

Twenty Years of Success:

The Impact of the Lubbock Economic Development Alliance on Growth in the Area Economy

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Executive Summary

- Since its inception in 2004, the Lubbock Economic Development Alliance (LEDA) has promoted economic growth via partnerships with corporations and individuals to provide a business-friendly environment and a skilled workforce in the Lubbock area.
- In the competitive market for quality corporate locations and expansions, proactive development efforts such as those LEDA has engaged in are essential to optimizing economic performance.
 - By actively encouraging expansion and diversification of the local economy, LEDA has notably improved opportunities for individuals and businesses in the local area and surrounding region.
 - Over the past two decades, LEDA has been involved with 268 new business locations, including 200 local expansions and 68 new companies, supporting 13,894 total direct jobs.
 - LEDA has been very effective, with every dollar invested resulting in average direct capital investment of **\$41.70** in the area. These outlays have provided opportunities for landowners, construction firms, materials suppliers, equipment manufacturers, and many other types of businesses in the Lubbock area.
- Any economic stimulus (such as a new business location or expansion) leads to dynamic effects through the economy, increasing the total economic benefits.
 - When all of the companies assisted are considered, the total impact of LEDA's efforts becomes apparent. The Perryman Group estimated the total economic benefits of LEDA projects based on (1) incremental jobs directly associated with incentives and (2) the total jobs related to companies LEDA has worked with (as of the time of the projects).
 - The current annual economic benefits of jobs incentivized by LEDA projects include approximately **\$2.32** billion in gross product each year and more than **19,600** jobs in the Lubbock area (including multiplier effects).
 - Current annual economic benefits stemming from companies which have received assistance from LEDA include approximately **\$5.67** billion in gross product each year and **47,085** jobs in the Lubbock area (including multiplier effects).

- These impacts represent excellent returns, with the aggregate investment by LEDA per incentivized job created or retained in the area (including multiplier effects) totaling only about **\$3,800**, with less than **\$1,600** per job when attached positions are included. In addition, each dollar in LEDA investment over time now generates **\$31.00** in annual output (gross product) in the area (including attached jobs and related multiplier effects).
- Business activity generates tax receipts.
 - The Perryman Group estimates that the **annual** fiscal benefits of job creation and retention associated with incentivized jobs related to LEDA projects and their downstream effects total approximately **\$123.51 million** for the State, with **\$98.93 million** for local government entities in the Lubbock area. These local benefits which occur every year are approximately equal to the total taxpayer resources collected through the half cent sales tax and invested by LEDA over time.
 - When attached jobs are also included, benefits rise to **\$308.86 million** for the State and **\$244.64 million** for local government entities in the area, far exceeding LEDA-invested funds and generating an annual return of over **240%** to local taxing authorities.
- LEDA has effectively engaged in economic development efforts building on regional strengths, and the returns to the community have been substantial. When multiplier effects are considered, LEDA has played a role in the creation or retention of more than **28%** of current jobs and almost **28%** of output (gross product) in the area. This success also provides momentum and sets the stage for ongoing economic prosperity.

Introduction

Since its inception in 2004, the Lubbock Economic Development Alliance (LEDA) has promoted economic growth via partnerships with corporations and individuals to provide a business-friendly environment and a skilled workforce in the Lubbock area. The LEDA team is knowledgeable in key areas including recruitment, retention, marketing, and workforce development to help ensure businesses are successful in entering the market and growing in scale.

LEDA works closely with Market Lubbock, a local non-profit economic development corporation, and Visit Lubbock, which promotes tourism, conventions, and sporting events in Lubbock. These organizations collaborate

The Lubbock Economic Development Alliance (LEDA) has promoted economic growth via partnerships with corporations and individuals to provide a business-friendly environment and a skilled workforce in the Lubbock area.

to help local companies expand and new businesses form, and to showcase the unique opportunities available for individuals and businesses in the Lubbock area.

In the competitive market for quality corporate locations and expansions, proactive

development efforts such as those LEDA has engaged in are essential to optimizing economic performance. By actively encouraging expansion and diversification of the local economy, LEDA has notably improved opportunities for individuals and businesses in the local area and surrounding region.

The Perryman Group (TPG) recently analyzed the economic and fiscal benefits of LEDA projects. The additional economic activity resulting from focused efforts of LEDA has provided thousands of jobs for the people of Lubbock and the surrounding areas. LEDA has also fostered increased investment and opportunities for local businesses across a spectrum of industries. Moreover, the gains in business activity have generated millions of dollars in tax revenue to be utilized by cities, counties, and school districts in the area, which has enabled the funding of key local priorities. In short, LEDA has been an essential catalyst to local progress and has set the stage for ongoing success.

The Importance of Proactive Economic Development Efforts

A healthy economy depends on both the fundamental characteristics of an area and incremental economic development efforts. The economic development process is highly competitive, and regions seeking continuing success must both provide meaningful incentives and meet other location requirements in a cost-effective manner.

In the contemporary world of instant global communication, immediate information exchange, and multiple modes of rapid transportation, the process of choosing sites for new or expanded activity has become

The economic development process is highly competitive, and regions seeking continuing success must be proactive.

increasingly complex and sophisticated. Although some of the basic premises have remained unchanged since the earliest civilizations, the evolving nature of the economy is

transforming the process of economic development.

Over the past several decades, the economy has shifted significantly. Many of the fastest-growing industries did not exist or were minor aspects of the economy just a few years ago. Some firms that once had very limited location options because they were constrained to major business hubs may now operate from virtually anywhere. At the same time, workforce challenges have become paramount due to fundamental demographic patterns. The possibilities for economic development have notably expanded but have also become much more dynamic and complex.

Communities must be proactive and innovative in their efforts to attract new nodes of activity, but they must also utilize public resources efficiently to optimize expected returns over an extended horizon. Optimal outcomes occur when a decision represents a “win-win” situation with both the firm and the community benefitting in the immediate future and for years to come.

On a philosophical level, the value and merits of various types of incentives may be legitimately debated. In the current environment, however,

incentives can and often do play an indispensable role in securing a location, expansion, or retention. Whether a project is a huge corporate campus or a small, rapidly growing enterprise, incentives almost inevitably come into play. In fact, incentives exceed all other economic development investments combined and approximately 95% of all areas make use of them. Site selection consultants often market their services based on their ability to garner incentives for their clients. Moreover, even in an environment where companies have broader goals and objectives, they must remain cognizant of their overall costs. The market will accept no less.

Given these realities, areas without meaningful economic development programs and incentives will be decidedly handicapped in their efforts.

Drawing new firms to Lubbock and ensuring those already there stay and expand in the area depends on proactive economic development.

Moreover, as long as they are properly structured and the costs and benefits of a potential location are well understood, traditional tax-related incentive investments should be recovered over time because

economic growth generates tax revenues through a variety of channels including increased property taxes and additional retail sales taxes. Even when a locating firm receives tax relief for a period of time, the fiscal benefits associated with additional business activity (including multiplier effects through the economy) can more than compensate for the tax-related incentives.

As a practical matter, proactive economic development is essential to an effective growth strategy. It is rare that a facility can only locate in one area. Instead, there are typically several sites which meet essential needs such as infrastructure and workforce. Early in the process, it is crucial to have an economic development team such as the professionals at LEDA ensuring that Lubbock has sufficient visibility to be a contender. As a potential project moves forward, both incentives and other negotiated benefits can play a crucial role.

The reality is that communities across the nation are working to secure quality corporate locations and expansions. Drawing new firms to Lubbock and ensuring those already there stay and expand in the area depends on proactive economic development.

The Lubbock Economic Development Alliance

LEDA provides a variety of services to firms considering a location or expansion in the area. In addition to activities aimed at enhancing the visibility of Lubbock, LEDA provides needed information for potential locating companies. In addition, practical assistance is offered in areas including, among others, site selection, connections with local leaders and agencies, and hosting site visits.

LEDA investments and initiatives across a number of industrial sectors have resulted in significant direct job gains in the Lubbock area which, in turn, lead to additional downstream activity across the economy. While some of these corporate locations and expansions may have occurred without the efforts of LEDA, there is no doubt that many would not have and that economic development resources have been a key ingredient in the ongoing success of the area.

LEDA has been very effective, with every dollar invested resulting in average direct capital investment in the area of \$41.70.

Over the past two decades, LEDA has been involved with 268 new business locations, including 200 local expansions and 68 new companies, supporting 13,894 total direct jobs. The total annual

value added by LEDA projects exceeds \$120 million (based on annual figures once fully operational) even before multiplier effects are considered. The average annual wages of incentivized jobs have increased substantially, from \$38,669 in 2004-05 to \$57,847 in 2022-23.

Projects include a variety of types of manufacturing as well as technology and professional services firms. In addition, LEDA resources have also been used to support programs at local higher education institutions, thus enhancing the competitiveness of the region.

LEDA has been very effective, with every dollar invested resulting in average direct capital investment of **\$41.70** in the area. These outlays have provided opportunities for landowners, construction firms, materials suppliers, equipment manufacturers, and many other types of businesses in the Lubbock area.

In addition, there are numerous examples of companies LEDA has worked with which have gone on to become large and important sources of economic activity. For example, Osteogenics Biomedical, an innovative dental bone grafting medical device company, began working with LEDA in 2007. Since that time, the company has grown from a small startup into an industry innovator with 70 employees in the Lubbock area. The company currently has three facilities in Lubbock with potentially additional expansion on the horizon and saw double-digit growth every year from 2004 to 2021, other than during the worst of the pandemic.

Another successful and ongoing partnership exists between LEDA and South Plains College (SPC). The college's Lubbock Career and Technical Center provides access to in-demand workforce training for the Lubbock area, in fields ranging from culinary arts to computer technology to welding technology, among many others. The campus also provides continuing education opportunities for retraining and upgrading job skills. About 400 students are enrolled each semester. SPC has also opened a downtown Lubbock campus, which is home to around 1,500 students per semester. Nearly half of SPC students are from Lubbock County, underscoring the significant local impact of the college.

Economic Benefits

Any economic stimulus leads to dynamic responses across the economy. The Perryman Group has developed complex and comprehensive models over the past four decades to measure these dynamic responses.

In this instance, projects supported by LEDA have led to direct job additions and incremental business activity. This stimulus has, in turn, generated multiplier effects through the economy. While it would not be appropriate to assume that none of these corporate locations and expansions would have occurred without the assistance of LEDA, the total effect of projects nonetheless provides a measure of the importance of the entity and its decades of work to enhance growth in the area.

The Perryman Group estimated the total economic benefits associated with these direct sources of stimulus. It is important to note that the direct inputs used in this assessment were largely confined to the job levels agreed upon in the original projects undertaken by LEDA. Although some firms may no longer be in operation, others have grown well beyond the originally agreed upon job totals (which would have the effect of understating LEDA's impact).

Methods used in this analysis are summarized on the following page, with additional detail in Appendix A.

Measuring Economic and Fiscal Benefits

Any economic stimulus, whether positive or negative, generates multiplier effects throughout the economy. In this instance, direct business activity associated with LEDA projects lead to a notable economic stimulus. Additional economic activity generated tax receipts to the State and local government entities such as cities, counties, school districts, and special districts. Further detail regarding methods and assumptions is provided in Appendix A.

The Perryman Group's dynamic input-output assessment system (the US Multi-Regional Impact Assessment System, which is described in further detail in the Appendices to this report) was developed by the firm about 40 years ago and has been consistently maintained and updated since that time. The model has been used in thousands of analyses for clients ranging from major corporations to government agencies and has been peer reviewed on multiple occasions. The impact system uses a variety of data (from surveys, industry information, and other sources) to describe the various goods and services (known as resources or inputs) required to produce another good/service. This process allows for estimation of the total economic impact (including multiplier effects) of the proposed development. The models used in the current analysis reflect the specific industrial composition and characteristics of the Lubbock area.

Total economic effects are quantified for key measures of business activity (further explained in Appendix A). Note that these measures are not additive; they represent different ways of expressing the overall impact on business activity.

- **Total expenditures** (or total spending) measure the dollars changing hands as a result of the economic stimulus.
- **Gross product** (or output) is production of goods and services that will come about in the area as a result of the activity. This measure is parallel to the gross domestic product numbers commonly reported by various media outlets and is a subset of total expenditures.
- **Personal income** is dollars that end up in the hands of people in the area; the vast majority of this aggregate derives from the earnings of employees, but payments such as interest and rents are also included.
- **Job gains** are expressed on a full-time-equivalent basis.

Monetary values were quantified on a constant (2024) basis to eliminate the effects of inflation.

When all of the companies assisted are considered, the total impact of LEDA’s efforts becomes apparent. The Perryman Group estimated the total economic benefits of LEDA projects based on (1) incremental jobs directly associated with incentives and (2) the total jobs related to companies LEDA has worked with (as of the time of the projects).

Economic Benefits of LEDA Projects: Incentivized Jobs

The Perryman Group estimates that the current annual economic benefits of jobs incentivized by LEDA projects include approximately **\$2.32** billion in gross product each year and more than **19,600** jobs in the Lubbock area (including multiplier effects).

The Annual Impact of Job Creation and Retention from Projects Facilitated by LEDA: Incentivized Jobs

Total Expenditures (Billions of 2024 Dollars)	Gross Product (Billions of 2024 Dollars)	Personal Income (Billions of 2024 Dollars)	Employment (Jobs)
\$5.339	\$2.323	\$1.431	19,617

Based on direct employment incentivized by LEDA projects (at the time of the projects) and The Perryman Group’s estimates of related multiplier effects. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Economic benefits are concentrated in the retail trade, food products, and wholesale trade sectors, but spread across the entire economy as indicated in the following table.



The Annual Impact of Job Creation and Retention from Projects Facilitated by LEDA by Industry: Incentivized Jobs

	Total Expenditures (Millions of 2024 Dollars)	Gross Product (Millions of 2024 Dollars)	Personal Income (Millions of 2024 Dollars)	Employment (Jobs)
Agriculture	\$322.573	\$93.865	\$63.762	803
Mining	\$41.260	\$9.348	\$4.461	18
Utilities	\$107.962	\$24.306	\$10.607	36
Construction	\$107.844	\$55.245	\$45.525	506
Manufacturing	\$1,945.349	\$547.674	\$311.533	3,875
Wholesale Trade	\$399.588	\$270.332	\$155.876	1,403
Retail Trade*	\$591.441	\$441.930	\$256.593	6,273
Transportation & Warehousing	\$143.846	\$98.251	\$64.980	702
Information	\$240.687	\$148.471	\$63.387	450
Financial Activities*	\$645.681	\$179.401	\$81.586	684
Business Services	\$389.430	\$220.359	\$179.757	1,733
Health Services	\$155.779	\$107.452	\$90.851	1,189
Other Services	\$247.279	\$126.456	\$102.032	1,946
Total, All Industries	\$5,338.718	\$2,323.091	\$1,430.951	19,617

Based on direct employment incentivized by LEDA projects (at the time of the projects) and The Perryman Group's estimates of related multiplier effects. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A. Monetary values given in millions of 2024 US dollars per year. Components may not sum to totals due to independent rounding. Retail Trade includes Restaurants; Financial Activities includes Real Estate.

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Economic Benefits of LEDA Projects: Incentivized and Attached Jobs

The Perryman Group estimates that the current annual economic benefits stemming from companies which have received assistance from LEDA include approximately **\$5.67** billion in gross product each year and **47,085** jobs in the Lubbock area (including multiplier effects).

The Annual Impact of Job Creation and Retention from Projects Facilitated by LEDA: Incentivized and Attached Jobs

Total Expenditures (Billions of 2024 Dollars)	Gross Product (Billions of 2024 Dollars)	Personal Income (Billions of 2024 Dollars)	Employment (Jobs)
\$11.941	\$5.674	\$3.523	47,085
Based on direct employment (both incentivized and attached) at companies which received assistance from LEDA (at the time of the projects) and The Perryman Group's estimates of related multiplier effects. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A. Source: US Multi-Regional Impact Assessment System, The Perryman Group			

Results by major industry group are presented in the following table.

The Annual Impact of Job Creation and Retention from Projects Facilitated by LEDA by Industry: Incentivized and Attached Jobs

	Total Expenditures (Millions of 2024 Dollars)	Gross Product (Millions of 2024 Dollars)	Personal Income (Millions of 2024 Dollars)	Employment (Jobs)
Agriculture	\$699.838	\$273.076	\$185.617	2,338
Mining	\$68.872	\$15.618	\$7.493	31
Utilities	\$256.807	\$57.879	\$25.257	86
Construction	\$226.061	\$125.470	\$103.395	1,151
Manufacturing	\$3,315.513	\$1,008.318	\$596.642	6,950
Wholesale Trade	\$671.231	\$454.103	\$261.840	2,356
Retail Trade*	\$1,424.514	\$1,067.392	\$620.269	15,100
Transportation & Warehousing	\$395.254	\$277.473	\$183.511	1,982
Information	\$1,142.427	\$706.605	\$301.673	2,141
Financial Activities*	\$1,399.238	\$382.679	\$167.313	1,393
Business Services	\$1,343.100	\$730.251	\$595.698	5,742
Health Services	\$350.530	\$243.465	\$205.852	2,694
Other Services	\$647.616	\$332.012	\$268.577	5,122
Total, All Industries	\$11,941.000	\$5,674.341	\$3,523.135	47,085

Based on direct employment (both incentivized and attached) at companies receiving LEDA assistance (at the time of the projects) and The Perryman Group's estimates of related multiplier effects. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A. Monetary values given in millions of 2024 US dollars per year. Components may not sum to total due to independent rounding. Retail Trade includes Restaurants; Financial Activities includes Real Estate. Source: US Multi-Regional Impact Assessment System, The Perryman Group

Return on LEDA Investments

These impacts represent excellent returns, with the aggregate investment by LEDA per incentivized job created or retained in the area (including multiplier effects) totaling only about **\$3,800**, with less than **\$1,600** per job when attached positions are included. In addition, each dollar in LEDA investment over time now generates **\$31.00** in annual output (gross product) in the area (including attached jobs and related multiplier effects).

Fiscal Benefits

Business activity generates tax receipts. For example, the retail sales and hotel occupancy increase as a result of the economic stimulus measured in

The Perryman Group estimates that the **annual** fiscal benefits of incentivized jobs associated with LEDA projects include approximately **\$123.51 million** for the State, with **\$98.93 million** to local government entities in the Lubbock area, while incentivized plus attached jobs lead to **\$308.86 million** for the State and **\$244.64 million** to local government entities.

this study was quantified. A portion of the retail sales is taxable, leading to increased receipts to the State and local taxing entities. Additional hotel room nights also provide occupancy tax resources. Moreover, economic benefits affect property tax values. Higher incomes increase housing demand, leading to higher taxable values as well as additional need for houses. Increased retail sales and incomes enhance the need for commercial space such as

restaurants, retail outlets, and personal service facilities. Higher property values increase taxes to counties, cities, school districts, and other local taxing entities.

When the total economic effects are considered (such as those measured in this study), the gains in taxes from these sources are significant. The Perryman Group estimates that the **annual** fiscal benefits of job creation and retention associated with incentivized jobs related to LEDA projects and their downstream effects total approximately **\$123.51 million** for the State, with **\$98.93 million** for local government entities in the Lubbock area. These local benefits which occur every year are approximately equal to the total taxpayer resources collected through the half cent sales tax and invested by LEDA over time.

When attached jobs are also included, benefits rise to **\$308.86 million** for the State and **\$244.64 million** for local government entities in the area, far exceeding LEDA-invested funds and generating an annual return of over **240%** to local taxing authorities.

Conclusion

The Lubbock Economic Development Alliance has been working to improve the economy of the Lubbock area for decades. By attracting and facilitating quality corporate locations and expansions, it has generated opportunities

When multiplier effects are considered, LEDA has played a role in the creation or retention of about **28%** of current jobs and output (gross product) in the Lubbock area.

for area residents and businesses as well as revenues for the cities, counties, and school districts in the area.

The incentivized and attached jobs at companies LEDA has assisted have led to the addition of tens of thousands of jobs in the area,

enhancing the growth trajectory of the Lubbock economy. In fact, when multiplier effects are considered, LEDA has played a role in the creation or retention of more than **28%** of current jobs and almost **28%** of output (gross product) in the area.

Proactive economic development is essential to ongoing expansion given the intensely competitive market for quality corporate locations and expansions. LEDA has been particularly effective in building on regional strengths, and the returns to the community have been substantial. This success also provides momentum and sets the stage for ongoing economic prosperity.

Appendix: Methods Used

The US Multi-Regional Impact Assessment System (USMRIAS) measures multiplier effects of economic stimuli. The USMRIAS was developed and is maintained by The Perryman Group. This model has been used in thousands of diverse applications across the country and has an excellent reputation for accuracy and credibility; it has also been peer reviewed on multiple occasions and has been a key factor in major national and international policy simulations.

The basic modeling technique is known as dynamic input-output analysis, which essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit (a dollar's worth) of output for a given sector. Once the base information is compiled, it can be mathematically simulated to generate evaluations of the magnitude of successive rounds of activity involved in the overall production process.

There are two essential steps in conducting an input-output analysis once the system is operational. The first major endeavor is to accurately define the levels of direct activity to be evaluated. Data related to employment requirements associated with projects was provided by LEDA. Although some companies assisted over the past two decades are no longer in operation, others have exceeded the employment levels originally associated with projects (which would work to understate these impacts). These inputs were then implemented in a series of simulations of the USMRIAS to measure total overall economic effects of the direct stimulus. The systems used reflect the unique industrial structure of the Lubbock area.

Model Structure

The USMRIAS is somewhat similar in format to the Input-Output Model of the United States which is maintained by the US Department of Commerce. The model developed by TPG, however, incorporates several important enhancements and refinements. Specifically, the expanded system includes (1) comprehensive 500-sector coverage for any county, multi-county, or urban region; (2) calculation of both total expenditures and value-added by industry and region; (3) direct estimation of expenditures for multiple basic input choices (expenditures, output, income, or employment); (4) extensive parameter localization; (5) price adjustments for real and nominal assessments by sectors and areas; (6) comprehensive measurement of the induced impacts associated with payrolls and consumer spending; (7) embedded modules to estimate multi-

sectoral direct spending effects; (8) estimation of retail spending activity by consumers; and (9) comprehensive linkage and integration capabilities with a wide variety of econometric, real estate, occupational, and fiscal impact models.

The impact assessment (input-output) process essentially estimates the amounts of all types of goods and services required to produce one unit (a dollar's worth) of a specific type of output. For purposes of illustrating the nature of the system, it is useful to think of inputs and outputs in dollar (rather than physical) terms. As an example, the construction of a new building will require specific dollar amounts of lumber, glass, concrete, hand tools, architectural services, interior design services, paint, plumbing, and numerous other elements. Each of these suppliers must, in turn, purchase additional dollar amounts of inputs. This process continues through multiple rounds of production, thus generating subsequent increments to business activity. The initial process of building the facility is known as the *direct effect*. The ensuing transactions in the output chain constitute the *indirect effect*.

Another pattern that arises in response to any direct economic activity comes from the payroll dollars received by employees at each stage of the production cycle. As workers are compensated, they use some of their income for taxes, savings, and purchases from external markets. A substantial portion, however, is spent locally on food, clothing, health care services, utilities, housing, recreation, and other items. Typical purchasing patterns in the relevant areas are obtained from the Center for Community and Economic Research *Cost of Living Index*, a privately compiled inter-regional measure which has been widely used for several decades, and the *Consumer Expenditure Survey* of the US Department of Labor. These initial outlays by area residents generate further secondary activity as local providers acquire inputs to meet this consumer demand. These consumer spending impacts are known as the *induced effect*. The USMRIAS is designed to provide realistic, yet conservative, estimates of these phenomena.

Sources for information used in this process include the Bureau of the Census, the Bureau of Labor Statistics, the Regional Economic Information System of the US Department of Commerce, and other public and private sources. The pricing data are compiled from the US Department of Labor and the US Department of Commerce. The verification and testing procedures make use of extensive public and private sources.

Impacts are typically measured in constant dollars to eliminate the effects of inflation.

The USMRIAS is also integrated with a comprehensive fiscal model, which links the tax payments by industry to the specific rates and structures associated with the relevant State and local governmental authorities.

Measures of Business Activity

The USMRIAS generates estimates of total economic effects on several measures of business activity. Note that these are different ways of measuring the same impacts; they are not additive.

The most comprehensive measure of economic activity is **Total Expenditures**. This measure incorporates every dollar that changes hands in any transaction. For example, suppose a farmer sells wheat to a miller for \$0.50; the miller then sells flour to a baker for \$0.75; the baker, in turn, sells bread to a customer for \$1.25. The Total Expenditures recorded in this instance would be \$2.50, that is, $\$0.50 + \$0.75 + \$1.25$. This measure is quite broad but is useful in that (1) it reflects the overall interplay of all industries in the economy, and (2) some key fiscal variables such as sales taxes are linked to aggregate spending.

A second measure of business activity is **Gross Product**. This indicator represents the regional equivalent of Gross Domestic Product, the most commonly reported statistic regarding national economic performance. In other words, the Gross Product of Texas is the amount of US output that is produced in that state; it is defined as the value of all final goods produced in a given region for a specific period of time. Stated differently, it captures the amount of value-added (gross area product) over intermediate goods and services at each stage of the production process, that is, it eliminates the double counting in the Total Expenditures concept. Using the example above, the Gross Product is \$1.25 (the value of the bread) rather than \$2.50. Alternatively, it may be viewed as the sum of the value-added by the farmer, \$0.50; the miller, \$0.25 ($\$0.75 - \0.50); and the baker, \$0.50 ($\$1.25 - \0.75). The total value-added is, therefore, \$1.25, which is equivalent to the final value of the bread. In many industries, the primary component of value-added is the wage and salary payments to employees.

The third gauge of economic activity used in this evaluation is **Personal Income**. As the name implies, Personal Income is simply the income received by individuals, whether in the form of wages, salaries, interest, dividends, proprietors' profits, or other sources. It may thus be viewed as the segment of overall impacts which flows directly to the citizenry.

The final aggregates used are **Jobs and Job-Years**, which reflect the full-time equivalent jobs generated by an activity. For an economic stimulus expected to endure (such as the ongoing operations of a facility), the Jobs measure is used. It should be noted that, unlike the dollar values described above, Jobs is a "stock" rather than a "flow." In other words, if an area produces \$1 million in output in 2022 and \$1 million in 2023, it is appropriate to say that \$2 million was achieved in the 2022-23 period. If the same area has 100 people working in 2022 and 100 in 2023, it only has 100 Jobs. When a flow of

jobs is measured, such as in a construction project or a cumulative assessment over multiple years, it is appropriate to measure employment in Job-Years (a person working for a year, though it could be multiple individuals working for partial years). This concept is distinct from Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.