

2021 Economic Impact Analysis of the Architectural, Engineering, and Construction Industry in the RGV

Industry Overview

- 2,128 Businesses
- 24,926 Jobs
- \$45,972 Average wages



Economic Impact

Total Economic Output
\$12.9B in the RGV



Supports a total of
72,160 jobs

Generates \$3.7B in
labor income



\$5.3B Texas Gross
Domestic Product

\$478.6M in State
and local Taxes



Summary Economic Impact Analysis of the Architectural, Engineering, and Construction Industry in the Rio Grande Valley



Prepared for Sergio Contreras, President and CEO
The Rio Grande Valley Partnership

By

The University of Texas Rio Grande Valley
Data and Information Services Center (DISC)
Michael Uhrbrock, Economic Research Director
Sai Mullapudi, Business Economic Research Associate IV
(956) 665-7185 or (956) 665-2301

September 2021



Industry Overview– AEC Industry

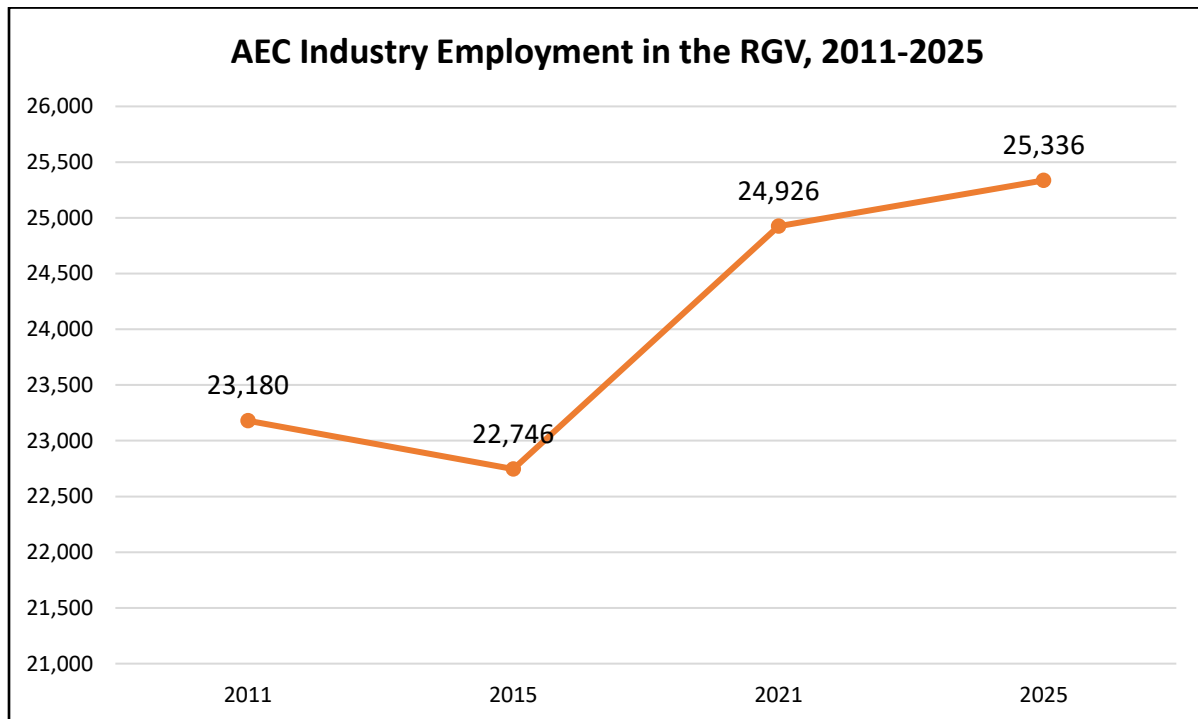
Industry: Architectural, Engineering, and Construction (AEC)

Businesses: 2,128

Jobs: 24,926 jobs

Average Earnings Per Job: \$45,972

Projected Job Growth 2021 to 2025: +410 jobs



Economic Impact – AEC Industry

Through the multiplier effect, spending by businesses and workers employed in the Architectural, Engineering, and Construction industry in the Rio Grande Valley supports a total of 72,160 jobs, generates \$3.7 billion in labor income, adds \$5.3 billion to the Texas Gross Domestic Product, and creates \$478.6 million in state and local taxes, for a total economic output of \$12.9 billion in the Rio Grande Valley economy.

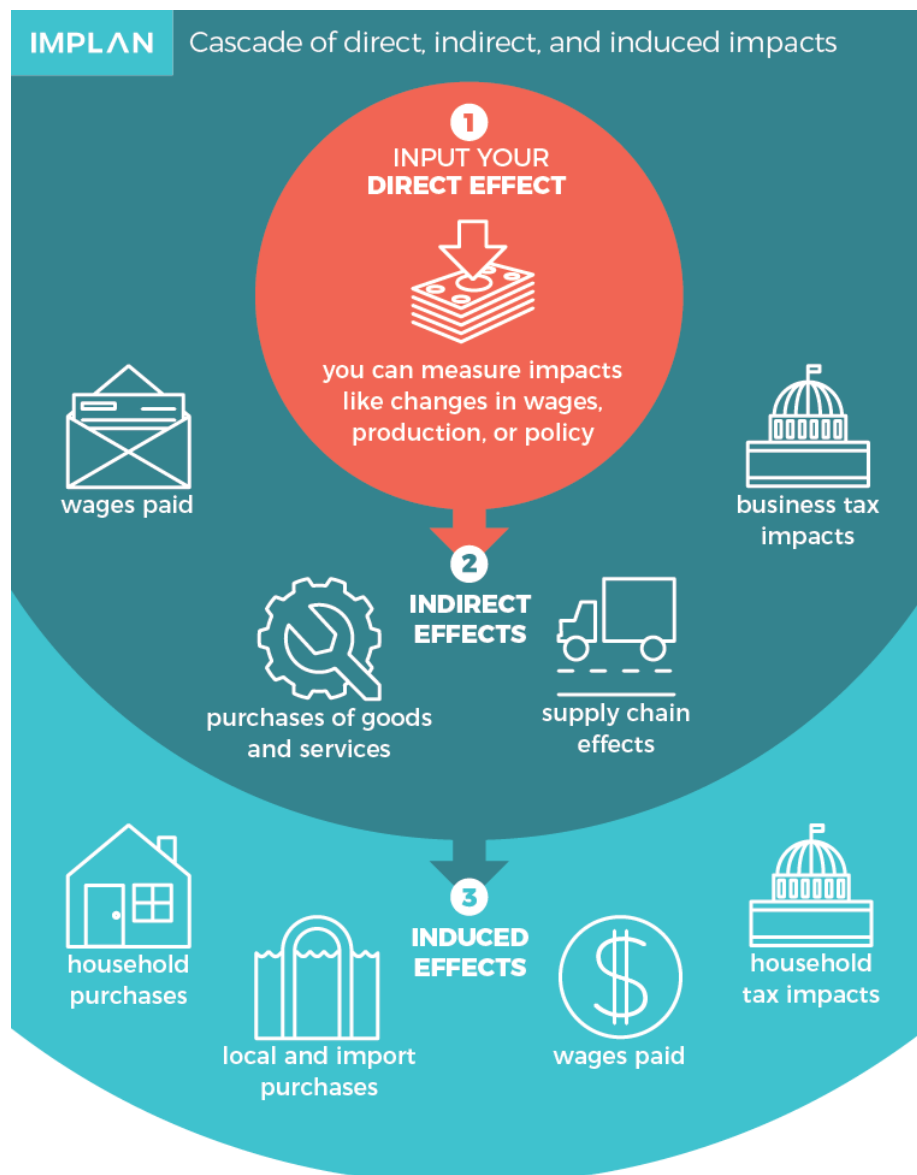
Economic Impact – Architectural, Engineering Services, and Construction Industry

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effects	24,926	\$2,256,470,258	\$2,353,290,423	\$7,642,489,011
Indirect Effects	31,338	\$898,747,048	\$1,850,321,835	\$3,266,343,590
Induced Effects	15,896	\$571,868,003	\$1,107,916,026	\$1,996,571,004
Total Effects	72,160	\$3,727,085,310	\$5,311,528,284	\$12,905,403,604
Local and State Tax				\$478,697,613

Methodology

The Impact Analysis for Planning (IMPLAN) input-output economic modeling system and local economic data was used to estimate the economic impact. IMPLAN is a widely-used, nationally renowned, economic modeling system, which consists of regional economic data and software. IMPLAN is an accounting system of economic transactions that take place among industries, businesses, and consumers in an economy.

For this analysis, we used Emsi Q3 2021 data, including QCEW employees, non-QCEW employees, and the self-employed, for the Rio Grande Valley for the Architectural, Engineering, and Related Services industry (NAICS 5413) and the Construction industry (NAICS 23). Emsi data was adjusted in IMPLAN to capture overall spending and production value of employees used to calculate the economic impact of the industry.



Definitions

Direct effects. The set of expenditures applied to the predictive model for impact analysis. It is a series of production changes or expenditures made by producers/consumers as a result of an event, activity, or policy.

Indirect effects. The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy.

Induced effects. The response by an economy to an initial change (Direct effect) that occurs through re-spending of labor income (employee compensation + proprietor income) throughout that region.

Employment. Employment supported in the study area related to the spending generated as a result of the events occurring with the new event. Employment impact is stated in job years.

Labor Income. All forms of employment income, including employee compensation (wages and benefits) and proprietor income.

Value Added. Is the sum of total income and indirect business taxes. Value added is the most commonly used measure of the contribution of a region to the national economy, as it avoids double counting of intermediate sales and captures only the “value added” by the region to final products.

Output. Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the dataset and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production equals sales. For retail and wholesale trade, output equals gross margin and not gross sales.

NAICS Codes**Architectural, Engineering, and Related Services (NAICS 5413)**

NAICS Code	Industry
541310	Architectural Services
541330	Engineering Services
541340	Drafting Services
541350	Building Inspection Services
541360	Geophysical Surveying and Mapping Services
541370	Surveying and Mapping (except Geophysical) Services
541380	Testing Laboratories

Construction Industry (NAICS 23)

NAICS Code	Industry
236115	New Single-Family Housing Construction (except For-Sale Builders)
236116	New Multifamily Housing Construction (except For-Sale Builders)
236117	New Housing For-Sale Builders
236118	Residential Remodelers
236210	Industrial Building Construction
236220	Commercial and Institutional Building Construction
237110	Water and Sewer Line and Related Structures Construction
237120	Oil and Gas Pipeline and Related Structures Construction
237130	Power and Communication Line and Related Structures Construction
237210	Land Subdivision
237310	Highway, Street, and Bridge Construction
237990	Other Heavy and Civil Engineering Construction
238111	Residential Poured Concrete Foundation and Structure Contractors
238112	Nonresidential Poured Concrete Foundation and Structure Contractors
238122	Nonresidential Structural Steel and Precast Concrete Contractors
238131	Residential Framing Contractors
238132	Nonresidential Framing Contractors
238141	Residential Masonry Contractors
238142	Nonresidential Masonry Contractors
238151	Residential Glass and Glazing Contractors
238152	Nonresidential Glass and Glazing Contractors
238161	Residential Roofing Contractors
238162	Nonresidential Roofing Contractors
238191	Other Residential Foundation, Structure, and Building Exterior Contractors
238192	Other Nonresidential Foundation, Structure, and Building Exterior Contractors
238212	Nonresidential Electrical Contractors and Other Wiring Installation Contractors

238221	Residential Plumbing, Heating, and Air-Conditioning Contractors
238222	Nonresidential Plumbing, Heating, and Air-Conditioning Contractors
238291	Other Residential Building Equipment Contractors
238292	Other Nonresidential Building Equipment Contractors
238311	Residential Drywall and Insulation Contractors
238312	Nonresidential Drywall and Insulation Contractors
238321	Residential Painting and Wall Covering Contractors
238322	Nonresidential Painting and Wall Covering Contractors
238331	Residential Flooring Contractors
238351	Residential Finish Carpentry Contractors
238911	Residential Site Preparation Contractors
238912	Nonresidential Site Preparation Contractors
238991	All Other Residential Specialty Trade Contractors
238992	All Other Nonresidential Specialty Trade Contractors