



HUNT INSTITUTE
FOR GLOBAL COMPETITIVENESS

Expected Occupation Growth in El Paso and Doña Ana Counties



INTRODUCTION

The Paso del Norte comprises a region on the U.S. and Mexico border where the state boundaries between Texas, New Mexico and Chihuahua coincide. This region contains the neighboring cities of El Paso, Las Cruces, and Ciudad Juárez and constitutes a growing geostrategic nexus vital to the industrial and trade activity.¹

Given the region’s considerable size and dynamic economic and population growth, it is essential to understand and anticipate these changes in order to plan strategically. Analysis of employment trends, for example, is paramount in planning for robust economic development, particularly to see the way that different occupations are distributed regionally.

Identifying employment distribution *by occupation* provides a holistic view of the economic environment in any given geographic region of analysis. Furthermore, it provides insights into the industries that are developed in that region. Thus, job forecasts by category may be convenient for economic analyses. For instance, policy makers may use this information to determine economic development strategies. Additionally, this information may also prove useful to investors and stakeholders for potential business attraction and provide insight to structure the vital academic and vocational training programs.

The Hunt Institute for Global Competitiveness (The Hunt Institute) has conducted a short-term occupational employment forecast for El Paso and Doña Ana counties in order to anticipate which occupations will be relevant to the region in the near future.

This report is the first occupational employment forecast using regional economic and demographic linkages conducted for these two counties combined. Also, economic projections at the national level are used to produce regional forecast scenarios in this exercise. It is important to note that Ciudad Juárez, as part of the Paso del Norte region, was excluded from this exercise due to data constraints.² Nevertheless, the Hunt Institute intends to incorporate Ciudad Juárez in future occupational forecasts.

EXERCISE

For the purpose of this exercise, the Hunt Institute used information from U.S. government agencies to conduct its occupational employment forecast. This exercise uses a regional economic modeling framework, provided by Regional Economic Models, Inc., (REMI) PI+³, to estimate the expected growth of occupations in the region. REMI employs figures from the Bureau of Labor Statistics (BLS)⁴ and the Bureau of Economic Analysis (BEA)⁵ to build their model.

As a baseline, the REMI PI+ model uses historic total employment figures reported by the BEA.⁶ These figures are disaggregated⁷ by occupation to match the Standard

Occupational Classification (SOC)⁸ system published by the BLS.⁹ The REMI PI+ model combines some similar categories from the SOC major groups (23 in total)¹⁰ to produce an alternative list of 18 occupational categories. BLS figures from Occupational Employment Statistics (OES), it must be noted, are not comparable with REMI PI+ figures on occupational employment, given the definitions and procedural differences employed to derive them.¹¹ Military specific occupations are not included, as employment in this category is primarily influenced by other non-economic factors. Thus, a list of 17 occupational categories is used in this exercise (*Table 1*).

Table 1. Occupational Categories

1. Management, Business & Financial
2. Computer, Mathematical, Architecture, & Engineering
3. Life, Physical, & Social Science
4. Community & Social Services
5. Legal
6. Education, Training, & Library
7. Arts, Design, Entertainment, Sports, & Media
8. Healthcare
9. Protective Service
10. Food Preparation & Serving Related
11. Building, Grounds Cleaning, Maintenance, Personal Care & Service
12. Sales & Related, Office and Administrative Support
13. Farming, Fishing, & Forestry
14. Construction & Extraction
15. Installation, Maintenance, & Repair
16. Production
17. Transportation & Material Moving

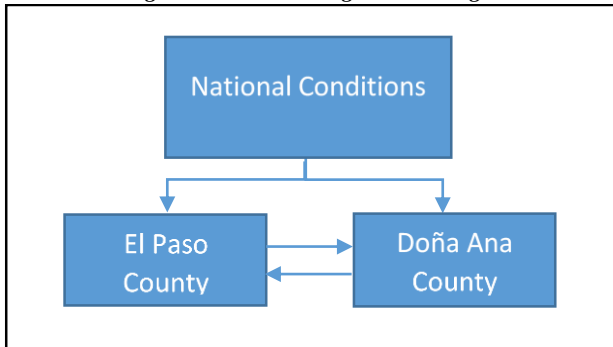
The estimations use existing national projections of the growth in real gross domestic product (RGDP).¹² Various national and international agencies calculate this well-known economic indicator for the U.S. The following agencies’ RGDP growth calculations were used to perform this exercise: The World Bank,¹³ International Monetary Fund (IMF),¹⁴ Congressional Budget Office (CBO),¹⁵ Federal Open Market Committee (FOMC),¹⁶ and BMI Research.¹⁷ Projections of the U.S. RGDP growth from the organizations mentioned above are shown in *Table 2*.

Table 2. Real GDP Growth Projections and Average

Year	2014	2015	2016	2017
IMF	2.4%	3.1%	3.1%	2.7%
World Bank	2.4%	2.7%	2.8%	2.4%
CBO	2.4%	2.3%	3.0%	2.9%
BMI	2.4%	2.5%	2.6%	2.5%
FOMC	2.4%	1.9%	2.6%	2.3%
Average	2.4%	2.5%	2.8%	2.6%

National projections impact regional economic and demographic trends in the model. Also, counties such as El Paso and Doña Ana have interrelated linkages that impact their local economic settings. The REMI PI+ model takes account of these national-regional linkages (*Figure 1*).¹⁸

Figure 1. National-Regional Linkages



The national RGDP growth projections are applied to regional data in order to produce three different forecast scenarios for occupation growth in El Paso and Doña Ana counties. The forecast in *Scenario 1* uses the IMF figure, the most optimistic of the projections reviewed; the results of which are shown in *Table 3*. The forecast in *Scenario 2* employs the FOMC figure, the least optimistic of the projections reviewed. The results are shown in *Table 4*. Finally, the forecast in *Scenario 3* was produced using an average of the five projections shown in *Table 2*. These results are depicted in *Table 5*.

Scenario tables show figures for the years between 2013 and 2017. The first year column, 2013, shows occupational employment of the last historical year. The second year column, 2014, displays forecasted occupational employment using a known RGDP growth of 2.4 percent. The subsequent year columns, 2015 through 2017, depict the results of an occupational employment forecast using the different growth projections and scenarios mentioned earlier.

FINDINGS

As of 2013, the region’s five most numerous occupational categories are as follows: 1) *Sales and Related, Office and Administrative Support*, 2) *Management, Business, & Financial*, 3) *Food Preparation & Serving related*, 4) *Healthcare*, and 5) *Transportation & Material Moving*. Together, these categories represent more than 60 percent of the region’s total employment without military.¹⁹ In contrast, those categories which reside at the lower end are 1) *Legal*, 2) *Life, Physical, and Social Sciences*, and 3) *Farming, Fishing, and Forestry*.

Based on this forecast exercise, total employment without military is expected to grow between 3.05 percent (*Scenario 2*) and 5.32 percent (*Scenario 1*) for the time frame analyzed. The category expected to have the greatest growth in the region is *Construction and Extraction* with 13.40 in *Scenario 2* and 16.31 percent in *Scenario 1*. *Healthcare* as well as the *Community and Social Service* occupations are also expected to have a considerable growth of 5 percent. On the other hand, *Farming, Fishing and Forestry* was the category expected to have the largest decrease in terms of jobs. In 2017, employment in this category is forecasted to decrease at least 5.9 percent with respect to 2013 figures. Whereas jobs in this category are projected to decrease, one should consider its relatively small size in absolute terms, with only 2,450 jobs in 2013. Service oriented occupations are likely to continue growing in the near future and, in Doña Ana County, a movement away from *Farming, Fishing, and Forestry* related occupations is expected.

In this forecast, construction related occupations are expected to continue growing consistently, at even higher rates than observed after the post-recession recovery in 2013. It is also expected that service oriented jobs, such as healthcare, sales, or community and social occupations will continue growing in the near future. This pattern matches the national economy path, which has become increasingly service oriented over the recent decades.

CONCLUDING REMARKS

The projections derived from this exercise are encouraging as they show continued growth under the analyzed scenarios, even the least optimistic scenario shows a respectable rate of growth. But, one should always keep in mind that economic projections are sensitive to unexpected national and regional changes.

For any growing region with changing employment dynamics, such as the El Paso and Doña Ana counties, challenges and vast opportunities for growth often arise. Taking on those challenges and opportunities will require informed decision-making for smart development by stakeholders such as policy makers, and others from both the private and academic sector. Short-term occupational employment projections portray important information regarding the different jobs that will be required for the region in the near future. Accordingly, planning discussions may be enriched with exercises such as the one conducted in this document. For additional forecasting series concerning The Paso del Norte region, please refer to the Borderplex Economic Outlook, produced by the UTEP Border Region Modeling Project.²⁰

Questions or comments about this report can be addressed to the Hunt Institute for Global Competitiveness at huntinstitute@utep.edu

Revised Version; December, 2015.

Table 3. Scenario 1

		2013	2014	2015	2016	2017
Management, Business, & Financial	All Region	47.429	47.874	48.661	49.299	49.795
	<i>El Paso</i>	38.037	38.417	39.058	39.577	39.972
	<i>Doña Ana</i>	9.392	9.457	9.603	9.722	9.824
Computer, Mathematical, Architecture, & Engineering	All Region	16.214	16.333	16.527	16.653	16.743
	<i>El Paso</i>	12.786	12.869	13.005	13.096	13.157
	<i>Doña Ana</i>	3.429	3.464	3.522	3.557	3.586
Life, Physical, & Social Science	All Region	3.823	3.838	3.870	3.900	3.925
	<i>El Paso</i>	2.847	2.855	2.878	2.901	2.921
	<i>Doña Ana</i>	0.976	0.983	0.992	0.999	1.005
Community & Social Service	All Region	7.187	7.312	7.449	7.580	7.703
	<i>El Paso</i>	5.464	5.558	5.661	5.761	5.851
	<i>Doña Ana</i>	1.723	1.754	1.788	1.819	1.851
Legal	All Region	3.210	3.217	3.237	3.252	3.265
	<i>El Paso</i>	2.443	2.447	2.459	2.470	2.479
	<i>Doña Ana</i>	0.767	0.771	0.778	0.783	0.787
Education, Training, & Library	All Region	29.935	30.240	30.595	31.041	31.479
	<i>El Paso</i>	23.053	23.300	23.582	23.936	24.277
	<i>Doña Ana</i>	6.882	6.941	7.013	7.105	7.202
Arts, Design, Entertainment, Sports, & Media	All Region	5.609	5.637	5.698	5.732	5.759
	<i>El Paso</i>	4.517	4.539	4.586	4.612	4.632
	<i>Doña Ana</i>	1.092	1.098	1.112	1.120	1.127
Healthcare	All Region	38.446	39.179	39.976	40.685	41.349
	<i>El Paso</i>	29.360	29.919	30.510	31.049	31.541
	<i>Doña Ana</i>	9.086	9.260	9.466	9.637	9.808
Protective Service	All Region	13.907	13.979	14.123	14.264	14.393
	<i>El Paso</i>	11.114	11.172	11.288	11.401	11.501
	<i>Doña Ana</i>	2.793	2.807	2.835	2.864	2.892
Food Preparation & Serving Related	All Region	41.347	41.934	42.903	43.541	44.127
	<i>El Paso</i>	33.549	34.043	34.824	35.345	35.810
	<i>Doña Ana</i>	7.798	7.891	8.079	8.196	8.317
Building, Grounds Cleaning, Maintenance, Personal Care & Service	All Region	32.676	33.113	33.813	34.308	34.739
	<i>El Paso</i>	25.250	25.577	26.101	26.477	26.789
	<i>Doña Ana</i>	7.426	7.536	7.712	7.832	7.950
Sales & Related, Office & Administrative Support	All Region	130.122	131.353	133.390	134.659	135.588
	<i>El Paso</i>	107.334	108.394	110.016	111.038	111.742
	<i>Doña Ana</i>	22.788	22.960	23.374	23.621	23.847
Farming, Fishing, & Forestry	All Region	3.764	3.708	3.646	3.598	3.542
	<i>El Paso</i>	1.224	1.210	1.203	1.192	1.176
	<i>Doña Ana</i>	2.541	2.498	2.443	2.406	2.367
Construction & Extraction	All Region	22.970	23.339	24.310	25.641	26.675
	<i>El Paso</i>	18.583	18.897	19.640	20.682	21.481
	<i>Doña Ana</i>	4.387	4.442	4.670	4.959	5.195
Installation, Maintenance, & Repair	All Region	19.770	19.927	20.277	20.568	20.768
	<i>El Paso</i>	16.242	16.377	16.653	16.883	17.033
	<i>Doña Ana</i>	3.529	3.550	3.624	3.685	3.735
Production	All Region	22.784	22.897	23.201	23.232	23.125
	<i>El Paso</i>	19.451	19.542	19.788	19.794	19.677
	<i>Doña Ana</i>	3.333	3.356	3.413	3.438	3.448
Transportation & Material Moving	All Region	35.228	35.630	36.185	36.487	36.670
	<i>El Paso</i>	29.664	30.027	30.478	30.726	30.865
	<i>Doña Ana</i>	5.564	5.603	5.707	5.761	5.806

Note: Units are expressed in thousands.

Table 4. Scenario 2

		2013	2014	2015	2016	2017
Management, Business, & Financial	All Region	47.429	47.874	48.075	48.436	48.727
	<i>El Paso</i>	38.037	38.417	38.586	38.884	39.114
	<i>Doña Ana</i>	9.392	9.457	9.489	9.552	9.613
Computer, Mathematical, Architecture, & Engineering	All Region	16.214	16.333	16.330	16.364	16.387
	<i>El Paso</i>	12.786	12.869	12.850	12.868	12.877
	<i>Doña Ana</i>	3.429	3.464	3.480	3.496	3.509
Life, Physical, & Social Science	All Region	3.823	3.838	3.824	3.831	3.841
	<i>El Paso</i>	2.847	2.855	2.844	2.850	2.858
	<i>Doña Ana</i>	0.976	0.983	0.980	0.981	0.983
Community & Social Service	All Region	7.187	7.312	7.358	7.445	7.535
	<i>El Paso</i>	5.464	5.558	5.591	5.658	5.724
	<i>Doña Ana</i>	1.723	1.754	1.766	1.787	1.811
Legal	All Region	3.210	3.217	3.199	3.196	3.195
	<i>El Paso</i>	2.443	2.447	2.430	2.427	2.426
	<i>Doña Ana</i>	0.767	0.771	0.769	0.769	0.770
Education, Training, & Library	All Region	29.935	30.240	30.218	30.481	30.779
	<i>El Paso</i>	23.053	23.300	23.289	23.501	23.735
	<i>Doña Ana</i>	6.882	6.941	6.929	6.980	7.044
Arts, Design, Entertainment, Sports, & Media	All Region	5.609	5.637	5.631	5.633	5.638
	<i>El Paso</i>	4.517	4.539	4.532	4.533	4.535
	<i>Doña Ana</i>	1.092	1.098	1.099	1.100	1.103
Healthcare	All Region	38.446	39.179	39.494	39.975	40.467
	<i>El Paso</i>	29.360	29.919	30.141	30.506	30.867
	<i>Doña Ana</i>	9.086	9.260	9.353	9.469	9.600
Protective Service	All Region	13.907	13.979	13.951	14.011	14.079
	<i>El Paso</i>	11.114	11.172	11.150	11.198	11.250
	<i>Doña Ana</i>	2.793	2.807	2.802	2.813	2.829
Food Preparation & Serving Related	All Region	41.347	41.934	42.379	42.769	43.169
	<i>El Paso</i>	33.549	34.043	34.397	34.717	35.031
	<i>Doña Ana</i>	7.798	7.891	7.982	8.052	8.138
Building, Grounds Cleaning, Maintenance, Personal Care & Service	All Region	32.676	33.113	33.401	33.704	33.991
	<i>El Paso</i>	25.250	25.577	25.782	26.009	26.211
	<i>Doña Ana</i>	7.426	7.536	7.619	7.695	7.780
Sales & Related, Office & Administrative Support	All Region	130.122	131.353	131.774	132.293	132.670
	<i>El Paso</i>	107.334	108.394	108.682	109.087	109.339
	<i>Doña Ana</i>	22.788	22.960	23.092	23.206	23.331
Farming, Fishing, & Forestry	All Region	3.764	3.708	3.604	3.537	3.469
	<i>El Paso</i>	1.224	1.210	1.189	1.171	1.151
	<i>Doña Ana</i>	2.541	2.498	2.415	2.366	2.318
Construction & Extraction	All Region	22.970	23.339	23.997	25.153	26.048
	<i>El Paso</i>	18.583	18.897	19.387	20.288	20.977
	<i>Doña Ana</i>	4.387	4.442	4.610	4.865	5.072
Installation, Maintenance, & Repair	All Region	19.770	19.927	20.030	20.203	20.315
	<i>El Paso</i>	16.242	16.377	16.449	16.583	16.662
	<i>Doña Ana</i>	3.529	3.550	3.581	3.620	3.653
Production	All Region	22.784	22.897	22.945	22.863	22.674
	<i>El Paso</i>	19.451	19.542	19.571	19.483	19.298
	<i>Doña Ana</i>	3.333	3.356	3.373	3.379	3.376
Transportation & Material Moving	All Region	35.228	35.630	35.753	35.856	35.894
	<i>El Paso</i>	29.664	30.027	30.114	30.195	30.213
	<i>Doña Ana</i>	5.564	5.603	5.639	5.661	5.681

Note: Units are expressed in thousands.

Table 5. Scenario 3

		2013	2014	2015	2016	2017
Management, Business, & Financial	All Region	47.429	47.874	48.368	48.860	49.282
	<i>El Paso</i>	38.037	38.417	38.822	39.224	39.559
	<i>Doña Ana</i>	9.392	9.457	9.546	9.636	9.722
Computer, Mathematical, Architecture, & Engineering	All Region	16.214	16.333	16.429	16.506	16.572
	<i>El Paso</i>	12.786	12.869	12.928	12.980	13.023
	<i>Doña Ana</i>	3.429	3.464	3.501	3.526	3.549
Life, Physical, & Social Science	All Region	3.823	3.838	3.847	3.865	3.885
	<i>El Paso</i>	2.847	2.855	2.861	2.875	2.891
	<i>Doña Ana</i>	0.976	0.983	0.986	0.990	0.994
Community & Social Service	All Region	7.187	7.312	7.403	7.511	7.622
	<i>El Paso</i>	5.464	5.558	5.626	5.708	5.790
	<i>Doña Ana</i>	1.723	1.754	1.777	1.803	1.832
Legal	All Region	3.210	3.217	3.218	3.224	3.232
	<i>El Paso</i>	2.443	2.447	2.444	2.448	2.453
	<i>Doña Ana</i>	0.767	0.771	0.774	0.776	0.779
Education, Training, & Library	All Region	29.935	30.240	30.407	30.756	31.142
	<i>El Paso</i>	23.053	23.300	23.435	23.714	24.016
	<i>Doña Ana</i>	6.882	6.941	6.971	7.041	7.126
Arts, Design, Entertainment, Sports, & Media	All Region	5.609	5.637	5.664	5.682	5.701
	<i>El Paso</i>	4.517	4.539	4.559	4.572	4.585
	<i>Doña Ana</i>	1.092	1.098	1.106	1.110	1.115
Healthcare	All Region	38.446	39.179	39.735	40.323	40.925
	<i>El Paso</i>	29.360	29.919	30.325	30.772	31.217
	<i>Doña Ana</i>	9.086	9.260	9.409	9.551	9.708
Protective Service	All Region	13.907	13.979	14.037	14.135	14.242
	<i>El Paso</i>	11.114	11.172	11.219	11.297	11.380
	<i>Doña Ana</i>	2.793	2.807	2.818	2.838	2.862
Food Preparation & Serving Related	All Region	41.347	41.934	42.641	43.148	43.667
	<i>El Paso</i>	33.549	34.043	34.610	35.025	35.436
	<i>Doña Ana</i>	7.798	7.891	8.030	8.123	8.231
Building, Grounds Cleaning, Maintenance, Personal Care & Service	All Region	32.676	33.113	33.607	34.001	34.380
	<i>El Paso</i>	25.250	25.577	25.941	26.238	26.511
	<i>Doña Ana</i>	7.426	7.536	7.666	7.762	7.869
Sales & Related, Office & Administrative Support	All Region	130.122	131.353	132.582	133.453	134.186
	<i>El Paso</i>	107.334	108.394	109.349	110.044	110.587
	<i>Doña Ana</i>	22.788	22.960	23.233	23.410	23.599
Farming, Fishing, & Forestry	All Region	3.764	3.708	3.625	3.567	3.507
	<i>El Paso</i>	1.224	1.210	1.196	1.181	1.164
	<i>Doña Ana</i>	2.541	2.498	2.429	2.386	2.343
Construction & Extraction	All Region	22.970	23.339	24.153	25.393	26.374
	<i>El Paso</i>	18.583	18.897	19.513	20.481	21.238
	<i>Doña Ana</i>	4.387	4.442	4.640	4.911	5.135
Installation, Maintenance, & Repair	All Region	19.770	19.927	20.154	20.382	20.550
	<i>El Paso</i>	16.242	16.377	16.551	16.730	16.855
	<i>Doña Ana</i>	3.529	3.550	3.602	3.652	3.696
Production	All Region	22.784	22.897	23.073	23.044	22.909
	<i>El Paso</i>	19.451	19.542	19.679	19.636	19.495
	<i>Doña Ana</i>	3.333	3.356	3.393	3.408	3.414
Transportation & Material Moving	All Region	35.228	35.630	35.969	36.166	36.297
	<i>El Paso</i>	29.664	30.027	30.296	30.456	30.552
	<i>Doña Ana</i>	5.564	5.603	5.673	5.710	5.746

Note: Units are expressed in thousands.

Notes

¹ Hunt Institute for Global Competitiveness; “Paso Del Norte Economic Indicator Review”, (Spring 2015).
<http://huntinstitute.utep.edu/>

² Government agencies in the U.S. and Mexico report economic and demographic information using different definitions, making comparison inaccurate for the purpose of this exercise.

³ REMI PI+ Model is used by government agencies, consulting firms and educational institutions such as the New York State Department of Economic Development, Ernst & Young, or the Massachusetts Institute of Technology. PI+ is a structural economic forecasting and policy analysis model. It integrates input-output, computable general equilibrium, econometric, and economic geography methodologies. The model is dynamic, with forecasts and simulations generated on an annual basis and behavioral responses to compensation, price, and other economic factors.

http://www.remi.com/download/documentation/pi+/pi+_version_1.7/PI+_v1.7_Model_Equations.pdf

⁴ The Bureau of Labor Statistics (BLS) is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics. The BLS is an independent national statistical agency that collects, processes, analyzes, and disseminates essential statistical data to the American public, the U.S. Congress, other Federal agencies, State and local governments, business, and labor. The BLS also serves as a statistical resource to the Department of Labor.

http://www.bls.gov/dolfaq/bls_ques26.htm

⁵ The Bureau of Economic Analysis (BEA) is an agency of the Department of Commerce. Along with the Census Bureau, BEA is part of the Department's Economics and Statistics Administration. BEA produces economic accounts statistics that enable government and business decision-makers, researchers, and the American public to follow and understand the performance of the Nation's economy. To do this, BEA collects source data, conducts research and analysis, develops and implements estimation methodologies, and disseminates statistics to the public.

<http://www.bea.gov/about/mission.htm>

⁶ The BEA employment series for states and local areas comprises estimates of the number of jobs, full-time plus part-time, by place of work. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.

<http://www.bea.gov/regional/definitions/>

⁷ BEA and BLS projections of industrial and occupational employment are developed in a series of six interrelated steps, each of which is based on a different procedure or model and related assumptions: labor force, aggregate economy, final demand (GDP) by consuming sector and product, industrial activity, employment by industry, and employment by occupation. The results produced by each step are key inputs to the following steps, and the sequence may be repeated multiple times to allow feedback and to insure consistency. REMI aggregates the detailed industries to 160, 70, or 23, as applicable, and the detailed occupations to 95 or 18. The fixed proportion of occupational employment is calculated by summing the employment across an industry, and then dividing each occupation by the industry total. The rates of occupational change between 2012 and 2022 are calculated by linear interpolation, then extended back historically at

the same rate of change, and extended forward at one-half the rate of change. The National Industry-Occupation Employment Matrix is developed by the Bureau of Labor Statistics as part of its ongoing Occupational Employment Projections Program. These data, derived from the 2012-2022 National Employment Matrix, underlie information on occupational employment growth presented in the 2012-13 edition of the Occupational Outlook Handbook.
http://www.remi.com/download/documentation/pi+/pi+_version_1.7/Data_Sources_and_Estimation_Procedures.pdf

⁸ The Standard Occupational Classification system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together.

<http://www.bls.gov/soc/>

⁹ “Employees” are all part-time and full-time workers who are paid a wage or salary. The survey does not cover the self-employed, owners and partners in unincorporated firms, household workers, or unpaid family workers.

http://www.bls.gov/oes/oes_ques.htm

¹⁰ Business related occupations such as *Management* and *Business, and Financial Operations* were grouped into the same category. Scientific occupations such as *Computer and Mathematical*, and *Architecture and Engineering* were also comprised to one category. The two different groups of Healthcare occupations (*Practitioners and Technical*, and *Support*) were contained into the same one. On the same tune, *Sales and Related*, and *Office and Administrative Support* occupations are considered as one category.

¹¹ BEA employment definition includes the self-employed and the BLS definition does not. REMI PI+ occupational employment represents industry employment that has been distributed to occupations based on a national occupation-by-industry matrix. (REMI PI+ V1.7)

¹² Real gross domestic product (RGDP) - The total market value of all final goods and services produced in an economy in a given year calculated by using a base year's price for goods and services; nominal gross domestic product (GDP) adjusted for inflation.

<https://www.stlouisfed.org/education/glossary>

¹³ The World Bank; “Global Economic Prospects”, (June, 2015).
<http://www.worldbank.org/en/publication/global-economic-prospects/summary-table>

¹⁴ International Monetary Fund (IMF); “World Economic Outlook Databases”, (April, 2015).
<http://www.imf.org/external/ns/cs.aspx?id=29>

¹⁵ Congressional Budget Office; “An Update to the Budget and Economic Outlook: 2015 to 2025”, (August, 2015).
<https://www.cbo.gov/publication/50724>

¹⁶ Federal Open Market Committee (FOMC); “FOMC Summary of Economic Projections for the Growth Rate of Real Gross Domestic Product, Central Tendency, Midpoint”, (June, 2015).

<https://research.stlouisfed.org/fred2/series/GDPC1CTM/>

¹⁷ BMI Research; “Assessing The Aftermath Of Three Key Events”, (July, 2015).

¹⁸ Multi-regional models have interactions among regions, such as trade and commuting flows. These interactions include trade flows between the modeled regions, as well as, with the rest of the nation.

http://www.remi.com/download/documentation/pi+/pi+_version_1.7/PI+_v1.7_Model_Equations.pdf

¹⁹ Total employment without military employment. This exercise does not include military employment.

²⁰ UTEP Border Region Modeling Project; “Borderplex Economic Outlook”, (November, 2014).