

November 11, 2025

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M. Ray Perryman, Ph.D. President

Ms. Sara Hensley City Manager, City of Denton 601 E Hickory Street Denton, TX 76205 (via email)

Dear Ms. Hensley:

I am attaching an economic impact study prepared by my firm related to the Craver Ranch Development, to assist in your evaluation of this project. This development should be an excellent addition to the local economy, both from the activity that it will generate as well as its role in supporting residents and commercial resources consistent with anticipated growth in the area.

If you have any questions, please feel free to contact me.

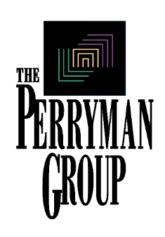
Sincerely,

M. Ray Perryman President/CEO

M. Kay Fengman

The Potential Economic and Fiscal Impact of the Planned Craver Ranch Development

November 2025



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Executive Summary

- The planned \$5.1 billion Craver Ranch development in northern Denton includes plans for over 7,000 single family homes in addition to multifamily units, schools, commercial space, and other amenities. Construction is expected to begin in 2028 and continue through 2045.
- The development would generate a substantial but temporary economic stimulus during construction, and ongoing fiscal and economic benefits would further impact the area.
- The Perryman Group estimates that the total economic benefits of construction of the Craver Ranch development, including multiplier effects, would lead to a gain in business activity in the Denton area of an estimated \$3.3 billion in gross product (in constant 2025 dollars) and nearly 30,600 job-years of employment.
- A development of this scale would also generate significant ongoing activity associated with resident spending and commercial operations. For the Denton area, benefits at maturity include \$1.7 billion in annual gross product and 24,000 permanent jobs, including multiplier effects. Over the first twenty years, the cumulative impact in the Denton area includes \$18.2 billion in gross product and 251,700 job-years.
- Business activity generates tax receipts.
 - The Perryman Group estimates that the construction of Craver Ranch will generate \$50.8 million in temporary tax benefits to the city of Denton, \$5.6 million to Denton County, \$97.8 million to other local governmental entities throughout the Dallas-Fort-Worth area and beyond, and \$252.7 million to the State of Texas (in constant 2025 dollars).
 - Craver Ranch is also expected to provide significant permanent annual tax benefits at maturity, including \$38.6 million to the city of Denton, \$3.9 million to Denton County, \$48.8 million to other local entities, and \$168.9 million to the State of Texas (in constant 2025 dollars).



The development's location places it in a growing, dynamic region with robust job opportunities which can readily absorb additions to the local residential and business complex of this magnitude, and the planned community itself would enhance the local economy in numerous ways. Given the location, scope, and amenities associated with Craver Ranch, it will provide both a substantial stimulus to the area and critical housing and infrastructure to support anticipated economic expansion.



Introduction

The Craver Ranch development is a potential \$5.1 billion masterplanned community on over 2,500 acres of former ranchland in northern Denton. Construction is expected to begin in 2028 and continue through 2045. The plans include over 7,000 single family homes, 584 townhomes, 1,515 apartments, over 1.2 million square feet

The Craver Ranch development would generate a substantial economic stimulus during construction, and ongoing fiscal and economic benefits would further impact the area.

of commercial space, three elementary schools, multiple amenity centers, pools, parks, sports facilities, and other amenities. Trails and open spaces are planned throughout the community, and all residents will be located within a half-mile radius of an open space area.

The location of the community within the Dallas-Fort Worth-Arlington metropolitan area places it in the third-fastest growing metropolitan area in the country. The city of Denton itself has seen significant expansion in recent years, and between July 2022 and July 2023, it was 13th on the list of largest gaining cities by numeric change. The University of North Texas and Texas Women's University are both based in Denton, and there are substantial job opportunities both in the city and in the surrounding metro area.

The Craver Ranch development would generate a substantial economic stimulus during construction, and ongoing fiscal and economic benefits would further impact the area. The Perryman Group (TPG) was asked to analyze the potential economic and fiscal impacts of the Craver Ranch development. This report presents the results of that assessment.



¹ U.S. Census Bureau, "Growth in Metro Areas Outpaced Nation," press release, March 13 2025, https://www.census.gov/newsroom/press-releases/2025/population-estimates-counties-metro-micro.html.

² U.S. Census Bureau, "Top 15 Largest-Gaining Cities," press visualization, May 16, 2024, https://www.census.gov/library/visualizations/2024/comm/largest-gaining-cities.html.

Economic Impacts

Any economic stimulus, whether positive or negative, leads to dynamic responses across the economy. The Perryman Group has developed complex and comprehensive models over the past four decades to

Any economic stimulus, whether positive or negative, leads to dynamic responses across the economy.

measure these dynamic responses in order to estimate the total economic effects (not only direct, but also indirect and induced) associated with direct sources of stimulus. These systems have been

used in thousands of analyses throughout the US and numerous other countries in Europe, Asia, North America, and South America.

In this instance, The Perryman Group estimated the economic benefits of the Craver Ranch development during the construction phase and at maturity, including the annual and cumulative impacts of ongoing resident spending and commercial activity. The tax benefits related to the increase in economic activity and new housing were also measured and are presented in a subsequent section of this report.

Results are presented in constant (2025) dollars to eliminate the effects of inflation, unless otherwise noted. Methods used in this analysis are summarized on the following page, with additional detail provided in Appendix A.



Measuring Economic Impacts

Any economic stimulus, whether positive or negative, generates dynamic responses throughout the economy. In this instance, construction and ongoing resident spending and commercial activity lead to direct activity as well as multiplier effects rippling through the economy.

The Perryman Group's dynamic input-output assessment system (the US Multi-Regional Impact Assessment System) was utilized to measure the total (not only direct, but also indirect and induced) effects. The model was developed by the firm more than 40 years ago and has been consistently maintained and updated since that time. It has been used in hundreds of analyses for clients ranging from major corporations to government agencies. 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 total economic impacts (including multiplier effects). The submodels used in the current analysis reflect the specific industrial composition and characteristics of the Denton area and Texas economies.

Total economic effects are quantified for key measures of business activity. Note that these measures are different ways of looking at the same increase in economic activity; they are not additive.

- 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 each 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 as job-years for multi-year estimates and transitory effects such as construction or jobs for ongoing effects.

Business activity also generates incremental taxes to federal, State, and local governments.

Monetary values were quantified on a constant (2025) basis to eliminate the effects of inflation. See the Appendices for additional information regarding the specific methods and assumptions used in this analysis.



Construction

The Perryman Group estimates that the total economic benefits of construction of the Craver Ranch development over the entire construction period, including multiplier effects, would lead to a gain in business activity in the Denton area of an estimated \$3.3 billion in gross product and nearly 30,600 jobs, with \$4.2 billion in gross product and 38,300 jobs for Texas (including results in the Denton area as well as spillover to other parts of the state). Additional details are included in the table below and Appendix B.

The Projected Economic Impact of Construction Associated with the Craver Ranch Development

	Total Expenditures (Millions of 2025 Dollars)	Gross Product (Millions of 2025 Dollars)	Personal Income (Millions of 2025 Dollars)	Employment (Job-Years)
	D	enton Area		
Single Family	\$6,470.717	\$2,977.461	\$2,006.369	27,465
Multi-Family	\$348.963	\$162.877	\$109.779	1,502
Commercial	\$361.526	\$176.365	\$120.615	1,618
Total	\$7,181.206	\$3,316.702	\$2,236.763	30,585
		Texas		
Single Family	\$8,366.566	\$3,794.478	\$2,536.458	34,301
Multi-Family	\$458.231	\$210.099	\$140.500	1,899
Commercial	\$480.173	\$228.927	\$155.224	2,061
Total	\$9,304.970	\$4,233.504	\$2,832.182	38,261

Note: Based on current development plans and The Perryman Group's estimates of related dynamic effects. Commercial construction impacts based on planned commercial square footage assumed to be allocated by usage in a pattern similar to that found in other large multi-purpose developments in the area and related dynamic effects. A job-year is one person working for one year, though it could be multiple individuals working partial years. Components may not sum to totals due to independent rounding. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A, with results by industry in Appendix B.



Ongoing Impacts

A development of the scale of Craver Ranch would also generate significant ongoing activity and job gains associated with resident spending and commercial operations of anticipated facilities. For the Denton area, benefits include \$1.7 billion in annual gross product and 24,000 jobs, including multiplier effects. In Texas, gains (including multiplier effects) are projected to be \$1.9 billion in annual gross product and 25,800 jobs, including effects for Denton as well as spillover to other areas. All monetary values are given in constant 2025 dollars. Additional details are included in the table below and in Appendix B.

Potential Annual Ongoing Economic Impact at Maturity of the Craver Ranch Development on Business Activity

	Total Expenditures (Millions of 2025 Dollars)	Gross Product (Millions of 2025 Dollars)	Personal Income (Millions of 2025 Dollars)	Employment (Jobs)
	De	enton		
Commercial Operations	\$1,792.596	\$972.613	\$588.610	10,241
Resident Spending	\$1,464.459	\$721.239	\$446.520	13,761
Total Ongoing Impact	\$3,257.055	\$1,693.853	\$1,035.130	24,003
	T	exas		
Commercial Operations	\$2,060.892	\$1,076.917	\$651.165	11,011
Resident Spending	\$1,658.258	\$796.192	\$491.831	14,779
Total Ongoing Impact	\$3,719.150	\$1,873.109	\$1,142.996	25,790

Note: Based on current development plans, typical resident spending patterns, and related dynamic effects. Commercial operations impacts based on planned commercial square footage assumed to be allocated by usage in a pattern similar to that found in other large multi-purpose developments in the area and related dynamic effects. Note that results for Texas include effects within Denton as well as spillover to other areas. Components may not sum to totals due to independent rounding. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A, with results by industry in Appendix B.



Cumulative Impacts

The Craver Ranch development would also have a substantial cumulative impact over the first twenty years of activity. For the Denton area, the cumulative impact includes \$18.2 billion in gross product and 251,700 job-years. Texas is projected to see benefits of \$20.1 billion in gross product and 270,400 job-years over this period, including effects for Denton and spillover to other parts of the state. Further details are included in the table below and in Appendix B.

Potential Cumulative Benefits Associated with the Craver Ranch Development on Business Activity: First 20 Years at **Maturity**

	Total Expenditures (Millions of 2025 Dollars)	Gross Product (Millions of 2025 Dollars)	Personal Income (Millions of 2025 Dollars)	Employment (Job-Years)
		Denton		
Commercial Operations	\$20,574.844	\$11,163.344	\$6,755.881	117,547
Resident Spending	\$14,275.642	\$7,030.689	\$4,352.708	134,148
Total Cumulative Impact	\$34,850.486	\$18,194.034	\$11,108.589	251,695
		Texas		
Commercial Operations	\$23,654.269	\$12,360.511	\$7,473.860	126,382
Resident Spending	\$16,164.804	\$7,761.334	\$4,794.405	144,067
Total Cumulative Impact	\$39,819.073	\$20,121.845	\$12,268.265	270,449

Note: Based on current development plans, typical resident spending patterns, and related dynamic effects. Commercial operations impacts based on planned commercial square footage assumed to be allocated by usage in a pattern similar to that found in other large multi-purpose developments in the area and related dynamic effects. Note that results for Texas include effects within Denton as well as spillover to other areas. Components may not sum to totals due to independent rounding. Additional explanation of terms and methods may be found elsewhere in this report and in Appendix A, with results by industry in Appendix B.



Fiscal Effects

Business activity generates tax receipts. For example, retail sales and hotel occupancy effects associated with the economic activity measured in this study were quantified. A portion of the retail sales would be taxable, and receipts to local taxing entities are affected by the direct stimulus.

Economic activity also affects 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

At maturity, the annual increase in tax receipts includes a projected \$38.6 million to the city of Denton, \$3.9 million to Denton County, \$48.8 million to other local taxing entities, and \$168.9 million to the state of Texas.

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

Additionally, the planned development would have direct associated property taxes, which were also included in the projections.

The Perryman Group estimates that the construction of Craver Ranch will generate \$50.8 million in temporary tax benefits to the city of Denton, \$5.6 million to Denton County, \$97.8 million to other local government entities, and \$252.7 million to the state of Texas.

Craver Ranch is also expected to provide significant permanent annual tax benefits at maturity, including \$38.6 million to the city of Denton, \$3.9 million to Denton County, \$48.8 million to other local entities, and \$168.9 million to the state of Texas. Additional information is included in the following table, including cumulative impacts and impacts in current dollars at maturity. When measured in current dollars over time, these values are substantially larger.



Potential Fiscal Benefits Associated with the Craver Ranch **Development**

(Millions of Dollars)

	City of Denton	Denton County	Other Local Government Entities	State of Texas
Tem	porary Tax Ben	efits from Cons	truction	
During Construction (constant 2025 dollars)	\$50.779	\$5.623	\$97.761	\$252.682
Pern	nanent Annual T	ax Benefits at I	Maturity	
At Maturity (constant 2025 dollars)	\$38.550	\$3.900	\$48.797	\$168.911
At Maturity (current dollars)	\$63.717	\$6.446	\$80.654	\$279.184
Cumula	tive Tax Benefit	s During the Fi	rst 20 Years	
Years 1-20 (constant 2025 dollars)	\$412.125	\$41.853	\$523.266	\$1,803.063
Years 1-20 (current dollars)	\$581.657	\$59.069	\$738.516	\$2,544.770

Note: Based on the economic activity estimated by The Perryman Group and described above and the associated tax receipts. Local government entities include cities, counties, school districts, and special districts. The current dollar estimates are based on a 3% annual escalation, which is consistent with both developer expectations and recent regional inflation forecasts from The Perryman Group.



Conclusion

The Craver Ranch development, currently designed to provide over 7,000 single family homes in addition to multi-family construction, schools, commercial spaces, and community amenities, would provide substantial economic benefits to the Denton area and Texas as a whole. Both during construction and at maturity, the area's output would increase substantially, and thousands of jobs would be created. In addition, the construction and ongoing resident spending and commercial activity would generate tax receipts for the local economy and beyond.

Given the location, scope, and amenities associated with Craver Ranch, it will provide both a substantial stimulus to the area and critical housing and infrastructure to support anticipated economic expansion.



Appendix A: Methods Used

US Multi-Regional Impact Assessment System

The basic modeling technique employed in this study is known as dynamic inputoutput analysis. This input-output segment of the methodology 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. In this instance, information related to construction costs and schedules, incremental operations, and other input information was provided by project sponsors and reviewed by The Perryman Group for reasonableness. This assessment included a review of the capacity to absorb a project of this magnitude within the area. In addition, TPG (1) allocated direct construction outlays across appropriate sectors; (2) created a scenario for commercial development based on typical patterns; and (3) estimated the volume and composition of local spending by area residents. These direct inputs were fully adjusted to reflect leakage of expenditures out of the area, the local availability of construction resources, and the extent to which spending within the commercial area would be reflected in the consumption by residents within the development.

Model Simulation

The second major phase of the analysis is the simulation of the input-output system to measure overall economic effects of construction and operations of the Garden. The present study was conducted within the context of the US Multi-Regional Impact Assessment System (USMRIAS) which was developed and is maintained by The Perryman Group. This model has been used in hundreds of diverse applications across the country and has an excellent reputation for accuracy and credibility; it has also been peer reviewed on multiple occasions. It is used by 12 cabinet departments, hundreds of governmental entities, and major corporations throughout the world. The submodels used in the current simulations reflect the unique industrial structures of the Denton area and Texas.

The USMRIAS is somewhat similar in format to the Input-Output Model of the United States and the Regional Input-Output Modeling System, both of which are 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) 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. Moreover, the model uses specific local taxing patterns to estimate the fiscal effects of activity on a detailed sectoral basis.

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 were measured in constant 2025 dollars to eliminate the effects of inflation.

Measures of Business Activity

The USMRIAS generates estimates of the effect on several measures of business activity. The most comprehensive measure of economic activity used in this study 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 guite 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 frequently employed in this analysis is that of 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, **Jobs and Job-Years**, 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 2024 and \$1 million in 2025, it is appropriate to say that \$2 million was achieved in the 2024-25 period. If the same area has 100 people working in 2024 and 100 in 2025, 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 (one person working for one year, though it could be multiple individuals working partial years). This concept is distinct from Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.

In addition to the economic aggregates, the model fully integrates the specific provisions and rate structures associated with major sources of federal, State, and local revenues on a detailed industrial basis, allowing for the estimation of the fiscal benefits associated with the economic stimulus.

US Multi-Regional Econometric Model

Overview

The US Multi-Regional Econometric Model was developed by Dr. M. Ray Perryman, President and CEO of The Perryman Group (TPG), about 40 years ago and has been consistently maintained, expanded, and updated since that time. It is formulated in an internally consistent manner and is designed to permit the integration of relevant global, national, state, and local factors into the projection process. It is the result of four decades of continuing research in econometrics, economic theory, statistical methods, and key policy issues and behavioral patterns, as well as intensive, ongoing study of all aspects of the global, US, state, and metropolitan area economies. It is extensively used by scores of federal and State governmental entities on an ongoing basis, as well as hundreds of major corporations. It can be integrated with The Perryman Group's other models and systems to provide dynamic projections. In the present analysis, the model was used to examine future absorption capacity, evaluate the reasonableness of escalation parameters, and provide a baseline for examining anticipated development patterns.

This section describes the forecasting process in a comprehensive manner, focusing on both the modeling and the supplemental analysis. The overall methodology, while certainly not ensuring perfect foresight, permits an enormous body of relevant information to impact the economic outlook in a systematic manner.

Model Logic and Structure

The Model revolves around a core system which projects output (real and nominal), income (real and nominal), and employment by industry in a simultaneous manner. For the purposes of illustration, it is useful to initially consider the employment functions. Essentially, employment within the system is a derived demand relationship obtained from a neo-Classical production function. The expressions are augmented to include dynamic temporal adjustments to changes in relative factor input costs, output and (implicitly) productivity, and



technological progress over time. Thus, the typical equation includes output, the relative real cost of labor and capital, dynamic lag structures, and a technological adjustment parameter. The functional form is logarithmic, thus preserving the theoretical consistency with the neo-Classical formulation.

The income segment of the model is divided into wage and non-wage components. The wage equations, like their employment counterparts, are individually estimated at the 3-digit North American Industry Classification System (NAICS) level of aggregation. Hence, income by place of work is measured for approximately 90 production categories. The wage equations measure real compensation, with the form of the variable structure differing between "basic" and "non-basic."

The basic industries, comprised primarily of the various components of Mining, Agriculture, and Manufacturing, are export-oriented, i.e., they bring external dollars into the area and form the core of the economy. The production of these sectors typically flows into national and international markets; hence, the labor markets are influenced by conditions in areas beyond the borders of the particular region. Thus, real (inflation-adjusted) wages in the basic industry are expressed as a function of the corresponding national rates, as well as measures of local labor market conditions (the reciprocal of the unemployment rate), dynamic adjustment parameters, and ongoing trends.

The "non-basic" sectors are somewhat different in nature, as the strength of their labor markets is linked to the health of the local export sectors. Consequently, wages in these industries are related to those in the basic segment of the economy. The relationship also includes the local labor market measures contained in the basic wage equations.

Note that compensation rates in the export or "basic" sectors provide a key element of the interaction of the regional economies with national and international market phenomena, while the "non-basic" or local industries are strongly impacted by area production levels. Given the wage and employment equations, multiplicative identities in each industry provide expressions for total compensation; these totals may then be aggregated to determine aggregate wage and salary income. Simple linkage equations are then estimated for the calculation of personal income by place of work.

The non-labor aspects of personal income are modeled at the regional level using straightforward empirical expressions relating to national performance, dynamic responses, and evolving temporal patterns. In some instances (such as dividends, rents, and others) national variables (for example, interest rates) directly enter the forecasting system. These factors have numerous other implicit linkages into the system resulting from their simultaneous interaction with other phenomena in national and international markets which are explicitly included in various expressions.



The output or gross area product expressions are also developed at the 3-digit NAICS level. Regional output for basic industries is linked to national performance in the relevant industries, local and national production in key related sectors, relative area and national labor costs in the industry, dynamic adjustment parameters, and ongoing changes in industrial interrelationships (driven by technological changes in production processes).

Output in the non-basic sectors is modeled as a function of basic production levels, output in related local support industries (if applicable), dynamic temporal adjustments, and ongoing patterns. The inter-industry linkages are obtained from the input-output (impact assessment) system which is part of the overall integrated modeling structure maintained by The Perryman Group. Note that the dominant component of the econometric system involves the simultaneous estimation and projection of output (real and nominal), income (real and nominal), and employment at a disaggregated industrial level. This process, of necessity, also produces projections of regional price deflators by industry. These values are affected by both national pricing patterns and local cost variations and permit changes in prices to impact other aspects of economic behavior. Income is converted from real to nominal terms using relevant Consumer Price Indices, which fluctuate in response to national pricing patterns and unique local phenomena.

Several other components of the model are critical to the forecasting process. The demographic module includes (1) a linkage equation between wage and salary (establishment) employment and household employment, (2) a labor force participation rate function, and (3) a complete population system with endogenous migration. Given household employment, labor force participation (which is a function of economic conditions and evolving patterns of worker preferences), and the working-age population, the unemployment rate and level become identities.

The population system uses Census information, fertility rates, and life tables to determine the "natural" changes in population by age group. Migration, the most difficult segment of population dynamics to track, is estimated in relation to relative regional and extra-regional economic conditions over time. Because evolving economic conditions determine migration in the system, population changes are allowed to interact simultaneously with overall economic conditions. Through this process, migration is treated as endogenous to the system, thus allowing population to vary in accordance with relative business performance (particularly employment).

Real retail sales is related to income, interest rates, dynamic adjustments, and patterns in consumer behavior on a store group basis. It is expressed on an inflation-adjusted basis. Inflation at the state level relates to national patterns, indicators of relative economic conditions, and ongoing trends. As noted earlier, prices are endogenous to the system.



A final significant segment of the forecasting system relates to real estate absorption and activity. The short-term demand for various types of property is determined by underlying economic and demographic factors, with short-term adjustments to reflect the current status of the pertinent building cycle. In some instances, this portion of the forecast requires integration with the US Multi-Regional Industry-Occupation System which is maintained by The Perryman Group. This system also allows any employment simulation or forecast from the econometric model to be translated into a highly detailed occupational profile.

The overall US Multi-Regional Econometric Model contains numerous additional specifications, and individual expressions are modified to reflect alternative lag structures, empirical properties of the estimates, simulation requirements, and similar phenomena. Moreover, it is updated on an ongoing basis as new data releases become available. Nonetheless, the above synopsis offers a basic understanding of the overall structure and underlying logic of the system.

Model Simulation and Multi-Regional Structure

The initial phase of the simulation process is the execution of a standard nonlinear algorithm for the state system and that of each of the individual sub-areas. The external assumptions are derived from scenarios developed through national and international models and extensive analysis by The Perryman Group.

Once the initial simulations are completed, they are merged into a single system with additive constraints and interregional flows. Using information on minimum regional requirements, import needs, export potential, and locations, it becomes possible to balance the various forecasts into a mathematically consistent set of results. This process is, in effect, a disciplining exercise with regard to the individual regional (including metropolitan and rural) systems. By compelling equilibrium across all regions and sectors, the algorithm ensures that the patterns in state activity are reasonable in light of smaller area dynamics and, conversely, that the regional outlooks are within plausible performance levels for the state as a whole.

The iterative simulation process has the additional property of imposing a global convergence criterion across the entire multi-regional system, with balance being achieved simultaneously on both a sectoral and a geographic basis. This approach is particularly critical on non-linear dynamic systems, as independent simulations of individual systems often yield unstable, non-convergent outcomes.

It should be noted that the underlying data for the modeling and simulation process are frequently updated and revised by the various public and private entities compiling them. Whenever those modifications to the database occur, they bring corresponding changes to the structural parameter estimates of the various systems and the solutions to the simulation and forecasting system. The multi-regional version of the econometric model is re-estimated and simulated



with each such data release, thus providing a constantly evolving and current assessment of state and local business activity.

The Final Forecast

The process described above is followed to produce an initial set of projections. Through the comprehensive multi-regional modeling and simulation process, a systematic analysis is generated which accounts for both historical patterns in economic performance and inter-relationships and the best available information on the future course of pertinent external factors. While the best available techniques and data are employed in this effort, they are not capable of directly capturing "street sense," i.e., the contemporaneous and often non-quantifiable information that can materially affect economic outcomes. In order to provide a comprehensive approach to the prediction of business conditions, it is necessary to compile and assimilate extensive material regarding current events and factors both across the state of Texas and elsewhere.

This critical aspect of the forecasting methodology includes activities such as (1) daily review of hundreds of financial and business publications and electronic information sites; (2) review of major newspapers and online news sources in the state on a daily basis; (3) dozens of hours of direct telephone interviews with key business and political leaders in all parts of the state; (4) face-to-face discussions with representatives of major industry groups; and (5) frequent site visits to the various regions of the state. The insights arising from this "fact finding" are analyzed and evaluated for their effects on the likely course of the future activity.

Another vital information resource stems from the firm's ongoing interaction with key players in the international, domestic, and state economic scenes. Such activities include visiting with corporate groups on a regular basis and being regularly involved in the policy process at all levels. The firm is also an active participant in many major corporate relocations, economic development initiatives, and regulatory proceedings.

Once organized, this information is carefully assessed and, when appropriate, independently verified. The impact on specific communities and sectors that is distinct from what is captured by the econometric system is then factored into the forecast analysis. For example, the opening or closing of a major facility, particularly in a relatively small area, can cause a sudden change in business performance that will not be accounted for by either a modeling system based on historical relationships or expected (primarily national and international) factors.

The final step in the forecasting process is the integration of this material into the results in a logical and mathematically consistent manner. In some instances, this task is accomplished through "constant adjustment factors" which augment relevant equations. In other cases, anticipated changes in industrial structure or regulatory parameters are initially simulated within the context of the Multi-Regional Impact Assessment System to estimate their ultimate effects by sector.



Those findings are then factored into the simulation as constant adjustments on a distributed temporal basis. Once this scenario is formulated, the extended system is again balanced across regions and sectors through an iterative simulation algorithm analogous to that described in the preceding section.



Appendix B: Results by Industry

Construction: Denton County

The Potential Economic Impact of Single Family Home Construction **Associated with Craver Ranch: Denton County**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$113.3 m	+\$43.2 m	+\$29.4 m	+360
Mining	+\$4.3 m	+\$1.4 m	+\$0.7 m	+5
Utilities	+\$193.7 m	+\$43.6 m	+\$19.0 m	+64
Construction	+\$2,182.5 m	+\$859.8 m	+\$708.5 m	+7,683
Manufacturing	+\$1,080.5 m	+\$376.2 m	+\$222.0 m	+2,883
Wholesale Trade	+\$325.8 m	+\$220.4 m	+\$127.1 m	+1,114
Retail Trade*	+\$914.6 m	+\$697.6 m	+\$407.5 m	+9,404
Transportation & Warehousing	+\$126.4 m	+\$84.3 m	+\$55.7 m	+586
Information	+\$120.1 m	+\$74.2 m	+\$31.7 m	+219
Financial Activities*	+\$686.9 m	+\$150.7 m	+\$55.5 m	+439
Business Services	+\$211.7 m	+\$130.7 m	+\$106.6 m	+1,001
Health Services	+\$188.0 m	+\$131.5 m	+\$111.2 m	+1,418
Other Services	+\$322.9 m	+\$163.9 m	+\$131.3 m	+2,289
Total, All Industries	+\$6,470.7 m	+\$2,977.5 m	+\$2,006.4 m	+27,465

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



The Potential Economic Impact of Multi-Family Home Construction **Associated with Craver Ranch: Denton County**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$6.1 m	+\$2.3 m	+\$1.6 m	+19
Mining	+\$0.2 m	+\$0.1 m	+\$0.0 m	+0
Utilities	+\$10.7 m	+\$2.4 m	+\$1.0 m	+4
Construction	+\$117.0 m	+\$47.7 m	+\$39.3 m	+426
Manufacturing	+\$57.5 m	+\$20.7 m	+\$12.2 m	+155
Wholesale Trade	+\$17.0 m	+\$11.5 m	+\$6.6 m	+58
Retail Trade*	+\$50.3 m	+\$38.3 m	+\$22.4 m	+517
Transportation & Warehousing	+\$6.7 m	+\$4.5 m	+\$3.0 m	+31
Information	+\$6.7 m	+\$4.2 m	+\$1.8 m	+12
Financial Activities*	+\$37.6 m	+\$8.2 m	+\$3.0 m	+24
Business Services	+\$11.1 m	+\$6.8 m	+\$5.6 m	+52
Health Services	+\$10.3 m	+\$7.2 m	+\$6.1 m	+78
Other Services	+\$17.7 m	+\$9.0 m	+\$7.2 m	+126
Total, All Industries	+\$349.0 m	+\$162.9 m	+\$109.8 m	+1,502

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



The Potential Economic Impact of Commercial Construction Associated with **Craver Ranch: Denton County**

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$6.5 m	+\$2.4 m	+\$1.6 m	+20
Mining	+\$0.2 m	+\$0.1 m	+\$0.0 m	+0
Utilities	+\$11.3 m	+\$2.6 m	+\$1.1 m	+4
Construction	+\$119.6 m	+\$57.5 m	+\$47.4 m	+513
Manufacturing	+\$58.4 m	+\$21.1 m	+\$12.4 m	+152
Wholesale Trade	+\$16.0 m	+\$10.8 m	+\$6.2 m	+55
Retail Trade*	+\$49.7 m	+\$37.6 m	+\$21.9 m	+513
Transportation & Warehousing	+\$6.7 m	+\$4.5 m	+\$3.0 m	+31
Information	+\$7.0 m	+\$4.4 m	+\$1.9 m	+13
Financial Activities*	+\$40.9 m	+\$8.9 m	+\$3.3 m	+26
Business Services	+\$14.1 m	+\$8.8 m	+\$7.2 m	+68
Health Services	+\$11.3 m	+\$7.9 m	+\$6.7 m	+85
Other Services	+\$19.6 m	+\$9.9 m	+\$7.9 m	+138
Total, All Industries	+\$361.5 m	+\$176.4 m	+\$120.6 m	+1,618

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



The Potential Total Economic Impact of Construction Associated with Craver **Ranch: Denton County**

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$125.9 m	+\$47.9 m	+\$32.5 m	+399
Mining	+\$4.8 m	+\$1.5 m	+\$0.8 m	+5
Utilities	+\$215.7 m	+\$48.6 m	+\$21.2 m	+71
Construction	+\$2,419.2 m	+\$964.9 m	+\$795.1 m	+8,622
Manufacturing	+\$1,196.3 m	+\$418.0 m	+\$246.6 m	+3,191
Wholesale Trade	+\$358.9 m	+\$242.8 m	+\$140.0 m	+1,227
Retail Trade*	+\$1,014.6 m	+\$773.6 m	+\$451.9 m	+10,433
Transportation & Warehousing	+\$139.8 m	+\$93.2 m	+\$61.7 m	+649
Information	+\$133.9 m	+\$82.7 m	+\$35.3 m	+244
Financial Activities*	+\$765.3 m	+\$167.8 m	+\$61.9 m	+489
Business Services	+\$236.9 m	+\$146.3 m	+\$119.4 m	+1,121
Health Services	+\$209.7 m	+\$146.6 m	+\$124.0 m	+1,581
Other Services	+\$360.3 m	+\$182.8 m	+\$146.5 m	+2,553
Total, All Industries	+\$7,181.2 m	+\$3,316.7 m	+\$2,236.8 m	+30,585

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



Construction: Texas

The Potential Economic Impact of Single Family Home Construction **Associated with Craver Ranch: Texas**

Results by Industry

In directors	Total	Gross	Personal	Job Vaara*
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$138.1 m	+\$52.9 m	+\$35.1 m	+429
Mining	+\$116.4 m	+\$30.9 m	+\$17.3 m	+95
Utilities	+\$300.0 m	+\$67.6 m	+\$29.5 m	+99
Construction	+\$2,485.6 m	+\$979.7 m	+\$807.4 m	+8,755
Manufacturing	+\$1,565.1 m	+\$521.2 m	+\$308.2 m	+3,904
Wholesale Trade	+\$376.1 m	+\$254.4 m	+\$146.7 m	+1,286
Retail Trade*	+\$1,090.8 m	+\$831.5 m	+\$485.7 m	+11,216
Transportation & Warehousing	+\$260.3 m	+\$173.1 m	+\$114.5 m	+1,204
Information	+\$142.1 m	+\$87.8 m	+\$37.5 m	+259
Financial Activities*	+\$946.4 m	+\$232.7 m	+\$93.7 m	+761
Business Services	+\$323.8 m	+\$201.0 m	+\$164.0 m	+1,541
Health Services	+\$223.6 m	+\$156.5 m	+\$132.3 m	+1,687
Other Services	+\$398.4 m	+\$205.1 m	+\$164.5 m	+3,066
Total, All Industries	+\$8,366.6 m	+\$3,794.5 m	+\$2,536.5 m	+34,301

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



The Potential Economic Impact of Multi-Family Home Construction **Associated with Craver Ranch: Texas**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$7.4 m	+\$2.8 m	+\$1.9 m	+23
Mining	+\$6.2 m	+\$1.6 m	+\$0.9 m	+5
Utilities	+\$16.8 m	+\$3.8 m	+\$1.6 m	+5
Construction	+\$134.3 m	+\$54.7 m	+\$45.1 m	+489
Manufacturing	+\$87.3 m	+\$29.9 m	+\$17.8 m	+220
Wholesale Trade	+\$19.8 m	+\$13.4 m	+\$7.7 m	+68
Retail Trade*	+\$60.5 m	+\$46.2 m	+\$27.0 m	+623
Transportation & Warehousing	+\$13.8 m	+\$9.2 m	+\$6.1 m	+64
Information	+\$8.0 m	+\$5.0 m	+\$2.1 m	+15
Financial Activities*	+\$52.3 m	+\$12.9 m	+\$5.2 m	+42
Business Services	+\$17.2 m	+\$10.6 m	+\$8.6 m	+81
Health Services	+\$12.4 m	+\$8.7 m	+\$7.3 m	+93
Other Services	+\$22.1 m	+\$11.4 m	+\$9.1 m	+170
Total, All Industries	+\$458.2 m	+\$210.1 m	+\$140.5 m	+1,899

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



The Potential Economic Impact of Commercial Construction Associated with **Craver Ranch: Texas**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$7.9 m	+\$3.0 m	+\$2.0 m	+24
Mining	+\$6.7 m	+\$1.7 m	+\$0.9 m	+5
Utilities	+\$17.8 m	+\$4.0 m	+\$1.8 m	+6
Construction	+\$138.1 m	+\$66.4 m	+\$54.7 m	+593
Manufacturing	+\$90.4 m	+\$31.0 m	+\$18.4 m	+222
Wholesale Trade	+\$18.8 m	+\$12.7 m	+\$7.3 m	+64
Retail Trade*	+\$60.6 m	+\$45.8 m	+\$26.7 m	+624
Transportation & Warehousing	+\$14.1 m	+\$9.3 m	+\$6.2 m	+65
Information	+\$8.5 m	+\$5.2 m	+\$2.2 m	+16
Financial Activities*	+\$57.2 m	+\$13.9 m	+\$5.6 m	+46
Business Services	+\$21.9 m	+\$13.7 m	+\$11.2 m	+105
Health Services	+\$13.7 m	+\$9.6 m	+\$8.1 m	+103
Other Services	+\$24.6 m	+\$12.6 m	+\$10.1 m	+188
Total. All Industries	+\$480.2 m	+\$228.9 m	+\$155.2 m	+2,061

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



The Potential Total Economic Impact of Construction Associated with Craver **Ranch: Texas**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$153.4 m	+\$58.7 m	+\$39.0 m	+475
Mining	+\$129.2 m	+\$34.2 m	+\$19.2 m	+104
Utilities	+\$334.5 m	+\$75.4 m	+\$32.9 m	+110
Construction	+\$2,758.0 m	+\$1,100.8 m	+\$907.1 m	+9,837
Manufacturing	+\$1,742.8 m	+\$582.0 m	+\$344.4 m	+4,346
Wholesale Trade	+\$414.8 m	+\$280.6 m	+\$161.8 m	+1,419
Retail Trade*	+\$1,211.9 m	+\$923.5 m	+\$539.4 m	+12,463
Transportation & Warehousing	+\$288.1 m	+\$191.7 m	+\$126.8 m	+1,334
Information	+\$158.6 m	+\$98.0 m	+\$41.8 m	+289
Financial Activities*	+\$1,056.0 m	+\$259.5 m	+\$104.5 m	+849
Business Services	+\$362.9 m	+\$225.3 m	+\$183.8 m	+1,727
Health Services	+\$249.7 m	+\$174.7 m	+\$147.7 m	+1,884
Other Services	+\$445.0 m	+\$229.1 m	+\$183.8 m	+3,424
Total, All Industries	+\$9,305.0 m	+\$4,233.5 m	+\$2,832.2 m	+38,261

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



Ongoing Impacts: Denton County

The Potential Annual Economic Impact of Craver Ranch Commercial **Operations at Maturity: Denton County**

Results by Industry

	Total	Gross	Personal	
Industry	Expenditures	Product	Income	Jobs
Agriculture	+\$53.6 m	+\$12.8 m	+\$8.7 m	+104
Mining	+\$0.8 m	+\$0.2 m	+\$0.1 m	+0
Utilities	+\$67.0 m	+\$15.4 m	+\$6.7 m	+22
Construction	+\$31.2 m	+\$16.5 m	+\$13.6 m	+145
Manufacturing	+\$199.1 m	+\$64.7 m	+\$35.7 m	+434
Wholesale Trade	+\$71.8 m	+\$48.6 m	+\$28.0 m	+244
Retail Trade*	+\$622.9 m	+\$435.4 m	+\$247.5 m	+6,534
Transportation & Warehousing	+\$30.0 m	+\$21.0 m	+\$13.9 m	+148
Information	+\$40.9 m	+\$25.1 m	+\$10.7 m	+73
Financial Activities*	+\$369.4 m	+\$144.8 m	+\$72.3 m	+516
Business Services	+\$57.8 m	+\$35.6 m	+\$29.0 m	+274
Health Services	+\$54.2 m	+\$37.9 m	+\$32.1 m	+409
Other Services	+\$193.9 m	+\$114.6 m	+\$90.3 m	+1,338
Total, All Industries	+\$1,792.6 m	+\$972.6 m	+\$588.6 m	+10,241

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



The Potential Annual Economic Impact of Craver Ranch Resident Spending at **Maturity: Denton County**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	+\$30.0 m	+\$8.2 m	+\$5.6 m	+127
Mining	+\$0.9 m	+\$0.2 m	+\$0.1 m	+0
Utilities	+\$99.5 m	+\$22.3 m	+\$9.7 m	+66
Construction	+\$39.3 m	+\$20.1 m	+\$16.6 m	+329
Manufacturing	+\$137.4 m	+\$44.8 m	+\$24.9 m	+599
Wholesale Trade	+\$49.3 m	+\$33.4 m	+\$19.3 m	+322
Retail Trade*	+\$438.3 m	+\$331.0 m	+\$192.8 m	+8,193
Transportation & Warehousing	+\$28.7 m	+\$19.9 m	+\$13.1 m	+250
Information	+\$47.9 m	+\$29.6 m	+\$12.6 m	+162
Financial Activities*	+\$305.2 m	+\$43.5 m	+\$14.8 m	+220
Business Services	+\$51.5 m	+\$29.7 m	+\$24.2 m	+431
Health Services	+\$84.7 m	+\$60.0 m	+\$50.7 m	+1,188
Other Services	+\$151.7 m	+\$78.6 m	+\$62.0 m	+1,874
Total, All Industries	+\$1.464.5 m	+\$721.2 m	+\$446.5 m	+13,761

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



The Potential Total Annual Economic Impact of Craver Ranch at Maturity: **Denton County**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Jobs
Agriculture	+\$83.6 m	+\$21.0 m	+\$14.2 m	+232
Mining	+\$1.7 m	+\$0.4 m	+\$0.2 m	+0
Utilities	+\$166.4 m	+\$37.7 m	+\$16.5 m	+88
Construction	+\$70.5 m	+\$36.7 m	+\$30.2 m	+475
Manufacturing	+\$336.5 m	+\$109.4 m	+\$60.6 m	+1,033
Wholesale Trade	+\$121.1 m	+\$82.0 m	+\$47.3 m	+566
Retail Trade*	+\$1,061.2 m	+\$766.3 m	+\$440.3 m	+14,727
Transportation & Warehousing	+\$58.6 m	+\$40.9 m	+\$27.0 m	+398
Information	+\$88.8 m	+\$54.8 m	+\$23.4 m	+234
Financial Activities*	+\$674.7 m	+\$188.3 m	+\$87.1 m	+736
Business Services	+\$109.3 m	+\$65.3 m	+\$53.3 m	+705
Health Services	+\$138.9 m	+\$98.0 m	+\$82.8 m	+1,597
Other Services	+\$345.6 m	+\$193.2 m	+\$152.3 m	+3,212
Total. All Industries	+\$3,257.1 m	+\$1.693.9 m	+\$1.035.1 m	+24,003

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



Ongoing Impacts: Texas

The Potential Annual Economic Impact of Craver Ranch Commercial **Operations at Maturity: Texas**

Results by Industry

	Total	Gross	Personal	
Industry	Expenditures	Product	Income	Jobs
Agriculture	+\$56.1 m	+\$14.7 m	+\$9.4 m	+111
Mining	+\$23.2 m	+\$5.4 m	+\$3.0 m	+10
Utilities	+\$91.6 m	+\$21.1 m	+\$9.2 m	+29
Construction	+\$32.3 m	+\$17.1 m	+\$14.1 m	+151
Manufacturing	+\$303.7 m	+\$92.2 m	+\$50.6 m	+618
Wholesale Trade	+\$73.2 m	+\$49.5 m	+\$28.6 m	+249
Retail Trade*	+\$634.7 m	+\$444.2 m	+\$252.7 m	+6,657
Transportation & Warehousing	+\$54.1 m	+\$37.8 m	+\$25.0 m	+264
Information	+\$42.2 m	+\$25.9 m	+\$11.1 m	+75
Financial Activities*	+\$414.1 m	+\$162.0 m	+\$80.7 m	+591
Business Services	+\$77.6 m	+\$48.1 m	+\$39.2 m	+370
Health Services	+\$56.5 m	+\$39.6 m	+\$33.5 m	+428
Other Services	+\$201.7 m	+\$119.3 m	+\$94.1 m	+1,458
Total, All Industries	+\$2,060.9 m	+\$1,076.9 m	+\$651.2 m	+11,011

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



The Potential Annual Economic Impact of Craver Ranch Resident Spending at **Maturity: Texas**

Results by Industry

	Total	Gross	Personal	
Industry	Expenditures	Product	Income	Jobs
Agriculture	+\$31.4 m	+\$9.1 m	+\$6.0 m	+135
Mining	+\$26.9 m	+\$6.3 m	+\$3.6 m	+30
Utilities	+\$119.1 m	+\$26.7 m	+\$11.7 m	+79
Construction	+\$40.1 m	+\$20.5 m	+\$16.9 m	+336
Manufacturing	+\$197.4 m	+\$60.5 m	+\$33.7 m	+806
Wholesale Trade	+\$50.3 m	+\$34.1 m	+\$19.6 m	+329
Retail Trade*	+\$447.1 m	+\$337.6 m	+\$196.7 m	+8,358
Transportation & Warehousing	+\$46.9 m	+\$32.2 m	+\$21.3 m	+405
Information	+\$48.9 m	+\$30.2 m	+\$12.9 m	+165
Financial Activities*	+\$341.2 m	+\$57.2 m	+\$21.6 m	+331
Business Services	+\$65.1 m	+\$38.3 m	+\$31.2 m	+556
Health Services	+\$86.4 m	+\$61.2 m	+\$51.8 m	+1,212
Other Services	+\$157.5 m	+\$82.1 m	+\$64.8 m	+2,036
Total, All Industries	+\$1,658.3 m	+\$796.2 m	+\$491.8 m	+14,779

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



The Potential Total Annual Economic Impact of Craver Ranch at Maturity: **Texas**

Results by Industry

	Total	Gross	Personal	
Industry	Expenditures	Product	Income	Jobs
Agriculture	+\$87.5 m	+\$23.8 m	+\$15.4 m	+246
Mining	+\$50.0 m	+\$11.6 m	+\$6.7 m	+40
Utilities	+\$210.7 m	+\$47.9 m	+\$20.9 m	+108
Construction	+\$72.4 m	+\$37.6 m	+\$31.0 m	+487
Manufacturing	+\$501.1 m	+\$152.7 m	+\$84.4 m	+1,424
Wholesale Trade	+\$123.5 m	+\$83.6 m	+\$48.2 m	+578
Retail Trade*	+\$1,081.8 m	+\$781.9 m	+\$449.3 m	+15,015
Transportation & Warehousing	+\$101.0 m	+\$70.0 m	+\$46.3 m	+669
Information	+\$91.1 m	+\$56.2 m	+\$24.0 m	+240
Financial Activities*	+\$755.4 m	+\$219.3 m	+\$102.2 m	+922
Business Services	+\$142.7 m	+\$86.4 m	+\$70.5 m	+926
Health Services	+\$142.9 m	+\$100.8 m	+\$85.2 m	+1,640
Other Services	+\$359.2 m	+\$201.4 m	+\$158.9 m	+3,494
Total, All Industries	+\$3,719.1 m	+\$1,873.1 m	+\$1,143.0 m	+25,790

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



Cumulative Impacts: Denton County

The Potential Cumulative Economic Impact of Craver Ranch Commercial Operations Years 1-20 at Maturity: Denton County

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$615.4 m	+\$146.4 m	+\$99.3 m	+1,194
Mining	+\$8.9 m	+\$2.1 m	+\$1.1 m	+0
Utilities	+\$768.5 m	+\$176.8 m	+\$77.2 m	+257
Construction	+\$358.6 m	+\$189.9 m	+\$156.5 m	+1,669
Manufacturing	+\$2,285.5 m	+\$742.2 m	+\$409.6 m	+4,982
Wholesale Trade	+\$824.1 m	+\$557.5 m	+\$321.5 m	+2,799
Retail Trade*	+\$7,149.6 m	+\$4,997.2 m	+\$2,840.9 m	+74,992
Transportation & Warehousing	+\$344.2 m	+\$241.1 m	+\$159.4 m	+1,695
Information	+\$468.9 m	+\$288.4 m	+\$123.1 m	+835
Financial Activities*	+\$4,240.4 m	+\$1,662.3 m	+\$829.6 m	+5,920
Business Services	+\$663.1 m	+\$408.7 m	+\$333.4 m	+3,146
Health Services	+\$622.5 m	+\$435.5 m	+\$368.2 m	+4,700
Other Services	+\$2,225.1 m	+\$1,315.2 m	+\$1,036.1 m	+15,358
Total, All Industries	+\$20,574.8 m	+\$11,163.3 m	+\$6,755.9 m	+117,547

Source: US Multi-Regional Impact Assessment System, The Perryman Group Notes: Monetary values given in millions of 2025 US dollars. A job-year is equivalent to one person working for one year. Components may not sum due to rounding. Retail Trade includes Restaurants, Financial Activities includes Real Estate.



The Potential Cumulative Economic Impact of Craver Ranch Resident Spending Years 1-20 at Maturity: Denton County

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$292.7 m	+\$79.9 m	+\$54.3 m	+1,242
Mining	+\$8.6 m	+\$2.0 m	+\$1.0 m	+3
Utilities	+\$969.5 m	+\$217.6 m	+\$95.0 m	+640
Construction	+\$383.0 m	+\$196.3 m	+\$161.7 m	+3,210
Manufacturing	+\$1,339.4 m	+\$436.2 m	+\$243.1 m	+5,835
Wholesale Trade	+\$481.0 m	+\$325.5 m	+\$187.7 m	+3,142
Retail Trade*	+\$4,272.5 m	+\$3,226.2 m	+\$1,879.3 m	+79,867
Transportation & Warehousing	+\$279.4 m	+\$193.8 m	+\$128.2 m	+2,438
Information	+\$467.3 m	+\$288.8 m	+\$123.3 m	+1,577
Financial Activities*	+\$2,975.5 m	+\$423.7 m	+\$144.2 m	+2,148
Business Services	+\$502.1 m	+\$289.2 m	+\$235.9 m	+4,198
Health Services	+\$825.5 m	+\$585.1 m	+\$494.7 m	+11,577
Other Services	+\$1,479.0 m	+\$766.3 m	+\$604.3 m	+18,269
Total, All Industries	+\$14,275.6 m	+\$7,030.7 m	+\$4,352.7 m	+134,148

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



The Potential Total Cumulative Economic Impact of Craver Ranch Years 1-20 at Maturity: Denton County

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$908.1 m	+\$226.3 m	+\$153.6 m	+2,437
Mining	+\$17.5 m	+\$4.1 m	+\$2.1 m	+3
Utilities	+\$1,738.0 m	+\$394.4 m	+\$172.1 m	+897
Construction	+\$741.7 m	+\$386.2 m	+\$318.2 m	+4,879
Manufacturing	+\$3,624.9 m	+\$1,178.5 m	+\$652.8 m	+10,818
Wholesale Trade	+\$1,305.1 m	+\$883.1 m	+\$509.2 m	+5,941
Retail Trade*	+\$11,422.1 m	+\$8,223.4 m	+\$4,720.1 m	+154,859
Transportation & Warehousing	+\$623.6 m	+\$434.9 m	+\$287.6 m	+4,133
Information	+\$936.2 m	+\$577.2 m	+\$246.4 m	+2,411
Financial Activities*	+\$7,215.9 m	+\$2,086.0 m	+\$973.8 m	+8,068
Business Services	+\$1,165.2 m	+\$697.9 m	+\$569.3 m	+7,344
Health Services	+\$1,448.0 m	+\$1,020.6 m	+\$862.9 m	+16,277
Other Services	+\$3,704.1 m	+\$2,081.4 m	+\$1,640.4 m	+33,627
Total, All Industries	+\$34,850.5 m	+\$18,194.0 m	+\$11,108.6 m	+251,695

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



Cumulative Impacts: Texas

The Potential Cumulative Economic Impact of Craver Ranch Commercial **Operations Years 1-20 at Maturity: Texas**

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years*
Agriculture	+\$643.7 m	+\$168.2 m	+\$108.3 m	+1,271
Mining	+\$265.8 m	+\$61.7 m	+\$34.9 m	+116
Utilities	+\$1,051.1 m	+\$242.3 m	+\$105.8 m	+334
Construction	+\$370.9 m	+\$196.2 m	+\$161.6 m	+1,734
Manufacturing	+\$3,485.8 m	+\$1,058.2 m	+\$581.3 m	+7,088
Wholesale Trade	+\$840.1 m	+\$568.4 m	+\$327.7 m	+2,864
Retail Trade*	+\$7,284.6 m	+\$5,098.7 m	+\$2,899.9 m	+76,404
Transportation & Warehousing	+\$620.8 m	+\$433.8 m	+\$286.9 m	+3,030
Information	+\$483.9 m	+\$297.7 m	+\$127.1 m	+860
Financial Activities*	+\$4,753.4 m	+\$1,859.8 m	+\$926.1 m	+6,780
Business Services	+\$890.5 m	+\$552.3 m	+\$450.5 m	+4,250
Health Services	+\$648.9 m	+\$454.2 m	+\$384.1 m	+4,918
Other Services	+\$2,314.8 m	+\$1,369.0 m	+\$1,079.6 m	+16,732
Total, All Industries	+\$23,654.3 m	+\$12,360.5 m	+\$7,473.9 m	+126,382

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



The Potential Cumulative Economic Impact of Craver Ranch Resident **Spending Years 1-20 at Maturity: Texas**

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$306.4 m	+\$89.2 m	+\$58.3 m	+1,321
Mining	+\$261.8 m	+\$61.1 m	+\$35.4 m	+292
Utilities	+\$1,161.1 m	+\$260.6 m	+\$113.7 m	+768
Construction	+\$390.7 m	+\$200.2 m	+\$165.0 m	+3,274
Manufacturing	+\$1,923.8 m	+\$589.8 m	+\$328.6 m	+7,862
Wholesale Trade	+\$490.7 m	+\$332.1 m	+\$191.5 m	+3,205
Retail Trade*	+\$4,358.7 m	+\$3,291.3 m	+\$1,917.2 m	+81,477
Transportation & Warehousing	+\$457.2 m	+\$314.3 m	+\$207.8 m	+3,951
Information	+\$476.7 m	+\$294.6 m	+\$125.8 m	+1,608
Financial Activities*	+\$3,326.1 m	+\$557.7 m	+\$210.1 m	+3,227
Business Services	+\$634.3 m	+\$373.4 m	+\$304.6 m	+5,421
Health Services	+\$842.1 m	+\$596.9 m	+\$504.7 m	+11,811
Other Services	+\$1,535.2 m	+\$800.2 m	+\$631.9 m	+19,850
Total, All Industries	+\$16,164.8 m	+\$7,761.3 m	+\$4,794.4 m	+144,067

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



The Potential Total Cumulative Economic Impact of Craver Ranch Years 1-20 at Maturity: Texas

Results by Industry

	Total	Gross	Personal	Job
Industry	Expenditures	Product	Income	Years*
Agriculture	+\$950.1 m	+\$257.4 m	+\$166.6 m	+2,592
Mining	+\$527.6 m	+\$122.8 m	+\$70.2 m	+408
Utilities	+\$2,212.2 m	+\$503.0 m	+\$219.5 m	+1,102
Construction	+\$761.6 m	+\$396.4 m	+\$326.6 m	+5,007
Manufacturing	+\$5,409.6 m	+\$1,648.0 m	+\$909.9 m	+14,950
Wholesale Trade	+\$1,330.8 m	+\$900.4 m	+\$519.2 m	+6,069
Retail Trade*	+\$11,643.2 m	+\$8,390.0 m	+\$4,817.1 m	+157,881
Transportation & Warehousing	+\$1,078.0 m	+\$748.1 m	+\$494.8 m	+6,982
Information	+\$960.7 m	+\$592.3 m	+\$252.9 m	+2,469
Financial Activities*	+\$8,079.5 m	+\$2,417.5 m	+\$1,136.2 m	+10,007
Business Services	+\$1,524.8 m	+\$925.6 m	+\$755.1 m	+9,671
Health Services	+\$1,491.1 m	+\$1,051.1 m	+\$888.7 m	+16,729
Other Services	+\$3,850.0 m	+\$2,169.1 m	+\$1,711.5 m	+36,582
Total, All Industries	+\$39,819.1 m	+\$20,121.8 m	+\$12,268.3 m	+270,449

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

