regional assets, while the website of the Bureau itself allows visitors to plan every aspect of their trip, from accommodation to tours and shopping. For more information see: [http://www.fredericksburgtexas-online.com/](http://www.fredericksburgtexas-online.com/)
## Best Practices & Conferences – Tourism

<table>
<thead>
<tr>
<th>Conferences</th>
<th>Description</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mexico Hotel and Tourism Investment Conference</strong></td>
<td>A forum for interaction between market participants focused on defining market drivers, and visualizing a path for sound industry growth. MexHIC 2015 connects hotel/tourism investors with people involved with all stages of hotel planning and tourism promotion. For more information see: <a href="https://mexhic.hvsconferences.com/">https://mexhic.hvsconferences.com/</a></td>
<td>March 19, 2015</td>
<td>Santa Fe Business District, Mexico, DF</td>
</tr>
<tr>
<td><strong>One Travel Conference for Shopping, Dining, and Cultural Tourism</strong></td>
<td>This conference will present some of the latest research from industry leaders on tourism trends and focus on the three most common travel activities: shopping, Dining, and Culture/Heritage. For more information see: <a href="http://www.onetravelconference.com/about">http://www.onetravelconference.com/about</a></td>
<td>January 27-29, 2015</td>
<td>McLean, VA</td>
</tr>
<tr>
<td><strong>IMEXAmerica</strong></td>
<td>This conference is the largest industry trade show in the US, featuring many exhibits and speakers on how to increase the potential attractiveness of a region for conferences, meetings, and reunions. For more information see: <a href="http://www.imexamerica.com">http://www.imexamerica.com</a></td>
<td>October 13-15, 2015</td>
<td>Las Vegas, NV</td>
</tr>
<tr>
<td><strong>IBTM America</strong></td>
<td>This trade show features exhibits and presentations from leaders in the Business Travel and Meetings Exhibition industry. For more information see: <a href="http://www.ibtmamerica.com/en/Home/">http://www.ibtmamerica.com/en/Home/</a></td>
<td>June 9-11, 2015</td>
<td>Chicago, IL</td>
</tr>
</tbody>
</table>
Advanced Manufacturing

Borderplex Dashboard

Competitive Assets
- Well-established major manufacturing hub
- Large, trainable workforce
- 3 major universities
- High number of institutions for skills training
- Pipeline of engineers from local universities
- Proximity to large U.S. markets
- Existing transportation and logistics hub
- Low labor costs

Sources: AE, BLS, ReferenceUSA

2013 Employees: 194,300
2013 Total Payroll (USD): $1.9 B
2013 Total Businesses: 1,250
Current Total Square Feet (U.S. only): 14.4 M
Current Total Revenues (U.S. only): $10.1 B

Sector-Specific Strategies
1. Help develop advanced manufacturing applications and design skills for engineering pipeline
2. Import and adopt apprenticeship program from a German high school and college. Partner with public schools & community colleges to offer apprenticeship programs. Institute a region-wide services cluster internship program
3. Explore and leverage “Start Up America Initiative” options
4. Advocate for renovation and modernization incentives for older manufacturing facilities
5. Regionalize access of the Advanced Manufacturing “Makers Space” at UTEP to support entrepreneurs and foster innovation
6. Hire a Consultant to Certify an Auto Manufacturing Site in Juárez

Armored Division
Military Intelligence
Air & Missile Command
Manned Tactical
DoD Countermeasures

Biggs Army Airport
Tonopah Test Range
McGregor Range
Air Force Research Lab
Flight Test Complex
WSMR Space Harbor

Active Duty Soldiers
Fort Bliss: 29,419
White Sands: 600
Holloman: 3,348
Total: 33,367

Civilian Employees
Fort Bliss: 12,185
White Sands: 3,640
Holloman: 864
Total: 16,689

Sensors & Tracking
Atmospheric Comp
Laser Firing
Missile/Artillery Testing
Astronaut Training
Target Industries & Niches – Advanced Manufacturing

Economic Development Activities

Mature/Core Targets
- Retention
- Expansion

Diversification Targets
- Attraction
- Entrepreneurship and Small Business Development

Emerging Targets
- Expansion
- Attraction
- Entrepreneurship and Small Business Development

Advanced Manufacturing
- Plastics/Metals
- Automotive
- Electronics/ Household
- Military Supplies
- Consumer Tech Products
- Product Design & Prototyping
- Biomedical Devices
- Advanced Sensor Tech
- Renewable Energy/Solar
## Best Practices & Conferences – Advanced Manufacturing

<table>
<thead>
<tr>
<th>Best Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Build Now-NY Program</strong></td>
</tr>
<tr>
<td>Build Now-NY is New York State’s shovel ready certification program led by Empire State Development. As hinted in the name of the program, developable sites are made ready for businesses to start building their facilities. Cooperation between land developers and State regulators ensure that all permitting issues are dealt with before businesses begin expressing interest in the site. The Build Now-NY program certifies sites for developers so that they can be shovel ready.</td>
</tr>
<tr>
<td>From 1999 to 2009, the program brought in nearly $664 million of private capital investment and added just under 7,000 new jobs in the State of New York. By certifying these sites, the state was able to speed up the process of economic development. For more information see: <a href="http://www.esd.ny.gov/BusinessPrograms/Data/BuildNow">http://www.esd.ny.gov/BusinessPrograms/Data/BuildNow</a></td>
</tr>
</tbody>
</table>

| Anchorage Mini Maker Faire |
| In 2013, the Anchorage Economic Development Corporation held its first annual Mini Maker Faire. A Maker is defined as a creator or innovator in their field, and they include engineers, inventors, tinkerers, hobbyist, and artists. The Mini Maker Faire is designed to facilitate an environment of entrepreneurship throughout the community, particularly in STEM fields. |
| During the day-long event, Makers can share their innovations with other Makers and the general public. The 2013 event drew more than 1,200 attendees, 41 Maker booths, and over 90 staff members, many of whom are Makers themselves. For more information see: [http://makerfaireanchorage.com/](http://makerfaireanchorage.com/) |

| Molding Minds for Manufacturing |
| John Wood Community College in Quincy, IL has launched two initiatives to inform the local population of the importance and benefits of manufacturing. “Manufacturing Our Future” is an outreach campaign in the form of a series of PSAs and a website. The campaign focuses on the benefits of manufacturing work, testimonials, and industry statistics. |
| The Manufacturing Expo is a program that exposes high school students to the world of manufacturing. A JWCC Manufacturing Coordinator demonstrates concept design, 3D modeling, and production. The Molding Minds for Manufacturing is funded by a federal grant for the training of high-skill positions in logistics, mechanical maintenance, and information systems. For more information see: [http://www.manufacturingourfuture.org/?utm_source=Issue+77%3A+Molding+Minds+for+Manufacturing&utm_campaign=ManufacturingJWCC&utm_medium=email](http://www.manufacturingourfuture.org/?utm_source=Issue+77%3A+Molding+Minds+for+Manufacturing&utm_campaign=ManufacturingJWCC&utm_medium=email) |
Best Practices & Conferences – Advanced Manufacturing

Best Practices

**Megasite Certification: West Tennessee Auto Park in Crockett County, TN**

The park is on 1,600 acres; all utilities, including gas, electric, sewer, and water are in place. It is adjacent to US Highway 412 and has rail access supplied by CSX Mainline. The site is 15 miles from a major commercial airport, and is 80 miles from the Port of Memphis.


**Startup America**

Startup America was founded in 2011 to support the nation’s network of startup communities. It works to connect local founders, entrepreneurial leaders, investors, mentors and executives with entrepreneurs.

The networks are local, each state administers its own Startup network. The state networks bring together entrepreneurs, startups, universities, mentors, local talent, and local government to facilitate startup growth. Texas’ network includes local groups in Austin, Dallas, El Paso, Houston, and San Antonio. Startup Texas has 1,199 startup members that employ 8,000+ employees and a total annual revenue of almost $630 million. Startup New Mexico’s network includes 70 startup members that employ 430+ employees and total an annual revenue around $24 million.

More information about Startup American can be found at: [http://www.s.co/](http://www.s.co/)

**Marketing Through Incentives: Prince William County**

Prince William County, Virginia has seen success in attracting target industries through the use of an aggressive incentive package and marketing by the Prince William County’s Department of Economic Development. The Department of Economic Development has focused their incentives to best attract target industries.

Local Incentives include a PWC Economic Development Opportunity Fund and Low Business Tangible Personal Property Tax Rates. The fund is used to attract or retain target industries by providing businesses with funding for infrastructure improvements, site preparation, work force services, and/or capital equipment purchases. Use of the fund is recommended by the Department of Economic Development and approved by the Board of County Supervisors. Prince William County offers competitive rates on business property and has an aggressive depreciation scale. Business property, excluding computer equipment, is taxed at 85% and depreciates by 10% every year. Computer equipment is taxed at 50% and depreciates more quickly – over 5 years.

The State of Virginia provides a number of additional incentives that the Department of Economic Development utilizes. A Workforce services program helps companies expanding or experiencing technological changes receive customized training assistance and recruiting. The Virginia Investment Partnership Grant Fund is a discretionary investment performance grant program aimed at manufacturing firms that have been located in Virginia for the past five years and are looking to expand their business. For more information see: [http://www.pwcecondev.org/LocatinginPWC/Incentives.aspx](http://www.pwcecondev.org/LocatinginPWC/Incentives.aspx)
### Best Practices & Conferences – Advanced Manufacturing

<table>
<thead>
<tr>
<th>Conferences</th>
<th>Description</th>
<th>Dates</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>AeroCon-Anaheim</strong></td>
<td>Offering access to advanced technologies and tools, AeroCon Anaheim is a live event providing opportunities to experience the newest technologies, equipment, and products in person. The conference also features a &quot;speed-networking.&quot; Attendance comes with badges for related, co-located events. For more information see: <a href="http://aerocon-anaheim.designnews.com/highlights">http://aerocon-anaheim.designnews.com/highlights</a></td>
<td>February 10-12, 2015</td>
<td>Anaheim, CA</td>
</tr>
<tr>
<td><strong>Expo Manufactura</strong></td>
<td>Touting itself as the conference for the future of manufacturing, Expo Manufactura brings together more than 9,500 professionals from manufacturing businesses of all sizes to discuss and influence the future of Mexican manufacturing. For more information see: <a href="http://www.expomanufactura.com.mx/">http://www.expomanufactura.com.mx/</a></td>
<td>February 2-3, 2015</td>
<td>Monterrey, NL</td>
</tr>
</tbody>
</table>
## Competitive Advantage
- Major U.S./Mexico border location
- Six international ports
- Existing bi-modal network
- Two international airports
- Major manufacturing hub
- Direct connections to U.S. and Mexico highways
- Engineering/Digital Design pipeline

### Borderplex Dashboard

<table>
<thead>
<tr>
<th>2013 Employees: 74,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Total Payroll (USD): $1.2 B</td>
</tr>
<tr>
<td>2013 Total Businesses: 4,700</td>
</tr>
<tr>
<td>Current Total Square Feet (US only): 46.6 M</td>
</tr>
<tr>
<td>Current Total Revenues (U.S. only): $47.5 B</td>
</tr>
</tbody>
</table>

Sources: AE, BLS, ReferenceUSA, TAMU International, US Dept. of Trade, Bureau of Transportation Statistics

## Sector-Specific Strategies

1. Host annual International Advanced Logistics conference
2. Initiate job training programs that teach modern logistics skills and practices at a high school and college level
3. Leverage bi-modal transportation options to further cargo activity at airports
4. Use CRRMA & Regional Leadership Council to promote and achieve port infrastructure improvements
5. Lobby for increased hours of operation and additional staffing at port stations
6. Improve roadways leading to and from port stations
7. Explore technology improvements to speed process at port stations

### International Port Stations

- Yselta/Zaragosa
- Paso del Norte (Santa Fe)
- Bridge of the Americas
- Stanton
- Tornillo
- Santa Teresa
Target Industries & Niches – Advanced Logistics

**Economic Development Activities**

**Mature/Core Targets**
- Retention
- Expansion

**Diversification Targets**
- Attraction
- Entrepreneurship and Small Business Development

**Emerging Targets**
- Expansion
- Attraction
- Entrepreneurship and Small Business Development

---

**Advanced Logistics**

- Freight Trucking
- Maintenance & Support Service
- Packaging Design and Services
- Freight Transport Arrangements
- Warehouse Support
- Bi-Modal Support Services
- Supply Chain Analytics
## Arizona Foreign Trade Zone (FTZ)
Arizona’s FTZ program is considered the most progressive in the United States because along with offering all the benefits of a foreign trade zone it provides between 75-80% reduction in state property taxes. The reduction in property taxes applies for the entire length of time the company remains within the FTZ. For more information see: [http://pinalcountyaz.gov/ed/incentivesprograms/Pages/ForeignTradeZone.aspx](http://pinalcountyaz.gov/ed/incentivesprograms/Pages/ForeignTradeZone.aspx)

## Student Apprenticeship Program in Logistics
Working with BLG Logistics, Brookwood High School in Brookwood, AL has started a program for students to gain first-hand experience in the logistics industry. Much like a dual-apprenticeship programs in Germany, students enrolled in the program take class at their school part of the day and then attend training in logistics outside the classroom, along with time to apply what they that training. In total, students spend around 10 hours a week in the apprenticeship program and cover the basics in warehouse operations, supply chain management, and the in-demand skills identified by the participating firm. Out of the eight students that completed the first semester of the program, all started full-time jobs with BLG after graduation.

## Levelland Industrial Rail Park
The Levelland Industrial Rail Park is a 297-acre industrial park. With the help of Levelland Economic Development Corporation, the park became operational in November 2010. Strategically located, the industrial park 30 minutes from major cross-continent trucking routes and an hour from Class 1 interchanges for BNSF and Union Pacific. The purpose of the industrial rail park was to catalyze rail-based business expansions. Since 2011, the park has brought in 4 companies, generated $41 million in capital investment, created 77 new jobs, and retained a corporate headquarters location. For more information see: [http://www.golevelland.com/index.aspx?NID=139](http://www.golevelland.com/index.aspx?NID=139)

## Global Logistics and Distribution in the Virginia’s Gateway Region
By supporting and marketing these assets together, the Virginia’s Gateway Region Economic Development Corporation has created a niche advantage for itself in the logistics and distribution industry. The Virginia’s Gateway Region Economic Development Corporation markets the region as a prime location for global logistics and distribution by leveraging location and business clustering. Numerous interstates and highways all cross through the Gateway Region, giving it ample infrastructure to support logistics.

The region markets itself as being located a day’s drive from 40% of the U.S. population. Access to infrastructure and population has made the region lucrative for companies in the logistics sphere of business. Amazon, Walmart, Food Lion and Ace Hardware have all located distribution centers in the area. Further clustering has occurred with companies focused on logistic and supply chain management consulting locating in the region to provide services to businesses. A critical concentration of logistics firms in the Virginia’s Gateway Region made Fort Lee an ideal place for the military to relocate their logistics university and consolidate training for its quartermaster, culinary and ordnance corps within the region. This presence provides a veteran workforce for private sector firms within the region with high expertise training in logistics. For more information see: [http://www.gatewayregion.com/target-industries/global-logistics-distribution/advantages](http://www.gatewayregion.com/target-industries/global-logistics-distribution/advantages)
## Best Practices & Conferences – Advanced Logistics

<table>
<thead>
<tr>
<th>Conferences</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Reverse Logistics Associations Conference &amp; Expo</strong></td>
<td>This conference brings third party service providers together with OEMs, retailers, and branded companies so they can become aware of reverse logistics support on a global basis. For more information, see: <a href="http://rltshows.com/vegas.php">http://rltshows.com/vegas.php</a></td>
<td>February 9-12, 2015</td>
<td>Las Vegas, NV</td>
</tr>
<tr>
<td><strong>Alternative Clean Transportation Expo</strong></td>
<td>This conference is a four-day event that features the latest in alternative and clean transportation with a special focus on the logistics industry. For more information, see: <a href="http://www.actexpo.com/">http://www.actexpo.com/</a></td>
<td>May 4-7, 2015</td>
<td>Dallas, TX</td>
</tr>
<tr>
<td><strong>Manhattan Momentum</strong></td>
<td>This conference brings high quality education, training, and networking to supply chain management and logistics professionals. Attendees are able to see the latest supply chain commerce technology developments from Manhattan and meet their elite partners and stay on the cutting edge of industry best practices. For more information, see: <a href="http://www.manh-momentum.com/">http://www.manh-momentum.com/</a></td>
<td>May 17-20, 2015</td>
<td>Phoenix, AZ</td>
</tr>
<tr>
<td><strong>Expo Proveedores Del Transporte</strong></td>
<td>Geared towards representatives of insurance and car transportation companies, this expo gives attendees the opportunity to adopt the modern techniques which will help with growth in the car transportation industry. For more information, see: <a href="http://expoproveedores.mx/">http://expoproveedores.mx/</a></td>
<td>May 20-22, 2015</td>
<td>Monterrey, NL</td>
</tr>
</tbody>
</table>
Business Services

Borderplex Dashboard

Competitive Advantages
- Supportive entrepreneurial environment
- Major manufacturing hub
- Low cost of doing business
- Low cost of living
- Strong Education Sector
- Growing Life Sciences Industry
- Large existing military bases

2013 Employees: 66,000
2013 Total Payroll (USD): $1.7 B
2013 Total Businesses: 4,200
Current Total Square Feet (U.S. only): 27.5 M
Current Total Revenues (U.S. only): $7 B

Sources: AE, BLS, ReferenceUSA

Sector-Specific Strategies

1. Strengthen talent pipeline by creating professional service programs for high school students (Engineering, Architecture, Accounting, Graphics Design and IT)
2. Institute a region-wide services cluster internship program
3. Create Business & Finance District in downtown areas
4. Develop specific incentives for the Financial District, which includes finance, insurance and other support services
5. Consider creating an EB5 regional center to attract foreign funding for new real estate development or redevelopment projects
Target Industries & Niches – Business Support Services

Economic Development Activities

Mature/Core Targets
- Retention
- Expansion

Diversification Targets
- Attraction
- Entrepreneurship and Small Business Development

Emerging Targets
- Expansion
- Attraction
- Entrepreneurship and Small Business Development

Business Support Services
- Accounting / Data Processing / Financial
- Supply Chain MGMT
- Software Development / Creative Design
- Computer Systems Design
- Second Language Immersion
- Online Education
- Special Skills Schools
### Best Practices

#### Live/Work Zoning Code
The City of Oakland has a live/work zoning code that make it easy for developers and individuals to convert buildings and houses to this kind of mixing of uses. The city is often cited as a best practice for creating live/work zoning code. Within the rules of the code, individuals can work in the same premises in which they live, or vice versa. Although zoning regulations can often be complicated and difficult for individuals to interpret, zoning can shape how developers build and renovate properties. By allowing for these types of uses, developers can respond to the demand for them. For more information see: [http://www.live-work.com/plainenglish-ws/index.shtml](http://www.live-work.com/plainenglish-ws/index.shtml)

#### Florida’s Great Northwest, Inc.
Florida’s Great Northwest, Inc. is a regional economic development organization representing 16 counties in Northwest Florida. It was founded in 2000 as an effort to bring together organizations across the region in order to realize collective advantages and build upon regional strengths. It is comprised of county and local economic development groups, workforce development boards, community and junior colleges, universities and private businesses. Since its founding, it has evolved into one of the nation’s premier regional alliances for economic and workforce development. The main goal of Florida’s Great Northwest is to create high-wage, high-skill jobs for the citizens of the region by diversifying its economic base, following a retention and recruitment strategy focused on target industry sectors, and transitioning its workforce into a knowledge-based economy. For more information see: [http://www.floridasgreatnorthwest.com/home](http://www.floridasgreatnorthwest.com/home)

#### International Accelerator
Based in Austin, TX, the International Accelerator grows small international businesses and start-ups by providing them access to a variety of services and industry experts. In addition to providing space and infrastructure, the Accelerator also provides access to leadership, counseling, banking, accounting, and other professional services. Moreover, the Accelerator provides entrepreneurs with access to over 100 proven entrepreneurs and business leaders. The result is the rapid development and revenue growth of portfolio companies. For more information see: [http://internationalaccelerator.com/](http://internationalaccelerator.com/)

#### Kansas City: A Best Practice in Small Business Development
Kansas City’s remarkable small business environment has been so successfully marketed within the region, it has also earned outside praise. The National League of Cities from recognized Kansas City as having some of the leading best practices to develop small businesses. The Kansas City region has emerged as a leading center for small businesses and entrepreneurs due to programs such as KCBizCare, which has helped small business owners better understand regulations that affect their business. KCSourceLink, another organization, provides customized business plans and daily classes to small businesses. Kansas City has also invested heavily in incubators and low-cost coworking spaces, allowing entrepreneurs to affordably work in a professional setting. The Spring Accelerator has also brought attention to the region, offering local start-ups the opportunity to share resources with a major corporation. For more information see: [http://www.nlc.org/media-center/news-search/learn-how-the-kansas-city-region-cultivates-a-supportive-ecosystem-for-business-growth](http://www.nlc.org/media-center/news-search/learn-how-the-kansas-city-region-cultivates-a-supportive-ecosystem-for-business-growth)
# Best Practices & Conferences – Business Services

## Conferences

<table>
<thead>
<tr>
<th>Conference</th>
<th>Description</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AICPA CFO Conference</strong></td>
<td>This conference aims to educate attendees on changes shaping the world today so that CFOs are able to better respond to the changing global market. There will be workshops and forecasts on economics, politics and leadership. For more information, see: <a href="http://www.cpa2biz.com/AST/Main/CPA2BIZ_Primary/CareerPersonalDevelopment/PRDOVR~PC-CFO/PC-CFO.jsp#.U49ZWPldWSo">http://www.cpa2biz.com/AST/Main/CPA2BIZ_Primary/CareerPersonalDevelopment/PRDOVR~PC-CFO/PC-CFO.jsp#.U49ZWPldWSo</a></td>
<td>May 13-15, 2015</td>
<td>Denver, CO</td>
</tr>
<tr>
<td><strong>Data Management Symposium</strong></td>
<td>This conference aims to bring together people involved in data management and analysis for a comprehensive conference and tradeshow meant to facilitate networking, discussion, and sharing. For more information, see: <a href="http://www.ppdm.org/event/view/upcoming/201">http://www.ppdm.org/event/view/upcoming/201</a></td>
<td>March 9-11, 2015</td>
<td>Houston, TX</td>
</tr>
<tr>
<td><strong>Design Automation Conference</strong></td>
<td>This conference is one of the top events for the design of electronic circuits and system, electronic design automation, and embedded systems and software. DAC offers training, education, exhibits, and superb networking opportunities for designers, researchers, tool developers, and vendors. For more information, see: <a href="https://dac.com/">https://dac.com/</a></td>
<td>June 7-11, 2015</td>
<td>San Francisco, CA</td>
</tr>
<tr>
<td><strong>Globalcon</strong></td>
<td>Presented by the Association of Energy Engineers, this conference is designed for those interested in the fast-paced developments in the energy field and will focus on four critical areas: energy management; renewable/alternate energy; lighting efficiency; plant and facilities management. For more information, see: <a href="http://www.globalconevent.com/">http://www.globalconevent.com/</a></td>
<td>March 17-18, 2015</td>
<td>Philadelphia, PA</td>
</tr>
</tbody>
</table>
Implementing Change
The implementation matrix offers recommendations on how the Alliance and its economic development partners can apply this action plan. It is organized by the steps outlined in the strategy and includes action items, timeframe and the parties to be involved in execution.

This matrix, paired with the annual scorecard event, will assist the Alliance in tracking the progress of the implementation of this plan.

A sample implementation matrix is provided below. An editable excel document separate from the body of this report is also provided. The Alliance should be the organization in charge of the collaborative implementation of the strategic plan.

### Implementation Matrix

<table>
<thead>
<tr>
<th>Improve Business Climate</th>
<th>Implementation Timeline</th>
<th>Implementation Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Term (1 Year)</td>
<td>DeKalb County DeKalb</td>
</tr>
<tr>
<td></td>
<td>Mid Term (2-3 Years)</td>
<td>County Chamber of Commerce</td>
</tr>
<tr>
<td></td>
<td>Long Term (3+ Years)</td>
<td>Local Universities DeKalb County Workforce Development</td>
</tr>
<tr>
<td>Improve Permitting</td>
<td></td>
<td>DeKalb Public Schools Georgia EDC ARC</td>
</tr>
<tr>
<td>Consider customized incentives for permitting</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Integrate DADC as liaison in the permitting process</td>
<td>x</td>
<td>1</td>
</tr>
<tr>
<td>Market changes in the permitting process</td>
<td>x</td>
<td>1 X X</td>
</tr>
<tr>
<td>Support Entrepreneurs and Small Businesses</td>
<td>x</td>
<td>1 X x</td>
</tr>
<tr>
<td>Create a technology incubator in partnership with higher education assets</td>
<td>x</td>
<td>1 x X</td>
</tr>
<tr>
<td>Explore the development of Coworking Spaces</td>
<td>x</td>
<td>1 x x</td>
</tr>
<tr>
<td>Implement new financial incentives to support entrepreneurship</td>
<td>x</td>
<td>1 X x</td>
</tr>
<tr>
<td>Engage in angel investing network and crowd funding for entrepreneurs</td>
<td>x</td>
<td>1 x</td>
</tr>
<tr>
<td>Support Existing Businesses and Foster Expansion</td>
<td>x</td>
<td>1 X</td>
</tr>
<tr>
<td>Organize robust visitation and outreach program with existing businesses</td>
<td>x</td>
<td>1 x</td>
</tr>
<tr>
<td>Use online platforms to survey all businesses</td>
<td>x</td>
<td>1 X</td>
</tr>
<tr>
<td>Match workforce training programs to existing business needs</td>
<td>x</td>
<td>1 X X X</td>
</tr>
</tbody>
</table>
APPENDIX

• Project Process 94
• Market Assessment 95
• Target Industries 112
• Cost of Operations 131
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Recovery from the global recession is evident throughout the North American Borderplex Region. Business is back. In 2014, the Alliance helped a slew of new companies relocate to the area. Datamark and Apogee opened new call centers. Mesa Airlines announced the location of an overnight maintenance facility and Prudential Financial announced a move to the area. Schneider Electric expanded its energy generation operation. Charles Schwab has also announced a customer service center in El Paso. Even Whole Foods has recognized the opportunity available in the bi-national regional market, and is planning a new store location there in 2016. Since its merger and founding in 2012, it is estimated that the Alliance has helped bring more than 3,100 new jobs to the region – a positive indication that regional alliance with strong strategic direction and leadership works effectively in attracting new industries to the area.

The interest in the Borderplex area by new industries is hardly surprising. One of the largest international markets in North America, with a population of more than 2.4 million, the region has unique economic advantages, backed by the varied assets of two countries and three states. The region has a lot to offer new industries. It is:

- Ideally situated at a key location on the largest international border in the world
- A top trade location for North America, with $48.1 billion of maquila exports, surpassing giant Tijuana in foreign purchases from maquilas
- The number one border area in terms of post-secondary education, with five top universities
- The only border area that can lay claim to three medical schools
- Number one in border regions for university R&D expenditures
- The highest college student population by workforce per capita of any border region

- The second largest manufacturing employment center on the Mexico/U.S. border
- One of the largest bi-national, bilingual communities in the world

U.S. companies are breaking out of the recessionary slump with plans. The escalation of nearshoring manufacturing processes will continue as those U.S. companies react further to the rising labor and cultural costs of doing business in Asia and the reduction of transportation costs that come from proximity. Energy costs in other countries relative to the U.S. and Mexico are rising dramatically, and the new reforms in Mexico along with continued fracking technology could act to lower costs further.

Mexico is now ranked as more competitive than China and Russia for manufacturing operations by industry watchers, including BCG, which found that Mexico has lower unit manufacturing costs than China in 2014. Even traditionally cost-competitive countries such as Indonesia are losing ground due to lack of logistics control.

Mexico’s aggressive new energy policies will open up unconventional fields along the border to international drilling companies with advanced fracking technology. Torchlight Energies has acquired 172,000 acres in the Orogrande Basin and will soon begin exploratory drilling that could triple wellheads in the area. If these new fields prove viable and cost productive, energy could become a major economic driver. The length of impact will depend on many factors, including the price of oil, the cost of local production and the play of the field.

In this environment of new opportunity, the Alliance is striving for the stronger unification of the El Paso, Cd. Juárez and Las Cruces area as one dominant force in international markets.
The unification of the area into one cohesive region is a critical step on the road to success for the communities in the Paso del Norte area. It allows cities more control of economic development and the ammunition needed to become much better-equipped players in the global arena. Everyone wins through regionalization. That is why, worldwide, communities are banding together to multiply their impact and stand out above the crowd.

Too many silos exist in the region today. Too many stories are being told about the cities and the assets to be found in the region. It confuses the market and diminishes the power that could be wielded by the region as a whole. The North American Borderplex Region has one great story to tell. Each city adds a rich chapter.

The North American Borderplex Region forms an exemplary market, with diverse industries and dynamic universities that introduce a constant pipeline of skilled workers looking for jobs in the area. The workforce basin spans large areas in two countries, adding a seemingly unending supply of highly trainable blue collar workers with good work ethic, strong productivity and a talent for innovation.

Banded together, the three states and three cities have much greater standing when approaching state and federal governments to lobby for much needed funding for infrastructure.

The North American Borderplex Region encompasses three unique cities, each with its own culture, residential environment and business climate. Each city has important assets to bring to the table. Cd. Juárez has the blue collar workforce, the population and the maquilas. El Paso brings logistics and distribution, UTEP, retail and Fort Bliss. Las Cruces adds geographic advantage, available land, NMSU and the White Sands Missile Range.

Combined, the cities give the area the strength and flexibility to attract the kinds of new industries needed and to grow its economy strategically. Leveraged together, their assets have the scope to attract a range of integrated industries no one city could attract on its own. The diversity provided by regional alliance allows El Paso, Cd. Juárez and Las Cruces to each achieve more stability and better weather adversity. In the new age of globalized industry competition, no one should be left to battle alone.
The region is blessed not only with a large number of assets with which to stand out above the competition, but also in the strength of those assets. Key regional assets include:

- Geographic and International Border Location
- Abundant, Low-Cost Workforce
- World Class Manufacturing Infrastructure
- Low Cost of Doing Business
- Low Cost of Living
- Strong Universities and Medical Schools
- Strong Life Sciences Factors
- Military Presence
- Bi-national, Bilingual Culture
- Tourism Elements

Important considerations in a strong economic development strategic plan are issues within the region that could deter optimal growth. All communities have challenges to address. The key is the identification of important issues and the action to address them.

While the region has an extremely strong workforce base relocating from areas in and outside the cities, industry leaders complained of a lack of soft skills and higher-level technical training.

The escalation of violence in Cd. Juárez from 2008 through 2012 had a palpable impact on businesses, workforce and many industries, especially tourism. While the violence has dropped dramatically from the peak, a higher than normal level still exists, and the perception of violence still mars the area.

Corruption in Mexico has been imbedded in the government and business culture of the area for generations. The result has been a confusion as to the cost of doing business, illogical housing developments and the unusual placement of assets in the region. Easing the level of corruption would benefit economic productivity.

The maquilas in Cd. Juárez have powered the regional economy and put the area on the international map. The growth of the manufacturing industry and the lack of growth in others has created a lack of diversity of industries in the city.

The distance of all three regional anchor cities from their national and state realms of influence has resulted in a lack of adequate infrastructure funding. It has also impacted bi-national coordination and logistics at the borders, resulting in understaffed facilities that drastically impact wait times and hinder economic activity.

The understanding of opportunities that the region may be able to capitalize upon in the years ahead is an important component in developing the strongest strategic plan. So is the assessment of risks the region faces. The following SWOT chart provides an assessment of a fuller range of strengths, weaknesses, opportunities and threats inherent to the current regional market.

“Companies need to develop upward mobility paths and educate workers on how to move ahead.”

-- Stakeholder Focus Group Participant
## Market Assessment Summary: SWOT

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ Geographic/International Location</td>
<td>➤ Lack of Appropriate Workforce Skills/Inadequate Career Paths</td>
</tr>
<tr>
<td>➤ Driver of Major Logistics/Distribution Route</td>
<td>➤ Lack of Adequate Industry Diversification</td>
</tr>
<tr>
<td>➤ Low Freight Costs</td>
<td>➤ Underdeveloped Supply Chain</td>
</tr>
<tr>
<td>➤ Low Labor Costs</td>
<td>➤ Inadequate Freight Rail Infrastructure</td>
</tr>
<tr>
<td>➤ Low Cost of Living</td>
<td>➤ Inadequate Port Entry Infrastructure</td>
</tr>
<tr>
<td>➤ Large, Young Labor Source</td>
<td>➤ Perception of Violence</td>
</tr>
<tr>
<td>➤ Sunlight Factor</td>
<td>➤ Distance from Realms of Influence/Lack of Regional Lobbying</td>
</tr>
<tr>
<td>➤ Reputation for Product Quality</td>
<td>➤ Weak Public Education/Low Graduation Rates</td>
</tr>
<tr>
<td>➤ Major Military Bases</td>
<td>➤ Areas of High Poverty</td>
</tr>
<tr>
<td>➤ Strong Universities</td>
<td>➤ Disassociated Governments</td>
</tr>
<tr>
<td>➤ Strong Hospitals/Medical Schools/Healthcare</td>
<td>➤ Lack of Alliance Direct Communication with Businesses</td>
</tr>
<tr>
<td>➤ Emerging Life Sciences</td>
<td>➤ Lack of Trust Between Key Stakeholders</td>
</tr>
<tr>
<td>➤ High Number of Graduating Engineers</td>
<td>➤ Inadequate Venture Capital/Angel Funding</td>
</tr>
<tr>
<td>➤ Varied Tax /Incentive Options</td>
<td>➤ Lack of Regional Incentive Planning</td>
</tr>
<tr>
<td>➤ Bilingual/Bi-cultural</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>➤ Regional Coordination of Local EDOs</td>
<td>➤ Defense Cutbacks</td>
</tr>
<tr>
<td>➤ Additional Leverage of International Airports, Especially Freight</td>
<td>➤ Future Military Base Downsizing</td>
</tr>
<tr>
<td>➤ Coordinated Historical/Cultural/Space Port Tourism</td>
<td>➤ Corruption</td>
</tr>
<tr>
<td>➤ Medical/Biomed/Medical Tourism</td>
<td>➤ Violence/Drug Trade/Gang Activity</td>
</tr>
<tr>
<td>➤ Integrated Aerospace Manufacturing, Testing</td>
<td>➤ Water Supply</td>
</tr>
<tr>
<td>➤ Santa Teresa/Airports/Union Pacific</td>
<td>➤ Lack of Regional Team Play by Politicians</td>
</tr>
<tr>
<td>➤ Advanced/Value Added Manufacturing</td>
<td></td>
</tr>
<tr>
<td>➤ Increased Retention of Retiring Military Personnel, University Graduates</td>
<td></td>
</tr>
<tr>
<td>➤ Increased Cooperation between Universities</td>
<td></td>
</tr>
<tr>
<td>➤ New Oil and Gas Production from the Western Permian Basin</td>
<td></td>
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<tr>
<td>➤ Reshoring Trend</td>
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</tbody>
</table>
Market Assessment Factors

To better understand the dynamics that drive the area’s economy, AngelouEconomics studied the market through an examination of four important factors:

• Quality of Life
• Workforce and Education
• Business Climate
• Infrastructure

QUALITY OF LIFE

A rich culture is woven through the North American Borderplex Region, and the ability to experience a different country and a different perspective to life requires only a walk or drive across the border. Not only does that provide incoming businesses and employees a more interesting daily life, but the protected hereditary genetics also helped attract a Texas Tech medical school to El Paso and provide significant opportunity for clinical testing, adaptive medical research and responsive bi-cultural product and media testing.

Fairly unique to the quality of life in the area is the dual structure of the population. Two distinct worlds appear to exist in the region, especially in Cd. Juárez. One world is inhabited by white collar and management employees, along with some highly-skilled blue collar workers that exist in accordance with a higher pay scale, live in a different standard of housing and have a different general quality of life than low-skill workers and the long-term unemployed.

There are 215,000 maquila workers in Cd. Juárez. Wages for these workers are low, and there is very little opportunity for advancement into higher-skilled job categories. That lack of career paths tied into the blue collar workforce translates into little possibility of upward mobility for many low-wage workers. Poverty has a significant impact on life in the region.

Cd. Juárez is the population driver for the region, giving the large population of low-skilled workers that live there more of an impact on the regional economy than more affluent population segments in other areas. Without strategic intervention through strong economic development, the regional population will likely experience slow to moderate growth through 2030.

The lower cost of living in the region offsets the lower income levels for white collar workers, allowing companies to benefit from the lower wage expense without significantly reducing the quality of life for employees that would impede employee attraction. The same relative number of residents pay 25 percent or more of their income for housing in the North American Borderplex Region (64.4%) as in the U.S. on average (63%). The balancing of lower cost of living with lower wages is less true for unskilled workers.

Low crime rates in El Paso and Las Cruces are a positive factor in attracting both businesses and people interested in living in the area.

High violent crime in Cd. Juárez, though significantly decreasing since its peak in 2010, is still at a level that could deter many businesses and white collar workers. Perception of crime can linger a long time after the issue begins to normalize, making a directed approach to marketing the decreasing crime rate in Cd. Juárez a priority.
**WORKFORCE AND EDUCATION**

The development of the huge manufacturing industry in the region sprung from the area’s large, low-cost work force from Mexico. The supply of those workers continues unhindered today, but the skill level of those workers is basic.

Employers throughout the region report a lack of adequate soft skills and a shortage of highly trained technical workers. Maquila owners and plant managers report that the factories must take on the responsibility of adequately training workers, even local engineering graduates. A lack of appropriate jobs and low wage levels force graduates from NMSU and UTEP to relocate out of the area upon graduation.

Most jobs in El Paso are in the retail sector, while in Las Cruces/Doña Ana County healthcare and social assistance accounted for the largest share of jobs followed by retail. In Cd. Juárez the bulk of jobs are found in manufacturing related to maquilas.

Two large U.S. universities, New Mexico State University and the University of Texas at El Paso, account for $221 million in R & D expenditures, and issue roughly 13,000 undergraduate and graduate degrees a year, most of them in the humanities, business and engineering. The Autonomous University of Cd. Juárez has 24,000 students within engineering and technology programs, accounting for upward of 5,000 graduates, biosciences more than 6,000 and social sciences around 8,000. R&D funding at Autonomous is estimated at $9 million.

Much of the R & D is concentrated on engineering-related fields like aerospace, biomedicine, and electronics. Cd. Juárez is also home to several sizeable universities with significant programs and graduates. The region has two medical schools now operating and a third expected to open in 2016. Low venture capital levels are reported by local entrepreneurs.

**BUSINESS CLIMATE**

Business climate in the region is generally supportive. A by-product of three different state governments, it will be a challenge to coordinate similar policies for prospective businesses. Permitting processes and incentive policies should be reviewed for more regional collaboration opportunities. Varying tax structures allow companies the option to locate within city that offers the best option for that company.

Cd. business leaders reported that corruption helps shape the business environment. Region-wide, licensing and permitting is affected by the level of personal connections a company has developed and nepotism has an impact on how things run throughout the region.

The large number of medical schools in the area have a positive impact on the business environment, as does the region’s strong military presence.

Corporate tax rates in Texas and New Mexico are moderately attractive, as are sales taxes in the two U.S. states. New Mexico offers a very low property tax rate. While Texas has a high property tax rate, it has no state income tax, and ranks high in terms of business friendliness. Both states offer considerable incentives to attract new businesses. Combined with the options in Cd. Juárez, the cities offer many options for tailoring location benefits.

Reliable, comprehensive business and economic data in Cd. Juárez is hard to collect, and when available is not comparable to data on the U.S. side of the border.

More lobbying efforts are needed to overcome the lack of government attention.
INFRASTRUCTURE
The high level of manufacturing, international trade and logistics and distribution activity in the region makes infrastructure a critical element of a healthy economy. The region has a superior geographic location for North American trade. An interconnected series of highways in good condition tie the area to the eastern two-thirds of the U.S. and Canada and to Phoenix and Tucson. Highways also connect the Borderplex area with a good portion of North Central Mexico. All three cities have active commercial corridors.

Although the region boasts international airports in both El Paso and Cd. Juárez, air service appears lacking to adequately support direct business travel and to move significant amounts of freight. The Alliance is currently active in a campaign to increase direct flights to and from El Paso, which would result in a considerable attraction factor for companies that conduct national and international businesses.

The area has six inland port or border crossing stations. Infrastructure and personnel at stations are insufficient to handle either the amount of trucks that must flow through the area to transport goods north from maquilas in Cd. Juárez or supplies south from the U.S. Long delays cost businesses dependent on the interstate movement of cargo in terms of employee time and lost contracts. More open lanes and larger numbers of agents staffing the port infrastructures are badly needed.

Rail infrastructure in the region is not established logistically to offer much assistance with the transportation of manufactured goods, adding to the stress on vehicle port stations and on the highways that feed them. Union Pacific’s new Santa Teresa station was built by the company as a fueling station and to improve the logistics of transporting their existing supply. UP does not see the viability of increasing north-south rail transportation in the region, but instead supports the expansion of bi-modal truck-to-rail methods.

Industrial space costs less in the North American Borderplex Region than in other Mexico/U.S. border cities. The market in Cd. Juárez took a heavy hit during the recession, and recovery signs only began to appear in 2012 and 2013. Both El Paso and Cd. Juárez currently have significant vacant industrial space, keeping the cost of space low and attractive to prospective businesses. Construction is underway in the north, west, central and southeast areas of the city.

Housing in the area is an attraction point for the region. It is primarily newer single-family, detached infrastructure with affordable pricing.

El Paso outperformed the U.S. in housing statistics during the recession, aided in part by increasing troop numbers at Fort Bliss and subsequent low vacancy rates. Las Cruces was harder hit by tough times, with a 32 percent increase in vacant housing infrastructure.

Cd. Juárez suffered not only from the recession in both Mexico and the U.S., but also from the affects of an extreme surge in violent crime that suppressed investment in the area and drove some manufacturing to other locations. Many workers lost their jobs in the 2007-2012 time period. The double hit of unemployment and fear of violent crime caused many residents to flee the area, building a large surplus in unoccupied housing.

Overall, the availability of vacant housing in the region has helped suppress housing values, making the purchase of a home less expensive for workers moving into the area.
**STAKEHOLDER SURVEY**

An online survey ran in both English and Spanish versions during the month of October 2014, offering Borderplex area businesses and residents an opportunity to weigh in about economic development in the area. In total, 865 people responded to the survey: 562 residents and 303 businesses.

Residents clearly indicated a need for more and higher-level jobs in the area and a desire for more public and private investment in high tech infrastructure. Public education was ranked as a very important factor, but the quality of that public education in the region was perceived as lacking.

Residents asked for more affordable housing, better skills training for students and more support for entrepreneurship. Most reported they felt there had been significant improvements in safety in the region during the last five years.

Business respondents said that the North American Borderplex Region was a good place for business. They indicated a need for improvements to the number, quality, efficiency and personnel investment of port crossings as the number one area need. The most important factors to local businesses were reported to be access to customers and the attraction and retention of a skilled workforce.

Cd. Juárez businesses cited security concerns as a roadblock to expansion. Businesses also reported issues with unreliable labor, accessibility of capital and insufficient infrastructure.

Business respondents expressed a need to grow existing manufacturing sectors and to diversify into new types of product areas. A need to develop and integrate the local supply chain was also reported.
Today, the North American Borderplex Region stands in a strong position, ready to compete with a great deal of advantage in the global market. To do that, the region will benefit from strategic economic alliances and the full leverage of all the assets at its disposal. Fortunately, the community has an enviable arsenal of advantages to draw upon. Those assets will actively support development initiatives that will help local businesses grow and allow the region to stand heads above the crowd in attracting new industries.

**INTERNATIONAL BORDER LOCATION**

The Mexico/U.S. border is one of the busiest international borders in the world, and the El Paso/Cd. Juárez area is the second busiest land port along that border, surpassed only by San Diego/Tijuana’s San Ysidro entry port. The area has strong, well-connected highway transportation infrastructure. Last year, more than $46 billion moved from Mexico through the El Paso/Cd. Juárez border. That powerful advantage gives the region an opportunity to become one of the best practice areas for international logistics and distribution and opens the door for even greater numbers and more diverse types of manufacturing as well as innovative new industries.

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Total Labor Force</th>
<th>Mexican-Side Student Population as a Share of Total Workforce</th>
<th>US-Side Student Population as a Share of Total Population</th>
<th>University R&amp;D Expenditures</th>
<th>Total Exports (U.S.)*</th>
<th>Total Exports (Mexico)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borderplex</td>
<td>2.4 Million</td>
<td>950 Thousand</td>
<td>8.6%</td>
<td>13.5%</td>
<td>$233 Million</td>
<td>$14.8 Billion</td>
<td>$46.4 Billion</td>
</tr>
<tr>
<td>San Diego/Tijuana</td>
<td>4.7 Million</td>
<td>2.2 Million</td>
<td>8.2%</td>
<td>11.8%</td>
<td>$1.2 Billion</td>
<td>$17.9 Billion</td>
<td>$30.7 Billion</td>
</tr>
<tr>
<td>Laredo/Nueva Laredo</td>
<td>650 Thousand</td>
<td>250 Thousand</td>
<td>7.6%</td>
<td>10.2%</td>
<td>$3.3 Million</td>
<td>$5.5 Billion</td>
<td>$91.6 Billion</td>
</tr>
<tr>
<td>McAllen/Reynosa</td>
<td>1.4 Million</td>
<td>560 Thousand</td>
<td>6.6%</td>
<td>8.5%</td>
<td>$9 Million</td>
<td>$5.2 Billion</td>
<td>$16.6 Billion</td>
</tr>
<tr>
<td>Brownsville/Matamoros</td>
<td>900 Thousand</td>
<td>350 Thousand</td>
<td>8.0%</td>
<td>7.3%</td>
<td>$8.3 Million</td>
<td>$4.6 Billion</td>
<td>$5.9 Billion</td>
</tr>
</tbody>
</table>

*Data reflects exports from U.S. through the regional ports. **Data reflects exports from Mexico through the regional ports.
Market Assessment: Competitive Assets

**ABUNDANT, LOW-COST WORKFORCE**
The region has another major asset to offer industries - one of North America’s largest workforce basins, with 850,000 people currently employed and a steady supply of workers ready to fill new positions. The regional workforce is diversely skilled, inexpensive and multilingual. Local universities graduate large numbers of engineers and technically-oriented potential workers each year, and three major military bases add highly-skilled retiring troops and military spouses to the range of skills available.

A sizeable portion of the workforce is employed in retail, manufacturing, hospitality and customer relations. The region is the largest manufacturing center per capita in North America, with 250,000 production employees. Maquilas in Cd. Juárez specialize in assembling a range of electronics, automotive parts, plastics, and metals. Highly trained-technical workers in the region include experts in specialized areas, including defense, and healthcare.

**EXISTING MANUFACTURING HUB**
The Borderplex is the second largest per capita manufacturing area in the U.S among the top manufacturing cities identified by Forbes magazine. There are 310 Maquila factories now operating in Cd. Juárez that contribute to the $46.4 billion a year in exports from Cd. Juárez into the U.S. The manufacturing industry in the region is rebounding from the effects of the recession with predictions for strong growth in the coming years. Cd. Juárez began out-producing giant Tijuana in 2012.

A low-cost workforce helped send the region to the top of the charts for manufacturing industries, but today many maquila owners are expanding into more advanced manufacturing processes, implementing more innovative equipment and vertically integrating into more complete product manufacturing. That shift will help to diversify the workforce and develop higher regional skill levels.
UNIVERSITIES
At 13.5%, the region has an impressively high percentage of university students to its adult population on the U.S. side of the border. That provides a significant draw to industries positioning themselves into an educated population and workforce.

The region’s three main universities, the University of Texas at El Paso, New Mexico State University in Las Cruces, and the Autonomous University of Cd. Juárez together employ more than 8,000 people. Their location has been crucial to regional economic development. UTEP and NMSU’s research and development expenditures amount to more than $221 million and cover a wide-range of fields, including life sciences and engineering, computer science and physical science. Other research focuses include agricultural science and aerospace.

LIFE SCIENCES
There are two publicly funded medical schools now operating in the region, and a third private medical school is set to open soon. The medical schools are a draw to many life sciences industries, related companies, technology developers and manufacturers, prescription drug companies and suppliers.

The Texas Tech Paul L. Foster School of Medicine in El Paso and the Universidad Autonoma de Cd. Juárez Institute of Biomedical Sciences. Both have highly-respected department heads and staff. They focus research and funding in biomedical, genetics, diabetes, environmental

Top Six Academic R&D Expenditures in El Paso/Las Cruces by Discipline (2013)

- Engineering: $95,458,000
- Computer Science: $54,461,000
- Environmental Science: $24,528,000
- Life Science: $9,905,000
- Mathematical Science: $5,925,000
- Physical Science: $3,861,000

Source: National Science Foundation, does not contain all disciplines

Market Assessment: Competitive Assets

health, neuroscience, infectious diseases, cancer, Hispanic health and cell physiology. Both have a reputation for the installation and use of innovative medical machine technology.

The Burrell College of Osteopathic Medicine in Las Cruces is set to open in 2016, with an eventual planned enrollment of 1,200 students. The combination of three highly regarded medical schools is an important advantage that will attract the attention of industries from research companies, to engineering firms to medical equipment manufacturers.
**CULTURAL DIVERSITY**

The Borderplex area has been building a healthy bilingual, bi-national community for more than 400 years. The result is one of the largest bi-cultural drawing points in North America. The pull was strong enough to lure the Texas Tech Paul L. Foster School of Medicine into El Paso, based in large part on the opportunity to study genetic impact on diseases in an area where families have remained together for generations and where large household populations still exist. The medical school also has research focused on Hispanic health.

Other industries and organizations that benefit from bilingual population or from the preserved bi-national culture will highly value the cultural strength of the area. The region would be ideal for private academies offering immersion classes in both English and Spanish.

**LOW COST OF DOING BUSINESS/COST OF LIVING EXPENSES**

The cost of doing business in the area is low, with lower wages, a variety of tax environments and a low cost of procuring labor. At the same time, the community offers a high standard of living, as money goes further in the area, with lower housing costs, rent, and a price parity index that affords residents nearly 10 percent more buying power.

The combination of low cost of business and living expenses is a heady mix to offer a wide range of prospective businesses looking for higher profit margins and the ability to attract a large workforce.

“There is a rich history between El Paso and Cd. Juárez - a lot that people have forgotten. The whole region should be a living museum of culture.”

-- Stakeholder Interview Respondent
**MILITARY**
Combined regional military bases employ thousands, contribute billions of dollars to the regional economy, and boost demand for contractors and specialized talent in the region. The area is home to three major military bases - Fort Bliss, Holloman Air Force Base and White Sands Missile Range. Together the bases cover more than 2 million acres of land, and have been critical in cushioning the region from the effects of the global economic downturn. They compliment the region's growing focus on science- and technology-driven industries. They are a major attraction factor for industries with ties to aerospace, aviation and defense contracting and provide leverage for the manufacture of related materials.

Holloman trains pilots, and tests and maintains manned and unmanned aircraft. It supports military personnel, retirees and their families and estimates its regional economic impact to be nearly $700 million.

White Sands is among the largest military installations in the U.S. and tests weapons in the U.S. military's arsenal. It conducts research, development and training for the military, as well as select private and public entities, including NASA. The base is also an alternate orbiter landing site and a training site for astronauts preparing for shuttle missions.

Fort Bliss Army base specializes in brigade modernization and missile defense, among other areas, and is fitted to conduct live exercises with most U.S. army weaponry. Construction on the base has grown rapidly in recent years, as it begins to house more soldiers and conduct more heavy armor training and maneuver exercises. Its economic impact is estimated at $5 billion, according to a 2013 UTEP study.

Significant downsizing of some bases is expected in the future.

**TOURISM**
The North American Borderplex Region has vast potential for the development of tourism industries. The rich past of the combined area draws together the opportunity to develop a triad of related cultural sites drawing on the history of the Old West in El Paso, Old Mexico and Mexican culture in Cd. Juárez, and Native American history and culture in Las Cruces. Developing cooperative tourism locations and industries that tie together planned activities could provide an interesting draw for domestic as well as international tourists.

The location of nearby space ports and plans for the well-financed development of adjoining property into resort facilities offer a possibility to leverage tourism with the aerospace and related aspects of military bases, manufacturing and testing facilities.

<table>
<thead>
<tr>
<th>Borderplex Military Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Fort Bliss</td>
</tr>
<tr>
<td>White Sands Missile Range</td>
</tr>
<tr>
<td>Holloman Air Force Base</td>
</tr>
</tbody>
</table>
Bi-modal Logistics and Transportation
Santa Teresa has added bi-modal transportation options and a small international airport that adds to a system that already includes two international airports – one in El Paso and one in Cd. Juárez. A new international bridge opening has increased port infrastructure to four operating bridges. The new Santa Teresa port station now offers new development, transportation and warehousing opportunities extending into New Mexico.

Emerging Bio-Med Activity
It is not surprising that the regional environment is beginning to show indications of emerging activity in Life Sciences-related entrepreneurial activity. The new Medical Centers of the Americas (MCA), with its Red Sky Biomed incubator and planned Tech Park just announced the first recipients of its $25,000 Proof-of-Concept Grant for Collaborative Research. The Hub of Human Innovation also operates out of El Paso, providing incubator support for technology startups, with significant focus on Life Science/Biomed areas.

NMSU also has an incubator, Arrowhead Center, that works to foster innovation and increase the success of new businesses, including bio sciences startups. UTEP’s Center for Research Entrepreneurship and Innovative Enterprises (CREIE) was a Kauffman Foundation Campus Initiative to infuse entrepreneurship into education, research, administration, and outreach activities. It helps increase commercialization of innovation, and extends to bio-related activities. The Autonomous University Cd. Juárez also helps foster new Biomed, science, engineering and software companies. There are a number of additional incubators and accelerators in the area emerging to assist new technology businesses, including sponsored locations by Monterrey Tech, Universidad Tecnologica
Market Assessment: Issues to Address

❖ WORKFORCE SKILLS
A common complaint found among employers in all cities was a shortage of “soft skills,” which cover communication, social graces and overall professionalism. Much of the white collar workforce comes to the market with strong creative and theory skills, but lacks needed practical experience.

The regional workforce notes a shortage of career opportunities, particularly for low-skill maquila workers. That in turn is stunting skills development in the existing workforce. Low wages are also reducing workforce commitment to develop higher skills outside the workplace.

Universities are now beginning to focus on soft skills as a workforce issue. Many have begun to offer courses in English as a second language and have added certification courses to boost the skill levels and diversity of the blue collar workforce. Community colleges in the area appear to have a focus on advancing students into four-year universities. It could be necessary to develop more community college focus on the development of mid-level skill sets and certifications.

❖ BORDER INFRASTRUCTURE
Roughly 18 percent of U.S.-Mexico trade crosses El Paso and Cd. Juárez. Border waits and operating hours have affected businesses’ bottom lines, notably in the maquila industry. Some maquila management noted that Customs-Trade Partnership Against Terrorism (C-TPAT) status, which fast tracks an operation’s shipments, can save a major company an estimated $1 million USD annually.

But most maquilas ship cargo without C-TPAT status, resulting in costs rather than savings. Growth in border crossings has outstripped infrastructural improvements. Improvements to one side are less impactful without improvements to the other; five lanes on the U.S. side of the Zaragoza bridge, for instance, are met by two on the Mexican. The completion of the Tornillo-Guadalupe Bridge, the crossing at Santa-Teresa-San Jeronimo, and the all-lanes initiative are expected to alleviate traffic to an extent.

Meanwhile, U.S. Customs and Border Patrol is exploring technologies that would reduce wait times. Cd. Juárez and El Paso authorities are considering an all-electric, 15-mile elevated monorail to ship cargo between the two sides. Obtaining the appropriate funding for these measures will be challenging, as members of Congress don’t represent border districts and fail to make the connection between border efficiencies and the national economies.

❖ INDUSTRY DIVERSIFICATION
The region is heavily dependent on manufacturing, within which much of the activity centers on electronics and automotive parts. Greater diversification will advance skills development and grow employment opportunities. It will attract more dynamic forms of investment, create new linkages between regional entities, grow profit margins and cushion the region during economic downturns.
UNDERDEVELOPED SUPPLY CHAIN

Most inputs into the maquila sector’s supply chain come from abroad. The remaining mostly tier-2, -3, and -4 manufacturing processes pressure wages downward and stunt skills development. Local employers often cite skills shortages among their reasons for not growing their supply chains. Mexico in fact produces 100,000 engineering graduates a year (more than Germany and Canada combined, according to MFI International), while several maquila managers in Cd. Juárez we spoke with ranked available talent in Cd. Juárez very high in terms of competency. Localizing supply chains can improve speed to market, intellectual property protection, freight and input costs and quality control. It will also deepen the maquila industry’s ties to the local economy, facilitating the goal of greater regional cooperation.

DISTANCE FROM CENTERS OF INFLUENCE

Cd. Juárez and El Paso are on the farthest edges of their states’ respective centers of influence and farther still from their countries’ federal seats of power. This has made it difficult to get an ear on issues of local importance. The fact is many of the region’s most pressing issues, from border infrastructure to industry diversification, impact Mexico and the U.S. as a whole. Local government and business leaders will need to communicate this connection at the national level, and lobby their cause relentlessly, highlighting similar successes from around the world wherever possible.

VIOLENCE

The media have noted with some regularity that the violence in Cd. Juárez has not slowed down the maquila industry; to be sure, foreign direct investment per capita in Cd. Juárez remains among the highest in Mexico. This storyline, however, does not account for the surge in investment the region may have received if Cd. Juárez had not become one of the world’s deadliest cities. During the peak years of violence between 2008 and 2010, global players including automakers and toy manufacturers settled in other parts of Mexico. Tourism across the region took a hit, as many tourists used to land in El Paso and Las Cruces with an eye toward stepping across the border. Homicides may be down substantially – from a peak of 3,700 homicides in 2010 to 497 last year – but further improvements to Cd. Juárez’ reputation are essential to realizing regional goals, from growing medical tourism to moving up the value-added chain.

“If you want something done in Mexico, you have to have feet planted in Mexico City.”

--Focus Group Respondent
LOGISTICAL IMPEDIMENTS

Cd. Juárez and El Paso are somewhat isolated by highway and by rail from other important areas in Mexico. East/West rail operates through the region, but very little realistic expansion of rail service to North/South areas is likely. Activity at Santa Teresa will not develop into North/South rail connection anytime in the near future. The new Santa Teresa bi-modal hub is also located too far from current maquilas factories to offer much in the way of relief rail service or expansion. Rail lines through the center of Cd. Juárez create traffic congestion and delays.
AE has conducted a cluster analysis of the North American Borderplex Region to study the relative strength and dominance of industries there. These clusters were analyzed to determine national, regional, and local growth trends, as well as assets that benefit development of emerging industries. The community vision identified during the stakeholder engagement process and the assets cataloged during the market assessment served as a basis for the identification of target industries in the region.

Our process can be split into four steps, each one screening industries so that they meet certain qualifications. The graphic below illustrates the AE methodology in selecting target industries by answering a key question during each stage. Each step will be further described in the following pages.

The cluster analysis provided here is the first step in determining the unique strengths of the regional economy. Local and national trends in employment are then considered as a way to ensure that the industries selected have the potential for growth. Regional assets that pertain to local economic activity are identified and community goals are addressed in the final two steps.

Throughout the process, the unique dynamics of the region are taken into account. Each city’s economic activity, economic development assets, and potential for growth are considered and factored into the determination of target industries for the whole region.
Step One: Determine Existing Regional Clusters

Businesses tend to cluster because of the advantages that proximity affords to them. In general, those advantages typically include increased opportunities for both vertical (to consumers) and horizontal (to competing firms) linkages. When businesses add connections to suppliers and consumers of their goods, clusters grow. Strong clusters help to attract other businesses from outside of the region and can also allow the local economy to diversify.

In the tables to the right and below, employment and levels of concentration (as shown by location quotient, described to the bottom right) are presented for both El Paso and Las Cruces (combined) and Cd. Juárez.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment</th>
<th>LQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1,021</td>
<td>0.122</td>
</tr>
<tr>
<td>Mining &amp; Natural Resources</td>
<td>30</td>
<td>0.010</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>234,038</td>
<td>2.402</td>
</tr>
<tr>
<td>Construction</td>
<td>10,581</td>
<td>0.347</td>
</tr>
<tr>
<td>Utilities &amp; Water</td>
<td>2,473</td>
<td>0.762</td>
</tr>
<tr>
<td>Trade</td>
<td>40,194</td>
<td>0.533</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>13,840</td>
<td>0.698</td>
</tr>
<tr>
<td>Business &amp; Professional Services</td>
<td>42,979</td>
<td>0.495</td>
</tr>
<tr>
<td>Healthcare, Education, &amp; Community Services</td>
<td>21,574</td>
<td>0.510</td>
</tr>
</tbody>
</table>

Source: IMSS

El Paso/Las Cruces Economic Clusters

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment</th>
<th>LQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care</td>
<td>51,445</td>
<td>1.008</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>45,646</td>
<td>1.15</td>
</tr>
<tr>
<td>Accommodation and Food</td>
<td>35,960</td>
<td>1.119</td>
</tr>
<tr>
<td>Administrative Support and Waste</td>
<td>23,903</td>
<td>1.092</td>
</tr>
<tr>
<td>Management</td>
<td>20,732</td>
<td>0.656</td>
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<tr>
<td>Public Administration</td>
<td>20,477</td>
<td>1.079</td>
</tr>
<tr>
<td>Construction</td>
<td>16,228</td>
<td>1.032</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>13,982</td>
<td>1.03</td>
</tr>
<tr>
<td>Professional Services</td>
<td>12,317</td>
<td>0.571</td>
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<tr>
<td>Wholesale Trade</td>
<td>11,161</td>
<td>0.741</td>
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<tr>
<td>Finance and Insurance</td>
<td>9,061</td>
<td>0.611</td>
</tr>
<tr>
<td>Other Services</td>
<td>7,988</td>
<td>0.727</td>
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<tr>
<td>Information</td>
<td>6,596</td>
<td>0.884</td>
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<tr>
<td>Real Estate</td>
<td>5,319</td>
<td>0.996</td>
</tr>
<tr>
<td>Agriculture</td>
<td>4,374</td>
<td>1.37</td>
</tr>
<tr>
<td>Entertainment and Recreation</td>
<td>3,010</td>
<td>0.475</td>
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<tr>
<td>Education</td>
<td>2,992</td>
<td>0.094</td>
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<tr>
<td>Utilities</td>
<td>1,854</td>
<td>0.882</td>
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<tr>
<td>Management</td>
<td>654</td>
<td>0.119</td>
</tr>
<tr>
<td>Mining</td>
<td>165</td>
<td>0.077</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics (BLS)

Location Quotient (LQ)

A calculated ratio between the local economy and the national economy that indicates industry concentration.

LQ = 1.0 indicates average concentration
LQ > 2.0 indicates a strong cluster
LQ < 0.5 indicates a weak cluster
Step Two: Do local industry clusters reflect national trends?

Now that the strength of each industry cluster has been presented, we can further refine our look into the regional economy by examining the patterns of growth in each sector. Local and national employment growth on the U.S. side of the North American Borderplex Region are shown in the table to the right. For Cd. Juárez, however, current employment information is not provided in the same manner as past employment information. Therefore, growth numbers are not presented in the table. National growth patterns found in Mexico are displayed below instead.

### Mexico Employment Growth By Sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>22%</td>
<td>35%</td>
</tr>
<tr>
<td>Mining &amp; Natural Resources</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>33%</td>
<td>92%</td>
</tr>
<tr>
<td>Construction</td>
<td>30%</td>
<td>18%</td>
</tr>
<tr>
<td>Utilities &amp; Water</td>
<td>25%</td>
<td>42%</td>
</tr>
<tr>
<td>Trade</td>
<td>-14%</td>
<td>-4%</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>22%</td>
<td>40%</td>
</tr>
<tr>
<td>Business &amp; Professional Services</td>
<td>23%</td>
<td>36%</td>
</tr>
<tr>
<td>Healthcare, Education, &amp; Community Services</td>
<td>20%</td>
<td>57%</td>
</tr>
</tbody>
</table>

*Employment as of July 2014

**Source:** INEGI

### 10-Year Employment Growth by Sector (2003-2013)

<table>
<thead>
<tr>
<th>Sector</th>
<th>U.S. TOTAL</th>
<th>El Paso</th>
<th>Dona Aña</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>5%</td>
<td>8%</td>
<td>ND</td>
</tr>
<tr>
<td>Mining</td>
<td>63%</td>
<td>-56%</td>
<td>ND</td>
</tr>
<tr>
<td>Utilities</td>
<td>-5%</td>
<td>-2%</td>
<td>49%</td>
</tr>
<tr>
<td>Construction</td>
<td>-13%</td>
<td>10%</td>
<td>-5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-17%</td>
<td>-32%</td>
<td>-13%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>3%</td>
<td>3%</td>
<td>16%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>1%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Professional and technical services</td>
<td>22%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>26%</td>
<td>-22%</td>
<td>-33%</td>
</tr>
<tr>
<td>Administrative and waste services</td>
<td>9%</td>
<td>36%</td>
<td>32%</td>
</tr>
<tr>
<td>Educational services</td>
<td>30%</td>
<td>84%</td>
<td>110%</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>28%</td>
<td>39%</td>
<td>50%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>8%</td>
<td>10%</td>
<td>18%</td>
</tr>
<tr>
<td>Information</td>
<td>-15%</td>
<td>-36%</td>
<td>-20%</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>-3%</td>
<td>-5%</td>
<td>18%</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>-3%</td>
<td>23%</td>
<td>-4%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>12%</td>
<td>-17%</td>
<td>-1%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>18%</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>Other services</td>
<td>-3%</td>
<td>0%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Step Three: Do Local Assets Exist that Give the Industry a Competitive Advantage?

The North American Borderplex Region has many strong assets that can draw companies to the area. Companies can leverage these strengths to create competitive advantages that will help them outperform other markets. These strengths can include elements of business climate, quality of life, infrastructure, market proximity, education and workforce.

The challenge in strategic planning is to identify key assets within a region that will support growth for particular industries and allow businesses within those industries to thrive. Fortunately, the region has a diverse range of such assets in its economic development arsenal.

For decades, the northern portion of the Mexico/U.S. border has been well known for the vast size of its low-skill workforce and the low cost of wages. In order to diversify and grow, the region will need to move beyond that reputation and identify and market other important assets.

For 50 years, the area has supported strong, vibrant manufacturers that ship parts and products worldwide. The region’s location as a major North American trade port boasts connections to major highways that allow trucks to access the U.S. and Mexico. That strong trucking transportation has recently been expanded to include a bi-modal port in Santa Teresa/Jeronimo. The region has a wealth of universities and colleges that support research, provide workforce training and are a pipeline of highly-skilled graduates looking for jobs.
Step Four: Do the Targets Meet Community Goals?

Growing industry clusters in any region requires significant coordinated effort. Government officials, economic developers, business leaders, and the public must be united in their vision and enthusiastic in their support to foster the chosen industries in accordance with the regional vision. This will be particularly challenging in the North American Borderplex Region, where economy is affected by two federal and three state governments. To cut through complications, the vision and goals of the Alliance plan should be straightforward and reflect the basic economic development requirements of everyone involved.

In order to achieve the Alliance mission of unifying the area as one economic region, the alliance will need to accomplish four initial thrusts. First, it will need to bring all organizations working on economic development together to present a unified regional front in the eyes of industries and site selectors.

A broader diversification of industries in the area is also needed to strengthen the economy and move away from an overreliance on the health of the basic manufacturing industry.

Additional support for entrepreneurs should be developed to encourage innovation and the creation of start-ups that will add more design and creative elements to the region. And a focus should be given to industries that will act to improve and update regional infrastructure.

The target industries presented in this report were chosen in accordance with these Alliance vision and goals.
Targeting Critical Industries

Target Industry Analysis for the region began with the examination of industries that are currently clustering within the area and further identified emerging industries that the region could attract. Niches within each industry were examined to find the ones that will benefit most from the unique set of assets the region brings to play. Occupations and wages were identified for recommended industries, as well as the cost of operations for some industries in the region versus other benchmark areas.

The North American Borderplex Region currently supports industry clusters in manufacturing, healthcare, travel & food services, logistics, business services, retail and wholesale trade.

AE has identified six target industry sectors that provide opportunity for the region:

- **Defense and Aerospace**
- **Life Sciences**
- **Tourism**
- **Advanced Manufacturing**
- **Advanced Logistics**
- **Business Support Services**

**Defense Industries**

The region is home to three elite U.S. military bases -- Fort Bliss, Holloman Air Force Base, and White Sands Missile Range. Future base realignment and closures (BRAC) could present regional bases with an opportunity to attract operations that will be cut from other bases. The combined contingent land mass size of the three bases, roughly 2 million acres, will likely assist the area in remaining a military stronghold in the U.S.

Local universities and their research centers have the capacity to assist the region in expanding into unmanned aerial vehicles, sensor systems, bioterrorism vaccines and testing and evaluation, all of which represent major growth areas in modern defense and warfare. It is unclear to what extent military and the local research institutions are interacting via research, and how current related research projects are handled. There should be a very strong bond leveraged between these two segments of the market in the future. The region, particularly El Paso, has a high concentration of security services, creating economic opportunities in both border and cyber security. The region is already highly active in sensor research and development and testing, further strengthening security industries.

**Life Sciences**

The Life Sciences sector encompasses services, products, health care and other businesses that relate to the research, manufacturing and activities focused upon living organisms, with an emphasis on the maintenance or restoration of health. The industry incorporates research into new technologies, pharmaceuticals and medicines, bio-topics, innovations, the manufacturing of medical devices and the development of a wide variety of “Health IT” software and technology, including health apps.

Life Sciences is currently one of the largest industries in the U.S.
economy, and it is projected to grow rapidly in terms of employment and wages during the next five to 10 years. The industry relies on high levels of scientific and technology research, and therefore draws heavily from research institutions backed by universities such as the University of Texas in El Paso, Autónoma University in Cd. Juárez and New Mexico State University. The three medical schools in the region – Burrell College of Osteopathic Medicine in Las Cruces, the Paul Foster School of Medicine in El Paso, and the Medical School of UAJC – will be powerful drawing factors for the development of the industry.

The three regional research universities, three medical schools and nursing schools have formed a pipeline of highly-skilled Life Sciences graduates, many of whom look for rare adequately paid job opportunities in the local market. Salary levels for those professionals are lower than the U.S. average, making the region a fertile breeding ground for new industries equipped to take advantage of the lower-cost talent. The region is also home to many high level hospital facilities, including a new (expanded) medical hospital soon to come online at Ft. Bliss.

Tourism
There is no guaranteed formula to grow a successful Tourism industry. The region is gifted with an unusual desert topography attractive to ecologists, families, hikers and sports enthusiasts. Sand dunes attract many nature enthusiasts, and several international sporting events occur in the area each year. The area has one of the highest sunlight factors on the continent and is an excellent location for stargazing and planetary observation.

Branding is a key element in attracting a healthy tourist population

For decades, the Borderplex area was a popular site for U.S. and Mexican tourists, as well as international tourists hoping to relish experience in both border cultures. In recent years, crime has seriously damaged the appeal for tourists. Getting the word out that violent crime in the area is on the decline and providing perceivable “safe” options for travel into Mexico will be instrumental in healing the damage.

One of the greatest assets found in the North American Borderplex Region is its diversity. Bonding together as a regional tourist attraction is an important step in showcasing all the area has to offer and attracting international tourists.

Advanced Manufacturing
As a global manufacturing center straddling the U.S./Mexico border, the region is in an optimal position to expand the scope of its manufacturing operations. It also benefits from low wages and a creative, innovative workforce equipped with degrees in fields that pertain to advanced manufacturing, especially engineering.

Both internationally and domestically, manufacturers are investing in automation and robotics to reduce costs and remain competitive. Information technology, modeling and simulation, increased innovation in supply chain management, and rapidly changing consumer demand are driving the trend. The region is well equipped to pursue advanced manufacturing in automotive, electrical, aerospace and biomedical industries, which have high concentrations of specialization and employment in the region.
Targeting Critical Industries

**Business Services**
Business services, in their simplest definition, relate to any type of services that support another company’s process and success. They are designed to enhance productivity, profit or the final product or service.

Amid ever-tightening global competition that involves more complex supply chains, business services have come to play an increasingly important role in business competitiveness and sustainability. Business services are often outsourced to reduce strain on workforce and reduce overall costs, and there is great opportunity in this industry for entrepreneurs who display initiative, creativity, adaptability and cost-competitiveness.

Technological advances have expanded the availability of business service solutions and have placed greater pressure on competitive businesses to seek them out. The U.S. transition to a service economy provides yet more opportunities for business service providers regionally. The North American Borderplex Region is primed to develop business services related to human resources, accounting, data processing, financial services, supply chain management, computer programming, software development and online education.

**Advanced Logistics**
Advanced Logistics is the science and innovation-oriented process of procuring, planning, implementing and controlling the efficient and cost-effective flow and storage of raw materials, in-process inventory, finished goods and related information from the point of origin to the point of consumption. In much simpler terms, logistics involves getting the right thing to the right place at the right time for the right amount of money. Advanced logistics involves doing that in the most innovative way possible.

The Alliance should consider working with colleges and private companies to develop more truck driver certification courses that can quickly increase this segment of the workforce. Companies that provide maintenance and other support services could also be expanded. Diversification niches could include companies that design and manufacture packaging materials and those that provide packaging services to manufacturing and other industries.

With the development of the bi-modal hub in Santa Teresa, warehousing industries will grow and migrate within the region, moving closer to Santa Teresa. All industries that provide warehouse construction, cutting-edge design, manufacturing and design of innovative equipment such as robotics and driverless vehicles, and all other warehousing services have ample opportunity to be successful.

Research into the types of companies that provide bi-modal support services and supply chain analytics and the development of marketing materials that showcase those companies should be considered.
## Life Sciences

### Key Occupations in Life Sciences

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Technologists</td>
<td>6.78</td>
<td>0.71</td>
<td>18.90</td>
<td>$43,480</td>
<td>$40,070</td>
<td>Postsecondary non-degree award</td>
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<tr>
<td>Diagnostic Medical Sonographers</td>
<td>6.78</td>
<td>0.79</td>
<td>43.50</td>
<td>$66,360</td>
<td>$62,545</td>
<td>Associate's degree</td>
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<tr>
<td>Cardiovascular Technologists and Technicians</td>
<td>6.75</td>
<td>0.91</td>
<td>29.30</td>
<td>$53,050</td>
<td>$59,705</td>
<td>Associate's degree</td>
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<tr>
<td>Physical Therapist Assistants</td>
<td>6.75</td>
<td>1.15</td>
<td>45.70</td>
<td>$52,320</td>
<td>$49,690</td>
<td>Associate's degree</td>
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<td>Medical Secretaries</td>
<td>6.68</td>
<td>1.53</td>
<td>41.30</td>
<td>$32,670</td>
<td>$28,710</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>6.59</td>
<td>1.56</td>
<td>30.90</td>
<td>$30,550</td>
<td>$24,995</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Medical Equipment Preparers</td>
<td>6.57</td>
<td>0.61</td>
<td>17.50</td>
<td>$32,260</td>
<td>$27,360</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>6.41</td>
<td>0.94</td>
<td>39.00</td>
<td>$81,110</td>
<td>$89,000</td>
<td>Doctoral or professional degree</td>
</tr>
<tr>
<td>Respiratory Therapists</td>
<td>6.39</td>
<td>1.24</td>
<td>27.70</td>
<td>$57,200</td>
<td>$49,055</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Personal Care Aides</td>
<td>6.38</td>
<td>3.20</td>
<td>70.50</td>
<td>$20,830</td>
<td>$18,150</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Medical and Clinical Laboratory Technologists</td>
<td>6.32</td>
<td>0.88</td>
<td>11.30</td>
<td>$58,640</td>
<td>$52,880</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Occupational Therapy Assistants</td>
<td>6.32</td>
<td>0.65</td>
<td>43.30</td>
<td>$53,090</td>
<td>$54,950</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Medical and Clinical Laboratory Technicians</td>
<td>6.16</td>
<td>1.33</td>
<td>14.70</td>
<td>$39,340</td>
<td>$40,870</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Licensed Practical and Licensed Vocational Nurses</td>
<td>5.95</td>
<td>1.20</td>
<td>22.40</td>
<td>$42,400</td>
<td>$40,930</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Healthcare Social Workers</td>
<td>5.80</td>
<td>1.36</td>
<td>33.50</td>
<td>$51,460</td>
<td>$50,220</td>
<td>Master's degree</td>
</tr>
<tr>
<td>Medical and Health Services Managers</td>
<td>5.75</td>
<td>0.86</td>
<td>22.40</td>
<td>$98,460</td>
<td>$84,510</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Medical Records and Health Information Technicians</td>
<td>5.71</td>
<td>1.13</td>
<td>21.00</td>
<td>$36,770</td>
<td>$32,990</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Occupational Therapists</td>
<td>5.59</td>
<td>0.90</td>
<td>33.50</td>
<td>$76,400</td>
<td>$76,575</td>
<td>Master's degree</td>
</tr>
<tr>
<td>Dietitians and Nutritionists</td>
<td>4.68</td>
<td>0.79</td>
<td>19.70</td>
<td>$56,170</td>
<td>$52,725</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Health Educators</td>
<td>3.81</td>
<td>0.90</td>
<td>36.50</td>
<td>$53,100</td>
<td>$41,735</td>
<td>Bachelor's degree</td>
</tr>
</tbody>
</table>

*For Occupational Analysis methodology, see Appendix.*

*Sources: Bureau of Labor Statistics; AngelouEconomics*
# Life Sciences: Scorecard

## RANKING OF BORDERPLEX LIFE SCIENCES INDUSTRY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assessment Rationale</th>
<th>Leading</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
</tr>
</thead>
</table>
| Employment and Wage Trends| • Consistent employment growth  
                             • Wage increases higher than U.S. average                                          |         |        |         |      |
| Business Establishments   | • Number of business establishments has remained relatively stable with no significant growth during five-year period |         |        |         |      |
| R&D, Commercialization    | • Existing specialized Life Sciences research labs and projects  
                             • Emerging Life Sciences incubator/accelerator (MCA)  
                             • Low level of support moving ideas to market                                       |         |        |         |      |
| Employee Skill Set        | • Medical school students and graduates  
                             • Engineering pipeline (graduates)  
                             • Graduate student researchers  
                             • Lack of local employment opportunities for skilled graduates  
                             • Regional labor force largely unskilled                                           |         |        |         |      |
| Facilities Investment     | • Strong number of regional hospitals  
                             • University research labs                                                          |         |        |         |      |
| Universities and Teaching Hospitals | • Three research universities with strong Life Sciences Programs  
                             • Three medical schools  
                             • Undergoing transformation of area hospital to teaching facility             |         |        |         |      |

**Overall Life Sciences Industry**
## Key Occupations in Tourism

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cooks, Restaurant</strong></td>
<td>9.47</td>
<td>1.13</td>
<td>12.90</td>
<td>$23,300</td>
<td>$20,090</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>Hotel, Motel, and Resort Desk Clerks</strong></td>
<td>9.41</td>
<td>0.98</td>
<td>11.10</td>
<td>$21,960</td>
<td>$18,090</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Waiters and Waitresses</strong></td>
<td>9.37</td>
<td>1.02</td>
<td>8.70</td>
<td>$20,710</td>
<td>$19,140</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>Lodging Managers</strong></td>
<td>9.02</td>
<td>0.64</td>
<td>8.30</td>
<td>$54,800</td>
<td>$50,290</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Bartenders</strong></td>
<td>8.65</td>
<td>0.73</td>
<td>9.00</td>
<td>$21,630</td>
<td>$21,200</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>First-Line Supervisors of Food Preparation and Serving Workers</strong></td>
<td>7.92</td>
<td>1.53</td>
<td>9.80</td>
<td>$31,820</td>
<td>$25,655</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Fitness Trainers and Aerobics Instructors</strong></td>
<td>6.48</td>
<td>0.44</td>
<td>24.00</td>
<td>$36,900</td>
<td>$25,425</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Maids and Housekeeping Cleaners</strong></td>
<td>4.81</td>
<td>1.03</td>
<td>7.80</td>
<td>$21,820</td>
<td>$18,215</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers</strong></td>
<td>3.57</td>
<td>0.73</td>
<td>12.30</td>
<td>$20,720</td>
<td>$17,010</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Driver/Sales Workers</strong></td>
<td>3.49</td>
<td>1.05</td>
<td>10.30</td>
<td>$27,730</td>
<td>$22,300</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Meeting, Convention, and Event Planners</strong></td>
<td>2.36</td>
<td>0.32</td>
<td>43.70</td>
<td>$49,830</td>
<td>$37,110</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td><strong>First-Line Supervisors of Housekeeping and Janitorial Workers</strong></td>
<td>2.06</td>
<td>1.27</td>
<td>0.80</td>
<td>$37,830</td>
<td>$27,400</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Coaches and Scouts</strong></td>
<td>1.94</td>
<td>0.64</td>
<td>29.40</td>
<td>$36,680</td>
<td>$31,115</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Bakers</strong></td>
<td>1.94</td>
<td>1.04</td>
<td>2.30</td>
<td>$25,060</td>
<td>$19,985</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>Recreation Workers</strong></td>
<td>1.35</td>
<td>0.59</td>
<td>19.00</td>
<td>$25,430</td>
<td>$22,945</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td><strong>Landscaping and Grounds keeping Workers</strong></td>
<td>1.35</td>
<td>0.93</td>
<td>20.90</td>
<td>$25,870</td>
<td>$20,545</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>First-Line Supervisors of Landscaping, Lawn Service, and Grounds keeping Workers</strong></td>
<td>1.31</td>
<td>0.81</td>
<td>15.10</td>
<td>$45,100</td>
<td>$34,150</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Cashiers</strong></td>
<td>1.00</td>
<td>1.04</td>
<td>7.40</td>
<td>$20,370</td>
<td>$18,900</td>
<td>Less than high school</td>
</tr>
<tr>
<td><strong>Maintenance and Repair Workers, General</strong></td>
<td>0.95</td>
<td>1.02</td>
<td>11.00</td>
<td>$37,190</td>
<td>$27,735</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td><strong>Nonfarm Animal caretakers</strong></td>
<td>0.73</td>
<td>1.09</td>
<td>27.80</td>
<td>$22,370</td>
<td>$20,880</td>
<td>Less than high school</td>
</tr>
</tbody>
</table>

For Occupational Analysis methodology, see Appendix.  
Sources: Bureau of Labor Statistics; AngelouEconomics
# Tourism: Scorecard

## RANKING OF BORDERPLEX TOURISM INDUSTRY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assessment Rationale</th>
<th>Leading</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Trends</td>
<td>• Steady employment growth for five-year period&lt;br&gt;• 10-year employment growth of 33%&lt;br&gt;• Overall, employment is growth is slow, but positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage Trends</td>
<td>• Wages have increased in five and 10-year time frame&lt;br&gt;• Overall steady growth in wages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Establishments</td>
<td>• Overall number of business establishments has remained stable throughout 10-year period&lt;br&gt;• Area did not experience the drastic drop-off in tourism experienced nationally at the onset of the recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Skill Set</td>
<td>• Large number of low-skilled workers is a good match for the industry&lt;br&gt;• Good community colleges and other training institutes for any needed tourism specialization skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clustering of Supportive Businesses</td>
<td>• Strong cluster elements in food services, entertainment and recreation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential Attraction Factors</td>
<td>• Strong cultural elements of Old West, Old Mexico and Native American&lt;br&gt;• International awareness of desert environment&lt;br&gt;• Existing sports activities&lt;br&gt;• Long history of tourist attraction damaged by recent violence in Cd. Juárez&lt;br&gt;• Strong potential for increasing cross-border attraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Tourism Industry</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## Key Occupations in Advanced Manufacturing

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic</td>
<td>17.77</td>
<td>0.55</td>
<td>-7.00</td>
<td>$36,020</td>
<td>$23,030</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Structural Metal Fabricators and Fitters</td>
<td>16.58</td>
<td>0.88</td>
<td>15.70</td>
<td>$37,260</td>
<td>$32,570</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic</td>
<td>16.52</td>
<td>0.54</td>
<td>3.80</td>
<td>$35,060</td>
<td>$23,830</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic</td>
<td>14.25</td>
<td>0.67</td>
<td>2.50</td>
<td>$31,090</td>
<td>$28,155</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Cabinetmakers and Bench Carpenters</td>
<td>14.24</td>
<td>1.17</td>
<td>16.80</td>
<td>$32,940</td>
<td>$21,110</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Welders, Cutters, Solderers, and Brazers</td>
<td>12.25</td>
<td>0.54</td>
<td>15.00</td>
<td>$38,410</td>
<td>$30,200</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Team Assemblers</td>
<td>11.39</td>
<td>0.56</td>
<td>5.50</td>
<td>$29,910</td>
<td>$20,270</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Upholsterers</td>
<td>11.02</td>
<td>4.25</td>
<td>4.20</td>
<td>$31,750</td>
<td>$24,560</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic</td>
<td>9.64</td>
<td>1.81</td>
<td>5.10</td>
<td>$30,400</td>
<td>$26,100</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Aerospace Engineers</td>
<td>9.58</td>
<td>2.09</td>
<td>4.90</td>
<td>$104,810</td>
<td>$85,170</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Industrial Production Managers</td>
<td>9.04</td>
<td>0.57</td>
<td>9.10</td>
<td>$97,490</td>
<td>$79,290</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic</td>
<td>8.83</td>
<td>1.18</td>
<td>8.30</td>
<td>$34,060</td>
<td>$30,980</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Assemblers and Fabricators, All Other</td>
<td>7.99</td>
<td>0.58</td>
<td>11.30</td>
<td>$29,070</td>
<td>$20,640</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>7.93</td>
<td>1.19</td>
<td>8.00</td>
<td>$37,240</td>
<td>$30,445</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>First-Line Supervisors of Production and Operating Workers</td>
<td>7.64</td>
<td>0.73</td>
<td>1.90</td>
<td>$57,420</td>
<td>$44,035</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Electrical and Electronics Engineering Technicians</td>
<td>7.11</td>
<td>1.06</td>
<td>1.90</td>
<td>$58,070</td>
<td>$55,350</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Painters, Transportation Equipment</td>
<td>5.76</td>
<td>0.66</td>
<td>9.40</td>
<td>$43,600</td>
<td>$44,260</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Electronics Engineers, Except Computer</td>
<td>5.37</td>
<td>1.07</td>
<td>4.90</td>
<td>$95,250</td>
<td>$83,355</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Purchasing Agents, Except Wholesale, Retail, and Farm Products</td>
<td>5.03</td>
<td>0.86</td>
<td>5.30</td>
<td>$62,310</td>
<td>$54,530</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Maintenance Workers, Machinery</td>
<td>4.84</td>
<td>1.12</td>
<td>6.50</td>
<td>$42,190</td>
<td>$31,960</td>
<td>High school diploma or equivalent</td>
</tr>
</tbody>
</table>

Sources: Bureau of Labor Statistics; AngelouEconomics

For Occupational Analysis methodology, see Appendix
### RANKING OF BORDERPLEX ADVANCED MANUFACTURING INDUSTRY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assessment Rationale</th>
<th>Leading</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Trends</td>
<td>• Declining employment for U.S. cities, but has recently stabilized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Has not matched employment growth of benchmarks San Antonio and McAllen since 2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• New maquila factories opened in Cd. Juárez post-recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage Trends</td>
<td>• Consistent but modest wage growth similar to that of U.S.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wages remain well below regional and national averages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• San Diego and to some extent San Antonio have experienced wage growth during 10-year period</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Establishments</td>
<td>• Establishments have remained stable during the 10-year period</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The region has not experienced the decline in establishments seen in San Diego and San Antonio during the 10-year period</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Skill Set</td>
<td>• Local workforce lacks technical and advanced skills to transition from manufacturing to advanced manufacturing processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Local colleges and training institutes are available and effective in teaching necessary skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Manufacturing</td>
<td>• Long history as manufacturing hub</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Operations</td>
<td>• El Paso and Las Cruces have lower operating costs than their U.S. benchmarks San Antonio and McAllen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cost of operations is relatively equal between Cd. Juárez and Querétaro.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Tax climate appears less favorable in the Borderplex than in benchmark areas</td>
<td></td>
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</tr>
</tbody>
</table>

**Overall Advanced Manufacturing Industry**
## Business Services

### Key Occupations in Entrepreneurial Business Services

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Preparers</td>
<td>6.56</td>
<td>1.31</td>
<td>9.80</td>
<td>$41,700</td>
<td>$43,330</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Securities, Commodities, and Financial Services Sales Agents</td>
<td>6.14</td>
<td>0.61</td>
<td>15.20</td>
<td>$100,910</td>
<td>$64,040</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Personal Financial Advisors</td>
<td>5.88</td>
<td>0.43</td>
<td>32.10</td>
<td>$90,820</td>
<td>$66,460</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Architects, Except Landscape and Naval</td>
<td>5.86</td>
<td>0.74</td>
<td>24.50</td>
<td>$78,690</td>
<td>$59,220</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Loan Officers</td>
<td>5.83</td>
<td>0.61</td>
<td>14.20</td>
<td>$70,350</td>
<td>$63,240</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Legal Secretaries</td>
<td>5.78</td>
<td>0.58</td>
<td>3.50</td>
<td>$44,380</td>
<td>$30,580</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Architectural and Civil Drafters</td>
<td>5.30</td>
<td>0.59</td>
<td>3.20</td>
<td>$50,550</td>
<td>$33,940</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Paralegals and Legal Assistants</td>
<td>5.20</td>
<td>0.64</td>
<td>18.30</td>
<td>$50,220</td>
<td>$36,655</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Photographers</td>
<td>5.04</td>
<td>0.75</td>
<td>12.50</td>
<td>$36,330</td>
<td>$29,970</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Telemarketers</td>
<td>4.99</td>
<td>2.42</td>
<td>7.40</td>
<td>$25,570</td>
<td>$18,050</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Advertising Sales Agents</td>
<td>4.70</td>
<td>0.50</td>
<td>13.00</td>
<td>$57,270</td>
<td>$49,190</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Lawyers</td>
<td>4.46</td>
<td>0.69</td>
<td>10.10</td>
<td>$130,880</td>
<td>$103,005</td>
<td>Doctoral or professional degree</td>
</tr>
<tr>
<td>Surveying and Mapping Technicians</td>
<td>4.40</td>
<td>0.89</td>
<td>15.90</td>
<td>$42,680</td>
<td>$36,115</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Reporters and Correspondents</td>
<td>4.22</td>
<td>1.00</td>
<td>-7.50</td>
<td>$45,120</td>
<td>$33,755</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Bill and Account Collectors</td>
<td>4.01</td>
<td>0.74</td>
<td>14.20</td>
<td>$34,320</td>
<td>$28,920</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>First-Line Supervisors of Landscaping, Lawn Service, and Grounds keeping Workers</td>
<td>3.91</td>
<td>0.81</td>
<td>15.10</td>
<td>$45,100</td>
<td>$34,150</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Landscaping and Grounds keeping Workers</td>
<td>3.80</td>
<td>0.93</td>
<td>20.90</td>
<td>$25,870</td>
<td>$20,545</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Credit Authorizers, Checkers, and Clerks</td>
<td>3.71</td>
<td>2.36</td>
<td>4.80</td>
<td>$35,680</td>
<td>$31,480</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Civil Engineers</td>
<td>3.66</td>
<td>0.64</td>
<td>19.40</td>
<td>$84,140</td>
<td>$73,255</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Office Machine Operators, Except Computer</td>
<td>3.54</td>
<td>1.03</td>
<td>-9.70</td>
<td>$29,580</td>
<td>$18,590</td>
<td>High school diploma or equivalent</td>
</tr>
</tbody>
</table>

Sources: Bureau of Labor Statistics; AngelouEconomics

For Occupational Analysis methodology, see Appendix.
## Business Services: Scorecard

### RANKING OF BORDERPLEX PROFESSIONAL & BUSINESS SERVICES INDUSTRY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assessment Rationale</th>
<th>Leading</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Trends</td>
<td>• Industry has seen growth in all sectors during 10-year period</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Growth in technical and professional services linked to the health of research labs in the area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage Trends</td>
<td>• Wages have experienced slight growth during last 10 years, but have not matched the growth in benchmarks San Diego or San Antonio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Establishments</td>
<td>• Business establishment numbers have held steady in recent years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No significant fluctuation during the recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Benchmark cities have experienced more industry growth, but not significantly more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Skill Set</td>
<td>• Regional workforce is largely unskilled and lacks business training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Business training is available at local colleges and universities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Support</td>
<td>• Low level of entrepreneurial support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relatively low investment and angel funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Emerging incubators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Operations</td>
<td>• El Paso and Las Cruces have lower operating costs than San Antonio and Phoenix</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cd. Juárez has lower operating costs than Tijuana</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Payroll, benefits and building rental costs are low in the region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Taxes may be higher in region than alternative area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Overall Business Services Industry
# Advanced Logistics

## Key occupations in Advanced Logistics

<table>
<thead>
<tr>
<th>Occupation</th>
<th>United States Occupational LQ</th>
<th>United States 10-year U.S. Growth Projection (%)</th>
<th>United States Salary</th>
<th>El Paso &amp; Las Cruces MSA Salary</th>
<th>Education Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo and Freight Agents</td>
<td>11.21</td>
<td>29.30</td>
<td>$42,310</td>
<td>$30,620</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Heavy and Tractor-Trailer Truck Drivers</td>
<td>10.89</td>
<td>20.60</td>
<td>$40,360</td>
<td>$30,970</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products</td>
<td>10.77</td>
<td>15.60</td>
<td>$64,300</td>
<td>$48,895</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand</td>
<td>6.49</td>
<td>27.20</td>
<td>$47,180</td>
<td>$40,580</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Transportation, Storage, and Distribution Managers</td>
<td>6.38</td>
<td>10.00</td>
<td>$88,920</td>
<td>$77,540</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Industrial Truck and Tractor Operators</td>
<td>6.22</td>
<td>11.80</td>
<td>$32,090</td>
<td>$21,740</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Bus and Truck Mechanics and Diesel Engine Specialists</td>
<td>6.00</td>
<td>14.50</td>
<td>$43,660</td>
<td>$35,125</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Conveyor Operators and Tenders</td>
<td>5.97</td>
<td>11.50</td>
<td>$31,360</td>
<td>$26,550</td>
<td>Less than high school</td>
</tr>
<tr>
<td>First-Line Supervisors of Non-Retail Sales Workers</td>
<td>5.97</td>
<td>4.00</td>
<td>$82,320</td>
<td>$57,040</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators</td>
<td>5.90</td>
<td>14.30</td>
<td>$55,430</td>
<td>$43,915</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Order Clerks</td>
<td>5.68</td>
<td>7.40</td>
<td>$31,280</td>
<td>$22,460</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Driver/Sales Workers</td>
<td>5.56</td>
<td>10.30</td>
<td>$27,730</td>
<td>$22,300</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Merchandise Displayers and Window Trimmers</td>
<td>5.21</td>
<td>12.80</td>
<td>$28,860</td>
<td>$25,370</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>5.18</td>
<td>15.40</td>
<td>$26,410</td>
<td>$20,465</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Material Moving Workers, All Other</td>
<td>5.10</td>
<td>4.52</td>
<td>$41,040</td>
<td></td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Computer, Automated Teller, and Office Machine Repairers</td>
<td>5.05</td>
<td>6.50</td>
<td>$38,550</td>
<td>$27,480</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Mobile Heavy Equipment Mechanics, Except Engines</td>
<td>4.74</td>
<td>16.20</td>
<td>$47,140</td>
<td>$39,045</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Shipping, Receiving, and Traffic Clerks</td>
<td>4.71</td>
<td>0.30</td>
<td>$30,700</td>
<td>$25,025</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Light Truck or Delivery Services Drivers</td>
<td>4.54</td>
<td>14.70</td>
<td>$33,940</td>
<td>$32,105</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Electric Motor, Power Tool, and Related Repairers</td>
<td>4.48</td>
<td>4.90</td>
<td>$38,470</td>
<td>$28,850</td>
<td>Postsecondary non-degree award</td>
</tr>
</tbody>
</table>
## Advanced Logistics: Scorecard

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assessment Rationale</th>
<th>Leading</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
</tr>
</thead>
</table>
| • Employment Trends          | • Region has seen growth in most sectors during the last 10 years  
                                • Employment LQ is above the U.S. average for most components                                                                                                           |         |        |         |      |
| • Wage Trends                | • Wages have increased slightly since 2008, similar to the wage trend in benchmark cities                                                                                                                                 |         |        |         |      |
| • Business Establishments    | • Establishments in the area are predominantly small  
                                • Number of establishments has remained stable, even during recession, similar to the trend in benchmark cities                                                                                       |         |        |         |      |
| • Employee Skill Set         | • General workforce lacks the skills to transition into the industry  
                                • Local universities offer coursework in logistics industry  
                                • Inadequate level of trained truckers                                                                                                                                            |         |        |         |      |
| • Existing Logistics Activity| Counterpart to large, long-term manufacturing industry within the region  
                                New bi-modal transportation  
                                High quality highway network  
                                Border crossing delays                                                                                                                                                     |         |        |         |      |

### Overall Logistics Industry
Cost of Operations

The cost of doing business is one factor that business owners use to make decisions about where to locate their operations. Differences in the varying costs of operation, or a lack of information available, can take a community out of the competition for new business. It is important for community leaders and policymakers to understand how the North American Borderplex Region fares when benchmarked against the cities with which they compete. The information presented in this section is designed to start the thinking process as to how to keep the region competitive in the eyes of target industries by comparing costs of competitive locations.

This section presents four model business establishments found within three of the target industries. Due to the various kinds of activities found within the business services sector, there are two different models presented. The models include a consumer products manufacturer, a web application design firm, a Life Sciences research and development company focusing on test kits, and an enterprise-level back office service provider.

The analysis that follows draws upon a collection of industry-specific cost of operation models that AngelouEconomics has developed to simulate the start-up and ongoing operational costs of running a business in selected target industries. These models are designed to integrate a series of key inputs, each of which contribute to the overall cost of operating the business. These inputs are specific to the region and to the benchmark areas selected for comparison in this project.

As different industries rely upon various resources differently, the specific costs that are necessary to operate a business in that industry will likewise differ. In this way, the key contributor to overall operating costs in one industry may be labor, while in another it may be the cost of utilities. Similarly, a group of communities may differ in how their local cost environment is structured; with one able to offer lower labor costs and another able to offer more favorable utility rates. The analysis provided offers guidance in determining which cost categories (i.e. payroll, employee benefits, property taxes, etc.) are most significant to the overall operating costs within a particular industry.

In addition to indicating the overall annual costs associated with operating a target industry business in the North American Borderplex Region and its benchmark cities, a further breakdown of those costs are provided that illustrate the areas in which the Borderplex area is most competitive. This analysis can be valuable in identifying the competitive advantages or disadvantages of the region relative to its benchmarks within the context of a specific industry.

Finally, the analysis can be helpful in determining how to best market the Borderplex area to businesses in a target industry and how to structure incentive packages that will have a meaningful impact on business costs in a target industry.
In order to achieve direct comparisons of annual operating costs within the Borderplex Region and the benchmark communities for this industry, uniform conditions for a hypothetical company were applied to the cost variables of each specific community. Operating costs were calculated across five primary cost categories including employee payroll, fringe and mandated benefits, utilities, building/lease payment and property tax. A general outline of the parameters used has been provided below.

Lease of 40,000 SF of Industrial Space
$11,500,000 Capital Investment in Computers, Machinery, and Equipment
Total Workforce of 50 Employees
Monthly Electricity Demand of 153,300 kWh
Monthly Water usage of 120,000 gallons

*If leased space is greater than 10,000 SF, it is assumed it is a Triple Net Lease. If it less than 10,000 SF, it is assumed it is a gross lease.
LIFE SCIENCES: TEST KIT R&D COST OF OPERATIONS

**Total Cost of Operations Index**

**Employee Payroll Index**

**Fringe & Mandated Benefits Index**

**Utilities Index**

**Building / Lease Payment Index**

**Property Tax Index**

*Property taxes reflect county wide tax rates, individual cities may levy additional property taxes. **Electric Rates based off of primary utility supplier in the county. Different rates may be found using different utilities.

Source: See Appendix IV
**LIFE SCIENCES: TEST KIT R&D COST OF OPERATIONS**

*Freight index created by calculating average shipping cost to ship 10,000 pounds of general freight from benchmark city to New York City, NY, Chicago, IL and Los Angeles, CA.*

**Travel Indices created by calculating average round trip flight and 2 night hotel stay from benchmark city to three major industry clusters for the respective industries.*

Source: See Appendix IV
LIFE SCIENCES: TEST KIT R&D COST OF OPERATIONS

Occupational Profile for Test Kit R&D

<table>
<thead>
<tr>
<th>Occupation Description</th>
<th>SOC Code</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>11-1021</td>
<td>1</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>11-9121</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>17-2112</td>
<td>4</td>
</tr>
<tr>
<td>Chemical Engineers</td>
<td>17-2041</td>
<td>4</td>
</tr>
<tr>
<td>Helpers—Production Workers</td>
<td>51-9198</td>
<td>4</td>
</tr>
<tr>
<td>First-Line Supervisors of Office and Administrative Support Workers</td>
<td>43-1011</td>
<td>2</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>43-6014</td>
<td>6</td>
</tr>
<tr>
<td>Chemical Technicians</td>
<td>19-4031</td>
<td>8</td>
</tr>
<tr>
<td>Pharmacy Technicians</td>
<td>29-2052</td>
<td>7</td>
</tr>
<tr>
<td>Receptionists and Information Clerks</td>
<td>43-4171</td>
<td>2</td>
</tr>
<tr>
<td>Life, Physical, and Social Science Technicians, All Other</td>
<td>19-4099</td>
<td>7</td>
</tr>
<tr>
<td>Maintenance and Repair Workers, General</td>
<td>49-9071</td>
<td>2</td>
</tr>
<tr>
<td>Total Workforce</td>
<td>N/A</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: See Appendix IV

Cost of Operations Comparison – Raw Data Table

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$2,304,860</td>
<td>$604,350</td>
<td>$157,590</td>
<td>$219,800</td>
<td>$158,195</td>
<td>$3,444,796</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>$672,888</td>
<td>$290,015</td>
<td>$265,142</td>
<td>$181,200</td>
<td>$28,175</td>
<td>$1,437,419</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>$2,254,370</td>
<td>$597,436</td>
<td>$175,083</td>
<td>$265,142</td>
<td>$150,428</td>
<td>$3,442,460</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>$2,431,570</td>
<td>$637,574</td>
<td>$133,758</td>
<td>$299,653</td>
<td>$130,785</td>
<td>$3,633,341</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>$2,946,520</td>
<td>$864,336</td>
<td>$140,015</td>
<td>$458,560</td>
<td>$187,729</td>
<td>$4,597,160</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>$733,034</td>
<td>$315,937</td>
<td>$318,019</td>
<td>$179,600</td>
<td>$44,809</td>
<td>$1,591,399</td>
</tr>
</tbody>
</table>

Cost of Operations Comparison – Cost Differences

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Borderplex vs. U.S. Benchmarks</td>
<td>$409,430</td>
<td>$150,062</td>
<td>-$29,450</td>
<td>$136,635</td>
<td>$4,945</td>
<td>$671,622</td>
</tr>
<tr>
<td>Cd. Juárez vs. Tijuana</td>
<td>$60,146</td>
<td>$25,923</td>
<td>$52,877</td>
<td>-$1,600</td>
<td>$16,634</td>
<td>$153,980</td>
</tr>
</tbody>
</table>

*SOC is the Standard Occupational Classification system used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.*

Source: See Appendix IV
## Salary Estimates

<table>
<thead>
<tr>
<th>Occupation</th>
<th>El Paso, TX</th>
<th>Cd. Juárez, Mexico</th>
<th>Las Cruces, NM</th>
<th>San Antonio, TX</th>
<th>San Diego, CA</th>
<th>Tijuana, Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>$97,800</td>
<td>55326.26893</td>
<td>$81,560</td>
<td>$109,330</td>
<td>$121,950</td>
<td>60271.6001</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>$106,560</td>
<td>57381.8886</td>
<td>81110</td>
<td>$90,640</td>
<td>$178,460</td>
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<tr>
<td>Industrial Engineers</td>
<td>$60,940</td>
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<td>$85,360</td>
<td>$91,800</td>
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<tr>
<td>Chemical Engineers</td>
<td>$92,810</td>
<td>16690.31937</td>
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<td>$81,130</td>
<td>$85,610</td>
<td>18182.18134</td>
</tr>
<tr>
<td>Helpers–Production Workers</td>
<td>$20,240</td>
<td>2096.437635</td>
<td>$19,940</td>
<td>$23,730</td>
<td>$25,220</td>
<td>2283.827434</td>
</tr>
<tr>
<td>First-Line Supervisors of Office and Administrative Support Workers</td>
<td>$47,910</td>
<td>19472.03927</td>
<td>$39,830</td>
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<td>$54,930</td>
<td>21212.5449</td>
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<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>$26,760</td>
<td>7992.166563</td>
<td>$26,850</td>
<td>$31,720</td>
<td>$38,170</td>
<td>8706.545305</td>
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<tr>
<td>Chemical Technicians</td>
<td>$48,450</td>
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<td>40000</td>
<td>$37,750</td>
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<tr>
<td>Pharmacy Technicians</td>
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<td>$32,340</td>
<td>$32,350</td>
<td>$39,900</td>
<td>13597.78519</td>
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<tr>
<td>Receptionists and Information Clerks</td>
<td>$21,800</td>
<td>12482.07645</td>
<td>$21,310</td>
<td>$24,400</td>
<td>$28,580</td>
<td>13597.78519</td>
</tr>
<tr>
<td>Life, Physical, and Social Science Technicians, All Other</td>
<td>$36,180</td>
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<td>36000</td>
<td>$50,390</td>
<td>$52,110</td>
<td>13597.78519</td>
</tr>
<tr>
<td>Maintenance and Repair Workers, General</td>
<td>$26,450</td>
<td>2288.067186</td>
<td>$30,620</td>
<td>$30,850</td>
<td>$39,320</td>
<td>3146.216687</td>
</tr>
</tbody>
</table>

## Utility Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Electric Rate Industrial (cents per kWh)</th>
<th>Water Rate (dollar per gallon)</th>
<th>Waste Water Rate (dollars per gallon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>8.41</td>
<td>0.0008</td>
<td>0.0018</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>14.4</td>
<td>0.0001</td>
<td>0.0001</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>9.34</td>
<td>0.0014</td>
<td>0.0013</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>6.47</td>
<td>0.0062</td>
<td>0.00605</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>7.01</td>
<td>0.0048</td>
<td>0.00432</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>15.2</td>
<td>0.016</td>
<td>0.016</td>
</tr>
</tbody>
</table>

## Lease, Property Tax, and Benefits Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Industrial Lease Rates per SF</th>
<th>Property Tax Rate</th>
<th>Fringe and Mandated Benefits Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$5.50</td>
<td>1.08%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>$4.53</td>
<td>0.20%</td>
<td>0.431</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>$6.63</td>
<td>0.98%</td>
<td>0.265012518</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>$7.49</td>
<td>0.87%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>$11.46</td>
<td>1.18%</td>
<td>0.293341187</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>$4.49</td>
<td>0.30%</td>
<td>0.431</td>
</tr>
</tbody>
</table>

Source: See Appendix IV
In order to achieve direct comparisons of annual operating costs for the Borderplex and the benchmark communities for this industry, uniform conditions for a hypothetical company were applied to the cost variables of each specific community. Operating costs were calculated across five primary cost categories including employee payroll, fringe and mandated benefits, utilities, building/lease payment and property tax. A general outline of the parameters used has been provided below.

**Factors of Analysis**

- Construction of 1,000,000 SF of Industrial Space
- $75,000,000 Capital Investment in Computers, Machinery, and Equipment
- Total Workforce of 4020 Employees
- Monthly Electricity Demand of 876,000 kWh
- Monthly Water usage of 3,000,000 gallons

*If leased space is greater than 10,000 SF, it is assumed it is a Triple Net Lease. If it less than 10,000 SF, it is assumed it is a gross lease.
ADVANCED MANUFACTURING: CONSUMER PRODUCTS COST OF OPERATIONS

- **Total Cost of Operations Index**
- **Employee Payroll Index**
- **Fringe & Mandated Benefits Index**
- **Utilities Index**
- **Building / Lease Payment Index**
- **Property Tax Index**

*Property taxes reflect county wide tax rates, individual cities may levy additional property taxes.

**Electric Rates based off of primary utility supplier in the county. Different rates may be found using different utilities.

Source: See Appendix IV
Cost of Operations in Benchmarks Relative to Freight Index

* Freight index created by calculating average shipping cost to ship 10,000 pounds of general freight from benchmark city to New York City, NY, Chicago, IL and Los Angeles, CA.

** Travel Indices created by calculating average round trip flight and 2 night hotel stay from benchmark city to three major industry clusters for the respective industries.

Source: See Appendix IV
### Occupational Profile for Consumer Products Manufacturing

<table>
<thead>
<tr>
<th>Occupation Description</th>
<th>SOC Code</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>11-1021</td>
<td>20</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>43-6014</td>
<td>100</td>
</tr>
<tr>
<td>Helpers--Production Workers</td>
<td>51-9198</td>
<td>3600</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>17-2112</td>
<td>100</td>
</tr>
<tr>
<td>Shipping, Receiving, and Traffic Clerks</td>
<td>43-5071</td>
<td>200</td>
</tr>
<tr>
<td>Total Workforce</td>
<td>N/A</td>
<td>4020</td>
</tr>
</tbody>
</table>

### Cost of Operations Comparison – Raw Data Table

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$88,668,000</td>
<td>$23,249,356</td>
<td>$961,459</td>
<td>$6,355,823</td>
<td>$1,670,551</td>
<td>$120,905,189</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>$11,939,033</td>
<td>$5,145,723</td>
<td>$1,520,028</td>
<td>$5,125,900</td>
<td>$279,451</td>
<td>$24,010,135</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>$91,967,200</td>
<td>$24,372,459</td>
<td>$1,067,321</td>
<td>$7,795,214</td>
<td>$1,692,687</td>
<td>$126,894,880</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>$104,766,600</td>
<td>$27,470,518</td>
<td>$1,066,676</td>
<td>$6,908,787</td>
<td>$1,416,338</td>
<td>$141,628,920</td>
</tr>
<tr>
<td>McAllen, TX</td>
<td>$87,319,000</td>
<td>$25,614,259</td>
<td>$848,491</td>
<td>$6,815,518</td>
<td>$1,633,151</td>
<td>$122,230,420</td>
</tr>
<tr>
<td>Querétaro, Mexico</td>
<td>$12,056,019</td>
<td>$5,196,144</td>
<td>$1,566,050</td>
<td>$5,161,003</td>
<td>$140,169</td>
<td>$24,119,386</td>
</tr>
</tbody>
</table>

### Cost of Operations Comparison – Cost Differences

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cd. Juárez vs. Querétaro.</td>
<td>$116,986</td>
<td>$50,421</td>
<td>$46,022</td>
<td>$35,104</td>
<td>–</td>
<td>$139,282</td>
</tr>
</tbody>
</table>

*Source: See Appendix IV

*SOC is the Standard Occupational Classification system used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.*
## Salary Estimates

<table>
<thead>
<tr>
<th>Occupation</th>
<th>El Paso, TX</th>
<th>Cd. Juárez, Mexico</th>
<th>Las Cruces, NM</th>
<th>San Antonio, TX</th>
<th>McAllen, TX</th>
<th>Querétaro, Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>$97,800</td>
<td>$55326.26893</td>
<td>$81,560</td>
<td>$109,330</td>
<td>$82,000</td>
<td>55868.38806</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>$26,760</td>
<td>$3161.317671</td>
<td>$26,850</td>
<td>$31,720</td>
<td>$26,440</td>
<td>3192.29411</td>
</tr>
<tr>
<td>Helpers—Production Workers</td>
<td>$20,240</td>
<td>$2096.437635</td>
<td>$19,940</td>
<td>$23,730</td>
<td>$19,800</td>
<td>2116.979757</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>$60,940</td>
<td>$24177.63944</td>
<td>$100,250</td>
<td>$85,360</td>
<td>$70,690</td>
<td>24414.54608</td>
</tr>
<tr>
<td>Shipping, Receiving, and Traffic Clerks</td>
<td>$25,390</td>
<td>$2757.183699</td>
<td>$29,210</td>
<td>$27,220</td>
<td>$23,430</td>
<td>2784.200197</td>
</tr>
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</table>

## Utility Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Electric Rate Industrial (cents per kW)</th>
<th>Water Rate (dollar per gallon)</th>
<th>Waste Water Rate (dollars per gallon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>8.41</td>
<td>0.0008</td>
<td>0.0018</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>14.4</td>
<td>0.0001</td>
<td>0.0001</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>9.34</td>
<td>0.0014</td>
<td>0.0013</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>6.47</td>
<td>0.0062</td>
<td>0.00605</td>
</tr>
<tr>
<td>McAllen, TX</td>
<td>7.01</td>
<td>0.0019</td>
<td>0.0016</td>
</tr>
<tr>
<td>Querétaro, Mexico</td>
<td>14.67</td>
<td>0.00038</td>
<td>0.00038</td>
</tr>
</tbody>
</table>

## Lease, Property Tax, and Benefits Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Local Construction Index</th>
<th>Property Tax Rate</th>
<th>Fringe and Mandated Benefits Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>149.1</td>
<td>1.08%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>123.67</td>
<td>0.20%</td>
<td>0.431</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>164</td>
<td>0.98%</td>
<td>0.265012518</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>160</td>
<td>0.87%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>McAllen, TX</td>
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<td>1.01%</td>
<td>0.293341187</td>
</tr>
<tr>
<td>Querétaro, Mexico</td>
<td>124</td>
<td>0.10%</td>
<td>0.431</td>
</tr>
</tbody>
</table>

Source: See Appendix IV
In order to achieve direct comparisons of annual operating costs the Borderplex and the benchmark communities for this industry, uniform conditions for a hypothetical company were applied to the cost variables of each specific community. Operating costs were calculated across five primary cost categories including employee payroll, fringe and mandated benefits, utilities, building/lease payment and property tax. A general outline of the parameters used has been provided below.

- **Lease of 50,000 SF of Commercial Space**
- **$1,250,000 Capital Investment in Computers, Machinery, and Equipment**
- **Total Workforce of 250 Employees**
- **Monthly Electricity Demand of 102,200 kWh**
- **Monthly Water usage of 300,000 gallons**
- **Monthly Natural Gas Demand of Office cubic feet**

If leased space is greater than 10,000 SF, it is assumed it is a Triple Net Lease. If it less than 10,000 SF, it is assumed it is a gross lease.
**Total Cost of Operations Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 60%
- Las Cruces, NM: 99%
- San Antonio, TX: 109%
- Phoenix, AR: 136%
- Tijuana, Mexico: 140%

**Employee Payroll Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 49%
- Las Cruces, NM: 87%
- San Antonio, AR: 114%
- Phoenix, AR: 126%
- Tijuana, Mexico: 53%

**Fringe & Mandated Benefits Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 80%
- Las Cruces, NM: 88%
- San Antonio, TX: 114%
- Phoenix, AR: 127%
- Tijuana, Mexico: 58%

**Utilities Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 210%
- Las Cruces, NM: 116%
- San Antonio, TX: 88%
- Phoenix, AR: 112%
- Tijuana, Mexico: 280%

**Building / Lease Payment Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 86%
- Las Cruces, NM: 99%
- San Antonio, TX: 134%
- Phoenix, AR: 156%
- Tijuana, Mexico: 110%

**Property Tax Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 17%
- Las Cruces, NM: 95%
- San Antonio, TX: 92%
- Phoenix, AR: 101%
- Tijuana, Mexico: 29%

*Property taxes reflect county wide tax rates, individual cities may levy additional property taxes.

**Electric Rates based off of primary utility supplier in the county. Different rates may be found using different utilities.*

Source: See Appendix IV
**Travel Index for Enterprise-Level Back Office Operations**

Cost of Operations in Benchmarks Relative to El Paso, TX

- El Paso, TX: 100%
- San Antonio, TX: 99%
- Phoenix, AR: 98%
- Tijuana, Mexico: 87%

*Source: See Appendix IV*

*Freight index created by calculating average shipping cost to ship 10,000 pounds of general freight from benchmark city to New York City, NY, Chicago, IL and Los Angeles, CA.*

**Travel Indices created by calculating average round trip flight and 2 night hotel stay from benchmark city to three major industry clusters for the respective industries.*
### Cost of Operations Comparison – Raw Data Table

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$6,988,960</td>
<td>$1,832,553</td>
<td>$136,830</td>
<td>$707,344</td>
<td>$77,927</td>
<td>$9,743,615</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>$3,418,531</td>
<td>$1,473,387</td>
<td>$287,578</td>
<td>$606,000</td>
<td>$13,265</td>
<td>$5,798,760</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>$6,099,570</td>
<td>$1,616,462</td>
<td>$158,149</td>
<td>$697,059</td>
<td>$73,706</td>
<td>$8,644,946</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>$8,000,670</td>
<td>$2,097,830</td>
<td>$120,225</td>
<td>$950,000</td>
<td>$71,309</td>
<td>$11,240,034</td>
</tr>
<tr>
<td>Phoenix, AR</td>
<td>$8,783,050</td>
<td>$2,327,618</td>
<td>$152,986</td>
<td>$1,100,000</td>
<td>$79,042</td>
<td>$12,442,696</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>$3,724,096</td>
<td>$1,605,085</td>
<td>$382,978</td>
<td>$776,000</td>
<td>$22,538</td>
<td>$6,510,697</td>
</tr>
</tbody>
</table>

### Cost of Operations Comparison – Cost Differences

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Borderplex vs. U.S. Benchmarks</td>
<td>$1,847,595</td>
<td>$488,217</td>
<td>-$10,884</td>
<td>$322,799</td>
<td>-$641</td>
<td>$2,647,085</td>
</tr>
<tr>
<td>Cd. Juárez vs. Tijuana</td>
<td>$305,565</td>
<td>$131,698</td>
<td>$95,400</td>
<td>$170,000</td>
<td>$9,273</td>
<td>$711,936</td>
</tr>
</tbody>
</table>

*SOC is the Standard Occupational Classification system used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.

Source: See Appendix IV
# Utility Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Electric Rate Commercial (cents per kW)</th>
<th>Water Rate (dollar per gallon)</th>
<th>Waste Water Rate (dollars per gallon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>10.57</td>
<td>0.0008</td>
<td>0.0018</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>23.4</td>
<td>0.001</td>
<td>0.0001</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>12.23</td>
<td>0.0014</td>
<td>0.0013</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>10.22</td>
<td>0.0062</td>
<td>0.00605</td>
</tr>
<tr>
<td>Phoenix, AR</td>
<td>10.22</td>
<td>0.0053</td>
<td>0.0045</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>23.4</td>
<td>0.016</td>
<td>0.016</td>
</tr>
</tbody>
</table>

# Lease, Property Tax, and Benefits Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Office Lease Rates per SF</th>
<th>Property Tax Rate</th>
<th>Fringe and Mandated Benefits Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$14.15</td>
<td>1.08%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>$12.12</td>
<td>0.20%</td>
<td>0.431</td>
</tr>
<tr>
<td>Las Cruces, NM</td>
<td>$13.94</td>
<td>0.98%</td>
<td>0.265012518</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>$19.00</td>
<td>0.87%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>Phoenix, AR</td>
<td>$20.37</td>
<td>1.03%</td>
<td>0.265012518</td>
</tr>
<tr>
<td>Tijuana, Mexico</td>
<td>$15.52</td>
<td>0.30%</td>
<td>0.431</td>
</tr>
</tbody>
</table>

Source: See Appendix IV

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# Salary Estimates

## Occupation

| Occupation                                                      | El Paso, TX | Cd. Juárez, Mexico | Las Cruces, NM | San Antonio, TX | Phoenix, AZ | Tijuana, Mexico |
|                                                               | $97,800     | 55326.26893        | $81,560        | $109,330       | 108210      | 60271.6001     |
| Administrative Services Managers                              | $82,140     | 38712.41119        | $60,400        | $91,240        | 90,000       | 42172.7149    |
| Accountants and Auditors                                      | $58,790     | 15281.1286         | $54,080        | $69,360        | 65140        | 16647.03024   |
| Computer Network Support Specialists                          | $45,520     | 18145.37285        | $56,930        | $56,750        | 66520        | 19767.29459   |
| Office and Administrative Support Workers, All Other Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | $31,360     | 7992.166563        | $28,620        | $37,050        | 31760        | 8706.545305   |
| Customer Service Representatives                              | $25,200     | 13687.27443        | $21,570        | $28,660        | 32490        | 14910.70963   |
| General and Operations Managers                               | $97,800     | 55326.26893        | $81,560        | $109,330       | 108210      | 60271.6001     |
| Administrative Services Managers                              | $82,140     | 38712.41119        | $60,400        | $91,240        | 90,000       | 42172.7149    |
| Accountants and Auditors                                      | $58,790     | 15281.1286         | $54,080        | $69,360        | 65140        | 16647.03024   |
| Computer Network Support Specialists                          | $45,520     | 18145.37285        | $56,930        | $56,750        | 66520        | 19767.29459   |
| Office and Administrative Support Workers, All Other Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | $31,360     | 7992.166563        | $28,620        | $37,050        | 31760        | 8706.545305   |
| Customer Service Representatives                              | $25,200     | 13687.27443        | $21,570        | $28,660        | 32490        | 14910.70963   |
Local Cost of Operations Index

Factors of Analysis

In order to achieve direct comparisons of annual operating costs within the region and the benchmark communities for this industry, uniform conditions for a hypothetical company were applied to the cost variables of each specific community. Operating costs were calculated across five primary cost categories including employee payroll, fringe and mandated benefits, utilities, building/lease payment and property tax. A general outline of the parameters used has been provided below.

Lease of 6,500 SF of Commercial Space
$125,000 Capital Investment in Computers, Machinery, and Equipment
Total Workforce of 25 Employees
Monthly Electricity Demand of 102,200 kWh
Monthly Water usage of 30,000 gallons

*If leased space is greater than 10,000 SF, it is assumed it is a Triple Net Lease. If it less than 10,000 SF, it is assumed it is a gross lease.

Source of Annual Costs

Breakdown of Total Annual Costs

Differential Cost Advantage Vs. Benchmarks

Total Annual Operating Costs

Source: See Appendix IV
BUSINESS SERVICES: WEB APP DESIGN COST OF OPERATIONS

**Total Cost of Operations Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 41%
- Las Cruces, NM: 102%
- San Antonio, TX: 116%
- San Diego, CA: 129%
- Tijuana, Mexico: 44%

**Employee Payroll Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 25%
- Las Cruces, NM: 101%
- San Antonio, TX: 116%
- San Diego, CA: 124%
- Tijuana, Mexico: 27%

**Fringe & Mandated Benefits Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 40%
- Las Cruces, NM: 102%
- San Antonio, TX: 116%
- San Diego, CA: 138%
- Tijuana, Mexico: 44%

**Utilities Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 220%
- Las Cruces, NM: 116%
- San Antonio, TX: 99%
- San Diego, CA: 142%
- Tijuana, Mexico: 228%

**Building / Lease Payment Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 86%
- Las Cruces, NM: 99%
- San Antonio, TX: 134%
- San Diego, CA: 156%
- Tijuana, Mexico: 110%

**Property Tax Index**

- El Paso, TX: 100%
- Ciudad Juarez, Mexico: 19%
- Las Cruces, NM: 91%
- San Antonio, TX: 81%
- San Diego, CA: 110%
- Tijuana, Mexico: 28%

*Property taxes reflect county wide tax rates, individual cities may levy additional property taxes.

**Electric Rates based off of primary utility supplier in the county. Different rates may be found using different utilities.

Source: See Appendix IV
**Travel Indices created by calculating average round trip flight and 2 night hotel stay from benchmark city to three major industry clusters for the respective industries.**
BUSINESS SERVICES: WEB APP DESIGN COST OF OPERATIONS

### Occupational Profile for Web App Design

<table>
<thead>
<tr>
<th>Occupation Description</th>
<th>SOC Code</th>
<th>Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>11-1021</td>
<td>1</td>
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<tr>
<td>Human Resources Specialists</td>
<td>13-1071</td>
<td>1</td>
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<tr>
<td>Accountants and Auditors</td>
<td>13-2011</td>
<td>1</td>
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<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>43-6014</td>
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<tr>
<td>Maintenance and Repair Workers, General</td>
<td>49-9071</td>
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<tr>
<td>Sales Representatives, Services, All Other</td>
<td>41-3099</td>
<td>2</td>
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<tr>
<td>Computer Programmers</td>
<td>15-1131</td>
<td>6</td>
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<tr>
<td>Software Developers, Systems Software</td>
<td>15-1133</td>
<td>4</td>
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<tr>
<td>Software Developers, Applications</td>
<td>15-1132</td>
<td>5</td>
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<tr>
<td>Graphic Designers</td>
<td>27-1024</td>
<td>3</td>
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<tr>
<td>Total Workforce</td>
<td>N/A</td>
<td>25</td>
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</table>

### Cost of Operations Comparison – Raw Data Table

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$1,686,980</td>
<td>$442,338</td>
<td>$130,350</td>
<td>$91,955</td>
<td>$1,345</td>
<td>$2,352,968</td>
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<tr>
<td>Cd. Juárez, Mexico</td>
<td>$415,099</td>
<td>$178,908</td>
<td>$287,038</td>
<td>$78,780</td>
<td>$250</td>
<td>$960,074</td>
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<tr>
<td>Las Cruces, NM</td>
<td>$1,698,950</td>
<td>$450,243</td>
<td>$150,805</td>
<td>$90,618</td>
<td>$1,220</td>
<td>$2,391,835</td>
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<tr>
<td>San Antonio, TX</td>
<td>$1,952,430</td>
<td>$511,940</td>
<td>$129,022</td>
<td>$123,500</td>
<td>$1,091</td>
<td>$2,717,984</td>
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<tr>
<td>San Diego, CA</td>
<td>$2,086,920</td>
<td>$612,180</td>
<td>$184,763</td>
<td>$143,000</td>
<td>$1,474</td>
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<td>Tijuana, Mexico</td>
<td>$452,202</td>
<td>$194,899</td>
<td>$296,578</td>
<td>$100,880</td>
<td>$375</td>
<td>$1,044,934</td>
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### Cost of Operations Comparison – Cost Differences

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Employee Payroll</th>
<th>Fringe and Mandated Benefits</th>
<th>Utilities</th>
<th>Building / Lease Payment</th>
<th>Property Tax</th>
<th>Total Operating Cost</th>
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</thead>
<tbody>
<tr>
<td>U.S. Borderplex vs. U.S. Benchmarks</td>
<td>$326,710</td>
<td>$115,770</td>
<td>$16,315</td>
<td>$41,964</td>
<td>$0</td>
<td>$500,758</td>
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<tr>
<td>Cd. Juárez vs. Tijuana</td>
<td>$37,104</td>
<td>$15,992</td>
<td>$9,540</td>
<td>$22,100</td>
<td>$125</td>
<td>$84,860</td>
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*SOC is the Standard Occupational Classification system used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.*

Source: See Appendix IV
### Salary Estimates

<table>
<thead>
<tr>
<th>Occupation</th>
<th>El Paso, TX</th>
<th>Cd. Juárez, Mexico</th>
<th>Las Cruces, NM</th>
<th>San Antonio, TX</th>
<th>San Diego, CA</th>
<th>Tijuana, Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>$97,800</td>
<td>$55,326</td>
<td>$81,560</td>
<td>$109,330</td>
<td>$121,950</td>
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<tr>
<td>Human Resources Specialists</td>
<td>$51,840</td>
<td>$38,194</td>
<td>$41,520</td>
<td>$64,710</td>
<td>$63,920</td>
<td>$41,608</td>
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<tr>
<td>Accountants and Auditors</td>
<td>$58,790</td>
<td>$15,281</td>
<td>$54,080</td>
<td>$69,360</td>
<td>$77,730</td>
<td>$16,647</td>
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<tr>
<td>Secretaries and Administrative Assistants, Except Legal, Medical, and Executive</td>
<td>$26,760</td>
<td>$3,161</td>
<td>$26,850</td>
<td>$31,720</td>
<td>$38,170</td>
<td>$3,444</td>
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<tr>
<td>Maintenance and Repair Workers, General</td>
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<td>$2,888</td>
<td>$30,620</td>
<td>$30,850</td>
<td>$39,320</td>
<td>$3,146</td>
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<tr>
<td>Sales Representatives, Services, All Other</td>
<td>$40,270</td>
<td>$16,048</td>
<td>$55,410</td>
<td>$48,640</td>
<td>$64,760</td>
<td>$17,483</td>
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<tr>
<td>Computer Programmers</td>
<td>$69,970</td>
<td>$17,118</td>
<td>$76,670</td>
<td>$81,370</td>
<td>$81,830</td>
<td>$18,648</td>
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<tr>
<td>Software Developers, Systems Software</td>
<td>$80,010</td>
<td>$15,480</td>
<td>$71,880</td>
<td>$115,380</td>
<td>$113,590</td>
<td>$16,864</td>
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<tr>
<td>Software Developers, Applications</td>
<td>$92,260</td>
<td>$15,480</td>
<td>$104,440</td>
<td>$94,700</td>
<td>$100,030</td>
<td>$16,864</td>
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<tr>
<td>Graphic Designers</td>
<td>$47,880</td>
<td>$8,708</td>
<td>$27,920</td>
<td>$41,980</td>
<td>$56,940</td>
<td>$9,486</td>
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### Utility Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Electric Rate Commercial (cents per kW)</th>
<th>Water Rate (dollar per gallon)</th>
<th>Waste Water Rate (dollars per gallon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>10.57</td>
<td>0.0008</td>
<td>0.0018</td>
</tr>
<tr>
<td>Cd. Juárez, Mexico</td>
<td>23.4</td>
<td>0.0001</td>
<td>0.0001</td>
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<tr>
<td>Las Cruces, NM</td>
<td>12.23</td>
<td>0.0014</td>
<td>0.0013</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>10.22</td>
<td>0.0062</td>
<td>0.00605</td>
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<td>San Diego, CA</td>
<td>14.84</td>
<td>0.0048</td>
<td>0.00432</td>
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<tr>
<td>Tijuana, Mexico</td>
<td>23.4</td>
<td>0.016</td>
<td>0.016</td>
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### Lease, Property Tax, and Benefits Rates

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Office Lease Rates per SF</th>
<th>Property Tax Rate</th>
<th>Fringe and Mandated Benefits Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Paso, TX</td>
<td>$14.15</td>
<td>1.08%</td>
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<tr>
<td>Cd. Juárez, Mexico</td>
<td>$12.12</td>
<td>0.20%</td>
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<tr>
<td>Las Cruces, NM</td>
<td>$13.94</td>
<td>0.98%</td>
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<td>San Antonio, TX</td>
<td>$19.00</td>
<td>0.87%</td>
<td>0.262206834</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>$22.00</td>
<td>1.18%</td>
<td>0.293341187</td>
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<tr>
<td>Tijuana, Mexico</td>
<td>$15.52</td>
<td>0.30%</td>
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</tbody>
</table>
FAM & Marketing Tours

STRATEGY 3: Become the Marketing Arm of a Distinct Region

Host Familiarization Tours
- Host 1-2 FAM tours annually (Industries, media)
- Prepare appropriate collateral
- Show off key assets and quality of life elements

Conduct Marketing Tours
- Conduct 2-3 marketing trips each year (Industries & geographic areas per Target Industries report)
- Develop appropriate collateral
- Build a team of private industry leaders, government officials and university leaders to accompany the Alliance on tours
Continued performance evaluation is a critical component to the success the Alliance’s economic development efforts. The performance measurements proposed on the following pages will assist the Alliance in effectively measuring the implementation of the strategies within this plan.

Economic developers and program managers will have an opportunity to demonstrate the positive results of their efforts and for the public to determine whether resources are well spent and whether the region’s assets are being properly applied. Project partners must agree upon a concise set of the most appropriate performance measures and a schedule for the periodic reporting of results.

The Alliance and its project partners should hold an annual “scorecard” meeting to review progress. Additionally, the Alliance should consider creating a website to track performance metrics and maintain accountability to its citizens for the effectiveness of the region’s programs and initiatives.

**Business Climate**

**Permitting**
- Number of commercial/residential permits issued annually
- Average duration of commercial/residential permitting process
- Percentage of permitting completed online
- Ratings of permitting process through post-permitting survey

**EDO**
- Deal conversion rate (rate of prospects into projects)
- Number of prospect inquiries
- Number of prospect visits
- Number of annual BR&E visits
- Percentage of businesses surveyed and profiled
- Ratings of overall business climate through BR&E survey

**Marketing and Branding**
- Website visitor engagements
  - Average number of clickthroughs on website
  - Average number of page views by visitors
  - Average time spent on website
- Number of social media followers (twitter, linkedin, facebook, etc.)
- Number of social media shares (re-tweets, likes, etc.)
- Number of subscribers to content (newsletter)
- Retention & Expansion survey
## Key Performance Metrics

### Economy
- Average wage
- Total wages and percent annual change
- Per capita income
- Total new jobs
- Average wages for new jobs
- GMP growth
- Population/demographic changes
- Higher degree attainment of 25-44 demographic
- Local new job listings
- Unemployment rate

### Quality of Life
- High school graduation rates
- Average commute times
- Regional cost of living
- Housing prices
- Rent as a proportion of household income
- Health care coverage
- Property crime rates
- Violent crime rates
- Civic engagement

### Infrastructure
#### Residential
- Average price of multi family rent
- Average price of housing sales
- Average price of new homes
- No. of months in single family inventory

#### Commercial
- Office, industrial absorption/vacancy
- Office, industrial price/square feet
- Average no. of days to issue development permits

### Transportation
- Average commute time
- Average speed on major roadways, including highway

### Target Industries
#### Growth
- Jobs created/lost related to target industries
- Number of total firm expansions/relocations
- Total capital investment
- Tax revenues generated
- ROI of ED budget to total new jobs and income (annual)

#### Target Industry Talent Pool
- Total number of annual higher degree graduates
- Percentage of annual STEM related graduates vs. non-STEM graduates
- Number of high school graduates
- Percent of high school graduates enrolling in college/technical school
- Number of awarded certificates via workforce development programs

### Entrepreneurial Metrics
#### Business Creation
- New business starts (incorporations)
- Number of incubated businesses

#### Capital and R&D Activity
- Angel and venture funding
- R&D spending
- ROI of private investment to public investment (annual)

### International
- Value of exports
- Foreign direct investment
- Number of international inquiries
- Number of qualified leads
About AngelouEconomics

AngelouEconomics partners with client communities and regions across the United States and abroad to candidly assess current economic development realities and identify opportunities.

*Our goal is to leverage the unique strengths of each region to provide new, strategic direction for economic development.*

As a result, AngelouEconomics’ clients are able to diversify their economies, expand job opportunities and investment, foster entrepreneurial growth, better prepare their workforce, and attract ‘new economy’ companies.

To learn more, visit www.angeloueconomics.com

Project Team

<table>
<thead>
<tr>
<th>Angelos Angelou</th>
<th>William Mellor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Executive Officer</td>
<td>Director of Project Operations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dane Anderson</th>
<th>Yannis Gatsiounis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Associate Project Manager</td>
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</table>

<table>
<thead>
<tr>
<th>Nicholas Samuel</th>
<th>William Bean</th>
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<tbody>
<tr>
<td>Research Analyst</td>
<td>Research Analyst</td>
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