

# The Perryman Report & Texas Letter



## IN THIS ISSUE

### Part 2 of a Special Report

*The Perryman Group recently studied the economy of the US-Mexico border region in order to improve understanding of regional dynamics and identify actions which could generate meaningful improvement in prosperity and quality of life on both sides of the border.*

*This issue of The Perryman Report & Texas Letter is part two of a two-part series describing the study findings.*

### The Capital Region

*The Capital Region is made up of 10 counties and the Austin-Round Rock Metropolitan Statistical Area (MSA). The region is home to around 2.20 million residents (7.78% of the state's total population) and also represents 8.47% of all wage and salary jobs in Texas.*

### Economic Development News Around the State

*Economic development news from around the state continues to make headlines. Recent announcements call for new jobs and major investment in local Texas communities.*

## INTRODUCTION

The Perryman Group (TPG) recently analyzed the economy of the US-Mexico border region in order to improve understanding of regional dynamics and the potential magnitude of benefits of enhancing integration among the 10 states along the border. The study, on behalf of the Mexican and Americans Thinking Together (MATT) Foundation, involves both quantitative and qualitative methods and provides results at a level of detail surpassing prior studies of border issues. (For further information regarding the full study, please contact Irene Oquendo at [info@bordernomics.org](mailto:info@bordernomics.org).)

In the last issue of *The Perryman Report & Texas Letter*, the current demographic and economic conditions in the region were described. In addition, the volume of trade potential was discussed. In this issue, which is part two of the two-part series, the magnitude of the potential gains in each border state which would be associated with enhanced integration are described as well as the methods used in this analysis.

The US-Mexico border region is facing both enormous opportunities and unprecedented challenges, many of which are political and institutional in nature. As a result,

optimizing prosperity and quality of life on both sides of the US-Mexico border depends on cooperative efforts toward common goals. Millions of jobs can be gained if integration can be enhanced, improving quality of life on both sides of the border. The Perryman Group's *Bordernomics Study* provides insights into the magnitude of these potential benefits.

***“Millions of jobs can be gained if integration can be enhanced, improving quality of life on both sides of the border.”***

## CURRENT ECONOMY AND TRADE POTENTIAL

The US border states generate \$4.1 trillion in gross product each year, including almost \$2.3 trillion in California and \$1.5 trillion in Texas. The Mexico border states produce over \$263.0 billion in gross product per year, with \$101.8 billion in Nuevo León. See the accompanying

### Key Aggregate Private Sector State Indicators (in billions of constant 2017 dollars)

	Expenditures	Gross Product	Personal Income
US Border States	\$8,390.81	\$4,089.56	\$2,482.40
Arizona	\$501.20	\$260.81	\$159.48
California	\$4,677.44	\$2,266.77	\$1,382.40
New Mexico	\$151.27	\$73.54	\$44.07
Texas	\$3,060.90	\$1,488.44	\$896.45
Mexico Border States	\$670.14	\$263.60	\$167.06
Baja California	\$53.92	\$23.43	\$15.30
Chihuahua	\$57.33	\$24.73	\$16.23
Coahuila	\$121.05	\$45.14	\$30.55
Nuevo León	\$252.96	\$101.80	\$63.44
Sonora	\$85.03	\$34.01	\$22.55
Tamaulipas	\$99.85	\$34.48	\$18.98

Source: The Perryman Group

table for current economic indicators for each border state.

Trade between the US and Mexico has grown substantially over the past decades, more than doubling since 1999 and increasing by 15.7% since 2011. Trade in goods and services between the US and Mexico totaled \$586.9 billion in 2016. The bulk of that amount is merchandise trade (\$530.2 billion or 90.4%), while trade in services equaled \$56.6 billion (9.6%). A major reason for this growth is the North American Free Trade Agreement (NAFTA), and a number of studies provide compelling evidence that NAFTA has had a significant and positive impact on the economies of Mexico and the United States. The widely varying characteristics of the two areas give rise to numerous opportunities to further optimize various comparative advantages in production and distribution.

The Perryman Group estimated the current trade potential including net export capacity and net import requirements for each of the US and Mexico border states to illustrate opportunities for additional trade and cooperation.

- The Perryman Group’s analysis of trade indicates estimated total export potential from the 10-state area of nearly \$2.3 trillion per year.
- For the US border states as a whole, the net export potential is more than \$1.9 trillion dollars, while for the Mexico border states, the net export potential is almost \$365.0 billion.

Although the US and Mexico are already major trading partners, there is still substantial potential to increase trade to the benefit of both sides of the border. There is substantial unexploited trade potential within the border area which may be captured without any adverse impact on trade with other areas and would only occur if it were economically efficient.

#### ECONOMIC INTEGRATION INDEX

While tariffs are largely considered the quintessential trade barrier, there has been significant progress in lowering these across the globe. As a result, a major con-

cern has arisen in recent years related to non-tariff barriers (NTBs), which are policies, regulations, and practices that limit or distort trade through other means. Examples of NTBs include quotas, export subsidies, “buy national” campaigns, differences in technical regulations and standards, complex rules of origin, bureaucratic red tape and delays, and lengthy customs procedures.

Such NTBs can arise from intentional policy decisions as well as be *de facto* outcomes from other governmental actions and characteristics of marketplaces that are not ostensibly protectionist/nationalist focused. For instance, the need for infrastructure improvements at the border is an NTB in that long border waits and procedures add to the costs of shipping between the US and Mexico and affect international supply chain decisions. Economic integration measures seek to capture these various components in a systematic and comparative manner.

**“Although the US and Mexico are already major trading partners, there is still substantial potential to increase trade. . .”**

The substantial magnitude of additional trade which is possible given current industrial patterns forms the basis for economic gains which can be realized through increasing integration among the economies of the border states. In order to quantify

the benefits of increased cooperation between the US and Mexico, it was necessary to reference a measure of the integration between the two countries. Past studies have involved the development of economic integration indices, with one of the widely used approaches utilizing the economic component of the Globalisation Index maintained by the Swiss Economic Institute.

The Perryman Group determined the estimated Economic Integration Index (EII) values for each border state. This measure is based on potential trade within the context of overall production, import, and export patterns. It is analogous to widely used national measures, but is modified to reflect relative economic linkages among the states within the border region.

The EII is an outcome-based measure which reflects the degree of trade activity for a geographic region within the context of other regions relative to its potential, with increases in integration represented by movement along the EII's zero (no integration) to 10 (full integration) scale. The outcome (trade) is the focus rather than a process-oriented approach such as one which might look at infrastructure, workforce flows, or a similar measure. In this case, the EII measures integration with other border states. While improvements in efficiency, education, infrastructure, economic development, crossing times, and similar activities relative to other areas create lower costs and increase incentives to engage in trade within the region, the do not directly move the EII. It is only to the extent that actual gains (losses) are observed that the EII will increase (decrease).

Two scenarios were developed which reflect potential outcomes if integration is increased. Scenario 1 evaluates the benefits of increasing joint activity the equivalent of one

unit on the overall EII among the areas in the region, while Scenario 2 examines the gains from a two-unit increase in the EII. In both instances, a multiple regression analysis was used to determine the (non-linear) elasticity of the responsiveness of economic activity, measured by gross product, to enhanced integration.

The total economic benefits of increased business activity associated with the enhanced trade activity were then measured using The Perryman Group's proprietary US Multi-Regional Impact Assessment System (USMRIAS), with complete modification to reflect the structure of the six Mexican states. The results summarized in this edition illustrate the substantial potential benefits of enhancing economic integration, although much greater gains are certainly possible.

### **BENEFITS OF ENHANCED INTEGRATION**

For the 10 US and Mexican states along the border as a group, The Perryman Group estimates that incremental business activity from a one-unit improvement in the Economic Integration Index would lead to gains in business activity including an estimated **\$175.1 billion** in annual expenditures, **\$75.1 billion** in annual gross product, **\$42.8 billion** in annual personal income, and nearly **798,400** jobs. The benefits of a two-unit improvement would be more than twice as large, as noted in the accompanying table.

The industries with the largest gains in gross product would likely be those positively affected by the increase in overall economic activity as well as those more directly affected by enhanced trade. (The full Bordernomics study offers detailed estimates of increased activity by state and industry.)

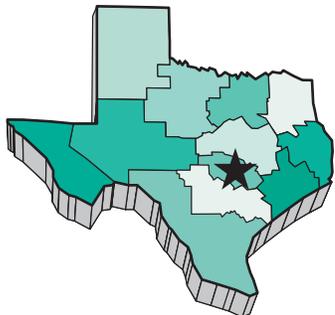
Gains to the four US border states (as a group) from enhanced integration could be expected to include annual benefits of \$164.9 billion in expenditures, \$69.3 billion in gross product, and \$39.8 billion in personal income as well

***“For the 10 US and Mexican states along the border as a group, The Perryman Group estimates that incremental business activity from a one-unit improvement in the Economic Integration Index would lead to gains in business activity including an estimated \$175.1 billion in annual expenditures, \$75.1 billion in annual gross product, \$42.8 billion in annual personal income, and nearly 798,400 jobs.”***

as more than 702,400 jobs (assuming a one-unit improvement in the EII). The manufacturing industry segment with the largest expected increase in gross product from greater border integration is petroleum, coal products, and chemical manufacturing. Gains with a two-unit improvement in the EII would be more than twice as high.

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## The Capital Region



The state's Capital Region includes 10 counties. One metropolitan statistical area (MSA), the Austin-Round Rock MSA, is also part of the region.

Approximately 2.20 million people (7.78% of Texas' total population) call the Capital Region home. The area also represents 8.47% of all wage and salary jobs in the state and generates 8.51% of its real gross product (RGP or output).

Population for the region is likely to expand at a compound annual growth rate (CAGR) of 1.86% over the short-term forecast period (2017-2022). Real personal income (RPI) is expected to increase at a CAGR of 4.15% during the next five years, and real retail sales is projected to grow at a CAGR of 3.93%.

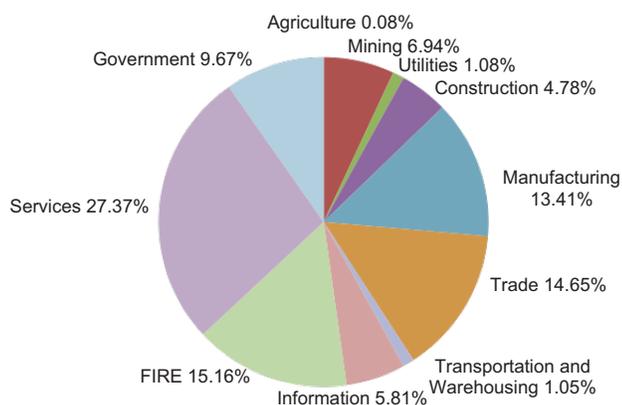
The Capital Region's attractive business climate continues to spur the local economy. According to WalletHub, **Austin** is the best state capital to live in. The city got high marks for its "economic well-being" and "quality of education and health." The Austin-Round Rock MSA is also home to the second highest share of millennials and among the top metro areas for STEM professionals. Newsworthy developments across the area include a recent announcement by Progressive Insurance, which plans to add 725 jobs to its Austin campus, and in **Cedar Park**, energy tech company Hylilion, Inc. is looking to create up to 229 jobs this year, moving most of its workers from Pennsylvania to its site here. In **Kyle**, ground was broken on a 108-acre development, Hays Logistics Center. Linen rental company Also will be one of its first tenants and plans to build a distribution center with around 250 employees. Nearby in **Buda**, a 77,525 square foot hospital is underway for Baylor Scott & White Health. About 150 workers will be hired for the new facility.

### *RGP Growth Continues During Short Term*

Real gross product for the area is projected to expand at a CAGR of 4.06% during the short-term period. Over the next five years, industrial sectors likely to see the largest annual expansion rates include mining (6.49%), information (5.06%), and services (4.66%).

The graph below displays projections for the Capital Region's total RGP by sector for the year 2022.

Projected Sectoral Composition of Real Gross Product for the Capital Region—2022



Note: FIRE is Finance, Insurance, & Real Estate  
Source: The Perryman Group

### *Positive Outlook for Region's Employment*

From 2017 to 2022, total wage and salary employment in the Capital Region is forecast to expand at an annual rate of 2.24%. Healthy job gains are expected for the region's services sector that is projected to add more than 79,760 jobs over the short term at a 3.08% CAGR.

Projected employment growth and CAGRs, along with the percentages of total employment in 2022 for the various sectors are noted in the following table.

Growth in Employment in the Capital Region by Industrial Sector: 2017-2022

	Compound Annual Growth Rate	Jobs Gained 2017-2022	Percentage of 2022 Employment
Agriculture	0.59%	90	0.25%
Mining	3.45%	890	0.47%
Utilities	1.54%	210	0.24%
Construction	1.78%	5,970	5.85%
Manufacturing	1.02%	3,300	5.53%
Trade	1.99%	17,010	15.01%
Transportation and Warehousing	1.89%	1,610	1.49%
Information	1.60%	2,290	2.48%
FIRE	1.36%	4,460	5.66%
Services	3.08%	79,770	46.86%
Government	1.16%	10,980	16.15%

Compound Annual Growth Rate reflects changes in the size of the base used to calculate growth.

## Economic Development News from Around the State

**Lubbock:** \$91 mln expansion for Texas Tech University Health Sciences Center. Ready in 2019, the 185,000 sq. ft. project will add two buildings, conference center, labs.

**Woodway:** Details unveiled for new development The Outlook at Bosque Ridge. Plans call for 80,000 sq. ft. of retail & office space along with an amphitheater on 11 acres.

**Waco:** Water hose maker Swan Products moving ahead with \$11.1 mln expansion. With a current workforce of 88 at its plant, will add about 60 workers over next few years.

**Abilene:** State-of-the-art hydroponics greenhouse facility is in the works for city. BrightFarms receiving \$2.3 mln in economic development incentives, will invest \$17 mln.

**Gainesville:** Retail center Liberty Crossing is opening in old outlet mall location. 315,000 sq. ft. destination will feature monthly markets with shops, food, entertainment. Several local manufacturers have also been expanding and adding jobs in the area. 80 new jobs for Trident Process Systems, Dura-Line Corporation finished \$10 mln project.

**Amarillo:** Ground recently broken on \$45.5 million Double-A ballpark downtown. The Elmore Sports Group is planning to unveil its new baseball facility in February 2019.

**Plano:** Samsung consolidating North Texas operations, relocating workers here. 1,000 employees moving to 216,000 square foot building at Legacy Central development.

**Bryan:** Alltran is currently hiring over 200 workers for its customer service center. Company specializes in financial solutions for industries like health care and government.

**Plainview:** Work is now underway on a new 140-acre industrial project in the area. Plainview-Hale County Business Park will be locating to a former beef packing plant site.

**Texarkana:** 240,000 square foot general purpose warehouse is under construction. DLA Distribution Red River facility to also include 3,000 sq. ft. of administrative space.

**Pharr:** Groundbreaking held for 300,000 square foot Pharr Bridge Business Park. Project will include warehouses for transported goods and is expected to create 130 jobs.

### Want to include a business announcement for your community?

Let our editors know what's taking place in your "neck of the woods." Share the details of recent economic development happenings in your area. *The Perryman Report & Texas Letter* is read monthly by the state's most notable leaders. Email submissions to [info@perrymangroup.com](mailto:info@perrymangroup.com) or send fax to 254.751.7855.

**Scenario 1: Impact of One-Unit Increase in Economic Integration Index**  
(dollar amounts in billions of constant 2017 dollars)

	<b>Expenditures</b>	<b>Gross Product</b>	<b>Personal Income</b>	<b>Employment</b>
<b>US Border States</b>	\$164.92	\$69.35	\$39.80	702,421
Arizona	\$9.34	\$4.49	\$2.84	63,651
California	\$84.11	\$38.29	\$21.46	386,953
New Mexico	\$2.93	\$1.32	\$0.79	16,513
Texas	\$68.54	\$25.25	\$14.71	235,304
<b>Mexico Border States</b>	\$10.20	\$4.79	\$2.96	95,948
Baja California	\$0.79	\$0.42	\$0.26	15,780
Chihuahua	\$0.85	\$0.45	\$0.28	15,674
Coahuila	\$1.75	\$0.83	\$0.53	13,305
Nuevo León	\$3.94	\$1.83	\$1.14	27,813
Sonora	\$1.29	\$0.62	\$0.39	11,811
Tamaulipas	\$1.58	\$0.64	\$0.36	11,566

Source: The Perryman Group

**Scenario 2: Impact of Two-Unit Increase in Economic Integration Index**  
(dollar amounts in billions of constant 2017 dollars)

	<b>Expenditures</b>	<b>Gross Product</b>	<b>Personal Income</b>	<b>Employment</b>
<b>US Border States</b>	\$332.64	\$139.88	\$80.27	1,416,756
Arizona	\$18.84	\$9.06	\$5.74	128,381
California	\$169.65	\$77.23	\$43.28	780,470
New Mexico	\$5.92	\$2.66	\$1.59	33,306
Texas	\$138.23	\$50.92	\$29.67	474,600
<b>Mexico Border States</b>	\$20.58	\$9.67	\$5.97	193,526
Baja California	\$1.60	\$0.86	\$0.53	31,828
Chihuahua	\$1.72	\$0.91	\$0.57	31,615
Coahuila	\$3.52	\$1.67	\$1.06	26,836
Nuevo León	\$7.94	\$3.70	\$2.29	56,097
Sonora	\$2.59	\$1.25	\$0.79	23,821
Tamaulipas	\$3.19	\$1.29	\$0.73	23,328

Source: The Perryman Group

For the six Mexico border states (as a group) a one-unit increase in the EII could be expected to lead to annual gains in economic activity including \$10.2 billion in expenditures, \$4.8 billion in gross product, and almost \$3.0 billion in personal income as well as more than 95,900

jobs. Manufacturing industries would likely see the largest gains in gross product, with the transportation equipment industry segment benefitting the most.

It should be noted that, primarily because of the size of California

and Texas, the two largest states in the United States in terms of both population and economic activity, the Mexican states along the border represent only about 6.1% of the aggregate output of the region and 6.3% of the income. Although the gains to the US states are larg-

## Increase in Manufacturing Employment Associated with Greater Integration

	Scenario 1 One-Unit Increase in the EII	Scenario 2 Two-Unit Increase in the EII
<b>TOTAL Gain</b> (US and Mexico)	117,250	236,465
US Border States	87,820	177,120
Arizona	8,380	16,910
California	48,270	97,350
New Mexico	1,160	2,340
Texas	30,010	60,520
<b>Mexico Border States</b>	<b>29,430</b>	<b>59,345</b>
Baja California	5,300	10,685
Chihuahua	4,760	9,600
Coahuila	5,410	10,910
Nuevo León	7,540	15,210
Sonora	3,800	7,660
Tamaulipas	2,620	5,280

Source: The Perryman Group

***“Increasing economic integration (and therefore trade and the resultant economic benefits) involves taking advantage of potential synergies and working together to resolve shared problems.”***

er than those of Mexico border states in absolute terms, the primary reason is, as noted above, the difference in the size of the economies. In fact, the benefits the Mexican states enjoy are about 6.4% of the gain in gross product and 6.9% of the stimulus in income, both of which are in excess of the current percentages of economic activity (as discussed above). Moreover, about 12% of the increase in employment occurs

in Mexico. Thus, on a relative basis, the six Mexican border states would be expected to see the greater benefit from enhanced economic integration.

Looking specifically at the projected gains in employment in manufacturing from a one-unit increase in the EII, California would see nearly 48,300 new manufacturing jobs while in Nuevo León, manufacturing employment would rise by 7,540. A two-unit increase in the EII would lead to 97,350 new manufacturing jobs in California, with a gain of more than 15,200 in Nuevo León. Manufacturing job gains for all US and Mexico border states are included in the accompanying table.

### CONCLUSION

The US-Mexico Border region is a vibrant community of people and businesses with strong ties and deep connections dating back centuries. Increasing economic integration (and therefore trade and the resultant economic benefits)

***“Future prosperity depends on a proactive approach and the realization that optimal economic growth in both the United States and Mexico can only be achieved through integration.”***

involves taking advantage of potential synergies and working together to resolve shared problems.

Key opportunities for and challenges to enhancing trade between the US and Mexico were identified based on both the qualitative and quantitative aspects of this assessment. Research revealed common themes in studies of trade potential and barriers to further growth, and focus groups provided additional information. The Perryman Group’s modeling efforts also identified industries where trade could more readily be enhanced based on export potential and import requirements.

Future growth is possible in both traditional areas of trade and new arenas. Challenges include, among others, uncertainty over the future of NAFTA and the need for infrastructure improvements. By working together to address challenges faced by both nations, outcomes can be improved for all.

Cooperation and enhanced integration has the potential to create jobs, increase opportunities, and provide resources needed to deal with challenges. Future prosperity depends on a proactive approach and the realization that optimal economic growth in both the United States and Mexico can only be achieved through integration. ■



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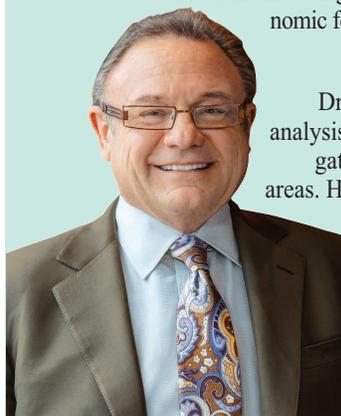
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Dr. Perryman has provided economic analysis and expert testimony for civil litigation across a wide range of practice areas. His list of clients includes nationally renowned law firms and Fortune 500 companies and his expert opinions have helped shape important legal decisions.

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