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# THE PERRYMAN GROUP

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# INTRODUCTION



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# INTRODUCTION

- Preventing, detecting, and treating cancer more effectively would improve the likelihood of survival and quality of life for those individuals facing the disease. The benefits in terms of human health and wellbeing of significant advances in the war against cancer are beyond measure.
- At the same time, investments in research, screening, and related activities aimed at reducing the incidence and severity of cancer generate substantial economic benefits by reducing the cost of cancer through improving outcomes and serving as a catalyst for business development in other related industries (such as biomedicine).
- The Cancer Prevention and Research Institute of Texas (CPRIT) is helping establish Texas as a center for cancer prevention and research. Though it remains in its early stages of development, CPRIT has helped attract many of the top cancer research scientists to relocate to Texas, including members of the prestigious National Academy of Sciences. Many of the funded research projects have resulted in published research and several have led to new patents. Through its operations and programs designed to systematically reduce the effects of the disease, CPRIT is not only working toward improving lives of countless persons potentially affected by cancer, but also providing a sizable economic stimulus.
- On several occasions, the Perryman Group (TPG) has quantified the cost of cancer in Texas and well as the economic benefits of CPRIT and its screening/prevention and research programs, including a comprehensive analysis in 2010. This report updates the findings from TPG's analysis based on the most recent



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indicators of cancer incidence as well as results to date stemming from CPRIT grants. To facilitate comparisons across years, this report follows the same basic format and methodologies as in previous years.

## Highlights of Study Findings

- Costs associated with cancer include direct medical outlays for treatment and care as well as indirect costs such as disease-related work disability or premature mortality. Prevention, early detection, effective treatment, and medical advances to minimize the consequences of the disease are vital national and, indeed, global priorities.
- The Perryman Group updated estimates from the Texas Cancer Registry using a projection model based on population, overall inflation, and health care costs as well as patterns in mortality and morbidity. **The annual direct medical costs and morbidity and mortality losses associated with cancer within the state is now estimated to be approximately \$28.1 billion, up from \$25.3 billion last year and an increase of 28.6% since 2007.**
- The Perryman Group's analysis indicates a **total cost to the Texas economy of some \$139.5 billion in reduced annual spending, \$68.8 billion in output losses per annum, and 731,870 lost jobs from cancer treatment, morbidity, and mortality and the associated spillover effects.** These are up significantly last year's estimated total cost of \$121.3 billion in spending, \$60.7 billion in output, and 691,735 jobs.
- In FY 2011, CPRIT awarded a total of \$238.8 million for research and prevention of cancer to entities including universities, hospitals and private companies. **These**



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**investments have already begun to generate economic activity as well as progress toward new discoveries.** Work is ongoing in facilities across the state.

- The direct outlays and related “multiplier” effects emanating from CPRIT operations and programs generated a sizable increase in business activity in Texas including **\$458.5 million in output and 6,997 jobs during fiscal year 2011.**
- Adding the economic benefits of CPRIT operations, prevention/screening programs, research, outcomes-based prevention/screening, and secondary research yields a total gross impact of the Institute’s operations. **The current total annual impact of all prevention and research programs (including initial outlays and downstream effects) associated with CPRIT on Texas business activity was found to be \$1.1 billion in output and 14,212 jobs.**
- Even beyond the substantial economic benefits of CPRIT’s operations, screening, prevention, and research activity, the program has the potential to help establish Texas at the forefront of cancer-related research and related industries. The economic growth accruing from such a situation would be substantial.
- **CPRIT and its programs stand to yield notable benefits in terms of reducing the human cost of cancer; they also involve sizable economic benefits. The Institute’s positive impact is growing and represents an excellent return to the commitment of fiscal resources.**



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## The Perryman Group's Perspective

- TPG is a Texas-based economic research and analysis firm with more than 30 years of experience in assessing the economic impact of corporate expansions, regulatory changes, real estate developments, public policy initiatives, and myriad other types of events affecting business activity.
- The firm has conducted hundreds of impact analyses for the US and Texas economies (as well as all Texas metro areas and regions) and maintains an extensive set of economic models for more than two decades, including econometric, impact assessment, demographic, occupational, and real estate absorption models developed to specifically reflect the underlying structure of the Texas economy and its various regions.
- Impact studies have been performed for hundreds of clients including many of the largest corporations in the world, governmental entities at all levels, educational institutions, major health care systems, utilities, and economic development organizations. TPG has extensively analyzed the health care sector, including insurance, cost, affordability, and other areas relevant to the current analysis. From a public policy perspective, studies have been performed related to Medicaid and State Children's Health Insurance Program (SCHIP) coverage, wellness initiatives, obesity treatment, and funding for mental health and substance abuse. One recent study was published in the *Journal of Medical Economics*.
- Moreover, the proprietary models developed and maintained by the firm have been used in the analysis of scores of major medical facilities. Representative examples include the Methodist Hospital, Parkland, University Health System,





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Menninger Clinic, Scott & White, M. D. Anderson Cancer Center (including an assessment of its contribution to improved outcomes and the resulting benefits), and the University of Kansas Cancer Center (including an investigation of the benefits of achieving the status of a Comprehensive Cancer Center). Similarly, they have been employed to evaluate educational institutions and specific instructional and research programs for the University of Texas, Texas A&M University, University of Texas Medical Branch, Baylor University, University of Texas Health Science Center at San Antonio, and Baylor College of Medicine.

## Report Approach and Methodology

- As noted, an approach consistent to prior years was used where possible in this 2011 update. One notable change is that at this time, the first CPRIT grants have now been in place for more than a year, and recipients have reported progress, hiring, matching funds, and other key performance metrics. This information was used in assessing the economic impacts related to research to the extent possible.
- This report evaluates the full economic cost of cancer and the impact of CPRIT investments with particular attention given to the return on operations, prevention and screening programs, research supported by CPRIT, and economic development and social gains potentially associated with CPRIT investments.
- The following is a short summary of the underlying methodology used for each of the impacts presented throughout this report. Specific assumptions and additional methodological detail are noted with the corresponding results. Additionally, further explanation of the methods and terms used in this study, including the pertinent



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input-output and econometric systems, may be found in Appendices A and B.

- The methods used in this study include dynamic input-output assessment making use of TPG's US Multi-Regional Input Assessment System (USMRIAS), 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. Standard economic and fiscal measures (such as output, income, employment, and State revenues) are also quantified.
- The major components of The Perryman Group's analysis include the following.
  - The economic cost of cancer in terms of Texas business activity including losses stemming from treatment, morbidity, and mortality as well as the associated spillover effects was initially estimated. Data regarding the numbers of Texans with cancer and the associated costs for direct medical expenses, morbidity costs, and mortality are the subject of reports by entities such as the National Institutes of Health, the American Cancer Society, the National Cancer Institute (Centers for Disease Control (CDC)), and the Texas Cancer Registry (Texas Department of State Health Services).
  - The overall effect of CPRIT operations on business activity in Texas (including multiplier effects) was estimated using input data regarding direct and operations expenditures employment at the Institute.
  - The positive economic benefits of CPRIT-supported cancer prevention and screening programs were also assessed, including both the increase in business activity due to the screenings themselves as well as associated benefits from



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- improved health. The effects of matching funds generated by CPRIT programs were also included.
- Economic returns on research supported by the Institute (including the effects related to the specific outlays, actual and anticipated recruitment efforts for high quality scholars in relevant areas, typical returns on medical research investments, and spinoff companies that surface from such endeavors) were also evaluated. Again, associated matching funds were also incorporated into the analysis.
  - Some illustrative scenarios related to potential economic development and social gains stemming from the Institute's role as a catalyst for incremental business activity as well as social gains such as the economic value of increased quality of life, longevity, and productivity from improved outcomes were similarly provided.
- The key models used in this analysis include The Perryman Group's Texas Econometric Model (described in Appendix A) as well as the firm's US Multi-Regional Impact Assessment System which was used to estimate the total (direct, indirect, and induced) economic effects. Although the models used in this process have been maintained for more than 30 years and are widely used and accepted, all economic models are based on estimates and do not give perfect results.
  - Impacts are expressed in terms of several different indicators of overall business activity.
    - **Total expenditures** (or total spending) measures 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 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.



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- **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 permanent jobs (in the case of an ongoing impact) or person-years of employment (for transitory effects such as construction).
  - All results are expressed on an annual basis in constant 2011 dollars. Additional information regarding the methods used in this report may be found in Appendices A and B.



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# THE ECONOMIC COST OF CANCER IN TEXAS



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# THE ECONOMIC COST OF CANCER IN TEXAS

## Overview of the Issue

- Cancer affects the longevity, quality of life, and finances of individuals suffering with the illness.
- Costs associated with cancer include direct medical outlays for treatment and care as well as indirect costs such as disease-related work disability or premature mortality. Prevention, early detection, effective treatment, and medical advances to minimize the consequences of the disease are vital national and, indeed, global priorities.

## Cancer Incidence

- Despite advances in many aspects of cancer prevention and treatment, the number of Americans diagnosed with the disease continues to rise. One factor in this upward trend is the aging of the US population, as cancer incidence increases among older age groups.
- The American Cancer Society estimates that there will be about 1,596,670 new cases of cancer and 571,950 deaths from cancer in the US in 2011.<sup>1</sup>

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<sup>1</sup> *Cancer facts & figures 2011*. (2011). American Cancer Society. p. 1.



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- In Texas, a total of 107,111 new cases of cancer are expected in 2011, with 38,586 cancer deaths projected.<sup>2</sup> Like the nation, cancer is the second leading cause of death in the state after cardiovascular disease.<sup>3</sup>

## Cancer Costs

- Apart from the extremely high human cost, cancer causes economic harms to affected individuals, businesses, and society as a whole through shortened life spans, lost productivity, increased health care expenditures, and premature mortality.
- The National Institute of Health (NIH) estimated the total overall cost of cancer in 2010 to be \$263.8 billion including
  - direct medical costs of \$102.8 billion (including the total of all health expenditures),
  - indirect morbidity costs (the cost of lost productivity due to illness) of \$20.9 billion, and
  - indirect mortality costs (the cost of lost productivity due to premature death) of \$140.1 billion.<sup>4</sup>
- A study directed by the Texas Department of State Health Services (DSHS) found that the total cost of cancer in the state was roughly \$21.9 billion in 2007, with \$10.0 billion in direct medical costs and \$11.8 billion in indirect costs from lost productivity due to cancer morbidity and mortality.<sup>5</sup>

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<sup>2</sup> *Expected new cancer cases and deaths by primary site, Texas, 2011*. (2010, October). Texas Department of State Health Services.

<sup>3</sup> *Cancer facts & figures 2011*. (2011). American Cancer Society.

<sup>4</sup> *Cancer facts & figures 2011*. (2011). American Cancer Society.

<sup>5</sup> Philips, B.U., et al. (2009, March). *The cost of cancer in Texas 2007*. Department of Preventive Medicine and Community Health. University of Texas Medical Branch at Galveston.



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- These studies clearly portray the very large losses associated with cancer. However, they fail to capture numerous “multiplier” effects associated with the disease and, thus, represent only a portion of the overall toll on business activity.

## The Perryman Group’s More Comprehensive Measure of Cancer Cost

- Studies such as those described above reflect only the initial effect of the various categories of cost. However, these losses, in turn, generate further reductions in business activity as measured in the present study.
- Several years ago, the Perryman Group developed a more comprehensive measure of the cost of cancer in terms of Texas business activity. This includes losses stemming from treatment, morbidity, and mortality as well as the associated foregone spillover effects. This is the measure which has been used in The Perryman Group’s prior studies related to CPRIT and its economic benefits.

### Methods Used

- The cost of cancer includes direct medical outlays for treatment and care and indirect costs such as disease-related work disability or premature mortality. Most studies of cancer costs reflect only the initial effect of the various categories of cost. However, these losses, in turn, generate further reductions in business activity. This more comprehensive measure was the approach utilized by The Perryman Group.





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- An important source of input data is the Texas Cancer Registry, which includes information regarding treatment costs and income losses attributable to morbidity and mortality. Though this is an excellent source of the necessary input data, it is characterized by a time lag of more than two years. In order to assess the full economic effects as of 2011, TPG updated these estimates using a projection model based on population, overall inflation, and health care costs. Patterns in mortality and morbidity were also updated using recent data from the American Cancer Society. This segment of the analysis indicates that **the annual direct medical costs and morbidity and mortality losses associated with cancer within the state is now estimated at approximately \$28.1 billion, up from \$25.3 billion last year and an increase of 28.6% since 2007.**
  - Because the treatment cost component represents a loss to various payers, there is a “multiplier” effect if these funds could be redeployed into business activity. To estimate the direct inputs for this segment of the analysis, the actual outlays are allocated based on the current incidence of health care spending across more than 500 industrial and consumer categories utilizing the direct requirements matrix from the impact system described in Appendix B.
  - The mortality and morbidity estimates TPG used include productivity assumptions below historical patterns and future projections. Average compensation (rather than per-capita) was used to better capture any disparity between state and national earning patterns. Because the values were computed in terms of lost income, they do not reflect the full extent of the losses to the economy. Foregone income necessarily means that production, spending, employment, and other measures of economic activity are also foregone. These aggregates were measured using relevant coefficients to capture the relationships among the



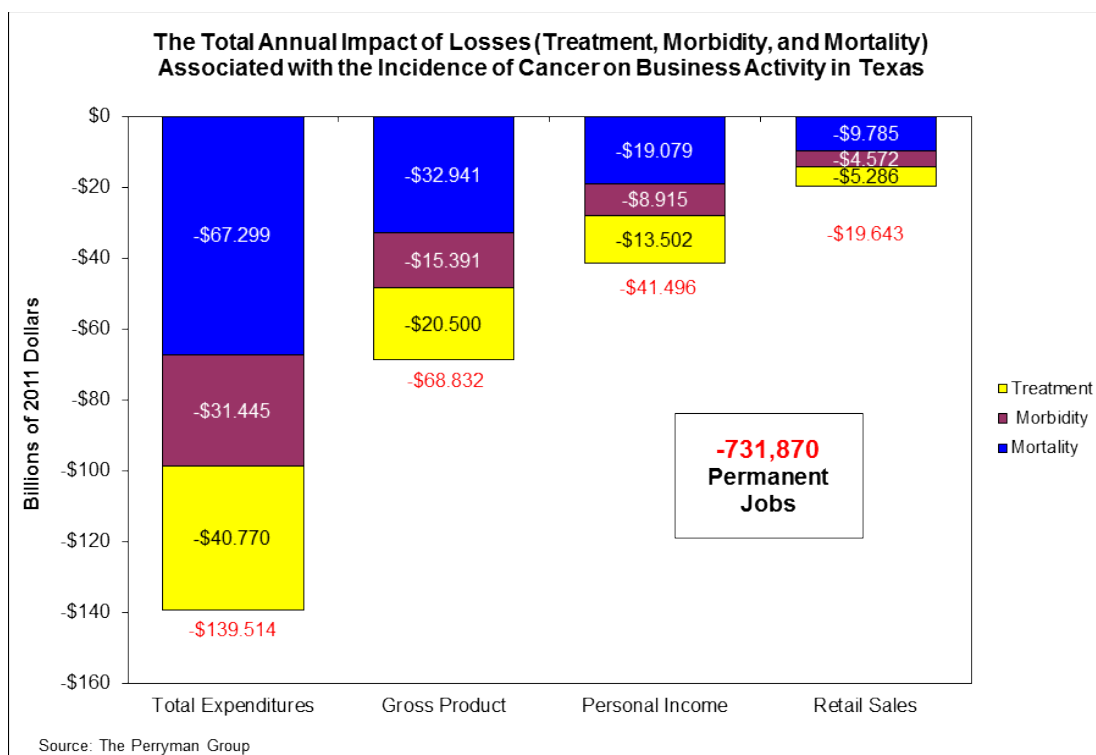
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pertinent variables, as well as data from the Regional Economic Information System of the US Department of Commerce. Because the original approach captures these overall income effects, there are no additional “multiplier” calculations applied to this segment of the analysis, with the exception of the induced spending derived from the higher earnings. The direct values in this category were assumed to follow standard consumer purchasing patterns for Texas as identified by ACCRA and the US Department of Labor.



## Economic Cost of Cancer in Texas

- The Perryman Group's analysis indicates a **total cost to the Texas economy of some \$139.5 billion in reduced annual spending, \$68.8 billion in output losses per annum, and 731,870 lost jobs from cancer treatment, morbidity, and mortality and the associated spillover effects.** These are up significantly last year's estimated total cost of \$121.3 billion in spending, \$60.7 billion in output, and 691,735 jobs.
- **The yearly loss in State fiscal revenues is about \$5.3 billion** (up from \$4.6 billion last year), while losses to **local governments include almost \$2.3 billion per annum** (up from \$1.9 billion last year).



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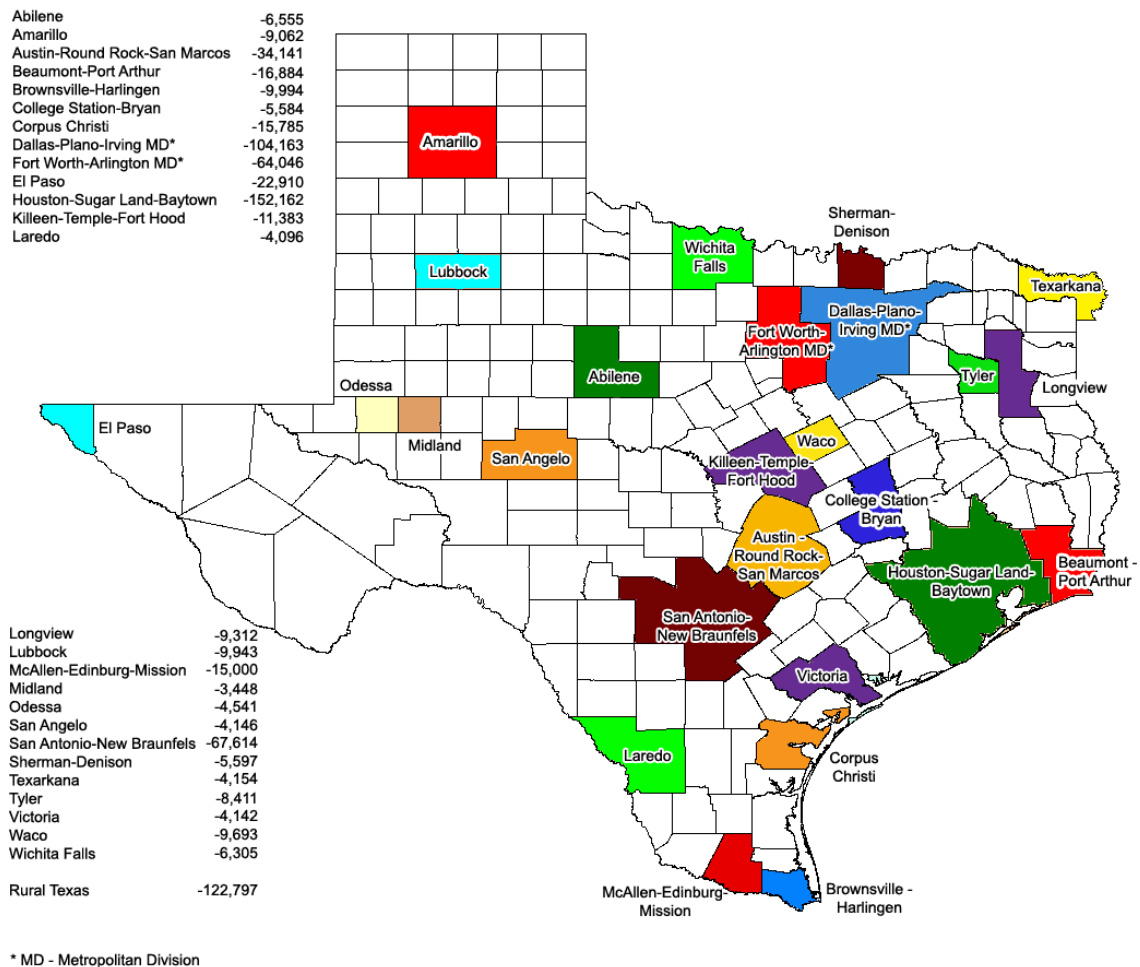
## Costs of Cancer to Regions of Texas

- The Perryman Group measured the economic cost of cancer for various regions, metropolitan areas, counties, and legislative districts (Congressional, House, and Senate) of Texas; results of this analysis are included in Appendix C.
- An important element of this segment of the analysis was allocating cancer costs to various geographic areas. The allocations of various categories of direct effects were accomplished based on health spending, cancer incidence, and cancer mortality rates at the county level. The relevant information was obtained from the US Department of Commerce and the National Cancer Institute. The county-level submodels of the USMRIAS reflect the unique industrial composition and characteristics of each county and multi-county area analyzed. They also capture spillover effects across regions. Highlights of this analysis are provided below, with detailed findings being presented in Appendix C.



- The following map illustrates the estimated economic cost of cancer to Texas metropolitan areas in terms of job losses.

### Economic Cost of Cancer to Texas' Metro Areas: Estimated Jobs Losses Stemming from the Economic Cost of Treatment, Morbidity, and Mortality Associated with Cancer as of 2011

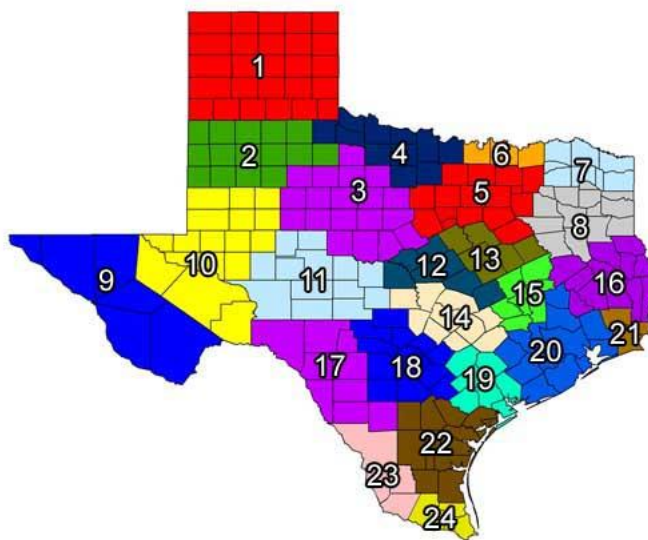


Source: The Perryman Group



- On a regional basis, the state's most populous areas naturally see the largest economic costs of cancer. The following table indicates the total cost of the disease by Council of Governments Region (defined in the map below).

## Texas Council of Governments Regions



### Current Regions

1 - Panhandle	13 - Heart of Texas
2 - South Plains	14 - Capital
3 - West Central Texas	15 - Brazos Valley
4 - North Texas	16 - Deep East Texas
5 - North Central Texas	17 - Middle Rio Grande
6 - Texoma	18 - Alamo
7 - North East Texas	19 - Golden Crescent
8 - East Texas	20 - Gulf Coast
9 - Rio Grande	21 - South East Texas
10 - Permian Basin	22 - Coastal Bend
11 - Concho Valley	23 - South Texas
12 - Central Texas	24 - Lower Rio Grande



## Economic Cost of Cancer to Texas' Regions: Total Annual Impact of Treatment, Morbidity, and Mortality

COG	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Panhandle	(\$2,495,877,951)	(\$1,263,119,646)	(\$750,640,051)	(\$398,233,707)	-13,575
South Plains	(\$2,262,037,017)	(\$1,176,557,074)	(\$719,745,066)	(\$372,136,717)	-13,231
North Texas	(\$1,750,398,970)	(\$920,551,821)	(\$547,870,829)	(\$298,627,686)	-9,981
North Central Texas	(\$34,312,407,287)	(\$16,930,957,245)	(\$10,152,983,688)	(\$4,507,158,465)	-175,519
North East Texas	(\$1,967,983,462)	(\$1,004,753,586)	(\$625,881,144)	(\$361,273,668)	-11,927
East Texas	(\$6,688,038,770)	(\$3,383,258,198)	(\$2,029,173,903)	(\$1,056,653,929)	-36,812
West Central Texas	(\$2,550,315,846)	(\$1,301,970,081)	(\$774,126,116)	(\$421,896,738)	-14,185
Upper Rio Grande	(\$4,395,014,792)	(\$2,156,746,733)	(\$1,304,518,714)	(\$623,500,279)	-23,634
Permian Basin	(\$2,375,647,947)	(\$1,190,204,034)	(\$698,259,766)	(\$369,168,076)	-12,273
Concho Valley	(\$1,107,168,472)	(\$547,357,698)	(\$319,048,785)	(\$174,271,458)	-5,910
Heart of Texas	(\$2,664,652,962)	(\$1,306,328,844)	(\$794,343,926)	(\$424,453,113)	-14,940
Capital	(\$6,905,236,858)	(\$3,580,638,991)	(\$2,207,058,838)	(\$1,082,445,078)	-39,927
Brazos Valley	(\$1,541,209,644)	(\$791,923,742)	(\$479,226,521)	(\$264,969,763)	-8,957
Deep East Texas	(\$2,852,800,204)	(\$1,475,709,024)	(\$917,870,794)	(\$522,165,022)	-17,383
South East Texas	(\$2,937,050,735)	(\$1,466,931,990)	(\$927,027,691)	(\$496,844,216)	-16,884
Gulf Coast	(\$35,030,846,514)	(\$16,298,892,412)	(\$9,648,738,351)	(\$3,818,547,390)	-158,044
Golden Crescent	(\$1,359,500,658)	(\$681,501,572)	(\$412,228,619)	(\$220,628,379)	-7,450
Alamo	(\$13,003,122,939)	(\$6,537,801,025)	(\$4,004,371,537)	(\$1,971,220,672)	-72,896
South Texas	(\$939,666,012)	(\$498,773,138)	(\$297,239,396)	(\$174,696,002)	-5,616
Coastal Bend	(\$3,997,325,359)	(\$1,916,316,692)	(\$1,140,974,304)	(\$592,473,256)	-20,369
Lower Rio Grande Valley	(\$4,095,608,942)	(\$2,153,817,701)	(\$1,338,898,551)	(\$704,743,570)	-25,508
Texoma	(\$1,457,131,757)	(\$753,147,591)	(\$470,684,345)	(\$261,547,489)	-8,864
Central Texas	(\$2,088,841,518)	(\$1,104,702,064)	(\$695,365,442)	(\$385,298,292)	-13,327
Middle Rio Grande	(\$736,056,952)	(\$390,197,211)	(\$239,932,914)	(\$139,757,286)	-4,658
Border Region	(\$10,170,431,381)	(\$5,201,887,922)	(\$3,182,053,335)	(\$1,643,455,730)	-59,441
<b>TOTAL STATE IMPACT</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

NOTE: Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

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



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# THE ECONOMIC IMPACT OF THE CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS (CPRIT) AND ITS PROGRAMS





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# THE ECONOMIC IMPACT OF THE CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS (CPRIT) AND ITS PROGRAMS

- In FY 2011, CPRIT awarded a total of \$238.8 million for research and prevention of cancer to entities including universities, hospitals and private companies. About \$217.3 million of the total was designated for cancer research, while \$21.5 million was awarded for prevention programs. The second-largest source of cancer research funding in the nation, CPRIT has awarded \$570.7 million since its inception to invest in cancer research and commercialization, prevention programs, and services. CPRIT expects to award almost \$3 billion through 2017.
- **These investments have already begun to generate economic activity as well as progress toward new discoveries.** Work is ongoing in facilities across the state.
  - From the research grants in FY2010, there have been over 30 grants which have already had results published. One grant has already resulted in a revenue generated product as a result of the grant.
  - The prevention grants from FY2010 have resulted in four published articles out of 12 grants. All but one has already created informational materials, such as brochures and websites, as well as other items to provide information to help in the prevention of various types of cancer.
  - CPRIT has also had major successes in recruiting top researchers and other faculty to Texas to conduct their cancer research. For instance, top cancer geneticists and



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husband-wife team Neal Copeland and Nancy Jenkins, who have coauthored over 780 papers, have relocated to Methodist Research Institute from Singapore's Institute of Molecular and Cell Biology. They have identified genes associated with leukemia, lymphoma, melanoma, and pancreatic, lung, breast, and prostate cancer. They will continue their cancer research in Texas and try to devise effective new drugs based on their research. Another group of top researchers was recruited to Rice University from the University of California San Diego where they will apply new concepts in theoretical physics to cancer. CPRIT has also recruited many first-time faculty members to the state to begin their careers, as well as several rising star researchers; it plans to add many more over the next few years.

- Even beyond the potentially life-changing influence of spending to reduce the incidence and severity of the disease, this investment in research, screening, and related activities generates substantial economic impacts. Moreover, the investment has the potential to reduce the cost of cancer through improving outcomes.
  - Returns on investments in medical research include jobs created in the private sector, health care costs saved, the value of increased longevity, the value of reduced morbidity and disability, and the benefits of newer medicines and therapies.
  - Job creation occurs not only directly through the scientists and staff in the research facilities, but also indirectly through the provision of business services needed by those institutions and other multiplier effects.
- In addition, CPRIT investments have been leveraged through matching funds from other entities such as the National Institute of Health, National Cancer Institute, and private foundations.



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The research grants from FY2010 led to over \$26 million in additional funding.

- Many studies over an extended period of time support the conclusion that investing in medical and cancer research can yield returns far in excess of initial outlays. Even though CPRIT has only been granting funds for research and development for about one year, the state is already beginning to see job gains and other benefits such as attracting top-tier research talent.

## Methods Used

- Job creation from CPRIT operations occurs not only directly through the scientists and staff in the research facilities, but also indirectly through the provision of business services needed by those institutions and other multiplier effects. Starting with input information regarding employment and expenditure levels at the Institute, The Perryman Group's US Multi-Regional Impact Assessment System (described in Appendix B) was used to estimate the multiplier/spinoff effects stemming from the direct operations of the Institute.
- In the case of the cancer-related health costs saved through screening programs, The Perryman Group utilized available studies of the returns on investment in cancer prevention and screening (including leveraged funds from other sources). These studies also formed the basis for estimates of the potential improvement in outcomes. TPG then used standard measures of productivity and worklife to obtain the likely incremental economic activity associated with reducing the incidence/severity of cancer through early detection.



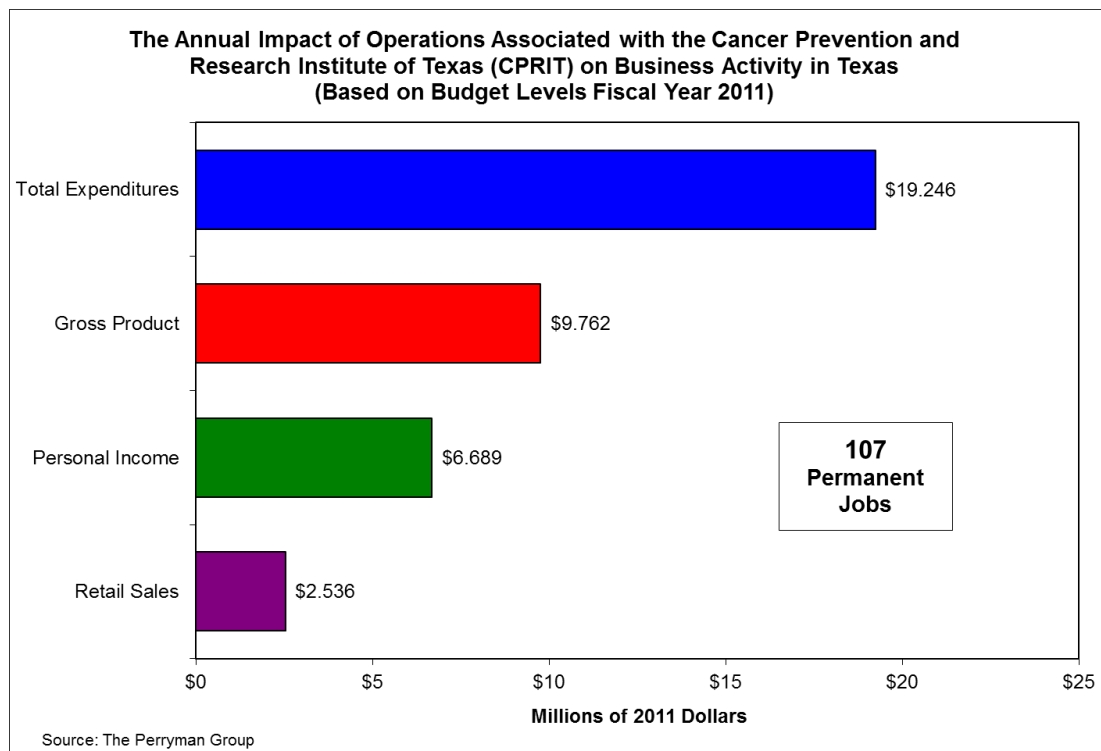
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- Because returns on direct spending for prevention and screening programs were estimated based on available studies of such returns they are unlikely to be specific to Texas or the exact programs offered by the Institute and will be subject to some range of error. Results to date were incorporated to the extent possible in estimating these economic benefits.
  - Returns on investments in medical research include jobs created in the private sector, health care costs saved, the value of increased longevity, the value of reduced morbidity and disability, and the benefits of newer medicines and therapies.
  - Job creation occurs not only directly through the scientists and staff in the research facilities, but also indirectly through the provision of business services needed by those institutions and other multiplier effects. Additionally, revenues from licensing and royalty streams are economic gains generated by research and development facilities. Attracting matching funds further enhances these economic benefits.
  - TPG calculated the magnitude of these secondary effects based on typical annual rates of return to health-related research, the addition of four researchers per year, and standard patterns in spinoff companies from research outlays (fully adjusted for attrition). Spinoff firms from these investments were estimated using information from the Association of University Technology Managers (AUTM) which was fully adjusted for attrition, as well as data from the US Department of Commerce regarding typical firm size (excluding large pharmaceutical plants).
  - The Perryman Group also estimated the outcomes-based economic benefits of CPRIT's programs (such as reduced

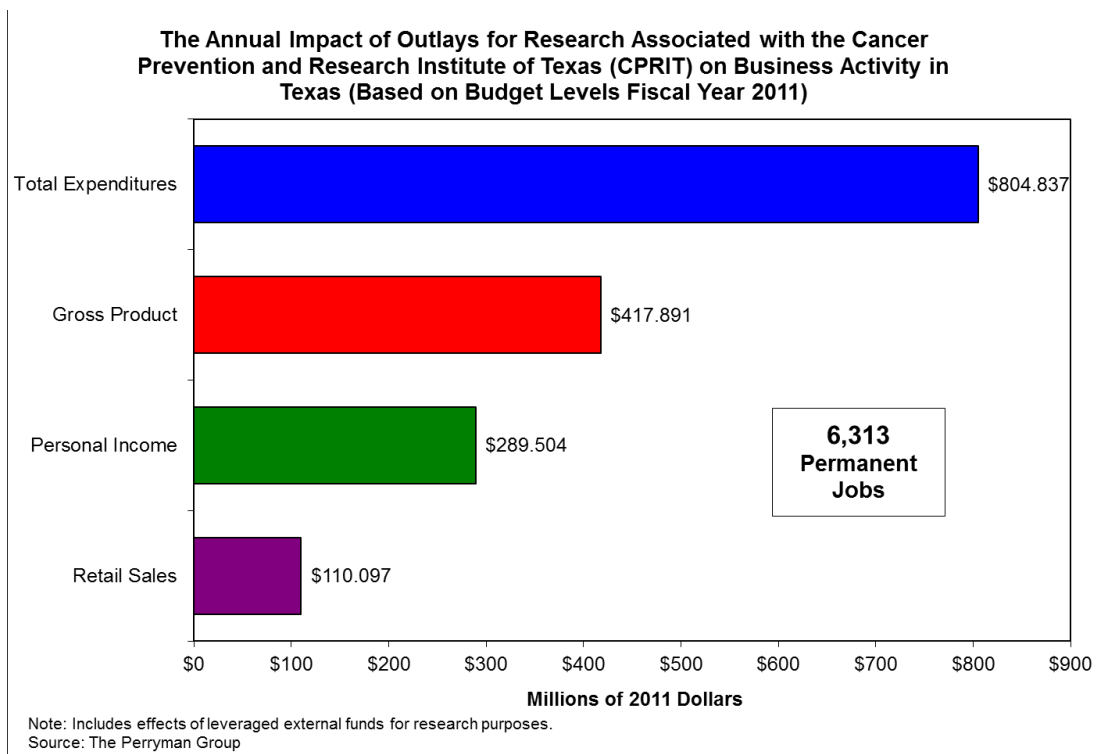
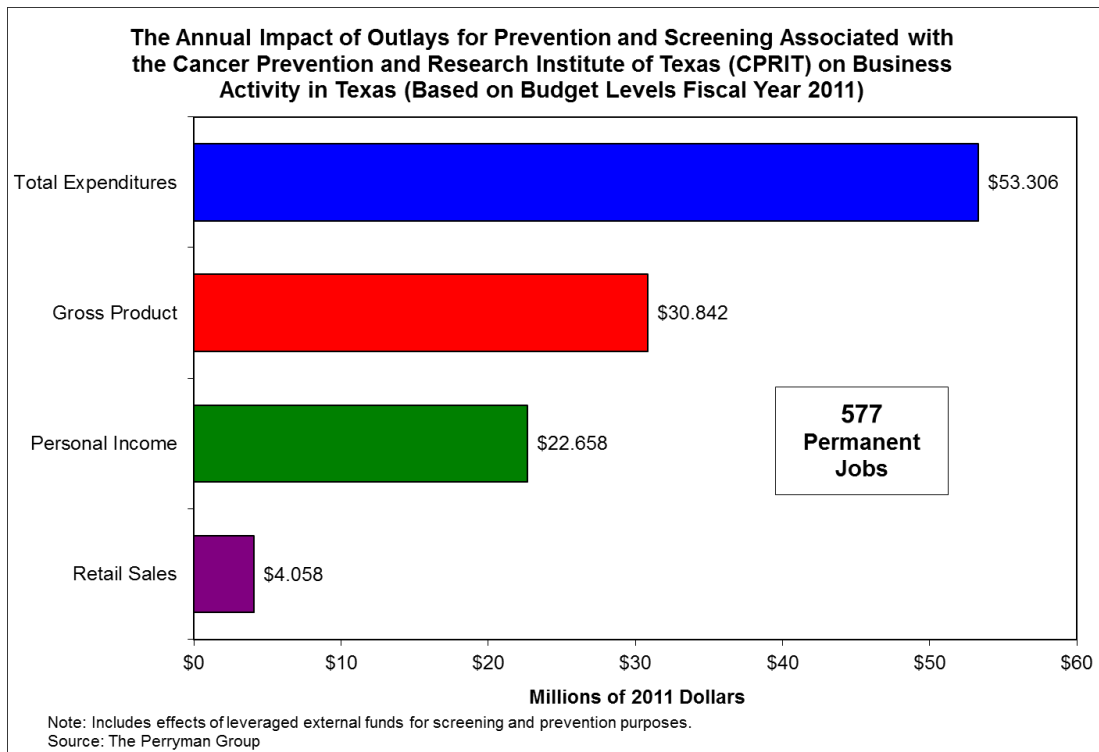


morbidity and mortality); these results are described in a subsequent section.

## Current Impact of CPRIT Direct Operations, Prevention and Screening, and Research Programs

- The direct outlays and related “multiplier” effects emanating from CPRIT operations and programs generated a sizable increase in business activity in Texas including **\$458.5 million in output and 6,997 jobs during fiscal year 2011.**
- These economic benefits include
  - \$9.8 million in output and 107 jobs from operations,
  - \$30.8 million in output and 577 jobs from prevention and screening, and
  - \$417.9 million in output and 6,313 jobs from research programs.





- **Over the first 10 years (assuming planned levels of funding are attained by year 3), the operations, prevention/screening, and research initiatives of CPRIT lead to cumulative economic benefits of some \$5.9 billion in output (gross product) and 89,941 person-years of employment to the state economy.** These estimated effects are somewhat higher than last year, reflecting growth in the underlying costs of cancer, the leveraged funds from other sources, and corresponding rise in benefits of screening and research.

<b>The Ten-Year Impact of CPRIT on Business Activity in Texas</b> (Monetary Values in Millions of 2011 Dollars)				
	<b>Operations</b>	<b>Prevention &amp; Screening</b>	<b>Research &amp; Related Programs</b>	<b>TOTAL</b>
<b>Total Expenditures</b>	\$187.527	\$675.183	\$10,401.478	\$11,264.188
<b>Gross Product</b>	\$95.122	\$390.653	\$5,400.700	\$5,886.476
<b>Personal Income</b>	\$65.180	\$286.988	\$3,741.469	\$4,093.637
<b>Retail Sales</b>	\$24.712	\$51.397	\$1,422.859	\$1,498.968
<b>Employment (person-years)</b>	1,044	7,312	81,584	89,941

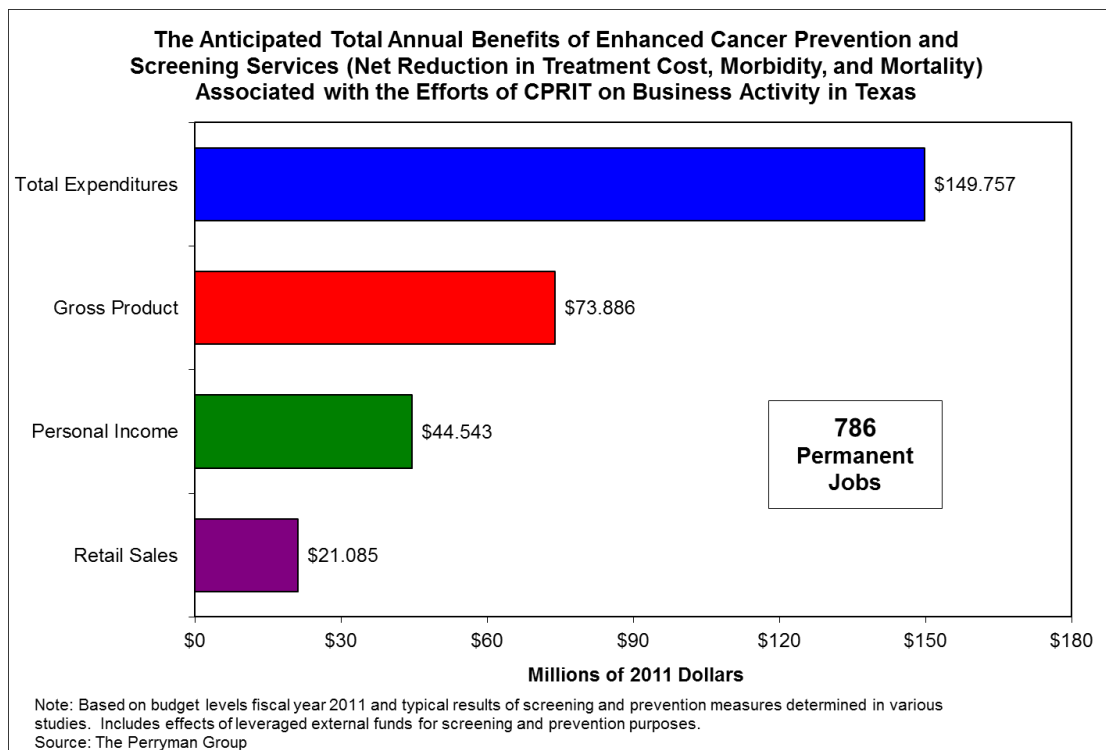
- **The ongoing outlays for CPRIT operations and programs alone generate \$291.6 million in annual State revenue, as well as \$183.0 million to various local governments.**
- Even beyond these sizable gains in business activity directly stemming from CPRIT investments, improved outcomes from screening and prevention could further enhance the economy. Research sponsored by CPRIT could also generate breakthroughs which lessen the cost of cancer, facilitate the attraction of more researchers, and yield spinoff companies. The



following sections present findings from TPG's analysis of these incremental effects.

## Outcomes-Related Impact of CPRIT Screening Programs

- An even more important aspect of CPRIT's spending on prevention and screening programs (approximately \$43.4 million in FY 2011) is the reduced incidence and severity of cancer cases through earlier detection. Many studies have demonstrated that such programs reduce health care costs, morbidity, and mortality.
- TPG estimated the **total annual net benefits from screening and prevention to be \$73.9 million in output and 786 jobs** each year (on a net present value basis assuming typical outcomes from available academic studies).





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- **Over ten years, these prevention and screening effects total \$935.9 million in output and 9,951 person-years of employment.**

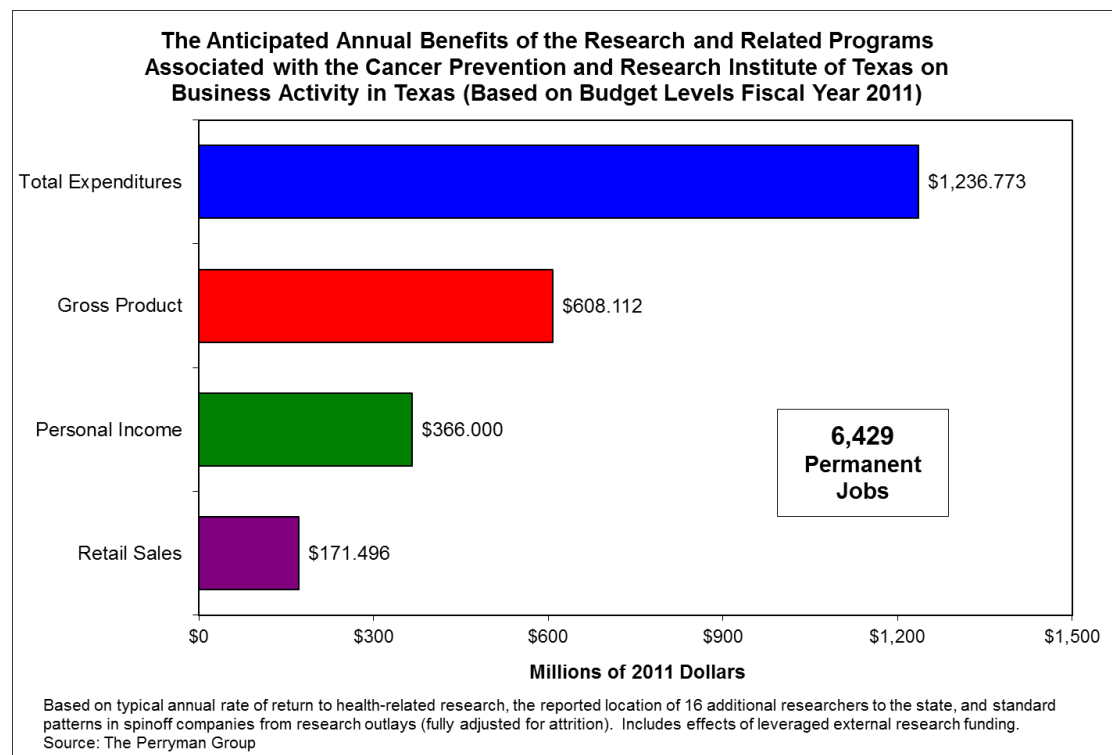
## Secondary Impact of CPRIT Research

- The positive economic effects of research activities also go far beyond the initial stimulus. Research leads to better cancer outcomes (and, thus, lower costs), spinoff activity, and the attraction of top researchers (and associated grant inflows).
- Many studies over an extended period of time support the conclusion that investing in medical and cancer research can yield returns far in excess of initial outlays. The Perryman Group utilized studies of the relationship between research and reduced treatment costs (as well as reduced morbidity and mortality) to estimate the positive economic outcomes in these areas stemming from the Institute's research support.
- In addition, the economic benefits of new cancer-related therapeutics, diagnostics, and devices, are estimated based on available empirical analyses of typical rates of return. Direct investments from other sources, including annual rates of federal R&D expenditures, are also quantified. Estimates of spinoff firms were derived through information sources such as studies by the AUTM and others regarding typical firm formation rates until sufficient time elapses to have actual information. As noted, a number of CPRIT grants have resulted in published papers and notable findings which are likely to lead to significantly returns over time; specific results were incorporated to the extent possible. However, anticipated returns are of necessity partially estimated based on typical responses observed in other contexts because it is still early in the life of CPRIT and its programs. Over time, the results of more specific initiatives

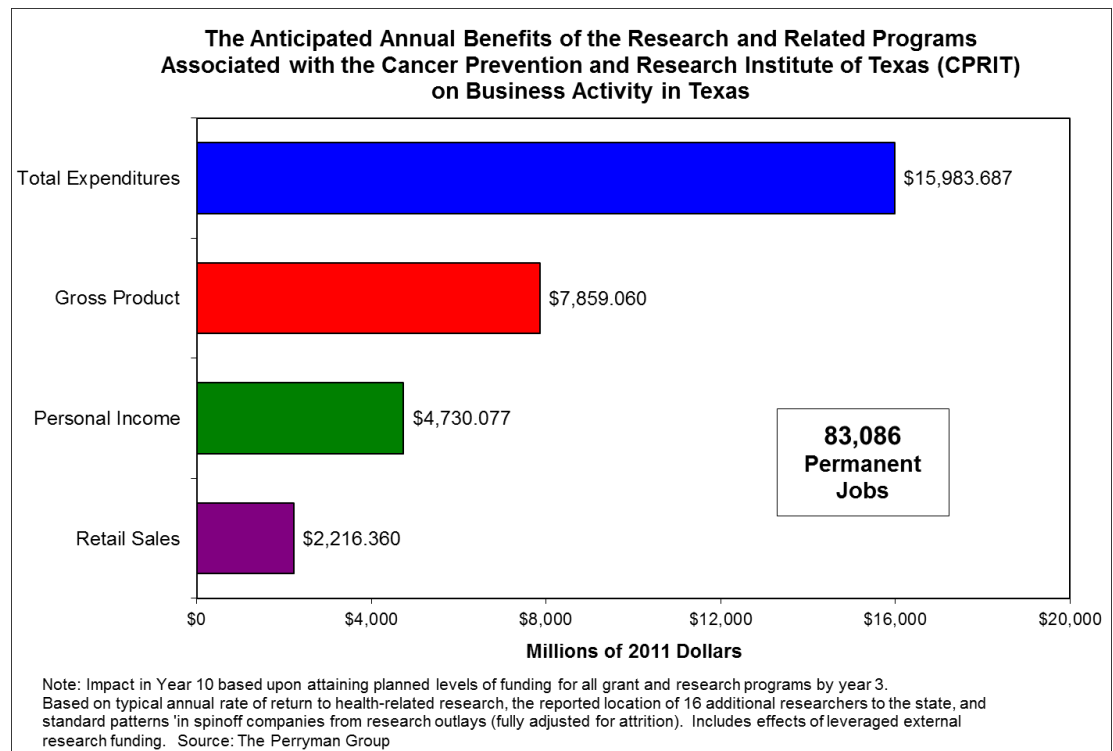


will become known and increasingly specific measures can be developed. For example, the current estimates reflect the recruitment of scholars to date and leveraged funds associated with CPRIT grants.

- **The economic benefits of CPRIT-funded research activity associated compound over time. Current estimates top \$608.1 million in output and 6,429 jobs, up significantly from last year (\$348.4 million in output and 3,658 jobs).**



- Because research benefits are ongoing and continue to provide benefits beyond the initial year of the outlays, they rise substantially over time, reaching **\$7.9 billion in output and 83,086 jobs in year 10**. Again, these totals are much higher than last year's estimate reflecting the facts that (1) grants awarded were notably higher given CPRIT's transition to full funding and, thus, would generate accordingly higher returns and (2) the related matching funds also have a compounding effect.



- The **cumulative ten-year total effect of secondary research and related programs benefits stemming from CPRIT activities includes \$41.5 billion in output and 438,648 person-years of employment** (up from \$17.2 billion in output and 191,331 person-years of employment stemming from last year's grants).

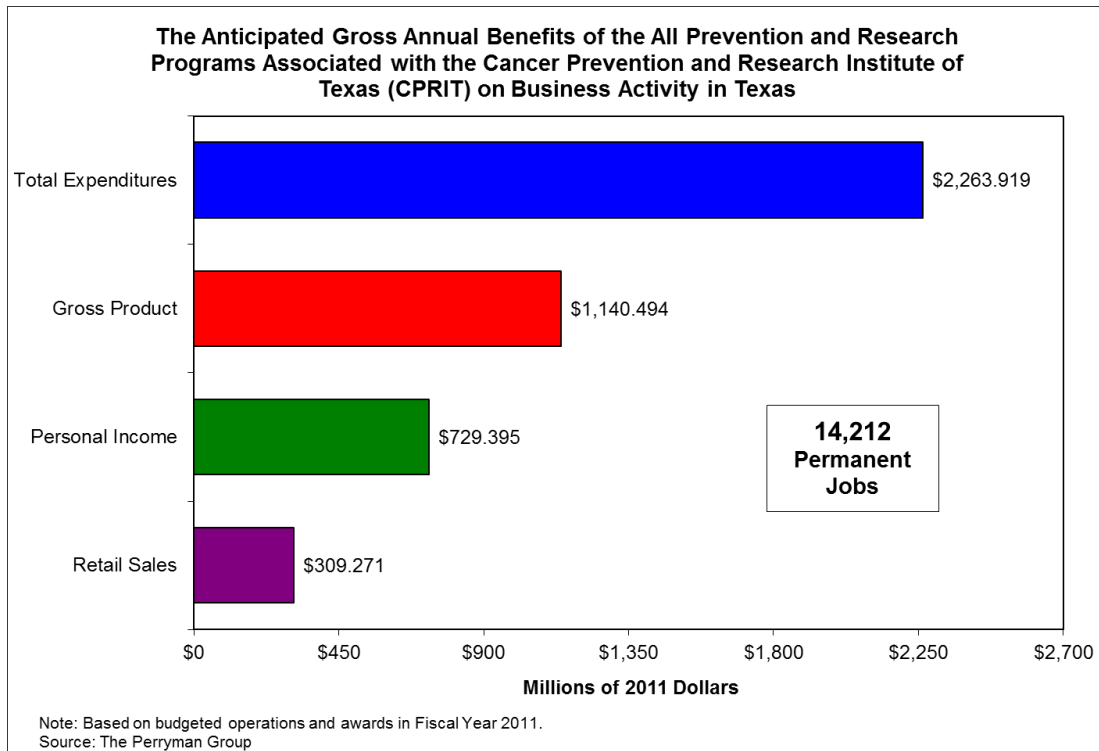


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## Total Gross Impact of CPRIT Prevention and Research Programs

- Adding the economic benefits of CPRIT operations, prevention/screening programs, research, outcomes-based prevention/screening, and secondary research yields a total gross impact of the Institute's operations. **The current total annual impact of all prevention and research programs (including initial outlays and downstream effects) associated with CPRIT on Texas business activity was found to be \$1.1 billion in output and 14,212 jobs.**
- Because of the cumulative nature of the research gains, these yearly effects rise to over \$8.6 billion in output (gross product) and 93,624 jobs by the tenth year.
- **The cumulative effect of CPRIT prevention and research programs on Texas business activity over ten years of planned funding includes \$48.3 billion in output and 538,539 person years of employment.**





- As noted, the total estimated impact of CPRIT activity has risen substantially since last year's assessment by The Perryman Group, reflecting the program's transition to full funding and the passage of one grant year.

## Total Net Economic and Fiscal Impact of CPRIT Prevention and Research Programs

- Because any State outlay involves positive economic effects, The Perryman Group isolated the impact of CPRIT programs net of the State spending.
- The results of this phase of the analysis clearly demonstrate the positive effects of the State's investment in CPRIT. During Fiscal 2011, the **net economic benefits of prevention and research programs associated with the Institute totaled \$682.0 million in output and 7,215 jobs.**



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- These effects will grow over time as positive outcomes are realized and benefits compound. **The net stimulus is expected to rise to nearly \$8.0 billion in output and 84,134 jobs by year 10.**
  - **The net cumulative ten-year impact of all prevention and research programs associated with CPRIT includes gains in Texas business activity of \$42.4 billion in output and 448,598 person-years of employment.**
  - **This incremental business activity also generates taxes for the State and local governments.**
    - For Texas, tax receipts associated with CPRIT activities from all sources in 2011 total \$60.6 million, while local public entities receive \$30.9 million.
    - By the tenth year, these annual increases rise to \$472.1 million and \$225.3 million, respectively.
    - Over the entire ten-year period, the total returns include \$2.645 billion in State fiscal resources and \$1,282 billion to local taxing authorities.
    - It should also be noted that, even in the period after the CPRIT program is concluded, the ongoing research benefits will continue to generate a yearly stimulus of \$441.3 million in State revenues and \$206.0 million for local governments (in constant 2011 dollars).
  - **Over an extended time horizon, CPRIT and the research funding it provides will likely generate fiscal receipts totaling a substantial multiple of the commitment of public resources (in addition to the notable economic and health benefits). To the extent that it generates any of the potential economic benefits illustrated in the following section, the positive effects will be even more marked.**



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**POTENTIAL ECONOMIC  
DEVELOPMENT AND SOCIAL  
BENEFITS ASSOCIATED WITH THE  
CANCER PREVENTION AND  
RESEARCH INSTITUTE OF TEXAS**



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# POTENTIAL ECONOMIC DEVELOPMENT AND SOCIAL BENEFITS ASSOCIATED WITH THE CANCER PREVENTION AND RESEARCH INSTITUTE OF TEXAS

- Even beyond the sizable economic benefits of CPRIT's operations, screening, prevention, and research activity, the program has the potential to help establish Texas at the forefront of cancer-related research and related industries. The economic growth accruing from such a situation would be substantial. TPG measured the benefits that would occur if CPRIT, in conjunction with other ongoing initiatives, serves as a catalyst for greater economic development in the biomedical and pharmaceutical arena.
- In addition, the research funded through CPRIT could help reduce cancer incidence and severity, thereby shrinking the enormous cost of the disease. TPG quantified the gains that would occur in Texas and the US if research breakthroughs that were facilitated by CPRIT funding were able to reduce cancer incidence in the state and nation over time to a level equal the current rate of the five states with the lowest prevalence.

## Methods Used

- Illustrations of potential economic development and societal gains are derived from analysis of the likely range of potential outcomes. They are forward-looking in nature, and more





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appropriately measured over a long time horizon. Inputs are based on reputable academic studies; nonetheless, they are subject to a range of error and changing conditions can affect actual results. Although the models used in this process have been maintained for more than 30 years and are widely used and accepted, all economic models are based on estimates and do not give perfect results.

- The Perryman Group developed scenarios to illustrate the potential economic development effects of Institute activities and measure gains in business activity above baseline projections.
- Scenarios involve the economic stimulus associated with a shift in Texas' relative position in industries related to the Institute (such as the biomedical industry cluster). The scenarios chosen are based on indications of the catalytic effect of the Institute (such as new company locations, related industrial development, and so on).
- The ultimate goal of CPRIT is reducing cancer incidence. As noted, the disease involves a high human and economic cost. The Perryman Group developed scenarios to illustrate the potential economic benefit of reducing cancer incidence in Texas. Scenarios measure shifts in Texas' cancer incidence over time to the levels observed in other states.

## Impact Results: Catalyst for Economic Development

- An important role of CPRIT activity is as a catalyst for economic development. Investments in cancer research can be crucial to attracting top researchers and startup companies, which can later go on to grow into larger firms within the state.

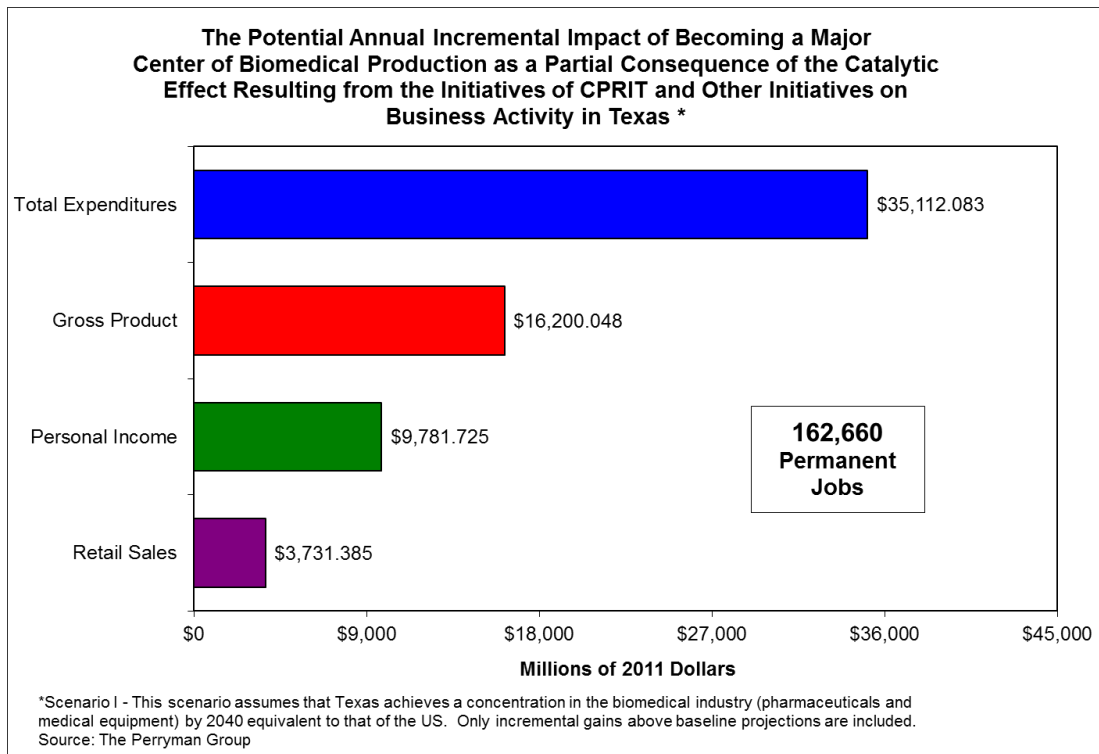


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- As this process occurs, supplier networks, training programs, related companies, and other resources tend to congregate, thus resulting in the establishment of a cluster of economic activity. Given the state's efforts to attract biomedical industries, CPRIT activity could serve as an impetus for a major concentration of emerging biomedical production sectors.
  - The Perryman Group developed two potential scenarios to illustrate the potential economic development effects of CPRIT initiatives. Only incremental gains above baseline projections (as derived from the Texas Econometric Model) are included.



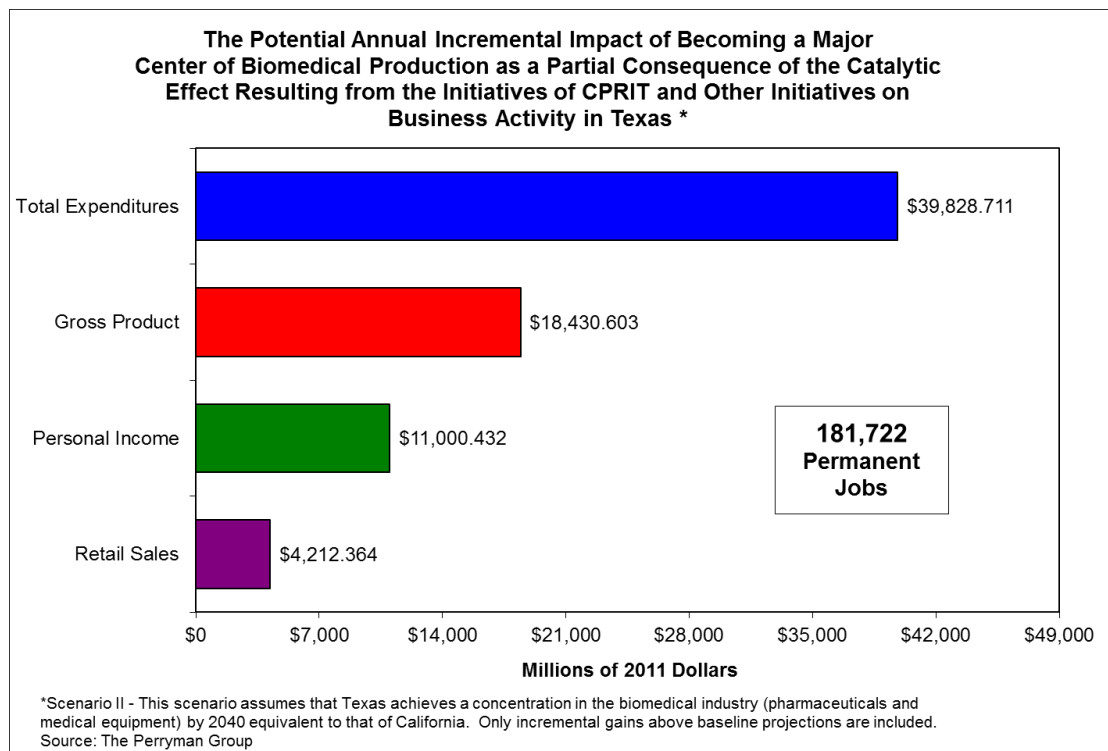
## Texas Achieves US Concentration in Biomedical Industries

- Scenario I assumes Texas achieves a concentration in the biomedical industry (pharmaceuticals and medical equipment) by 2040 equivalent to that of the US.
- Under these assumptions, **annual incremental gains in business activity include \$16.2 billion in output (gross product) and 162,660 permanent jobs as of 2040. There would also be a stimulus of \$768.2 million in annual State revenue and \$379.6 million to local governments.**



## Texas Achieves California Concentration in Biomedical Industries

- Scenario II presumes Texas achieves a concentration in the biomedical industry (pharmaceuticals and medical equipment) by 2040 equivalent to that of California. While there are certainly states with a higher relative presence in these sectors, California is representative of a large state that has strategically used its academic research capabilities to foster industrial development. The CPRIT initiative offers Texas an opportunity to leverage research into an enhanced presence in associated industries such as biomedicine and pharmaceuticals in a similar manner.
- The Perryman Group estimates that if Texas achieved a California-level concentration in biomedical industries, **the annual gain in business activity in the state would be almost \$18.4 billion in output and 181,722 permanent jobs by 2040.**



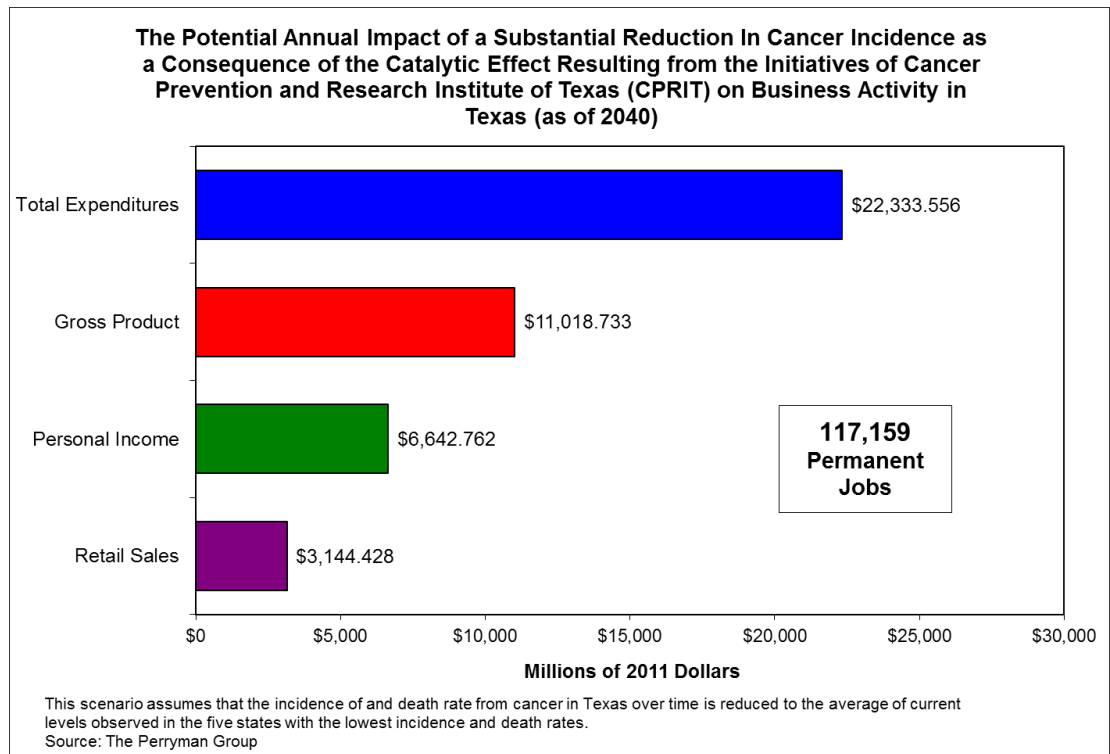
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- **Incremental State fiscal revenues in such a scenario would include \$858.9 million per annum, with local governments receiving an additional \$424.0 million.**

## **Impact Results: Substantial Reduction in Cancer Incidence**

- The ultimate goal of CPRIT is reducing cancer incidence and the associated high human and economic costs.
- If CPRIT's screening/prevention programs, research advances, and other initiatives reduce the incidence of cancer over time to equal the average of current levels observed in the five states with the lowest incidence, substantial economic benefits would be realized.



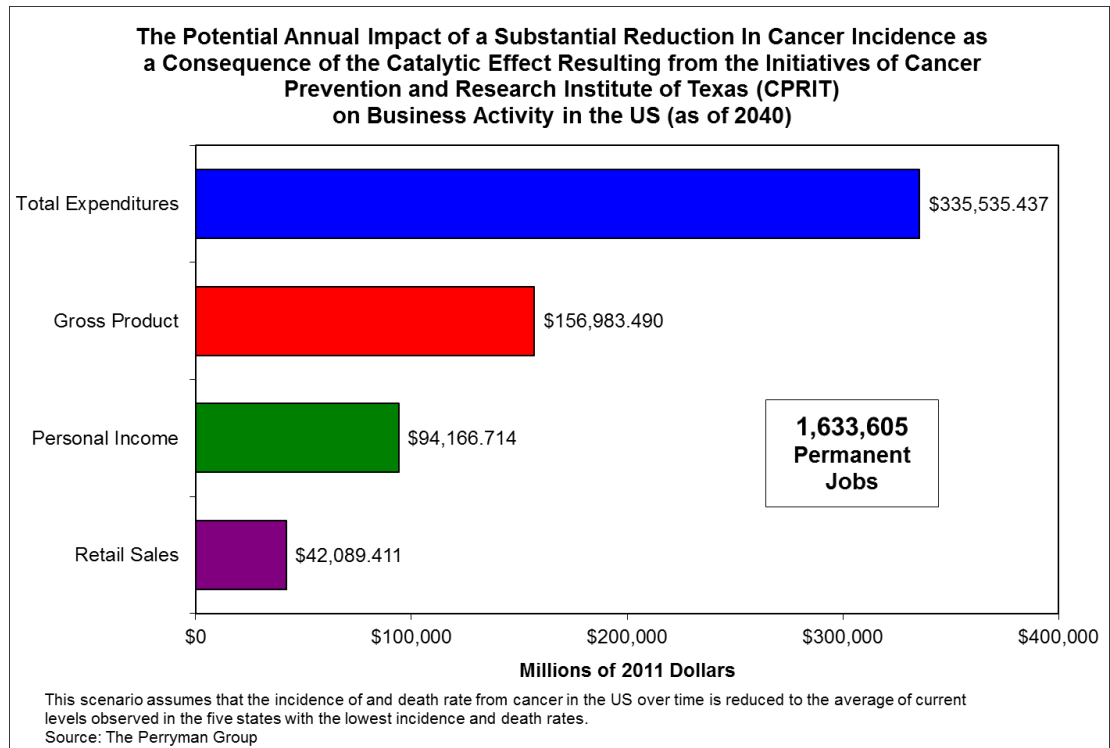
- The potential annual impact of this substantial reduction in cancer incidence stemming from the catalytic effects of CPRIT initiatives includes some **\$11.0 billion** in annual output (gross product) in Texas as of 2040 and **117,159 jobs**.



- Yearly **State and local governmental resources** would rise by **\$617.7 million** and **\$287.6 million**, respectively.



- The benefits of such advances would not be restricted to Texas; they would bring better outcomes throughout the country and, indeed, the entire world. **For the US as a whole, reducing cancer prevalence over time to equal the average of current levels of incidence in the five states with the lowest rates total \$157.0 billion in annual output and 1,633,605 jobs by 2040.**



- Clearly, the role of CPRIT and its programs in reducing cancer incidence involves the potential for substantial economic benefits. Reducing the tremendous cost of cancer would lead to gains in business activity across the US not to mention the immeasurable benefits to those who would otherwise be devastated by the disease.



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# CONCLUSION





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# CONCLUSION

- The human and economic costs of cancer are extremely high and rising. The aggregate economic costs stemming from treatment, morbidity, and mortality include some \$68.8 billion in output (gross product) and losses of more than 731,800 jobs in the state of Texas.
- The Cancer Prevention and Research Institute of Texas is playing a crucial role in the war on cancer through its operations, screening/prevention efforts, and research programs. CPRIT is also generating sizable economic stimulus including some \$458.5 million in output (gross product) and almost 7,000 jobs. Moreover, the Institute's efforts stand to improve outcomes related to cancer prevention and treatment.
- Research enabled by grants funded through CPRIT are already bearing fruit, with leading researchers coming to the state, matching funds being attracted, and findings being published in leading journals.
- Empirical evidence shows that medical research and prevention programs can reduce cancer incidence and enhance outcomes. Reductions in treatment expenses, morbidity, and mortality stand to bring notable economic benefits.
- Adding the economic benefits of CPRIT operations, prevention/screening programs, research, outcomes-based prevention/screening, and secondary/downstream research effects yields a total gross current impact of the Institute's operations of **\$1.1 billion in output and 14,212 jobs**. Because of the **cumulative** nature of the research gains, these yearly



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effects rise to over **\$8.6 billion in output (gross product) and 93,624 jobs by the tenth year.**

- Even beyond these substantial economic gains, CPRIT programs and grants are helping attract key researchers to Texas. The Institute's role as a potential catalyst for development of Texas' biomedical industries and help establish the Lone Star State as a center for such development.
- **CPRIT and its programs stand to yield notable benefits in terms of reducing the human cost of cancer; they also involve sizable economic benefits. The Institute's positive impact is growing and represents an excellent return to the commitment of fiscal resources.**



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# APPENDICES



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# APPENDIX A:

## Texas Econometric Model Methodology



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## The Texas Econometric Model

### Overview

- This Appendix provides a detailed methodological overview of the Texas Econometric Model, which was to provide baseline forecasts for the various scenarios used in the present analysis. The system was developed by Dr. M. Ray Perryman, President and CEO of The Perryman Group (TPG) approximately 30 years ago has been consistently maintained 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 more than three 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, Texas, and Waco economies. It is extensively used by scores of federal and State governmental entities on an ongoing basis, as well as hundreds of major corporations.
- 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 Texas Econometric 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 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



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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 Texas Consumer Price Index, which fluctuates 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



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- 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).
  - Retail sales is related to income, interest rates, dynamic adjustments, and patterns in consumer behavior on a store group 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 Multi-Regional Industry-Occupation System which is maintained by The Perryman Group.
  - The overall Texas 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 non-linear 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. The US model, which follows the basic structure outlined above, was used to some extent in the current analysis to define the demand for domestically produced goods on a per capita basis.
- 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



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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 Texas 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 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 all major newspapers 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





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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.



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# **APPENDIX B:**

## **US Multi-Regional Impact Assessment System Methodology**



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## US Multi-Regional Impact Assessment System

- The basic modeling technique employed in this study is known as input-output analysis. This 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. This aspect of the process was described within the report. The second step is the simulation of the input-output system to measure overall economic effects. In the case of a prospective evaluation, it is necessary to first calculate reasonable estimates of the direct activity.
- Once the direct input values were determined, 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. In addition, the model has been in operation and continually updated for over two decades. The systems used in the current simulations reflect the unique industrial structures of the relevant economies (Texas and its various regions, metropolitan areas, and counties).
- 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. The models used for the present investigation have been thoroughly tested for reasonableness and historical reliability.
- As noted earlier, 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



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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, healthcare services, utilities, housing, recreation, and other items. Typical purchasing patterns in the relevant areas are obtained from the *ACCRA 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. Note that all monetary values, unless otherwise noted, are given in constant (2011) dollars to eliminate the effects of inflation.
- 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 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 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, say, Amarillo is the amount of US output that is produced in that area. 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



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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 fourth measure, **Retail Sales**, represents the component of Total Expenditures which occurs in retail outlets (general merchandise stores, automobile dealers and service stations, building materials stores, food stores, drugstores, restaurants, and so forth). Retail Sales is a commonly used measure of consumer activity.
- The final aggregates used are **Permanent Jobs** and **Person-Years of Employment**. The Person-Years of Employment measure reveals the full-time equivalent jobs generated by an activity. A person-year is simply the equivalent of a person working for a year. As an example, it could be a carpenter employed for five months, a mason for three months, and a painter for four months. In the case of a construction project, these are typically spread over the course of the construction and development phase. It should be noted that, unlike the dollar values described above, Permanent Jobs is a "stock" rather than a "flow." In other words, if an area produces \$1 million in output in 2007 and \$1 million in 2008, it is appropriate to say that \$2 million was achieved in the 2007-2008 period. If the same area has 100 people working in 2007 and 100 in 2008, it only has 100 Permanent 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 Person-Years (a person working for a year). This concept is distinct from Permanent Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.



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## APPENDIX C: Detailed Sectoral Results



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# The Economic Cost of Cancer in Texas



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity in Texas  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	(\$1,894,398,027)	(\$537,338,437)	(\$346,972,851)	-6,124
Forestry & Fishery Products	(\$117,353,367)	(\$44,018,186)	(\$15,434,799)	-262
Coal Mining	(\$253,170,402)	(\$66,552,387)	(\$76,530,850)	-510
Crude Petroleum & Natural Gas	(\$9,935,148,865)	(\$4,511,573,883)	(\$1,522,834,473)	-5,807
Miscellaneous Mining	(\$113,692,331)	(\$67,058,448)	(\$36,555,223)	-589
New Construction	(\$2,156,024,685)	(\$809,687,585)	(\$668,514,167)	-9,599
Maintenance & Repair Construction	(\$2,506,376,292)	(\$1,485,823,604)	(\$1,098,999,348)	-17,641
Food Products & Tobacco	(\$4,517,121,805)	(\$1,095,640,736)	(\$547,824,648)	-9,001
Textile Mill Products	(\$69,456,829)	(\$15,252,992)	(\$13,407,352)	-256
Apparel	(\$623,063,536)	(\$344,926,138)	(\$174,516,940)	-4,856
Paper & Allied Products	(\$639,485,454)	(\$274,695,853)	(\$129,388,407)	-1,920
Printing & Publishing	(\$1,140,753,452)	(\$610,427,750)	(\$376,063,645)	-5,804
Chemicals & Petroleum Refining	(\$8,789,425,673)	(\$1,918,776,341)	(\$975,270,491)	-4,239
Rubber & Leather Products	(\$729,079,802)	(\$328,054,656)	(\$194,455,323)	-3,179
Lumber Products & Furniture	(\$356,990,429)	(\$131,453,850)	(\$93,075,854)	-2,039
Stone, Clay, & Glass Products	(\$439,217,165)	(\$237,961,515)	(\$125,669,287)	-1,965
Primary Metal	(\$471,309,135)	(\$125,674,821)	(\$95,260,390)	-1,187
Fabricated Metal Products	(\$1,230,229,462)	(\$524,350,992)	(\$330,059,871)	-4,746
Machinery, Except Electrical	(\$2,032,385,717)	(\$668,730,746)	(\$540,716,628)	-3,632
Electric & Electronic Equipment	(\$1,153,093,232)	(\$711,080,644)	(\$422,264,819)	-3,255
Motor Vehicles & Equipment	(\$626,800,010)	(\$184,733,540)	(\$106,366,448)	-1,205
Transp. Equip., Exc. Motor Vehicles	(\$488,992,136)	(\$256,541,926)	(\$155,818,244)	-1,700
Instruments & Related Products	(\$222,376,957)	(\$83,265,752)	(\$65,331,928)	-727
Miscellaneous Manufacturing	(\$327,483,373)	(\$107,151,811)	(\$93,172,861)	-1,045
Transportation	(\$5,457,391,821)	(\$2,955,893,185)	(\$1,953,281,676)	-27,650
Communication	(\$3,448,328,460)	(\$2,259,908,507)	(\$980,442,159)	-8,648
Electric, Gas, Water, Sanitary Services	(\$8,430,044,181)	(\$1,852,782,488)	(\$800,440,439)	-3,178
Wholesale Trade	(\$4,816,038,538)	(\$3,620,797,195)	(\$2,046,328,150)	-23,992
Retail Trade	(\$13,466,877,068)	(\$11,343,994,697)	(\$6,739,041,193)	-182,448
Finance	(\$4,099,434,964)	(\$1,878,563,862)	(\$1,216,634,658)	-10,368
Insurance	(\$3,708,621,866)	(\$2,236,492,112)	(\$1,335,258,873)	-15,958
Real Estate	(\$20,392,873,608)	(\$4,612,836,402)	(\$727,633,507)	-7,012
Hotels, Lodging Places, Amusements	(\$1,951,186,050)	(\$995,483,109)	(\$648,748,081)	-15,433
Personal Services	(\$2,745,353,401)	(\$1,701,187,559)	(\$1,321,838,807)	-23,599
Business Services	(\$8,645,122,212)	(\$6,059,292,127)	(\$4,915,025,515)	-59,193
Eating & Drinking Places	(\$6,175,833,183)	(\$3,735,685,991)	(\$1,973,865,891)	-94,519
Health Services	(\$10,977,946,902)	(\$8,381,038,991)	(\$6,936,412,846)	-119,856
Miscellaneous Services	(\$4,166,209,078)	(\$1,858,177,192)	(\$1,548,313,857)	-38,365
Households	(\$199,252,104)	(\$199,252,104)	(\$148,438,795)	-10,364
<b>Total</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>-731,870</b>

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





**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Comptroller's Economic Region Results**

<b>Economic Region</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
High Plains	(\$4,757,914,968)	(\$2,439,676,720)	(\$1,470,385,117)	(\$770,370,423)	-26,806
Northwest Texas	(\$4,300,714,816)	(\$2,222,521,903)	(\$1,321,996,945)	(\$720,524,425)	-24,166
Metroplex	(\$35,769,539,045)	(\$17,684,104,837)	(\$10,623,668,033)	(\$4,768,705,954)	-184,383
Upper East Texas	(\$8,656,022,232)	(\$4,388,011,785)	(\$2,655,055,047)	(\$1,417,927,597)	-48,739
Southeast Texas	(\$5,789,850,939)	(\$2,942,641,014)	(\$1,844,898,485)	(\$1,019,009,238)	-34,267
Gulf Coast	(\$35,030,846,514)	(\$16,298,892,412)	(\$9,648,738,351)	(\$3,818,547,390)	-158,044
Capital	(\$6,905,236,858)	(\$3,580,638,991)	(\$2,207,058,838)	(\$1,082,445,078)	-39,927
Central Texas	(\$6,294,704,124)	(\$3,202,954,650)	(\$1,968,935,888)	(\$1,074,721,167)	-37,224
Alamo	(\$14,362,623,597)	(\$7,219,302,597)	(\$4,416,600,156)	(\$2,191,849,051)	-80,347
South Texas	(\$9,768,657,266)	(\$4,959,104,741)	(\$3,017,045,165)	(\$1,611,670,114)	-56,151
West Texas	(\$3,482,816,420)	(\$1,737,561,732)	(\$1,017,308,551)	(\$543,439,534)	-18,183
Upper Rio Grande	(\$4,395,014,792)	(\$2,156,746,733)	(\$1,304,518,714)	(\$623,500,279)	-23,634
<b>TOTAL STATE IMPACT</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Council of Governments (COG) Region Results**

<b>COG</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Panhandle	(\$2,495,877,951)	(\$1,263,119,646)	(\$750,640,051)	(\$398,233,707)	-13,575
South Plains	(\$2,262,037,017)	(\$1,176,557,074)	(\$719,745,066)	(\$372,136,717)	-13,231
North Texas	(\$1,750,398,970)	(\$920,551,821)	(\$547,870,829)	(\$298,627,686)	-9,981
North Central Texas	(\$34,312,407,287)	(\$16,930,957,245)	(\$10,152,983,688)	(\$4,507,158,465)	-175,519
North East Texas	(\$1,967,983,462)	(\$1,004,753,586)	(\$625,881,144)	(\$361,273,668)	-11,927
East Texas	(\$6,688,038,770)	(\$3,383,258,198)	(\$2,029,173,903)	(\$1,056,653,929)	-36,812
West Central Texas	(\$2,550,315,846)	(\$1,301,970,081)	(\$774,126,116)	(\$421,896,738)	-14,185
Upper Rio Grande	(\$4,395,014,792)	(\$2,156,746,733)	(\$1,304,518,714)	(\$623,500,279)	-23,634
Permian Basin	(\$2,375,647,947)	(\$1,190,204,034)	(\$698,259,766)	(\$369,168,076)	-12,273
Concho Valley	(\$1,107,168,472)	(\$547,357,698)	(\$319,048,785)	(\$174,271,458)	-5,910
Heart of Texas	(\$2,664,652,962)	(\$1,306,328,844)	(\$794,343,926)	(\$424,453,113)	-14,940
Capital	(\$6,905,236,858)	(\$3,580,638,991)	(\$2,207,058,838)	(\$1,082,445,078)	-39,927
Brazos Valley	(\$1,541,209,644)	(\$791,923,742)	(\$479,226,521)	(\$264,969,763)	-8,957
Deep East Texas	(\$2,852,800,204)	(\$1,475,709,024)	(\$917,870,794)	(\$522,165,022)	-17,383
South East Texas	(\$2,937,050,735)	(\$1,466,931,990)	(\$927,027,691)	(\$496,844,216)	-16,884
Gulf Coast	(\$35,030,846,514)	(\$16,298,892,412)	(\$9,648,738,351)	(\$3,818,547,390)	-158,044
Golden Crescent	(\$1,359,500,658)	(\$681,501,572)	(\$412,228,619)	(\$220,628,379)	-7,450
Alamo	(\$13,003,122,939)	(\$6,537,801,025)	(\$4,004,371,537)	(\$1,971,220,672)	-72,896
South Texas	(\$939,666,012)	(\$498,773,138)	(\$297,239,396)	(\$174,696,002)	-5,616
Coastal Bend	(\$3,997,325,359)	(\$1,916,316,692)	(\$1,140,974,304)	(\$592,473,256)	-20,369
Lower Rio Grande Valley	(\$4,095,608,942)	(\$2,153,817,701)	(\$1,338,898,551)	(\$704,743,570)	-25,508
Texoma	(\$1,457,131,757)	(\$753,147,591)	(\$470,684,345)	(\$261,547,489)	-8,864
Central Texas	(\$2,088,841,518)	(\$1,104,702,064)	(\$695,365,442)	(\$385,298,292)	-13,327
Middle Rio Grande	(\$736,056,952)	(\$390,197,211)	(\$239,932,914)	(\$139,757,286)	-4,658
Border Region	(\$10,170,431,381)	(\$5,201,887,922)	(\$3,182,053,335)	(\$1,643,455,730)	-59,441
<b>TOTAL STATE IMPACT</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Metropolitan Statistical Area (MSA) and Rural Texas Results**

<b>MSA</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Abilene	(\$1,248,557,832)	(\$624,496,637)	(\$368,925,312)	(\$182,146,615)	-6,555
Amarillo	(\$1,619,352,226)	(\$841,972,753)	(\$503,066,593)	(\$252,692,008)	-9,062
Austin-Round Rock-San Marcos	(\$5,852,027,527)	(\$3,058,827,573)	(\$1,895,545,186)	(\$913,943,733)	-34,141
Beaumont-Port Arthur	(\$2,937,050,735)	(\$1,466,931,990)	(\$927,027,691)	(\$496,844,216)	-16,884
Brownsville-Harlingen	(\$1,654,761,580)	(\$844,792,504)	(\$522,277,611)	(\$276,081,914)	-9,994
College Station-Bryan	(\$974,587,836)	(\$497,160,217)	(\$300,656,659)	(\$160,247,271)	-5,584
Corpus Christi	(\$3,198,068,620)	(\$1,500,295,050)	(\$895,408,823)	(\$449,342,092)	-15,785
Dallas-Plano-Irving MD*	(\$20,923,633,536)	(\$10,293,002,129)	(\$6,133,001,028)	(\$2,593,713,230)	-104,163
Fort Worth-Arlington MD*	(\$12,118,223,527)	(\$6,010,403,748)	(\$3,634,142,711)	(\$1,698,797,631)	-64,046
El Paso	(\$4,279,197,976)	(\$2,095,920,487)	(\$1,267,078,676)	(\$600,786,696)	-22,910
Houston-Sugar Land-Baytown	(\$34,047,329,819)	(\$15,795,063,339)	(\$9,338,862,612)	(\$3,640,125,702)	-152,162
Killeen-Temple-Fort Hood	(\$1,779,250,243)	(\$943,923,650)	(\$595,063,844)	(\$324,052,100)	-11,383
Laredo	(\$712,588,373)	(\$374,407,169)	(\$220,793,930)	(\$124,135,611)	-4,096
Longview	(\$1,677,645,876)	(\$863,720,176)	(\$521,853,510)	(\$265,749,425)	-9,312
Lubbock	(\$1,686,325,374)	(\$883,817,837)	(\$545,546,733)	(\$265,431,763)	-9,943
McAllen-Edinburg-Mission	(\$2,363,726,932)	(\$1,265,746,757)	(\$790,239,869)	(\$412,344,092)	-15,000
Midland	(\$677,903,387)	(\$344,185,450)	(\$200,484,291)	(\$100,036,146)	-3,448
Odessa	(\$871,746,354)	(\$434,895,661)	(\$260,677,395)	(\$132,034,517)	-4,541
San Angelo	(\$784,759,838)	(\$385,672,012)	(\$223,610,784)	(\$117,999,436)	-4,146
San Antonio-New Braunfels	(\$12,059,968,921)	(\$6,070,614,379)	(\$3,724,129,008)	(\$1,814,591,514)	-67,614
Sherman-Denison	(\$879,488,489)	(\$462,724,659)	(\$291,619,368)	(\$165,663,743)	-5,597
Texarkana	(\$661,685,084)	(\$350,933,901)	(\$219,984,131)	(\$120,840,319)	-4,154
Tyler	(\$1,638,079,657)	(\$812,492,609)	(\$473,039,182)	(\$235,153,557)	-8,411
Victoria	(\$808,889,023)	(\$393,801,180)	(\$236,219,244)	(\$121,385,032)	-4,142
Waco	(\$1,769,529,667)	(\$858,432,191)	(\$521,490,404)	(\$264,765,388)	-9,693
Wichita Falls	(\$1,089,442,206)	(\$585,966,175)	(\$349,498,496)	(\$183,698,374)	-6,305
Rural Area	(\$21,200,120,931)	(\$10,771,957,880)	(\$6,535,966,200)	(\$3,730,108,125)	-122,797
<b>TOTAL STATE IMPACT</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

\*Metropolitan Division

**NOTE:** Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
County Results**

<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Anderson	(\$428,593,058)	(\$233,831,901)	(\$140,856,419)	(\$75,313,695)	-2,575
Andrews	(\$73,604,895)	(\$37,696,755)	(\$21,626,614)	(\$11,446,852)	-373
Angelina	(\$586,688,395)	(\$297,461,523)	(\$186,908,884)	(\$103,061,264)	-3,530
Aransas	(\$292,995,067)	(\$135,368,673)	(\$77,141,057)	(\$43,497,729)	-1,386
Archer	(\$47,271,746)	(\$24,137,469)	(\$13,591,495)	(\$8,187,981)	-254
Armstrong	(\$15,066,336)	(\$7,679,994)	(\$4,636,194)	(\$1,745,589)	-78
Atascosa	(\$275,421,181)	(\$133,998,465)	(\$79,597,461)	(\$40,184,921)	-1,394
Austin	(\$207,848,533)	(\$98,486,834)	(\$60,122,160)	(\$27,176,467)	-1,007
Bailey	(\$28,122,882)	(\$14,490,235)	(\$8,802,624)	(\$5,750,792)	-168
Bandera	(\$168,835,239)	(\$81,403,327)	(\$47,979,028)	(\$28,938,269)	-917
Bastrop	(\$422,152,685)	(\$208,252,290)	(\$126,863,287)	(\$72,561,284)	-2,420
Baylor	(\$49,537,189)	(\$26,455,970)	(\$16,010,607)	(\$8,933,223)	-297
Bee	(\$144,864,751)	(\$77,202,731)	(\$45,980,008)	(\$26,557,829)	-867
Bell	(\$1,331,085,993)	(\$714,993,529)	(\$453,922,957)	(\$241,488,294)	-8,611
Bexar	(\$9,649,688,026)	(\$4,890,769,743)	(\$3,013,205,658)	(\$1,407,334,618)	-54,077
Blanco	(\$65,631,537)	(\$31,541,719)	(\$18,787,166)	(\$10,862,148)	-363
Borden	(\$14,969,260)	(\$7,215,258)	(\$4,007,791)	(\$1,947,596)	-65
Bosque	(\$148,276,280)	(\$74,370,658)	(\$46,705,474)	(\$23,135,239)	-865
Bowie	(\$661,685,084)	(\$350,933,901)	(\$219,984,131)	(\$120,840,319)	-4,154
Brazoria	(\$1,497,869,836)	(\$717,595,631)	(\$437,286,880)	(\$243,551,893)	-7,943
Brazos	(\$715,272,734)	(\$363,952,405)	(\$219,491,823)	(\$109,252,745)	-4,030
Brewster	(\$51,013,824)	(\$28,117,416)	(\$17,738,044)	(\$9,501,378)	-336
Briscoe	(\$10,942,422)	(\$5,086,290)	(\$2,978,941)	(\$1,888,754)	-56
Brooks	(\$33,140,546)	(\$18,299,373)	(\$11,306,296)	(\$6,876,189)	-217
Brown	(\$268,444,231)	(\$147,153,036)	(\$92,776,024)	(\$57,800,793)	-1,852
Burleson	(\$132,692,815)	(\$70,055,792)	(\$41,823,480)	(\$24,999,029)	-772
Burnet	(\$348,777,062)	(\$168,891,082)	(\$101,143,299)	(\$55,114,416)	-1,871
Caldwell	(\$251,997,693)	(\$127,094,541)	(\$76,658,013)	(\$40,805,529)	-1,405
Calhoun	(\$93,417,060)	(\$38,509,715)	(\$22,854,524)	(\$12,330,406)	-400
Callahan	(\$124,905,294)	(\$60,679,073)	(\$34,996,316)	(\$19,996,312)	-644
Cameron	(\$1,654,761,580)	(\$844,792,504)	(\$522,277,611)	(\$276,081,914)	-9,994
Camp	(\$76,376,748)	(\$38,324,421)	(\$23,877,434)	(\$12,832,894)	-452
Carson	(\$18,691,867)	(\$7,731,094)	(\$3,862,722)	(\$1,452,355)	-62
Cass	(\$217,269,919)	(\$110,876,000)	(\$68,864,144)	(\$43,718,392)	-1,334
Castro	(\$20,697,413)	(\$9,858,988)	(\$5,949,121)	(\$4,053,030)	-118
Chambers	(\$179,212,745)	(\$75,688,313)	(\$42,552,228)	(\$19,488,370)	-705
Cherokee	(\$306,107,040)	(\$157,175,768)	(\$100,589,620)	(\$55,933,129)	-1,900
Childress	(\$48,364,718)	(\$24,497,119)	(\$14,808,868)	(\$9,247,894)	-290
Clay	(\$81,217,831)	(\$41,343,911)	(\$25,687,138)	(\$12,364,021)	-452
Cochran	(\$13,652,804)	(\$7,140,809)	(\$3,884,038)	(\$1,814,398)	-66



(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
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County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Coke	(\$43,375,473)	(\$21,007,613)	(\$12,130,093)	(\$6,929,300)	-212
Coleman	(\$96,648,919)	(\$50,191,265)	(\$29,442,023)	(\$16,432,931)	-540
Collin	(\$2,566,668,574)	(\$1,325,171,916)	(\$815,210,937)	(\$398,856,275)	-14,582
Collingsworth	(\$23,741,779)	(\$13,015,740)	(\$8,029,710)	(\$4,876,633)	-148
Colorado	(\$170,086,797)	(\$87,000,701)	(\$52,965,366)	(\$31,683,876)	-1,054
Comal	(\$678,437,455)	(\$333,940,082)	(\$202,612,134)	(\$112,877,313)	-3,929
Comanche	(\$115,508,683)	(\$59,503,916)	(\$37,158,088)	(\$20,602,561)	-700
Concho	(\$18,177,352)	(\$9,792,786)	(\$6,393,543)	(\$3,140,251)	-120
Cooke	(\$307,691,640)	(\$152,419,593)	(\$91,632,821)	(\$47,935,202)	-1,607
Coryell	(\$292,233,159)	(\$149,494,852)	(\$92,090,114)	(\$53,500,252)	-1,800
Cottle	(\$14,833,715)	(\$8,574,715)	(\$5,331,445)	(\$2,582,404)	-93
Crane	(\$15,581,465)	(\$8,469,049)	(\$4,918,891)	(\$2,309,592)	-86
Crockett	(\$19,311,463)	(\$9,903,672)	(\$5,628,161)	(\$4,186,901)	-110
Crosby	(\$38,160,639)	(\$20,776,896)	(\$12,412,150)	(\$5,124,276)	-216
Culberson	(\$10,405,784)	(\$6,118,933)	(\$3,731,976)	(\$2,936,949)	-78
Dallam	(\$23,844,150)	(\$12,587,192)	(\$7,616,640)	(\$3,848,023)	-141
Dallas	(\$13,836,968,408)	(\$6,757,677,773)	(\$3,959,642,109)	(\$1,489,855,094)	-64,714
Dawson	(\$88,306,276)	(\$44,102,736)	(\$24,767,365)	(\$15,230,613)	-456
Deaf Smith	(\$55,632,350)	(\$27,022,668)	(\$16,276,932)	(\$8,105,598)	-300
Delta	(\$34,538,174)	(\$18,115,455)	(\$11,438,691)	(\$4,110,003)	-196
Denton	(\$2,357,199,293)	(\$1,146,741,968)	(\$701,343,313)	(\$330,936,976)	-12,451
DeWitt	(\$181,743,324)	(\$92,597,498)	(\$57,361,476)	(\$31,490,625)	-1,075
Dickens	(\$21,240,365)	(\$11,154,024)	(\$6,872,608)	(\$4,093,451)	-126
Dimmit	(\$41,539,380)	(\$21,761,515)	(\$13,015,180)	(\$8,373,801)	-253
Donley	(\$30,637,213)	(\$17,345,014)	(\$10,983,345)	(\$7,374,422)	-225
Duval	(\$68,667,553)	(\$33,882,867)	(\$19,535,258)	(\$9,712,170)	-351
Eastland	(\$171,333,820)	(\$85,282,443)	(\$50,099,724)	(\$30,803,006)	-947
Ector	(\$871,746,354)	(\$434,895,661)	(\$260,677,395)	(\$132,034,517)	-4,541
Edwards	(\$14,747,481)	(\$7,229,770)	(\$3,967,283)	(\$2,557,262)	-74
El Paso	(\$4,279,197,976)	(\$2,095,920,487)	(\$1,267,078,676)	(\$600,786,696)	-22,910
Ellis	(\$730,921,110)	(\$341,988,022)	(\$208,031,438)	(\$118,787,471)	-3,850
Erath	(\$191,978,779)	(\$104,521,295)	(\$66,373,710)	(\$39,806,150)	-1,311
Falls	(\$132,826,140)	(\$70,951,127)	(\$44,887,611)	(\$24,138,422)	-852
Fannin	(\$269,951,628)	(\$138,003,340)	(\$87,432,157)	(\$47,948,543)	-1,660
Fayette	(\$256,321,089)	(\$131,242,278)	(\$77,683,964)	(\$38,250,262)	-1,393
Fisher	(\$31,541,822)	(\$16,615,667)	(\$10,147,749)	(\$6,302,811)	-198
Floyd	(\$28,884,039)	(\$13,177,116)	(\$7,856,177)	(\$3,765,369)	-142
Foard	(\$4,900,449)	(\$2,773,725)	(\$1,827,819)	(\$893,587)	-35
Fort Bend	(\$2,270,914,674)	(\$1,068,686,694)	(\$627,007,635)	(\$297,126,454)	-10,649
Franklin	(\$73,717,627)	(\$36,930,276)	(\$21,224,340)	(\$12,428,288)	-396



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**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
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County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Freestone	(\$151,155,921)	(\$74,933,509)	(\$42,835,099)	(\$27,493,109)	-806
Frio	(\$86,597,748)	(\$42,257,889)	(\$24,404,133)	(\$13,345,078)	-443
Gaines	(\$63,927,706)	(\$30,419,018)	(\$16,556,052)	(\$9,577,334)	-293
Galveston	(\$2,244,930,485)	(\$1,066,495,365)	(\$647,835,371)	(\$336,391,392)	-11,770
Garza	(\$32,116,318)	(\$15,555,746)	(\$8,870,641)	(\$5,382,328)	-159
Gillespie	(\$240,016,083)	(\$119,229,104)	(\$73,560,996)	(\$40,621,967)	-1,403
Glasscock	(\$1,956,253)	(\$917,240)	(\$479,381)	(\$166,357)	-7
Goliad	(\$52,273,511)	(\$28,063,476)	(\$16,893,731)	(\$11,371,938)	-328
Gonzales	(\$94,178,413)	(\$48,596,198)	(\$30,317,913)	(\$17,255,481)	-579
Gray	(\$200,581,687)	(\$95,303,144)	(\$56,559,026)	(\$31,730,754)	-1,001
Grayson	(\$879,488,489)	(\$462,724,659)	(\$291,619,368)	(\$165,663,743)	-5,597
Gregg	(\$982,456,793)	(\$519,745,723)	(\$315,923,024)	(\$154,918,237)	-5,589
Grimes	(\$133,386,179)	(\$67,648,876)	(\$41,407,229)	(\$23,573,040)	-773
Guadalupe	(\$572,349,817)	(\$283,926,580)	(\$173,017,768)	(\$106,006,948)	-3,325
Hale	(\$141,758,454)	(\$76,712,444)	(\$48,139,857)	(\$32,142,093)	-968
Hall	(\$29,502,008)	(\$14,969,469)	(\$8,931,139)	(\$5,260,074)	-169
Hamilton	(\$69,805,041)	(\$35,065,895)	(\$21,914,638)	(\$13,994,216)	-433
Hansford	(\$17,982,199)	(\$7,908,021)	(\$4,027,593)	(\$1,874,931)	-62
Hardeman	(\$27,344,419)	(\$14,983,817)	(\$9,181,492)	(\$6,812,090)	-191
Hardin	(\$383,865,076)	(\$189,788,266)	(\$112,749,324)	(\$66,739,838)	-2,091
Harris	(\$23,957,615,930)	(\$10,976,702,385)	(\$6,454,675,932)	(\$2,212,772,886)	-101,458
Harrison	(\$543,154,828)	(\$255,242,641)	(\$152,851,695)	(\$68,936,878)	-2,569
Hartley	(\$8,086,477)	(\$3,951,697)	(\$2,344,938)	(\$1,401,159)	-47
Haskell	(\$52,755,631)	(\$27,396,344)	(\$16,720,605)	(\$8,808,942)	-304
Hays	(\$546,159,172)	(\$279,907,366)	(\$172,649,477)	(\$91,957,367)	-3,234
Hemphill	(\$12,114,093)	(\$5,670,594)	(\$3,085,875)	(\$1,561,947)	-52
Henderson	(\$817,187,777)	(\$401,309,591)	(\$241,362,670)	(\$129,668,635)	-4,517
Hidalgo	(\$2,363,726,932)	(\$1,265,746,757)	(\$790,239,869)	(\$412,344,092)	-15,000
Hill	(\$297,147,491)	(\$141,203,509)	(\$84,887,636)	(\$53,238,033)	-1,717
Hockley	(\$112,512,643)	(\$57,751,308)	(\$33,920,476)	(\$19,966,980)	-637
Hood	(\$449,224,729)	(\$217,151,986)	(\$133,736,289)	(\$75,311,759)	-2,533
Hopkins	(\$223,292,241)	(\$116,651,167)	(\$72,804,539)	(\$45,869,434)	-1,418
Houston	(\$242,027,599)	(\$119,605,574)	(\$75,076,161)	(\$31,428,055)	-1,267
Howard	(\$259,812,885)	(\$126,348,279)	(\$74,839,097)	(\$39,744,963)	-1,330
Hudspeth	(\$4,932,733)	(\$2,513,171)	(\$1,448,236)	(\$1,494,076)	-33
Hunt	(\$516,709,786)	(\$262,218,658)	(\$163,428,347)	(\$100,243,778)	-3,173
Hutchinson	(\$158,314,753)	(\$73,691,437)	(\$42,524,811)	(\$29,286,475)	-768
Irion	(\$7,068,158)	(\$2,894,682)	(\$1,549,431)	(\$894,414)	-26
Jack	(\$62,463,101)	(\$31,034,645)	(\$18,105,332)	(\$10,647,014)	-324
Jackson	(\$95,811,804)	(\$49,251,466)	(\$27,847,680)	(\$17,583,823)	-518





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**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
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Jasper	(\$267,022,252)	(\$138,210,217)	(\$86,293,567)	(\$52,151,750)	-1,691
Jeff Davis	(\$17,148,132)	(\$8,597,704)	(\$5,274,927)	(\$2,965,558)	-100
Jefferson	(\$1,937,989,703)	(\$971,922,131)	(\$622,416,515)	(\$320,873,360)	-11,256
Jim Hogg	(\$34,943,627)	(\$17,612,551)	(\$9,818,888)	(\$7,059,751)	-186
Jim Wells	(\$207,461,439)	(\$114,938,368)	(\$68,413,156)	(\$39,185,542)	-1,279
Johnson	(\$874,149,434)	(\$437,155,769)	(\$276,347,235)	(\$148,298,444)	-5,159
Jones	(\$149,795,591)	(\$76,259,090)	(\$45,395,468)	(\$22,688,910)	-820
Karnes	(\$125,161,824)	(\$57,990,810)	(\$33,530,412)	(\$17,997,554)	-591
Kaufman	(\$579,578,389)	(\$286,694,594)	(\$178,124,478)	(\$100,051,482)	-3,406
Kendall	(\$233,653,605)	(\$109,503,085)	(\$65,317,761)	(\$36,437,978)	-1,202
Kenedy	(\$5,916,795)	(\$2,953,529)	(\$1,621,319)	(\$1,303,438)	-35
Kent	(\$5,477,440)	(\$2,593,201)	(\$1,473,105)	(\$779,758)	-25
Kerr	(\$491,378,363)	(\$247,708,841)	(\$148,746,989)	(\$84,664,559)	-2,845
Kimble	(\$50,138,692)	(\$22,124,630)	(\$12,529,340)	(\$7,747,370)	-232
King	(\$5,785,113)	(\$2,937,682)	(\$1,789,863)	(\$697,086)	-30
Kinney	(\$31,862,667)	(\$15,059,702)	(\$8,221,623)	(\$4,931,181)	-154
Kleberg	(\$184,336,823)	(\$93,790,172)	(\$55,543,489)	(\$30,246,496)	-1,025
Knox	(\$32,151,978)	(\$16,990,954)	(\$9,909,101)	(\$4,538,482)	-169
La Salle	(\$24,680,781)	(\$13,340,971)	(\$7,855,487)	(\$5,125,092)	-156
Lamar	(\$376,076,828)	(\$188,975,464)	(\$119,190,752)	(\$70,613,510)	-2,329
Lamb	(\$61,965,929)	(\$28,947,355)	(\$17,650,210)	(\$10,361,167)	-322
Lampasas	(\$155,931,091)	(\$79,435,270)	(\$49,050,773)	(\$29,063,555)	-973
Lavaca	(\$178,878,093)	(\$97,255,230)	(\$60,482,306)	(\$32,913,419)	-1,137
Lee	(\$116,177,332)	(\$58,456,493)	(\$34,498,494)	(\$18,588,648)	-622
Leon	(\$107,467,998)	(\$56,859,088)	(\$33,047,052)	(\$22,872,881)	-640
Liberty	(\$564,970,573)	(\$292,332,906)	(\$177,916,007)	(\$90,622,479)	-3,183
Limestone	(\$165,717,464)	(\$86,437,851)	(\$53,537,702)	(\$31,682,921)	-1,006
Lipscomb	(\$17,721,788)	(\$8,283,004)	(\$4,382,288)	(\$2,044,890)	-73
Live Oak	(\$98,164,031)	(\$46,823,189)	(\$27,674,558)	(\$16,759,248)	-506
Llano	(\$266,302,311)	(\$131,679,846)	(\$79,400,729)	(\$45,685,872)	-1,536
Loving	(\$3,234,725)	(\$1,434,543)	(\$658,900)	(\$240,537)	-9
Lubbock	(\$1,648,164,735)	(\$863,040,941)	(\$533,134,583)	(\$260,307,487)	-9,727
Lynn	(\$23,635,727)	(\$11,536,302)	(\$6,854,467)	(\$2,630,698)	-115
Madison	(\$76,284,859)	(\$39,364,987)	(\$23,369,985)	(\$15,745,312)	-470
Marion	(\$105,384,040)	(\$54,144,485)	(\$32,763,699)	(\$19,681,641)	-642
Martin	(\$27,084,276)	(\$12,968,602)	(\$7,510,208)	(\$3,732,533)	-127
Mason	(\$43,896,252)	(\$21,836,678)	(\$12,487,097)	(\$6,937,376)	-231
Matagorda	(\$263,891,756)	(\$121,746,163)	(\$73,352,256)	(\$46,227,427)	-1,360
Maverick	(\$188,092,157)	(\$97,312,772)	(\$58,910,568)	(\$35,622,161)	-1,164
McCulloch	(\$71,369,600)	(\$37,334,311)	(\$23,448,596)	(\$13,248,321)	-440



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McLennan	(\$1,769,529,667)	(\$858,432,191)	(\$521,490,404)	(\$264,765,388)	-9,693
McMullen	(\$2,225,436)	(\$1,034,577)	(\$562,780)	(\$241,309)	-9
Medina	(\$244,655,735)	(\$118,386,942)	(\$70,395,267)	(\$41,251,310)	-1,366
Menard	(\$21,601,971)	(\$11,210,158)	(\$6,362,591)	(\$4,186,901)	-119
Midland	(\$677,903,387)	(\$344,185,450)	(\$200,484,291)	(\$100,036,146)	-3,448
Milam	(\$164,675,441)	(\$83,366,715)	(\$51,710,526)	(\$30,497,622)	-980
Mills	(\$31,438,154)	(\$18,942,485)	(\$12,330,342)	(\$7,506,460)	-242
Mitchell	(\$66,272,616)	(\$34,575,762)	(\$20,545,356)	(\$11,570,170)	-374
Montague	(\$199,685,605)	(\$98,139,535)	(\$56,663,464)	(\$32,117,056)	-1,060
Montgomery	(\$2,714,851,548)	(\$1,308,544,055)	(\$779,533,102)	(\$343,817,207)	-13,311
Moore	(\$90,397,254)	(\$39,267,212)	(\$22,421,810)	(\$12,340,198)	-388
Morris	(\$98,401,612)	(\$43,577,873)	(\$26,946,799)	(\$11,385,816)	-454
Motley	(\$13,893,659)	(\$6,638,166)	(\$3,706,016)	(\$2,156,241)	-68
Nacogdoches	(\$353,995,428)	(\$189,755,885)	(\$120,492,422)	(\$71,803,743)	-2,404
Navarro	(\$367,035,611)	(\$183,701,961)	(\$114,556,033)	(\$58,911,629)	-2,147
Newton	(\$57,634,580)	(\$35,551,754)	(\$23,501,120)	(\$15,117,058)	-450
Nolan	(\$139,462,677)	(\$73,390,273)	(\$43,033,968)	(\$23,696,310)	-784
Nueces	(\$2,461,753,170)	(\$1,154,763,433)	(\$691,519,233)	(\$330,648,602)	-12,040
Ochiltree	(\$36,111,358)	(\$17,166,305)	(\$9,641,926)	(\$5,103,503)	-165
Oldham	(\$2,642,198)	(\$1,464,760)	(\$921,728)	(\$800,231)	-21
Orange	(\$615,195,956)	(\$305,221,592)	(\$191,861,852)	(\$109,231,017)	-3,537
Palo Pinto	(\$266,901,991)	(\$126,101,936)	(\$73,563,341)	(\$41,429,049)	-1,353
Panola	(\$188,191,756)	(\$95,750,084)	(\$57,239,762)	(\$30,448,644)	-1,031
Parker	(\$713,108,939)	(\$334,974,751)	(\$198,889,471)	(\$110,182,202)	-3,669
Parmer	(\$16,829,391)	(\$7,582,514)	(\$4,537,604)	(\$1,454,120)	-77
Pecos	(\$77,001,899)	(\$38,602,036)	(\$22,255,903)	(\$14,183,601)	-424
Polk	(\$505,399,028)	(\$260,939,624)	(\$155,127,665)	(\$90,622,937)	-2,850
Potter	(\$890,428,347)	(\$464,950,055)	(\$276,524,901)	(\$135,344,414)	-4,924
Presidio	(\$32,316,343)	(\$15,479,022)	(\$9,246,856)	(\$5,815,622)	-177
Rains	(\$90,519,730)	(\$41,979,721)	(\$23,763,209)	(\$16,379,489)	-452
Randall	(\$695,165,676)	(\$361,611,611)	(\$218,042,777)	(\$114,149,650)	-3,998
Reagan	(\$13,152,885)	(\$6,732,843)	(\$3,702,535)	(\$2,548,586)	-66
Real	(\$41,049,240)	(\$19,045,424)	(\$10,941,090)	(\$6,124,471)	-198
Red River	(\$135,773,314)	(\$66,105,901)	(\$39,739,794)	(\$22,473,705)	-753
Reeves	(\$69,033,734)	(\$35,342,035)	(\$20,475,147)	(\$14,308,887)	-398
Refugio	(\$54,479,365)	(\$27,096,835)	(\$14,928,616)	(\$12,248,942)	-295
Roberts	(\$3,330,450)	(\$1,491,253)	(\$812,621)	(\$672,495)	-16
Robertson	(\$126,622,287)	(\$63,152,020)	(\$39,341,356)	(\$25,995,497)	-782
Rockwall	(\$301,049,802)	(\$154,393,745)	(\$95,781,715)	(\$50,872,151)	-1,791
Runnels	(\$107,997,026)	(\$48,836,127)	(\$27,807,034)	(\$15,289,999)	-497





(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Rusk	(\$379,190,988)	(\$185,221,440)	(\$111,491,510)	(\$56,340,292)	-1,983
Sabine	(\$94,196,635)	(\$47,266,630)	(\$30,579,169)	(\$17,812,403)	-581
San Augustine	(\$90,295,063)	(\$43,999,221)	(\$25,798,192)	(\$14,149,450)	-479
San Jacinto	(\$191,086,019)	(\$94,214,483)	(\$57,460,029)	(\$34,185,736)	-1,100
San Patricio	(\$443,320,382)	(\$210,162,944)	(\$126,748,533)	(\$75,195,761)	-2,358
San Saba	(\$43,672,637)	(\$23,403,319)	(\$14,346,092)	(\$9,247,894)	-288
Schleicher	(\$11,996,548)	(\$6,225,589)	(\$3,753,419)	(\$1,302,921)	-63
Scurry	(\$97,826,431)	(\$52,930,597)	(\$30,172,130)	(\$20,086,687)	-572
Shackelford	(\$23,816,966)	(\$11,953,200)	(\$6,691,714)	(\$3,755,425)	-120
Shelby	(\$145,518,015)	(\$78,660,805)	(\$51,488,524)	(\$30,123,515)	-999
Sherman	(\$5,058,864)	(\$2,282,963)	(\$1,319,236)	(\$697,523)	-25
Smith	(\$1,638,079,657)	(\$812,492,609)	(\$473,039,182)	(\$235,153,557)	-8,411
Somervell	(\$29,947,287)	(\$14,189,644)	(\$9,049,265)	(\$3,299,020)	-161
Starr	(\$147,171,926)	(\$83,360,869)	(\$52,690,177)	(\$34,436,308)	-1,063
Stephens	(\$71,499,632)	(\$38,691,809)	(\$22,704,808)	(\$15,206,578)	-427
Sterling	(\$3,366,141)	(\$1,916,043)	(\$1,162,894)	(\$857,816)	-23
Stonewall	(\$11,852,551)	(\$6,627,803)	(\$3,919,829)	(\$2,572,996)	-75
Sutton	(\$26,022,258)	(\$13,601,363)	(\$7,839,731)	(\$5,186,280)	-147
Swisher	(\$29,849,703)	(\$13,780,472)	(\$8,245,815)	(\$4,628,033)	-155
Tarrant	(\$10,216,069,354)	(\$5,075,522,510)	(\$3,063,706,395)	(\$1,385,386,131)	-53,481
Taylor	(\$973,856,947)	(\$487,558,473)	(\$288,533,527)	(\$139,461,393)	-5,091
Terrell	(\$4,084,682)	(\$2,353,140)	(\$1,463,760)	(\$758,593)	-26
Terry	(\$62,934,571)	(\$32,134,839)	(\$17,599,272)	(\$12,526,916)	-333
Throckmorton	(\$9,167,592)	(\$4,741,047)	(\$2,599,546)	(\$1,502,673)	-46
Titus	(\$147,228,662)	(\$72,587,549)	(\$45,687,955)	(\$29,834,201)	-892
Tom Green	(\$777,691,680)	(\$382,777,330)	(\$222,061,354)	(\$117,105,021)	-4,120
Travis	(\$3,687,651,804)	(\$1,939,007,492)	(\$1,200,513,119)	(\$541,686,124)	-21,173
Trinity	(\$151,908,814)	(\$83,031,640)	(\$50,878,835)	(\$30,321,483)	-997
Tyler	(\$167,028,376)	(\$87,011,668)	(\$54,266,227)	(\$31,387,629)	-1,035
Upshur	(\$315,998,094)	(\$158,753,012)	(\$94,438,976)	(\$54,490,896)	-1,740
Upton	(\$17,533,730)	(\$8,832,459)	(\$4,974,085)	(\$2,575,791)	-87
Uvalde	(\$155,933,363)	(\$81,708,725)	(\$50,478,259)	(\$27,807,781)	-972
Val Verde	(\$204,103,651)	(\$114,551,168)	(\$73,175,744)	(\$39,870,249)	-1,402
Van Zandt	(\$365,731,313)	(\$206,273,137)	(\$126,962,043)	(\$74,740,692)	-2,466
Victoria	(\$663,198,452)	(\$327,227,988)	(\$196,470,989)	(\$97,682,688)	-3,414
Walker	(\$435,632,815)	(\$228,856,376)	(\$144,886,576)	(\$80,113,398)	-2,785
Waller	(\$218,029,476)	(\$96,316,674)	(\$54,473,267)	(\$34,992,818)	-1,038
Ward	(\$68,813,389)	(\$35,304,050)	(\$20,431,710)	(\$13,370,696)	-384
Washington	(\$249,482,772)	(\$130,890,574)	(\$80,745,595)	(\$42,531,258)	-1,490
Webb	(\$712,588,373)	(\$374,407,169)	(\$220,793,930)	(\$124,135,611)	-4,096



(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Wharton	(\$304,991,345)	(\$160,440,316)	(\$96,131,569)	(\$54,582,723)	-1,784
Wheeler	(\$34,143,458)	(\$18,921,034)	(\$11,173,493)	(\$7,291,009)	-215
Wichita	(\$960,952,628)	(\$520,484,794)	(\$310,219,863)	(\$163,146,372)	-5,599
Wilbarger	(\$122,226,120)	(\$59,782,092)	(\$37,378,890)	(\$21,371,550)	-701
Willacy	(\$77,120,429)	(\$43,278,439)	(\$26,381,071)	(\$16,317,564)	-514
Williamson	(\$944,066,172)	(\$504,565,885)	(\$318,861,290)	(\$166,933,429)	-5,909
Wilson	(\$236,927,862)	(\$118,686,156)	(\$72,003,930)	(\$41,560,158)	-1,403
Winkler	(\$41,053,033)	(\$21,117,723)	(\$12,133,175)	(\$7,503,468)	-220
Wise	(\$314,895,800)	(\$162,750,719)	(\$95,199,611)	(\$54,930,854)	-1,737
Wood	(\$451,066,943)	(\$223,013,665)	(\$134,014,660)	(\$71,815,250)	-2,486
Yoakum	(\$29,209,138)	(\$14,563,210)	(\$8,252,082)	(\$5,417,436)	-153
Young	(\$179,966,167)	(\$92,841,146)	(\$53,873,284)	(\$31,572,388)	-975
Zapata	(\$44,962,086)	(\$23,392,549)	(\$13,936,401)	(\$9,064,332)	-270
Zavala	(\$34,048,232)	(\$20,187,163)	(\$13,367,679)	(\$9,345,288)	-285
<b>TOTAL STATE IMPACT</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$1,082,740,656)	(\$559,532,259)	(\$348,558,773)	(\$195,626,167)	-6,585
2	(\$972,960,829)	(\$510,471,516)	(\$314,153,599)	(\$191,363,959)	-6,091
3	(\$990,626,847)	(\$499,365,813)	(\$310,086,070)	(\$185,329,141)	-5,984
4	(\$1,396,766,166)	(\$688,004,185)	(\$419,487,148)	(\$229,720,117)	-7,923
5	(\$1,386,596,614)	(\$675,333,740)	(\$405,182,765)	(\$208,075,919)	-7,247
6	(\$1,343,225,319)	(\$666,243,939)	(\$387,892,129)	(\$192,825,916)	-6,897
7	(\$1,277,311,132)	(\$665,994,393)	(\$401,070,077)	(\$197,245,877)	-7,103
8	(\$1,112,502,054)	(\$578,905,222)	(\$351,785,253)	(\$193,401,354)	-6,535
9	(\$951,027,394)	(\$497,892,758)	(\$314,651,874)	(\$186,040,861)	-6,154
10	(\$1,028,068,601)	(\$483,191,531)	(\$292,919,074)	(\$172,025,504)	-5,567
11	(\$1,115,517,384)	(\$557,752,866)	(\$344,397,053)	(\$174,150,120)	-6,181
12	(\$1,096,711,604)	(\$561,719,314)	(\$349,513,975)	(\$198,956,112)	-6,662
13	(\$1,026,350,300)	(\$525,882,660)	(\$327,161,561)	(\$173,394,164)	-6,054
14	(\$665,203,642)	(\$338,475,736)	(\$204,127,395)	(\$101,605,053)	-3,748
15	(\$1,221,683,196)	(\$588,844,825)	(\$350,789,896)	(\$154,717,743)	-5,990
16	(\$1,248,831,712)	(\$601,930,265)	(\$358,585,227)	(\$158,155,915)	-6,123
17	(\$1,147,499,810)	(\$580,484,222)	(\$349,199,018)	(\$193,730,791)	-6,543
18	(\$1,314,706,240)	(\$671,041,495)	(\$403,201,651)	(\$212,188,964)	-7,231
19	(\$958,264,259)	(\$481,726,157)	(\$297,414,400)	(\$173,610,951)	-5,512
20	(\$589,505,219)	(\$310,421,363)	(\$195,198,106)	(\$105,617,664)	-3,639
21	(\$1,027,134,543)	(\$515,118,729)	(\$329,880,753)	(\$170,062,881)	-5,966
22	(\$1,009,286,513)	(\$505,638,856)	(\$323,233,658)	(\$168,287,442)	-5,856
23	(\$1,211,880,768)	(\$566,276,181)	(\$340,556,498)	(\$174,228,410)	-6,119
24	(\$1,212,262,462)	(\$575,907,497)	(\$349,831,100)	(\$181,651,351)	-6,356
25	(\$853,785,806)	(\$409,029,509)	(\$249,253,522)	(\$138,824,579)	-4,527
26	(\$919,720,443)	(\$432,818,111)	(\$253,938,092)	(\$120,336,214)	-4,313
27	(\$919,720,443)	(\$432,818,111)	(\$253,938,092)	(\$120,336,214)	-4,313
28	(\$954,494,609)	(\$459,807,462)	(\$269,736,287)	(\$146,029,567)	-4,845
29	(\$907,975,785)	(\$430,312,285)	(\$261,385,614)	(\$150,954,741)	-4,775
30	(\$1,174,111,039)	(\$593,429,017)	(\$357,091,067)	(\$191,919,496)	-6,439
31	(\$474,578,077)	(\$252,958,436)	(\$152,400,015)	(\$90,453,494)	-2,914
32	(\$1,100,525,358)	(\$511,065,310)	(\$302,811,230)	(\$167,395,242)	-5,468
33	(\$1,095,480,161)	(\$513,869,728)	(\$307,726,059)	(\$147,138,628)	-5,358
34	(\$1,095,480,161)	(\$513,869,728)	(\$307,726,059)	(\$147,138,628)	-5,358
35	(\$905,572,174)	(\$460,051,617)	(\$272,652,106)	(\$152,298,341)	-4,974
36	(\$590,931,733)	(\$316,436,689)	(\$197,559,967)	(\$103,086,023)	-3,750
37	(\$661,904,632)	(\$337,917,002)	(\$208,911,044)	(\$110,432,766)	-3,997
38	(\$661,904,632)	(\$337,917,002)	(\$208,911,044)	(\$110,432,766)	-3,997
39	(\$590,931,733)	(\$316,436,689)	(\$197,559,967)	(\$103,086,023)	-3,750
40	(\$590,931,733)	(\$316,436,689)	(\$197,559,967)	(\$103,086,023)	-3,750



(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
41	(\$590,931,733)	(\$316,436,689)	(\$197,559,967)	(\$103,086,023)	-3,750
42	(\$498,811,861)	(\$262,085,018)	(\$154,555,751)	(\$86,894,928)	-2,868
43	(\$666,410,536)	(\$344,892,565)	(\$209,126,585)	(\$117,019,821)	-3,975
44	(\$903,456,092)	(\$451,208,934)	(\$275,339,611)	(\$164,822,587)	-5,307
45	(\$863,788,402)	(\$438,543,625)	(\$268,094,656)	(\$143,625,044)	-5,002
46	(\$626,900,807)	(\$329,631,274)	(\$204,087,230)	(\$92,086,641)	-3,599
47	(\$626,900,807)	(\$329,631,274)	(\$204,087,230)	(\$92,086,641)	-3,599
48	(\$590,024,289)	(\$310,241,199)	(\$192,082,099)	(\$86,669,780)	-3,388
49	(\$626,900,807)	(\$329,631,274)	(\$204,087,230)	(\$92,086,641)	-3,599
50	(\$590,024,289)	(\$310,241,199)	(\$192,082,099)	(\$86,669,780)	-3,388
51	(\$626,900,807)	(\$329,631,274)	(\$204,087,230)	(\$92,086,641)	-3,599
52	(\$519,236,394)	(\$277,511,237)	(\$175,373,710)	(\$91,813,386)	-3,250
53	(\$1,434,467,926)	(\$713,573,082)	(\$424,122,754)	(\$243,378,359)	-8,010
54	(\$1,023,831,691)	(\$527,173,828)	(\$327,224,026)	(\$178,358,406)	-6,202
55	(\$811,962,456)	(\$436,146,053)	(\$276,893,004)	(\$147,307,859)	-5,252
56	(\$1,132,498,987)	(\$549,396,602)	(\$333,753,859)	(\$169,449,848)	-6,204
57	(\$1,080,231,964)	(\$539,362,810)	(\$328,382,550)	(\$184,067,652)	-6,234
58	(\$1,022,425,714)	(\$511,526,427)	(\$323,052,709)	(\$171,433,682)	-6,024
59	(\$730,911,104)	(\$381,718,087)	(\$238,916,157)	(\$138,708,659)	-4,648
60	(\$1,251,221,368)	(\$626,334,411)	(\$379,571,900)	(\$224,306,610)	-7,231
61	(\$1,028,004,739)	(\$497,725,469)	(\$294,089,082)	(\$165,113,057)	-5,406
62	(\$1,149,440,118)	(\$600,727,999)	(\$379,051,524)	(\$213,612,287)	-7,257
63	(\$777,875,767)	(\$378,424,849)	(\$231,443,293)	(\$109,209,202)	-4,109
64	(\$801,447,760)	(\$389,892,269)	(\$238,456,727)	(\$112,518,572)	-4,233
65	(\$777,875,767)	(\$378,424,849)	(\$231,443,293)	(\$109,209,202)	-4,109
66	(\$693,000,515)	(\$357,796,417)	(\$220,106,953)	(\$107,691,194)	-3,937
67	(\$693,000,515)	(\$357,796,417)	(\$220,106,953)	(\$107,691,194)	-3,937
68	(\$1,184,860,573)	(\$598,207,367)	(\$357,290,030)	(\$197,025,410)	-6,478
69	(\$1,008,224,374)	(\$544,622,264)	(\$323,811,358)	(\$171,334,353)	-5,853
70	(\$693,000,515)	(\$357,796,417)	(\$220,106,953)	(\$107,691,194)	-3,937
71	(\$1,113,319,625)	(\$560,948,747)	(\$331,567,495)	(\$163,157,703)	-5,875
72	(\$985,166,200)	(\$491,291,302)	(\$284,908,933)	(\$155,691,178)	-5,278
73	(\$1,320,942,383)	(\$644,075,598)	(\$389,469,919)	(\$218,875,527)	-7,452
74	(\$712,769,740)	(\$377,351,713)	(\$230,346,746)	(\$135,811,189)	-4,413
75	(\$855,839,595)	(\$419,184,097)	(\$253,415,735)	(\$120,157,339)	-4,582
76	(\$855,839,595)	(\$419,184,097)	(\$253,415,735)	(\$120,157,339)	-4,582
77	(\$855,839,595)	(\$419,184,097)	(\$253,415,735)	(\$120,157,339)	-4,582
78	(\$855,839,595)	(\$419,184,097)	(\$253,415,735)	(\$120,157,339)	-4,582
79	(\$855,839,595)	(\$419,184,097)	(\$253,415,735)	(\$120,157,339)	-4,582
80	(\$651,476,700)	(\$328,306,955)	(\$196,169,937)	(\$117,993,910)	-3,822



(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
81	(\$986,404,282)	(\$493,710,139)	(\$294,437,185)	(\$150,984,838)	-5,134
82	(\$826,409,134)	(\$418,558,296)	(\$242,654,840)	(\$123,884,675)	-4,203
83	(\$878,568,185)	(\$455,090,721)	(\$275,866,482)	(\$140,899,142)	-5,040
84	(\$988,898,841)	(\$517,824,564)	(\$319,880,750)	(\$156,184,492)	-5,836
85	(\$826,482,733)	(\$418,013,452)	(\$248,409,846)	(\$140,075,887)	-4,569
86	(\$785,370,851)	(\$406,637,928)	(\$245,203,014)	(\$128,304,661)	-4,507
87	(\$1,004,576,332)	(\$514,231,323)	(\$304,128,667)	(\$149,834,490)	-5,399
88	(\$796,019,578)	(\$385,687,985)	(\$227,761,203)	(\$136,206,515)	-4,160
89	(\$788,716,831)	(\$406,176,409)	(\$250,671,793)	(\$126,654,843)	-4,562
90	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
91	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
92	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
93	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
94	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
95	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
96	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
97	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
98	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
99	(\$1,021,606,935)	(\$507,552,251)	(\$306,370,639)	(\$138,538,613)	-5,348
100	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
101	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
102	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
103	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
104	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
105	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
106	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
107	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
108	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
109	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
110	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
111	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
112	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
113	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
114	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
115	(\$864,810,525)	(\$422,354,861)	(\$247,477,632)	(\$93,115,943)	-4,045
116	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
117	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
118	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
119	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
120	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408



(continued)  
**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
121	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
122	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
123	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
124	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
125	(\$964,968,803)	(\$489,076,974)	(\$301,320,566)	(\$140,733,462)	-5,408
126	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
127	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
128	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
129	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
130	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
131	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
132	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
133	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
134	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
135	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
136	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
137	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
138	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
139	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
140	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
141	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
142	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
143	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
144	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
145	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
146	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
147	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
148	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
149	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
150	(\$958,304,637)	(\$439,068,095)	(\$258,187,037)	(\$88,510,915)	-4,058
<b>TOTAL</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

NOTE: Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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





**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by Texas Senate District**

Senate District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$5,734,821,034)	(\$2,887,678,001)	(\$1,748,062,183)	(\$921,851,097)	-31,851
2	(\$4,825,484,248)	(\$2,420,792,319)	(\$1,460,115,311)	(\$716,603,387)	-26,161
3	(\$5,875,815,364)	(\$2,973,122,927)	(\$1,813,250,254)	(\$980,502,225)	-33,530
4	(\$5,090,676,690)	(\$2,483,708,594)	(\$1,521,769,618)	(\$725,335,176)	-26,590
5	(\$3,663,088,430)	(\$1,900,287,209)	(\$1,170,765,608)	(\$639,497,170)	-21,840
6	(\$4,551,947,027)	(\$2,085,573,453)	(\$1,226,388,427)	(\$420,426,848)	-19,277
7	(\$4,791,523,186)	(\$2,195,340,477)	(\$1,290,935,186)	(\$442,554,577)	-20,292
8	(\$3,824,253,026)	(\$1,930,032,510)	(\$1,164,592,357)	(\$518,338,295)	-20,128
9	(\$4,314,898,414)	(\$2,117,186,437)	(\$1,267,532,382)	(\$542,345,063)	-21,678
10	(\$5,005,873,984)	(\$2,487,006,030)	(\$1,501,216,133)	(\$678,839,204)	-26,206
11	(\$5,052,970,437)	(\$2,368,037,391)	(\$1,420,190,240)	(\$645,826,492)	-24,378
12	(\$4,487,105,449)	(\$2,221,965,919)	(\$1,343,974,360)	(\$611,873,961)	-23,523
13	(\$4,572,395,936)	(\$2,101,150,478)	(\$1,235,236,588)	(\$441,539,211)	-19,591
14	(\$3,171,380,552)	(\$1,667,546,443)	(\$1,032,441,282)	(\$465,850,067)	-18,209
15	(\$4,791,523,186)	(\$2,195,340,477)	(\$1,290,935,186)	(\$442,554,577)	-20,292
16	(\$4,151,090,522)	(\$2,027,303,332)	(\$1,187,892,633)	(\$446,956,528)	-19,414
17	(\$4,984,196,143)	(\$2,329,430,405)	(\$1,389,292,504)	(\$579,565,495)	-23,064
18	(\$5,005,561,400)	(\$2,454,285,862)	(\$1,466,636,978)	(\$789,979,803)	-26,553
19	(\$4,046,328,537)	(\$2,052,722,604)	(\$1,251,589,468)	(\$643,362,739)	-23,043
20	(\$4,002,404,968)	(\$1,984,161,891)	(\$1,205,870,614)	(\$603,499,583)	-21,787
21	(\$3,389,757,096)	(\$1,716,271,694)	(\$1,032,703,324)	(\$565,754,328)	-19,100
22	(\$5,091,290,909)	(\$2,488,639,718)	(\$1,531,781,499)	(\$823,385,656)	-28,778
23	(\$4,289,460,206)	(\$2,094,880,110)	(\$1,227,489,054)	(\$461,855,079)	-20,061
24	(\$5,173,721,461)	(\$2,658,286,370)	(\$1,627,411,019)	(\$895,272,495)	-30,672
25	(\$4,573,305,788)	(\$2,305,799,807)	(\$1,414,442,164)	(\$718,655,933)	-26,012
26	(\$4,438,856,492)	(\$2,249,754,082)	(\$1,386,074,603)	(\$647,373,924)	-24,875
27	(\$2,985,812,748)	(\$1,554,400,686)	(\$961,431,431)	(\$509,504,254)	-18,317
28	(\$4,391,120,644)	(\$2,242,596,594)	(\$1,344,932,308)	(\$717,858,096)	-24,737
29	(\$4,022,446,097)	(\$1,970,165,258)	(\$1,191,053,955)	(\$564,739,494)	-21,535
30	(\$5,118,570,202)	(\$2,601,665,439)	(\$1,567,690,270)	(\$850,293,412)	-28,728
31	(\$4,096,261,392)	(\$2,067,025,596)	(\$1,222,512,350)	(\$630,716,078)	-21,648
<b>TOTAL</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

NOTE: Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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



**The Total Annual Impact of Losses (Treatment, Morbidity, and Mortality)  
Associated with the Incidence of Cancer on Business Activity:  
Results by US Congressional District in Texas**

US Congressional District in Texas	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$5,444,876,687)	(\$2,749,581,658)	(\$1,659,901,453)	(\$861,292,359)	-30,090
2	(\$4,740,530,109)	(\$2,280,072,062)	(\$1,395,983,633)	(\$607,398,833)	-23,694
3	(\$3,688,104,382)	(\$1,857,807,146)	(\$1,119,173,693)	(\$493,879,068)	-19,285
4	(\$4,619,353,055)	(\$2,369,596,632)	(\$1,476,091,255)	(\$834,602,245)	-27,981
5	(\$4,885,440,098)	(\$2,454,373,544)	(\$1,476,259,786)	(\$716,102,596)	-26,410
6	(\$4,657,400,785)	(\$2,301,840,531)	(\$1,394,946,422)	(\$682,959,133)	-24,875
7	(\$4,551,947,027)	(\$2,085,573,453)	(\$1,226,388,427)	(\$420,426,848)	-19,277
8	(\$5,590,090,875)	(\$2,781,670,866)	(\$1,687,040,822)	(\$867,540,184)	-30,359
9	(\$4,595,105,083)	(\$2,111,837,345)	(\$1,241,506,665)	(\$444,510,475)	-19,697
10	(\$3,993,391,865)	(\$1,949,709,704)	(\$1,173,286,557)	(\$510,210,688)	-20,020
11	(\$4,918,281,834)	(\$2,477,348,605)	(\$1,472,276,005)	(\$805,029,185)	-26,974
12	(\$4,654,709,360)	(\$2,299,535,960)	(\$1,381,704,852)	(\$656,925,133)	-24,392
13	(\$4,637,133,884)	(\$2,376,522,897)	(\$1,413,523,069)	(\$754,628,155)	-25,615
14	(\$4,972,088,863)	(\$2,374,455,632)	(\$1,426,266,017)	(\$763,576,400)	-25,673
15	(\$3,170,519,164)	(\$1,654,961,592)	(\$1,015,378,272)	(\$552,586,054)	-19,173
16	(\$4,108,030,057)	(\$2,012,083,668)	(\$1,216,395,529)	(\$576,755,228)	-21,993
17	(\$4,687,216,009)	(\$2,312,781,086)	(\$1,417,827,977)	(\$754,899,724)	-26,582
18	(\$4,551,947,027)	(\$2,085,573,453)	(\$1,226,388,427)	(\$420,426,848)	-19,277
19	(\$4,234,759,422)	(\$2,159,139,364)	(\$1,296,795,588)	(\$679,272,245)	-23,606
20	(\$4,535,353,372)	(\$2,298,661,779)	(\$1,416,206,659)	(\$661,447,271)	-25,416
21	(\$4,681,431,735)	(\$2,356,076,112)	(\$1,439,767,681)	(\$718,408,173)	-26,361
22	(\$4,569,019,420)	(\$2,128,659,968)	(\$1,258,923,250)	(\$535,696,978)	-20,936
23	(\$3,994,770,304)	(\$2,036,954,475)	(\$1,248,452,704)	(\$633,500,945)	-22,972
24	(\$4,173,683,495)	(\$2,050,198,115)	(\$1,221,824,671)	(\$510,711,058)	-20,718
25	(\$3,597,408,147)	(\$1,866,269,010)	(\$1,147,472,170)	(\$568,165,399)	-20,855
26	(\$4,299,830,608)	(\$2,116,226,703)	(\$1,282,887,641)	(\$592,334,438)	-22,514
27	(\$4,206,343,405)	(\$2,039,724,905)	(\$1,233,797,208)	(\$625,678,301)	-22,353
28	(\$3,014,395,606)	(\$1,558,621,904)	(\$945,592,168)	(\$531,306,404)	-17,837
29	(\$4,551,947,027)	(\$2,085,573,453)	(\$1,226,388,427)	(\$420,426,848)	-19,277
30	(\$4,012,720,838)	(\$1,959,726,554)	(\$1,148,296,212)	(\$432,057,977)	-18,767
31	(\$3,163,391,189)	(\$1,681,273,383)	(\$1,061,169,839)	(\$577,897,078)	-20,123
32	(\$4,012,720,838)	(\$1,959,726,554)	(\$1,148,296,212)	(\$432,057,977)	-18,767
<b>TOTAL</b>	<b>(\$139,513,941,570)</b>	<b>(\$68,832,158,114)</b>	<b>(\$41,496,209,290)</b>	<b>(\$19,642,710,251)</b>	<b>-731,870</b>

NOTE: Allocations reflect best available evidence regarding mortality and incidence and industrial structure and composition of each area.

In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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





**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity in Texas  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	(\$721,641,409)	(\$188,946,339)	(\$128,683,010)	-2,079
Forestry & Fishery Products	(\$23,344,455)	(\$15,277,296)	(\$5,666,028)	-67
Coal Mining	(\$74,358,799)	(\$21,652,307)	(\$22,816,325)	-146
Crude Petroleum & Natural Gas	(\$1,110,638,432)	(\$243,555,962)	(\$112,327,753)	-550
Miscellaneous Mining	(\$27,802,947)	(\$11,860,532)	(\$6,972,097)	-67
New Construction	(\$144,760,666)	(\$63,704,042)	(\$52,496,140)	-759
Maintenance & Repair Construction	(\$880,613,681)	(\$458,999,616)	(\$378,244,324)	-5,442
Food Products & Tobacco	(\$1,429,801,638)	(\$361,308,144)	(\$184,573,442)	-3,140
Textile Mill Products	(\$21,369,117)	(\$4,791,251)	(\$4,053,809)	-82
Apparel	(\$293,990,539)	(\$162,876,539)	(\$82,532,021)	-2,274
Paper & Allied Products	(\$236,698,292)	(\$104,874,230)	(\$47,412,937)	-711
Printing & Publishing	(\$355,122,646)	(\$174,525,653)	(\$113,916,768)	-1,956
Chemicals & Petroleum Refining	(\$1,902,503,578)	(\$353,065,670)	(\$165,784,857)	-1,232
Rubber & Leather Products	(\$222,813,380)	(\$96,375,857)	(\$56,340,676)	-1,115
Lumber Products & Furniture	(\$98,421,809)	(\$34,251,719)	(\$24,419,563)	-498
Stone, Clay, & Glass Products	(\$135,399,670)	(\$71,515,314)	(\$37,402,690)	-607
Primary Metal	(\$140,492,277)	(\$37,322,581)	(\$27,781,041)	-398
Fabricated Metal Products	(\$276,762,343)	(\$101,942,079)	(\$65,813,992)	-1,134
Machinery, Except Electrical	(\$293,415,976)	(\$116,650,927)	(\$83,335,760)	-882
Electric & Electronic Equipment	(\$224,230,998)	(\$125,449,540)	(\$74,997,951)	-614
Motor Vehicles & Equipment	(\$143,064,111)	(\$31,531,437)	(\$20,484,832)	-281
Transp. Equip., Exc. Motor Vehicles	(\$81,948,874)	(\$38,610,033)	(\$25,230,304)	-296
Instruments & Related Products	(\$69,276,136)	(\$28,075,588)	(\$21,339,810)	-269
Miscellaneous Manufacturing	(\$90,563,037)	(\$34,979,859)	(\$24,126,095)	-374
Transportation	(\$2,771,237,929)	(\$1,182,214,660)	(\$781,874,557)	-11,055
Communication	(\$962,218,978)	(\$592,434,676)	(\$252,929,357)	-2,260
Electric, Gas, Water, Sanitary Services	(\$1,950,639,040)	(\$440,940,365)	(\$192,414,535)	-817
Wholesale Trade	(\$1,315,445,419)	(\$890,055,878)	(\$513,214,063)	-5,863
Retail Trade	(\$3,583,025,087)	(\$2,969,384,738)	(\$1,775,597,053)	-47,695
Finance	(\$677,165,852)	(\$383,105,880)	(\$223,083,567)	-2,002
Insurance	(\$1,944,367,292)	(\$1,198,700,417)	(\$716,630,336)	-8,811
Real Estate	(\$5,088,648,266)	(\$1,055,853,417)	(\$170,120,776)	-1,528
Hotels, Lodging Places, Amusements	(\$510,748,498)	(\$263,089,248)	(\$172,595,631)	-4,277
Personal Services	(\$739,829,798)	(\$454,256,842)	(\$353,419,294)	-6,077
Business Services	(\$2,375,656,623)	(\$1,511,049,573)	(\$1,232,629,232)	-15,345
Eating & Drinking Places	(\$1,702,573,373)	(\$997,198,053)	(\$530,562,623)	-24,569
Health Services	(\$6,917,217,797)	(\$5,116,255,944)	(\$4,325,841,732)	-73,219
Miscellaneous Services	(\$1,178,518,394)	(\$509,750,853)	(\$441,911,389)	-10,794
Households	(\$53,806,103)	(\$53,806,103)	(\$52,667,382)	-3,701
<b>Total</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>-242,982</b>

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Comptroller's Economic Region Results**

<b>Economic Region</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
High Plains	(\$1,390,467,751)	(\$718,821,604)	(\$473,864,510)	(\$204,246,212)	-8,716
Northwest Texas	(\$1,137,842,690)	(\$595,905,309)	(\$396,819,701)	(\$176,956,943)	-7,396
Metroplex	(\$10,606,422,047)	(\$5,318,946,429)	(\$3,468,579,970)	(\$1,304,719,977)	-61,669
Upper East Texas	(\$2,440,377,949)	(\$1,261,281,191)	(\$843,972,199)	(\$361,546,663)	-15,627
Southeast Texas	(\$1,660,192,021)	(\$867,130,354)	(\$587,954,751)	(\$260,693,989)	-10,925
Gulf Coast	(\$9,893,653,926)	(\$4,692,969,706)	(\$3,070,246,245)	(\$1,050,805,077)	-53,080
Capital	(\$2,199,257,567)	(\$1,162,310,108)	(\$766,861,258)	(\$312,617,798)	-13,897
Central Texas	(\$1,865,504,596)	(\$973,538,011)	(\$648,111,370)	(\$279,329,468)	-12,102
Alamo	(\$4,332,473,076)	(\$2,229,410,555)	(\$1,474,075,388)	(\$588,469,061)	-26,844
South Texas	(\$2,960,616,484)	(\$1,529,463,429)	(\$1,021,772,340)	(\$439,225,631)	-19,074
West Texas	(\$924,522,077)	(\$466,399,722)	(\$306,665,877)	(\$138,863,525)	-5,661
Upper Rio Grande	(\$1,358,803,074)	(\$684,062,740)	(\$443,320,141)	(\$168,124,116)	-7,992
<b>TOTAL STATE IMPACT</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Council of Governments (COG) Region Results**

<b>COG</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Panhandle	(\$704,090,566)	(\$357,754,604)	(\$235,156,818)	(\$104,847,508)	-4,339
South Plains	(\$686,377,185)	(\$361,067,000)	(\$238,707,692)	(\$99,398,703)	-4,377
North Texas	(\$456,192,132)	(\$242,658,302)	(\$162,506,444)	(\$73,458,178)	-3,034
North Central Texas	(\$10,170,827,714)	(\$5,088,263,833)	(\$3,313,507,644)	(\$1,237,020,561)	-58,772
North East Texas	(\$566,133,320)	(\$295,931,119)	(\$199,910,745)	(\$89,767,257)	-3,742
East Texas	(\$1,874,244,629)	(\$965,350,072)	(\$644,061,454)	(\$271,779,406)	-11,885
West Central Texas	(\$681,650,559)	(\$353,247,007)	(\$234,313,258)	(\$103,498,765)	-4,362
Upper Rio Grande	(\$1,358,803,074)	(\$684,062,740)	(\$443,320,141)	(\$168,124,116)	-7,992
Permian Basin	(\$620,645,381)	(\$313,256,431)	(\$206,962,506)	(\$94,582,991)	-3,798
Concho Valley	(\$303,876,696)	(\$153,143,291)	(\$99,703,371)	(\$44,280,534)	-1,863
Heart of Texas	(\$769,042,304)	(\$390,968,655)	(\$257,533,662)	(\$106,688,635)	-4,779
Capital	(\$2,199,257,567)	(\$1,162,310,108)	(\$766,861,258)	(\$312,617,798)	-13,897
Brazos Valley	(\$447,848,690)	(\$233,468,164)	(\$155,065,234)	(\$70,242,123)	-2,905
Deep East Texas	(\$842,447,524)	(\$445,036,330)	(\$300,837,736)	(\$135,561,601)	-5,643
South East Texas	(\$817,744,497)	(\$422,094,024)	(\$287,117,015)	(\$125,132,388)	-5,281
Gulf Coast	(\$9,893,653,926)	(\$4,692,969,706)	(\$3,070,246,245)	(\$1,050,805,077)	-53,080
Golden Crescent	(\$376,616,217)	(\$192,912,088)	(\$129,638,966)	(\$57,105,042)	-2,397
Alamo	(\$3,955,856,859)	(\$2,036,498,467)	(\$1,344,436,422)	(\$531,364,020)	-24,448
South Texas	(\$283,711,093)	(\$151,674,395)	(\$102,488,018)	(\$48,706,467)	-1,953
Coastal Bend	(\$1,101,093,655)	(\$540,195,379)	(\$358,621,496)	(\$155,561,656)	-6,586
Lower Rio Grande Valley	(\$1,354,618,150)	(\$718,655,696)	(\$480,533,093)	(\$198,885,579)	-9,010
Texoma	(\$435,594,332)	(\$230,682,596)	(\$155,072,326)	(\$67,699,416)	-2,897
Central Texas	(\$648,613,602)	(\$349,101,192)	(\$235,512,474)	(\$102,398,709)	-4,418
Middle Rio Grande	(\$221,193,586)	(\$118,937,959)	(\$80,129,732)	(\$36,071,929)	-1,525
Border Region	(\$3,219,912,905)	(\$1,674,204,461)	(\$1,107,055,087)	(\$452,085,343)	-20,491
<b>TOTAL STATE IMPACT</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Metropolitan Statistical Area (MSA) and Rural Texas Results**

<b>MSA</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Abilene	(\$332,952,338)	(\$169,111,732)	(\$111,476,448)	(\$44,719,681)	-2,029
Amarillo	(\$465,314,255)	(\$243,368,143)	(\$160,638,059)	(\$66,314,106)	-2,934
Austin-Round Rock-San Marcos	(\$1,892,729,564)	(\$1,006,925,759)	(\$664,832,767)	(\$268,358,895)	-12,007
Beaumont-Port Arthur	(\$817,744,497)	(\$422,094,024)	(\$287,117,015)	(\$125,132,388)	-5,281
Brownsville-Harlingen	(\$548,418,551)	(\$284,676,235)	(\$188,449,652)	(\$77,661,622)	-3,531
College Station-Bryan	(\$288,843,377)	(\$149,581,501)	(\$99,318,698)	(\$43,466,323)	-1,854
Corpus Christi	(\$872,090,522)	(\$420,098,585)	(\$277,947,512)	(\$116,640,847)	-5,052
Dallas-Plano-Irving MD*	(\$6,194,601,429)	(\$3,083,990,648)	(\$1,993,865,651)	(\$719,335,270)	-34,904
Fort Worth-Arlington MD*	(\$3,608,866,218)	(\$1,816,928,993)	(\$1,194,556,486)	(\$462,409,122)	-21,524
El Paso	(\$1,318,808,601)	(\$663,071,849)	(\$429,497,094)	(\$161,168,020)	-7,729
Houston-Sugar Land-Baytown	(\$9,570,976,764)	(\$4,522,480,846)	(\$2,955,098,258)	(\$997,326,335)	-50,890
Killeen-Temple-Fort Hood	(\$562,169,631)	(\$303,544,650)	(\$204,673,182)	(\$87,335,734)	-3,831
Laredo	(\$215,436,930)	(\$113,990,244)	(\$76,476,521)	(\$35,135,838)	-1,443
Longview	(\$456,476,550)	(\$236,633,547)	(\$159,360,379)	(\$67,941,374)	-2,930
Lubbock	(\$524,948,372)	(\$279,062,661)	(\$185,086,784)	(\$71,806,346)	-3,360
McAllen-Edinburg-Mission	(\$779,288,284)	(\$419,056,955)	(\$282,140,084)	(\$116,290,889)	-5,288
Midland	(\$187,860,308)	(\$95,390,296)	(\$62,302,139)	(\$27,244,486)	-1,118
Odessa	(\$221,344,681)	(\$113,335,466)	(\$76,581,325)	(\$32,851,672)	-1,402
San Angelo	(\$218,666,492)	(\$109,921,319)	(\$71,273,902)	(\$30,042,049)	-1,329
San Antonio-New Braunfels	(\$3,694,610,091)	(\$1,902,336,673)	(\$1,255,509,802)	(\$491,901,728)	-22,781
Sherman-Denison	(\$269,567,665)	(\$145,992,937)	(\$98,546,700)	(\$42,525,784)	-1,850
Texarkana	(\$188,164,564)	(\$101,568,193)	(\$68,771,906)	(\$29,022,336)	-1,273
Tyler	(\$482,363,712)	(\$244,334,921)	(\$159,279,064)	(\$65,037,592)	-2,915
Victoria	(\$221,998,553)	(\$110,770,514)	(\$74,294,314)	(\$32,261,600)	-1,356
Waco	(\$514,976,646)	(\$259,557,084)	(\$169,312,293)	(\$66,912,609)	-3,112
Wichita Falls	(\$283,190,890)	(\$153,745,459)	(\$103,439,718)	(\$45,239,584)	-1,921
Rural Area	(\$6,037,723,773)	(\$3,128,669,923)	(\$2,092,398,000)	(\$961,516,229)	-39,338
<b>TOTAL STATE IMPACT</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

\*Metropolitan Division

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
County Results**

<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Anderson	(\$97,314,285)	(\$53,618,799)	(\$36,452,810)	(\$15,209,425)	-673
Andrews	(\$19,665,643)	(\$9,707,781)	(\$6,194,964)	(\$3,130,906)	-112
Angelina	(\$184,062,793)	(\$96,307,528)	(\$64,708,849)	(\$28,014,616)	-1,209
Aransas	(\$78,692,002)	(\$36,449,578)	(\$23,222,363)	(\$11,622,371)	-435
Archer	(\$12,657,062)	(\$6,257,471)	(\$4,007,018)	(\$2,205,598)	-77
Armstrong	(\$4,765,093)	(\$2,472,954)	(\$1,698,160)	(\$511,658)	-30
Atascosa	(\$76,818,132)	(\$38,044,502)	(\$25,456,950)	(\$10,681,832)	-462
Austin	(\$54,151,358)	(\$25,461,069)	(\$16,284,972)	(\$6,737,223)	-282
Bailey	(\$7,451,523)	(\$3,822,661)	(\$2,396,192)	(\$1,345,103)	-44
Bandera	(\$50,060,233)	(\$24,965,062)	(\$16,155,369)	(\$7,994,579)	-305
Bastrop	(\$128,250,472)	(\$63,827,530)	(\$41,567,126)	(\$19,684,131)	-782
Baylor	(\$12,187,434)	(\$6,567,337)	(\$4,435,504)	(\$1,948,259)	-82
Bee	(\$39,551,363)	(\$21,332,092)	(\$14,529,489)	(\$6,718,133)	-276
Bell	(\$419,788,508)	(\$228,754,224)	(\$154,737,770)	(\$64,628,443)	-2,878
Bexar	(\$2,964,306,094)	(\$1,536,218,240)	(\$1,015,187,197)	(\$379,843,263)	-18,227
Blanco	(\$20,295,838)	(\$10,053,668)	(\$6,500,937)	(\$2,937,388)	-121
Borden	(\$5,508,854)	(\$2,508,534)	(\$1,503,881)	(\$756,564)	-26
Bosque	(\$45,230,173)	(\$23,590,121)	(\$15,961,879)	(\$5,913,899)	-291
Bowie	(\$188,164,564)	(\$101,568,193)	(\$68,771,906)	(\$29,022,336)	-1,273
Brazoria	(\$417,661,974)	(\$202,896,125)	(\$134,453,228)	(\$65,207,557)	-2,519
Brazos	(\$216,070,966)	(\$111,882,239)	(\$74,116,333)	(\$30,164,419)	-1,372
Brewster	(\$17,112,708)	(\$9,514,189)	(\$6,432,453)	(\$2,754,435)	-119
Briscoe	(\$3,040,784)	(\$1,368,140)	(\$841,853)	(\$533,865)	-16
Brooks	(\$10,274,266)	(\$5,810,402)	(\$4,068,630)	(\$2,015,440)	-79
Brown	(\$80,780,016)	(\$45,422,221)	(\$30,888,362)	(\$14,443,987)	-598
Burleson	(\$36,488,755)	(\$18,987,714)	(\$12,629,483)	(\$6,718,133)	-239
Burnet	(\$96,484,680)	(\$48,170,456)	(\$31,369,337)	(\$13,839,355)	-580
Caldwell	(\$69,543,984)	(\$35,412,582)	(\$24,114,104)	(\$10,345,925)	-449
Calhoun	(\$24,907,693)	(\$10,386,363)	(\$6,687,668)	(\$3,373,626)	-124
Callahan	(\$33,297,851)	(\$16,252,508)	(\$10,663,013)	(\$5,038,600)	-199
Cameron	(\$548,418,551)	(\$284,676,235)	(\$188,449,652)	(\$77,661,622)	-3,531
Camp	(\$23,250,000)	(\$12,271,189)	(\$8,391,502)	(\$3,278,850)	-155
Carson	(\$5,480,705)	(\$2,166,663)	(\$1,269,113)	(\$419,566)	-22
Cass	(\$63,424,832)	(\$32,994,882)	(\$22,384,990)	(\$11,156,696)	-425
Castro	(\$6,369,569)	(\$2,917,025)	(\$1,828,238)	(\$1,099,286)	-36
Chambers	(\$48,257,661)	(\$19,305,571)	(\$12,043,966)	(\$5,575,821)	-218
Cherokee	(\$97,035,372)	(\$52,131,919)	(\$35,861,479)	(\$15,132,882)	-672
Childress	(\$13,408,243)	(\$7,003,569)	(\$4,736,001)	(\$2,284,165)	-91
Clay	(\$22,456,093)	(\$11,397,413)	(\$7,738,593)	(\$3,195,455)	-140
Cochran	(\$2,925,122)	(\$1,392,908)	(\$891,500)	(\$403,798)	-17



(continued)  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Coke	(\$9,324,551)	(\$4,523,045)	(\$2,919,381)	(\$1,549,308)	-54
Coleman	(\$25,146,277)	(\$13,191,210)	(\$8,850,153)	(\$3,963,699)	-165
Collin	(\$864,222,264)	(\$450,266,171)	(\$297,038,057)	(\$121,841,477)	-5,339
Collingsworth	(\$5,830,431)	(\$3,145,026)	(\$2,100,763)	(\$1,094,892)	-39
Colorado	(\$55,336,767)	(\$28,633,560)	(\$19,320,687)	(\$8,923,686)	-374
Comal	(\$215,270,878)	(\$109,740,050)	(\$72,096,180)	(\$31,104,958)	-1,364
Comanche	(\$33,753,138)	(\$17,902,845)	(\$12,096,811)	(\$5,010,294)	-222
Concho	(\$5,774,735)	(\$3,155,657)	(\$2,218,301)	(\$845,646)	-41
Cooke	(\$82,349,585)	(\$40,180,115)	(\$26,557,870)	(\$12,831,635)	-493
Coryell	(\$91,806,074)	(\$48,358,586)	(\$32,231,690)	(\$14,645,531)	-614
Cottle	(\$4,814,724)	(\$2,750,815)	(\$1,860,616)	(\$782,306)	-33
Crane	(\$3,828,398)	(\$2,078,179)	(\$1,442,748)	(\$531,639)	-26
Crockett	(\$4,734,043)	(\$2,368,874)	(\$1,510,124)	(\$1,074,901)	-31
Crosby	(\$10,850,878)	(\$6,006,247)	(\$4,119,576)	(\$1,265,945)	-74
Culberson	(\$2,914,323)	(\$1,656,708)	(\$1,110,583)	(\$738,995)	-23
Dallam	(\$7,470,530)	(\$3,795,840)	(\$2,380,435)	(\$1,096,575)	-44
Dallas	(\$3,925,957,350)	(\$1,926,149,584)	(\$1,231,851,563)	(\$401,425,272)	-21,027
Dawson	(\$22,508,085)	(\$10,833,741)	(\$6,657,478)	(\$3,875,034)	-127
Deaf Smith	(\$16,327,449)	(\$7,812,735)	(\$4,974,666)	(\$2,098,454)	-91
Delta	(\$10,523,318)	(\$5,564,700)	(\$3,851,971)	(\$1,060,837)	-66
Denton	(\$763,842,300)	(\$382,983,702)	(\$250,085,922)	(\$97,547,297)	-4,493
DeWitt	(\$49,800,027)	(\$26,329,625)	(\$17,809,701)	(\$7,524,309)	-331
Dickens	(\$5,444,337)	(\$2,809,193)	(\$1,844,430)	(\$975,772)	-34
Dimmit	(\$11,683,288)	(\$6,202,899)	(\$4,287,687)	(\$2,149,803)	-83
Donley	(\$9,745,142)	(\$5,548,301)	(\$3,850,457)	(\$1,948,259)	-76
Duval	(\$17,786,335)	(\$9,049,958)	(\$6,171,677)	(\$2,370,130)	-114
Eastland	(\$42,618,822)	(\$21,520,599)	(\$14,341,574)	(\$7,322,765)	-278
Ector	(\$221,344,681)	(\$113,335,466)	(\$76,581,325)	(\$32,851,672)	-1,402
Edwards	(\$3,205,975)	(\$1,542,376)	(\$924,007)	(\$547,050)	-17
El Paso	(\$1,318,808,601)	(\$663,071,849)	(\$429,497,094)	(\$161,168,020)	-7,729
Ellis	(\$207,105,060)	(\$99,606,317)	(\$64,264,442)	(\$31,152,410)	-1,210
Erath	(\$57,926,061)	(\$32,048,320)	(\$21,970,880)	(\$10,144,381)	-421
Falls	(\$39,256,761)	(\$21,343,820)	(\$14,550,389)	(\$5,847,512)	-268
Fannin	(\$83,677,082)	(\$44,509,543)	(\$29,967,756)	(\$12,341,997)	-554
Fayette	(\$76,098,499)	(\$39,206,290)	(\$25,961,450)	(\$10,480,288)	-476
Fisher	(\$8,891,832)	(\$4,871,717)	(\$3,277,707)	(\$1,468,743)	-61
Floyd	(\$9,074,415)	(\$4,261,802)	(\$2,710,018)	(\$1,045,246)	-49
Foard	(\$2,294,993)	(\$1,308,549)	(\$923,883)	(\$348,737)	-17
Fort Bend	(\$697,990,522)	(\$330,428,942)	(\$212,424,507)	(\$91,179,140)	-3,790
Franklin	(\$17,767,463)	(\$9,116,718)	(\$6,123,293)	(\$2,761,524)	-115





(continued)  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
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County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Freestone	(\$37,941,753)	(\$18,941,353)	(\$12,393,891)	(\$6,718,133)	-237
Frio	(\$24,892,497)	(\$12,364,360)	(\$8,157,815)	(\$3,587,459)	-151
Gaines	(\$14,601,467)	(\$6,560,094)	(\$4,037,357)	(\$2,205,850)	-75
Galveston	(\$640,047,915)	(\$317,989,496)	(\$210,516,098)	(\$86,596,740)	-3,837
Garza	(\$7,790,506)	(\$3,634,139)	(\$2,307,617)	(\$1,351,395)	-43
Gillespie	(\$72,285,112)	(\$37,144,204)	(\$24,815,271)	(\$10,749,013)	-465
Glasscock	(\$741,201)	(\$317,274)	(\$188,371)	(\$64,559)	-3
Goliad	(\$13,181,630)	(\$7,104,779)	(\$4,909,731)	(\$2,754,435)	-96
Gonzales	(\$28,264,435)	(\$14,958,309)	(\$10,197,546)	(\$4,469,956)	-191
Gray	(\$54,656,963)	(\$27,078,706)	(\$18,308,211)	(\$8,565,265)	-340
Grayson	(\$269,567,665)	(\$145,992,937)	(\$98,546,700)	(\$42,525,784)	-1,850
Gregg	(\$271,447,894)	(\$144,540,366)	(\$98,072,406)	(\$40,107,256)	-1,798
Grimes	(\$33,704,529)	(\$17,465,528)	(\$11,760,540)	(\$5,720,209)	-223
Guadalupe	(\$171,714,204)	(\$85,800,611)	(\$55,849,721)	(\$29,761,331)	-1,083
Hale	(\$43,921,694)	(\$24,250,995)	(\$16,378,353)	(\$8,404,934)	-319
Hall	(\$8,481,505)	(\$4,353,751)	(\$2,807,199)	(\$1,288,075)	-52
Hamilton	(\$18,404,080)	(\$9,685,636)	(\$6,581,022)	(\$3,157,523)	-125
Hansford	(\$4,705,019)	(\$1,897,954)	(\$1,111,962)	(\$557,647)	-20
Hardeman	(\$8,380,433)	(\$4,561,658)	(\$3,034,655)	(\$1,813,896)	-61
Hardin	(\$104,074,574)	(\$52,451,892)	(\$34,505,788)	(\$17,064,059)	-648
Harris	(\$6,675,699,850)	(\$3,113,414,021)	(\$2,028,522,992)	(\$606,345,708)	-34,099
Harrison	(\$145,252,304)	(\$70,188,238)	(\$47,191,029)	(\$17,651,804)	-835
Hartley	(\$2,026,795)	(\$968,529)	(\$622,580)	(\$293,332)	-12
Haskell	(\$13,157,343)	(\$6,993,372)	(\$4,834,043)	(\$1,968,432)	-89
Hays	(\$181,707,829)	(\$95,699,947)	(\$63,356,867)	(\$27,409,984)	-1,179
Hemphill	(\$3,253,169)	(\$1,492,111)	(\$950,145)	(\$441,098)	-17
Henderson	(\$232,055,972)	(\$118,188,915)	(\$78,087,653)	(\$33,254,760)	-1,451
Hidalgo	(\$779,288,284)	(\$419,056,955)	(\$282,140,084)	(\$116,290,889)	-5,288
Hill	(\$84,813,398)	(\$42,546,507)	(\$28,027,327)	(\$13,167,541)	-544
Hockley	(\$29,562,658)	(\$15,091,552)	(\$10,190,830)	(\$5,014,022)	-196
Hood	(\$136,796,325)	(\$69,576,352)	(\$46,418,858)	(\$20,490,307)	-863
Hopkins	(\$65,600,405)	(\$33,995,554)	(\$22,565,503)	(\$11,891,096)	-433
Houston	(\$65,493,953)	(\$33,192,841)	(\$22,434,856)	(\$7,558,990)	-391
Howard	(\$69,141,751)	(\$34,681,150)	(\$23,256,637)	(\$10,278,744)	-431
Hudspeth	(\$2,065,608)	(\$1,018,331)	(\$602,959)	(\$585,233)	-13
Hunt	(\$158,460,033)	(\$82,520,687)	(\$55,062,440)	(\$26,670,990)	-1,048
Hutchinson	(\$38,230,122)	(\$17,369,953)	(\$11,158,418)	(\$7,747,891)	-219
Irion	(\$2,562,788)	(\$1,007,241)	(\$582,253)	(\$347,900)	-11
Jack	(\$14,009,924)	(\$6,711,478)	(\$4,345,808)	(\$2,476,891)	-82
Jackson	(\$23,278,886)	(\$11,691,815)	(\$7,527,928)	(\$4,314,552)	-145



**(continued)**  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays**  
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<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Jasper	(\$78,402,143)	(\$42,123,164)	(\$28,702,126)	(\$13,254,566)	-547
Jeff Davis	(\$6,068,239)	(\$3,157,273)	(\$2,116,257)	(\$929,174)	-39
Jefferson	(\$544,956,837)	(\$283,394,246)	(\$194,002,044)	(\$80,281,694)	-3,532
Jim Hogg	(\$7,608,490)	(\$3,780,586)	(\$2,378,166)	(\$1,612,352)	-47
Jim Wells	(\$61,342,474)	(\$34,044,781)	(\$23,023,325)	(\$10,480,288)	-433
Johnson	(\$261,847,575)	(\$135,258,890)	(\$91,202,478)	(\$38,897,992)	-1,703
Jones	(\$43,173,107)	(\$22,318,718)	(\$15,021,688)	(\$6,023,232)	-277
Karnes	(\$32,754,812)	(\$15,654,176)	(\$10,312,390)	(\$4,635,512)	-190
Kaufman	(\$170,739,007)	(\$87,927,755)	(\$58,931,255)	(\$26,066,358)	-1,118
Kendall	(\$67,609,953)	(\$32,884,402)	(\$21,414,824)	(\$10,010,019)	-399
Kenedy	(\$1,824,005)	(\$851,419)	(\$541,603)	(\$514,087)	-13
Kent	(\$2,089,389)	(\$952,829)	(\$583,681)	(\$303,436)	-10
Kerr	(\$131,314,348)	(\$68,999,054)	(\$45,641,146)	(\$20,490,307)	-861
Kimble	(\$11,889,177)	(\$5,392,322)	(\$3,341,834)	(\$1,813,896)	-63
King	(\$2,550,616)	(\$1,200,604)	(\$744,978)	(\$270,488)	-13
Kinney	(\$9,390,498)	(\$4,471,079)	(\$2,786,099)	(\$1,447,079)	-53
Kleberg	(\$51,339,585)	(\$26,384,992)	(\$17,717,421)	(\$7,860,216)	-333
Knox	(\$8,068,570)	(\$4,278,058)	(\$2,888,906)	(\$1,078,020)	-52
La Salle	(\$7,593,849)	(\$4,117,839)	(\$2,803,625)	(\$1,410,808)	-55
Lamar	(\$115,947,812)	(\$59,990,045)	(\$40,679,473)	(\$18,192,920)	-767
Lamb	(\$17,299,848)	(\$8,284,860)	(\$5,406,812)	(\$2,582,769)	-99
Lampasas	(\$50,575,049)	(\$26,431,840)	(\$17,703,722)	(\$8,061,760)	-339
Lavaca	(\$53,274,315)	(\$29,161,825)	(\$19,809,477)	(\$8,534,624)	-373
Lee	(\$31,628,062)	(\$15,787,955)	(\$10,349,578)	(\$4,707,688)	-191
Leon	(\$30,189,162)	(\$15,430,644)	(\$9,726,068)	(\$6,262,823)	-191
Liberty	(\$150,154,854)	(\$78,736,419)	(\$53,571,866)	(\$22,380,035)	-980
Limestone	(\$46,823,572)	(\$24,989,770)	(\$17,287,882)	(\$8,128,941)	-326
Lipscomb	(\$5,195,944)	(\$2,266,923)	(\$1,371,731)	(\$594,528)	-24
Live Oak	(\$32,707,272)	(\$15,738,784)	(\$10,358,953)	(\$5,643,232)	-197
Llano	(\$82,020,923)	(\$42,165,980)	(\$27,847,190)	(\$12,294,184)	-522
Loving	(\$864,769)	(\$285,065)	(\$179,959)	(\$94,376)	-3
Lubbock	(\$514,097,493)	(\$273,056,414)	(\$180,967,208)	(\$70,540,401)	-3,286
Lynn	(\$7,171,680)	(\$3,500,445)	(\$2,198,472)	(\$713,994)	-37
Madison	(\$21,847,640)	(\$11,523,181)	(\$7,693,613)	(\$3,762,155)	-148
Marion	(\$28,660,243)	(\$14,869,799)	(\$10,065,586)	(\$4,702,693)	-194
Martin	(\$6,176,748)	(\$3,042,176)	(\$2,042,287)	(\$797,798)	-36
Mason	(\$12,646,609)	(\$6,363,786)	(\$4,174,827)	(\$1,881,077)	-78
Matagorda	(\$68,032,230)	(\$31,848,264)	(\$20,905,857)	(\$12,050,282)	-402
Maverick	(\$57,970,207)	(\$30,534,683)	(\$20,411,705)	(\$9,405,387)	-394
McCulloch	(\$21,263,907)	(\$11,304,419)	(\$7,690,996)	(\$3,426,248)	-143





**(continued)**  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays**  
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<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
McLennan	(\$514,976,646)	(\$259,557,084)	(\$169,312,293)	(\$66,912,609)	-3,112
McMullen	(\$814,454)	(\$354,277)	(\$213,523)	(\$94,578)	-4
Medina	(\$76,109,842)	(\$37,638,033)	(\$24,515,184)	(\$11,420,827)	-467
Menard	(\$5,433,991)	(\$2,758,398)	(\$1,739,516)	(\$1,074,901)	-34
Midland	(\$187,860,308)	(\$95,390,296)	(\$62,302,139)	(\$27,244,486)	-1,118
Milam	(\$46,186,638)	(\$23,536,951)	(\$15,924,392)	(\$7,865,869)	-301
Mills	(\$9,274,945)	(\$5,516,686)	(\$3,827,163)	(\$1,755,417)	-73
Mitchell	(\$16,666,595)	(\$8,920,896)	(\$6,037,418)	(\$2,727,029)	-112
Montague	(\$52,572,132)	(\$26,391,673)	(\$17,472,046)	(\$7,860,216)	-331
Montgomery	(\$775,734,856)	(\$381,545,940)	(\$253,590,907)	(\$95,433,877)	-4,518
Moore	(\$24,427,872)	(\$10,384,657)	(\$6,530,451)	(\$3,362,133)	-120
Morris	(\$25,968,448)	(\$11,852,591)	(\$7,944,295)	(\$2,820,162)	-141
Motley	(\$3,871,259)	(\$1,880,384)	(\$1,188,604)	(\$577,335)	-22
Nacogdoches	(\$109,037,334)	(\$59,288,893)	(\$40,669,519)	(\$18,609,230)	-785
Navarro	(\$105,434,188)	(\$53,898,121)	(\$36,283,431)	(\$14,479,966)	-672
Newton	(\$14,209,198)	(\$8,483,277)	(\$5,965,017)	(\$3,209,038)	-114
Nolan	(\$36,756,941)	(\$19,213,460)	(\$12,624,321)	(\$5,840,775)	-236
Nueces	(\$675,587,477)	(\$325,723,333)	(\$215,501,210)	(\$85,857,745)	-3,872
Ochiltree	(\$9,372,585)	(\$4,278,869)	(\$2,713,983)	(\$1,418,716)	-49
Oldham	(\$1,103,714)	(\$595,022)	(\$389,957)	(\$312,300)	-9
Orange	(\$168,713,086)	(\$86,247,886)	(\$58,609,183)	(\$27,786,635)	-1,101
Palo Pinto	(\$68,964,599)	(\$33,050,460)	(\$21,257,842)	(\$10,345,925)	-401
Panola	(\$49,323,087)	(\$24,941,778)	(\$16,911,803)	(\$7,475,249)	-312
Parker	(\$201,117,399)	(\$95,720,245)	(\$60,920,302)	(\$29,492,606)	-1,143
Parmer	(\$5,340,205)	(\$2,311,986)	(\$1,500,156)	(\$401,044)	-26
Pecos	(\$18,913,070)	(\$9,526,359)	(\$6,248,387)	(\$3,426,248)	-121
Polk	(\$143,937,300)	(\$75,723,789)	(\$50,379,779)	(\$24,521,187)	-941
Potter	(\$243,690,455)	(\$127,859,496)	(\$85,079,056)	(\$33,456,304)	-1,540
Presidio	(\$11,833,595)	(\$5,644,390)	(\$3,560,796)	(\$1,948,259)	-67
Rains	(\$20,267,097)	(\$9,244,748)	(\$5,598,628)	(\$3,732,605)	-108
Randall	(\$211,378,002)	(\$110,869,030)	(\$72,591,729)	(\$31,926,577)	-1,343
Reagan	(\$2,700,691)	(\$1,321,865)	(\$807,551)	(\$577,786)	-16
Real	(\$11,376,029)	(\$5,491,593)	(\$3,590,452)	(\$1,612,352)	-66
Red River	(\$36,760,615)	(\$19,100,028)	(\$12,736,990)	(\$5,283,100)	-238
Reeves	(\$17,566,590)	(\$8,746,248)	(\$5,713,410)	(\$3,493,429)	-114
Refugio	(\$13,363,377)	(\$6,530,089)	(\$4,049,362)	(\$3,224,704)	-84
Roberts	(\$1,133,101)	(\$491,330)	(\$293,177)	(\$263,297)	-6
Robertson	(\$36,283,657)	(\$18,711,547)	(\$12,572,882)	(\$6,583,771)	-243
Rockwall	(\$93,752,096)	(\$48,971,733)	(\$32,780,001)	(\$13,570,629)	-602
Runnels	(\$27,332,939)	(\$12,545,171)	(\$8,033,575)	(\$3,741,068)	-150



**(continued)**  
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<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Rusk	(\$99,293,404)	(\$48,830,366)	(\$32,935,714)	(\$13,994,762)	-604
Sabine	(\$29,730,512)	(\$15,339,133)	(\$10,685,499)	(\$4,949,999)	-202
San Augustine	(\$25,380,397)	(\$12,819,316)	(\$8,585,666)	(\$3,520,066)	-158
San Jacinto	(\$55,891,993)	(\$28,138,581)	(\$18,583,272)	(\$9,136,661)	-352
San Patricio	(\$117,811,043)	(\$57,925,674)	(\$39,223,940)	(\$19,160,731)	-745
San Saba	(\$12,578,308)	(\$6,817,270)	(\$4,506,715)	(\$2,284,165)	-87
Schleicher	(\$3,831,485)	(\$2,028,781)	(\$1,422,008)	(\$382,369)	-25
Scurry	(\$25,791,614)	(\$13,602,288)	(\$8,615,831)	(\$5,346,455)	-170
Shackelford	(\$5,104,317)	(\$2,536,173)	(\$1,661,325)	(\$852,772)	-32
Shelby	(\$44,254,036)	(\$24,025,959)	(\$16,705,607)	(\$7,530,993)	-316
Sherman	(\$1,257,682)	(\$526,663)	(\$318,232)	(\$157,830)	-6
Smith	(\$482,363,712)	(\$244,334,921)	(\$159,279,064)	(\$65,037,592)	-2,915
Somervell	(\$8,762,214)	(\$4,335,638)	(\$3,006,467)	(\$876,427)	-54
Starr	(\$46,719,536)	(\$26,544,805)	(\$18,642,243)	(\$9,271,024)	-365
Stephens	(\$17,398,774)	(\$9,456,815)	(\$6,293,769)	(\$3,740,588)	-123
Sterling	(\$1,326,683)	(\$740,947)	(\$495,353)	(\$335,907)	-10
Stonewall	(\$2,936,508)	(\$1,626,837)	(\$1,105,080)	(\$613,427)	-22
Sutton	(\$6,284,334)	(\$3,263,876)	(\$2,109,579)	(\$1,276,445)	-41
Swisher	(\$8,809,397)	(\$4,054,744)	(\$2,538,456)	(\$1,234,558)	-48
Tarrant	(\$3,063,237,889)	(\$1,543,983,828)	(\$1,014,997,980)	(\$379,776,082)	-18,161
Taylor	(\$256,481,380)	(\$130,540,507)	(\$85,791,746)	(\$33,657,848)	-1,554
Terrell	(\$1,587,002)	(\$873,671)	(\$584,101)	(\$297,251)	-11
Terry	(\$16,255,520)	(\$8,033,117)	(\$4,926,352)	(\$3,347,065)	-97
Throckmorton	(\$2,205,148)	(\$1,100,785)	(\$704,253)	(\$357,596)	-13
Titus	(\$41,975,862)	(\$21,748,408)	(\$14,852,325)	(\$7,578,586)	-285
Tom Green	(\$216,103,703)	(\$108,914,079)	(\$70,691,648)	(\$29,694,150)	-1,318
Travis	(\$1,198,491,384)	(\$643,381,570)	(\$423,655,850)	(\$159,784,191)	-7,522
Trinity	(\$42,864,384)	(\$23,478,142)	(\$15,839,725)	(\$7,307,968)	-301
Tyler	(\$49,183,484)	(\$26,115,706)	(\$17,577,820)	(\$7,948,287)	-328
Upshur	(\$85,735,253)	(\$43,262,815)	(\$28,352,259)	(\$13,839,355)	-527
Upton	(\$5,076,865)	(\$2,524,211)	(\$1,640,832)	(\$733,182)	-30
Uvalde	(\$45,941,223)	(\$24,319,061)	(\$16,375,955)	(\$7,054,040)	-310
Val Verde	(\$63,457,582)	(\$35,984,584)	(\$24,481,216)	(\$10,345,925)	-458
Van Zandt	(\$110,606,118)	(\$62,336,641)	(\$42,551,340)	(\$19,348,224)	-811
Victoria	(\$183,909,231)	(\$93,279,371)	(\$62,696,915)	(\$26,133,539)	-1,136
Walker	(\$171,668,751)	(\$93,269,387)	(\$62,876,678)	(\$27,745,891)	-1,186
Waller	(\$55,385,780)	(\$24,564,682)	(\$15,106,450)	(\$8,733,573)	-296
Ward	(\$16,520,211)	(\$8,452,999)	(\$5,512,171)	(\$3,157,523)	-107
Washington	(\$73,263,982)	(\$39,467,311)	(\$26,566,315)	(\$11,030,614)	-489
Webb	(\$215,436,930)	(\$113,990,244)	(\$76,476,521)	(\$35,135,838)	-1,443



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Wharton	(\$83,531,406)	(\$44,876,230)	(\$30,628,036)	(\$13,895,545)	-580
Wheeler	(\$8,590,090)	(\$4,724,626)	(\$3,191,689)	(\$1,740,192)	-63
Wichita	(\$248,077,735)	(\$136,090,574)	(\$91,694,107)	(\$39,838,531)	-1,704
Wilbarger	(\$35,808,653)	(\$18,353,398)	(\$12,364,276)	(\$5,441,688)	-230
Willacy	(\$26,911,315)	(\$14,922,506)	(\$9,943,358)	(\$4,933,068)	-191
Williamson	(\$314,735,896)	(\$168,604,130)	(\$112,138,819)	(\$51,134,663)	-2,075
Wilson	(\$72,720,754)	(\$37,045,773)	(\$24,834,378)	(\$11,084,920)	-473
Winkler	(\$8,739,738)	(\$4,393,185)	(\$2,876,461)	(\$1,643,728)	-55
Wise	(\$82,663,354)	(\$41,966,030)	(\$27,435,727)	(\$14,242,443)	-518
Wood	(\$131,639,890)	(\$66,589,580)	(\$44,310,180)	(\$19,013,947)	-829
Yoakum	(\$8,109,636)	(\$3,841,679)	(\$2,436,750)	(\$1,560,437)	-48
Young	(\$42,932,948)	(\$22,267,935)	(\$14,629,937)	(\$7,546,600)	-276
Zapata	(\$13,946,137)	(\$7,358,760)	(\$4,991,088)	(\$2,687,253)	-98
Zavala	(\$10,574,935)	(\$6,273,845)	(\$4,468,986)	(\$2,099,485)	-88
<b>TOTAL STATE IMPACT</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$306,218,087)	(\$161,285,464)	(\$109,166,777)	(\$47,701,887)	-2,033
2	(\$289,333,248)	(\$154,102,075)	(\$103,212,408)	(\$49,751,818)	-1,967
3	(\$288,575,476)	(\$149,515,453)	(\$100,809,554)	(\$46,768,063)	-1,903
4	(\$402,794,979)	(\$206,116,670)	(\$137,018,908)	(\$59,321,118)	-2,569
5	(\$385,877,447)	(\$192,311,821)	(\$128,244,971)	(\$53,783,956)	-2,346
6	(\$395,538,243)	(\$200,354,635)	(\$130,608,832)	(\$53,330,825)	-2,390
7	(\$358,273,362)	(\$188,520,652)	(\$126,742,637)	(\$51,814,023)	-2,323
8	(\$287,513,799)	(\$151,448,044)	(\$102,418,015)	(\$44,536,466)	-1,909
9	(\$286,804,421)	(\$153,596,465)	(\$105,348,417)	(\$47,864,853)	-2,007
10	(\$291,918,458)	(\$142,152,824)	(\$92,291,769)	(\$44,319,951)	-1,754
11	(\$311,145,815)	(\$159,096,904)	(\$108,143,852)	(\$44,161,883)	-1,980
12	(\$332,002,653)	(\$174,039,957)	(\$116,709,666)	(\$52,407,533)	-2,190
13	(\$332,788,620)	(\$175,663,295)	(\$117,488,505)	(\$51,233,936)	-2,180
14	(\$200,945,998)	(\$104,050,483)	(\$68,928,190)	(\$28,052,910)	-1,276
15	(\$349,080,685)	(\$171,695,673)	(\$114,115,908)	(\$42,945,245)	-2,033
16	(\$356,838,034)	(\$175,511,133)	(\$116,651,817)	(\$43,899,584)	-2,078
17	(\$342,927,523)	(\$174,274,807)	(\$115,016,467)	(\$52,625,435)	-2,159
18	(\$363,908,291)	(\$188,799,343)	(\$126,774,827)	(\$55,490,271)	-2,328
19	(\$260,002,764)	(\$133,383,393)	(\$89,702,519)	(\$43,613,870)	-1,687
20	(\$187,817,791)	(\$99,408,810)	(\$66,386,860)	(\$30,876,468)	-1,235
21	(\$288,827,123)	(\$150,198,950)	(\$102,821,083)	(\$42,549,298)	-1,872
22	(\$283,123,807)	(\$146,994,957)	(\$100,558,430)	(\$42,178,258)	-1,836
23	(\$342,679,703)	(\$165,580,739)	(\$108,881,371)	(\$45,410,321)	-1,983
24	(\$345,625,874)	(\$171,714,328)	(\$113,678,693)	(\$46,762,239)	-2,072
25	(\$238,067,325)	(\$115,650,791)	(\$76,638,340)	(\$37,168,307)	-1,436
26	(\$282,686,162)	(\$133,823,722)	(\$86,031,925)	(\$36,927,552)	-1,535
27	(\$282,686,162)	(\$133,823,722)	(\$86,031,925)	(\$36,927,552)	-1,535
28	(\$271,535,385)	(\$132,222,410)	(\$86,095,143)	(\$39,953,155)	-1,596
29	(\$247,626,879)	(\$119,093,598)	(\$78,720,745)	(\$40,089,531)	-1,485
30	(\$323,625,836)	(\$166,992,725)	(\$111,893,382)	(\$49,731,728)	-2,069
31	(\$143,083,087)	(\$77,150,597)	(\$52,747,964)	(\$24,869,159)	-1,009
32	(\$295,725,360)	(\$140,591,182)	(\$92,839,104)	(\$43,601,081)	-1,730
33	(\$300,636,427)	(\$144,946,883)	(\$95,898,038)	(\$38,206,697)	-1,723
34	(\$300,636,427)	(\$144,946,883)	(\$95,898,038)	(\$38,206,697)	-1,723
35	(\$257,170,138)	(\$132,273,392)	(\$88,804,360)	(\$41,008,010)	-1,659
36	(\$194,822,071)	(\$104,764,239)	(\$70,535,021)	(\$29,072,722)	-1,322
37	(\$219,367,420)	(\$113,870,494)	(\$75,379,861)	(\$31,064,649)	-1,412
38	(\$219,367,420)	(\$113,870,494)	(\$75,379,861)	(\$31,064,649)	-1,412
39	(\$194,822,071)	(\$104,764,239)	(\$70,535,021)	(\$29,072,722)	-1,322
40	(\$194,822,071)	(\$104,764,239)	(\$70,535,021)	(\$29,072,722)	-1,322



(continued)  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
41	(\$194,822,071)	(\$104,764,239)	(\$70,535,021)	(\$29,072,722)	-1,322
42	(\$150,805,851)	(\$79,793,171)	(\$53,533,565)	(\$24,595,086)	-1,010
43	(\$207,641,373)	(\$108,685,151)	(\$72,339,110)	(\$32,467,487)	-1,371
44	(\$272,699,394)	(\$137,804,693)	(\$90,881,645)	(\$45,316,207)	-1,747
45	(\$271,547,650)	(\$141,166,197)	(\$93,971,909)	(\$40,693,298)	-1,749
46	(\$203,743,535)	(\$109,374,867)	(\$72,021,495)	(\$27,163,313)	-1,279
47	(\$203,743,535)	(\$109,374,867)	(\$72,021,495)	(\$27,163,313)	-1,279
48	(\$191,758,621)	(\$102,941,051)	(\$67,784,936)	(\$25,565,471)	-1,204
49	(\$203,743,535)	(\$109,374,867)	(\$72,021,495)	(\$27,163,313)	-1,279
50	(\$191,758,621)	(\$102,941,051)	(\$67,784,936)	(\$25,565,471)	-1,204
51	(\$203,743,535)	(\$109,374,867)	(\$72,021,495)	(\$27,163,313)	-1,279
52	(\$173,104,743)	(\$92,732,272)	(\$61,676,350)	(\$28,124,065)	-1,141
53	(\$394,924,954)	(\$202,098,900)	(\$133,339,428)	(\$61,199,859)	-2,506
54	(\$310,777,247)	(\$163,816,443)	(\$109,420,789)	(\$47,106,208)	-2,042
55	(\$256,070,990)	(\$139,540,077)	(\$94,390,040)	(\$39,423,350)	-1,755
56	(\$329,585,054)	(\$166,116,534)	(\$108,359,867)	(\$42,824,070)	-1,992
57	(\$312,968,812)	(\$160,449,742)	(\$105,495,378)	(\$46,544,799)	-1,970
58	(\$307,077,749)	(\$158,849,011)	(\$107,164,357)	(\$44,811,891)	-1,994
59	(\$219,926,511)	(\$117,847,711)	(\$79,714,033)	(\$35,589,573)	-1,510
60	(\$351,662,851)	(\$181,562,619)	(\$120,861,730)	(\$57,196,344)	-2,295
61	(\$283,780,753)	(\$137,686,275)	(\$88,356,028)	(\$43,735,048)	-1,660
62	(\$353,244,747)	(\$190,502,480)	(\$128,514,456)	(\$54,867,781)	-2,404
63	(\$252,067,959)	(\$126,384,622)	(\$82,528,354)	(\$32,190,608)	-1,483
64	(\$259,706,382)	(\$130,214,459)	(\$85,029,213)	(\$33,166,081)	-1,528
65	(\$252,067,959)	(\$126,384,622)	(\$82,528,354)	(\$32,190,608)	-1,483
66	(\$233,340,011)	(\$121,571,866)	(\$80,200,275)	(\$32,897,199)	-1,442
67	(\$233,340,011)	(\$121,571,866)	(\$80,200,275)	(\$32,897,199)	-1,442
68	(\$313,104,193)	(\$158,752,766)	(\$105,568,402)	(\$49,473,327)	-1,968
69	(\$260,734,796)	(\$142,348,046)	(\$95,701,125)	(\$42,044,129)	-1,781
70	(\$233,340,011)	(\$121,571,866)	(\$80,200,275)	(\$32,897,199)	-1,442
71	(\$293,238,321)	(\$149,753,967)	(\$98,416,067)	(\$39,498,623)	-1,789
72	(\$267,886,463)	(\$135,960,308)	(\$88,264,278)	(\$39,316,942)	-1,654
73	(\$405,226,177)	(\$204,733,718)	(\$134,481,643)	(\$59,858,569)	-2,533
74	(\$208,050,894)	(\$110,721,254)	(\$73,842,253)	(\$35,371,939)	-1,404
75	(\$263,761,720)	(\$132,614,370)	(\$85,899,419)	(\$32,233,604)	-1,546
76	(\$263,761,720)	(\$132,614,370)	(\$85,899,419)	(\$32,233,604)	-1,546
77	(\$263,761,720)	(\$132,614,370)	(\$85,899,419)	(\$32,233,604)	-1,546
78	(\$263,761,720)	(\$132,614,370)	(\$85,899,419)	(\$32,233,604)	-1,546
79	(\$263,761,720)	(\$132,614,370)	(\$85,899,419)	(\$32,233,604)	-1,546
80	(\$198,215,116)	(\$101,602,737)	(\$67,431,101)	(\$31,520,847)	-1,291



(continued)  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
81	(\$249,750,063)	(\$127,436,433)	(\$85,652,749)	(\$37,626,307)	-1,570
82	(\$225,450,403)	(\$113,868,604)	(\$74,085,484)	(\$33,182,140)	-1,338
83	(\$260,837,880)	(\$136,108,799)	(\$89,943,320)	(\$37,400,267)	-1,650
84	(\$308,458,496)	(\$163,833,848)	(\$108,580,325)	(\$42,324,240)	-1,972
85	(\$234,137,496)	(\$120,033,856)	(\$79,462,591)	(\$36,898,876)	-1,485
86	(\$238,306,490)	(\$124,041,156)	(\$80,959,366)	(\$35,727,237)	-1,498
87	(\$274,856,714)	(\$140,937,479)	(\$93,196,853)	(\$37,395,833)	-1,688
88	(\$215,678,733)	(\$104,883,490)	(\$68,803,604)	(\$35,652,310)	-1,296
89	(\$257,954,327)	(\$134,522,306)	(\$89,217,232)	(\$36,720,510)	-1,616
90	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
91	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
92	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
93	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
94	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
95	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
96	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
97	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
98	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
99	(\$306,323,789)	(\$154,398,383)	(\$101,499,798)	(\$37,977,608)	-1,816
100	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
101	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
102	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
103	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
104	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
105	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
106	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
107	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
108	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
109	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
110	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
111	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
112	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
113	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
114	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
115	(\$245,372,334)	(\$120,384,349)	(\$76,990,723)	(\$25,089,079)	-1,314
116	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
117	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
118	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
119	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
120	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823





(continued)  
**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
121	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
122	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
123	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
124	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
125	(\$296,430,609)	(\$153,621,824)	(\$101,518,720)	(\$37,984,326)	-1,823
126	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
127	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
128	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
129	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
130	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
131	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
132	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
133	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
134	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
135	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
136	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
137	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
138	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
139	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
140	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
141	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
142	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
143	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
144	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
145	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
146	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
147	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
148	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
149	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
150	(\$267,027,994)	(\$124,536,561)	(\$81,140,920)	(\$24,253,828)	-1,364
<b>TOTAL</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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



**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by Texas Senate District**

Senate District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$1,614,029,898)	(\$828,465,947)	(\$555,291,190)	(\$235,901,796)	-10,247
2	(\$1,411,050,595)	(\$718,969,155)	(\$471,924,417)	(\$189,529,984)	-8,549
3	(\$1,690,306,376)	(\$875,395,697)	(\$586,924,721)	(\$254,728,254)	-10,894
4	(\$1,421,424,881)	(\$709,571,593)	(\$476,473,186)	(\$189,192,738)	-8,571
5	(\$1,131,927,717)	(\$595,801,384)	(\$397,744,740)	(\$180,379,654)	-7,424
6	(\$1,268,382,972)	(\$591,548,664)	(\$385,419,369)	(\$115,205,685)	-6,479
7	(\$1,335,139,970)	(\$622,682,804)	(\$405,704,598)	(\$121,269,142)	-6,820
8	(\$1,203,358,465)	(\$613,238,771)	(\$400,086,039)	(\$152,165,992)	-7,063
9	(\$1,293,880,700)	(\$644,588,448)	(\$418,623,264)	(\$151,144,986)	-7,373
10	(\$1,500,986,566)	(\$756,552,076)	(\$497,349,010)	(\$186,090,280)	-8,899
11	(\$1,420,510,618)	(\$684,409,776)	(\$450,244,883)	(\$171,215,330)	-7,993
12	(\$1,362,550,709)	(\$686,169,127)	(\$450,575,029)	(\$169,781,339)	-8,067
13	(\$1,288,426,889)	(\$601,974,751)	(\$391,582,300)	(\$123,138,181)	-6,631
14	(\$1,030,702,590)	(\$553,308,150)	(\$364,344,031)	(\$137,414,405)	-6,469
15	(\$1,335,139,970)	(\$622,682,804)	(\$405,704,598)	(\$121,269,142)	-6,820
16	(\$1,177,787,205)	(\$577,844,875)	(\$369,555,469)	(\$120,427,582)	-6,308
17	(\$1,415,712,901)	(\$674,427,885)	(\$441,807,564)	(\$159,210,845)	-7,701
18	(\$1,425,422,093)	(\$707,969,428)	(\$466,583,982)	(\$212,128,622)	-8,637
19	(\$1,223,277,796)	(\$632,324,328)	(\$417,211,979)	(\$172,079,702)	-7,654
20	(\$1,175,812,774)	(\$596,059,841)	(\$397,770,211)	(\$162,313,462)	-7,292
21	(\$996,207,376)	(\$514,038,216)	(\$344,674,277)	(\$152,528,985)	-6,431
22	(\$1,496,028,414)	(\$758,071,437)	(\$501,259,255)	(\$212,384,193)	-9,331
23	(\$1,217,046,778)	(\$597,106,371)	(\$381,873,985)	(\$124,441,834)	-6,518
24	(\$1,494,259,018)	(\$786,436,151)	(\$525,079,986)	(\$227,975,254)	-9,806
25	(\$1,426,595,938)	(\$736,804,261)	(\$485,218,722)	(\$200,423,164)	-8,907
26	(\$1,363,580,803)	(\$706,660,391)	(\$466,986,111)	(\$174,727,901)	-8,384
27	(\$979,173,185)	(\$515,410,782)	(\$343,615,072)	(\$143,299,893)	-6,449
28	(\$1,272,142,253)	(\$658,345,724)	(\$433,933,479)	(\$187,962,548)	-8,028
29	(\$1,239,680,085)	(\$623,287,538)	(\$403,727,269)	(\$151,497,939)	-7,266
30	(\$1,442,828,598)	(\$743,002,020)	(\$491,198,069)	(\$221,226,912)	-9,132
31	(\$1,116,759,123)	(\$567,090,765)	(\$373,756,948)	(\$164,542,719)	-6,839
<b>TOTAL</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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





**The Total Annual Impact of Direct Medical Expenses and Related Outlays  
Associated with Cancer Treatment on Business Activity:  
Results by US Congressional District in Texas**

US Congressional District in Texas	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$1,560,883,451)	(\$802,048,600)	(\$536,401,500)	(\$226,549,285)	-9,898
2	(\$1,320,638,317)	(\$651,425,870)	(\$435,426,087)	(\$157,029,890)	-7,647
3	(\$1,153,850,471)	(\$586,848,225)	(\$382,482,252)	(\$144,425,800)	-6,741
4	(\$1,390,251,485)	(\$730,698,364)	(\$490,397,265)	(\$216,359,153)	-9,139
5	(\$1,389,024,672)	(\$710,454,549)	(\$468,653,936)	(\$184,225,135)	-8,497
6	(\$1,360,760,110)	(\$683,520,838)	(\$449,731,664)	(\$181,575,161)	-8,168
7	(\$1,268,382,972)	(\$591,548,664)	(\$385,419,369)	(\$115,205,685)	-6,479
8	(\$1,630,434,660)	(\$830,702,268)	(\$555,611,323)	(\$236,897,551)	-10,196
9	(\$1,295,406,795)	(\$605,279,040)	(\$393,706,545)	(\$124,049,973)	-6,669
10	(\$1,168,921,480)	(\$582,526,569)	(\$380,990,978)	(\$140,975,615)	-6,702
11	(\$1,353,168,813)	(\$693,621,627)	(\$458,057,322)	(\$205,806,098)	-8,515
12	(\$1,371,230,204)	(\$685,800,534)	(\$448,680,311)	(\$178,555,557)	-8,107
13	(\$1,267,200,172)	(\$654,463,224)	(\$433,847,202)	(\$193,130,552)	-8,038
14	(\$1,385,332,685)	(\$677,655,304)	(\$447,854,333)	(\$201,577,159)	-8,263
15	(\$986,132,279)	(\$521,286,707)	(\$350,130,317)	(\$151,712,216)	-6,582
16	(\$1,266,056,257)	(\$636,548,975)	(\$412,317,211)	(\$154,721,300)	-7,420
17	(\$1,379,012,344)	(\$704,503,453)	(\$467,031,152)	(\$195,730,156)	-8,682
18	(\$1,268,382,972)	(\$591,548,664)	(\$385,419,369)	(\$115,205,685)	-6,479
19	(\$1,199,744,641)	(\$619,420,082)	(\$408,431,799)	(\$174,751,814)	-7,515
20	(\$1,393,223,864)	(\$722,022,573)	(\$477,137,983)	(\$178,526,334)	-8,567
21	(\$1,428,762,424)	(\$739,129,441)	(\$486,980,643)	(\$194,675,889)	-8,878
22	(\$1,321,252,003)	(\$625,705,057)	(\$406,961,667)	(\$151,971,925)	-7,120
23	(\$1,218,579,907)	(\$633,026,476)	(\$418,865,944)	(\$169,602,671)	-7,668
24	(\$1,231,701,438)	(\$612,436,100)	(\$397,048,053)	(\$140,591,554)	-6,957
25	(\$1,140,841,870)	(\$603,034,285)	(\$399,488,410)	(\$162,052,323)	-7,275
26	(\$1,323,174,875)	(\$663,897,197)	(\$434,920,637)	(\$167,270,269)	-7,798
27	(\$1,228,644,406)	(\$611,560,298)	(\$405,513,980)	(\$167,556,333)	-7,448
28	(\$925,073,178)	(\$483,052,734)	(\$323,062,128)	(\$147,501,821)	-6,108
29	(\$1,268,382,972)	(\$591,548,664)	(\$385,419,369)	(\$115,205,685)	-6,479
30	(\$1,138,527,631)	(\$558,583,379)	(\$357,236,953)	(\$116,413,329)	-6,098
31	(\$998,626,278)	(\$537,758,016)	(\$361,781,098)	(\$159,333,216)	-6,753
32	(\$1,138,527,631)	(\$558,583,379)	(\$357,236,953)	(\$116,413,329)	-6,098
<b>TOTAL</b>	<b>(\$40,770,133,258)</b>	<b>(\$20,500,239,159)</b>	<b>(\$13,502,243,752)</b>	<b>(\$5,285,598,460)</b>	<b>-242,982</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity in Texas  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	(\$373,459,299)	(\$110,943,964)	(\$69,513,461)	-1,288
Forestry & Fishery Products	(\$29,936,734)	(\$9,152,413)	(\$3,110,823)	-62
Coal Mining	(\$56,941,785)	(\$14,298,237)	(\$17,105,159)	-116
Crude Petroleum & Natural Gas	(\$2,810,127,374)	(\$1,359,131,941)	(\$449,169,795)	-1,674
Miscellaneous Mining	(\$27,351,105)	(\$17,577,539)	(\$9,420,619)	-166
New Construction	(\$640,478,372)	(\$237,555,249)	(\$196,168,290)	-2,815
Maintenance & Repair Construction	(\$517,717,108)	(\$326,987,681)	(\$229,521,336)	-3,885
Food Products & Tobacco	(\$983,143,822)	(\$233,845,054)	(\$115,675,783)	-1,867
Textile Mill Products	(\$15,313,325)	(\$3,331,497)	(\$2,978,595)	-56
Apparel	(\$104,791,880)	(\$57,972,911)	(\$29,292,202)	-822
Paper & Allied Products	(\$128,265,838)	(\$54,078,965)	(\$26,104,736)	-385
Printing & Publishing	(\$250,180,750)	(\$138,811,147)	(\$83,479,545)	-1,225
Chemicals & Petroleum Refining	(\$2,193,110,706)	(\$498,593,826)	(\$257,777,217)	-957
Rubber & Leather Products	(\$161,218,364)	(\$73,777,117)	(\$43,982,015)	-657
Lumber Products & Furniture	(\$82,340,065)	(\$30,953,600)	(\$21,863,301)	-491
Stone, Clay, & Glass Products	(\$96,749,374)	(\$53,004,077)	(\$28,108,118)	-433
Primary Metal	(\$105,347,205)	(\$28,135,390)	(\$21,488,508)	-251
Fabricated Metal Products	(\$303,627,501)	(\$134,514,301)	(\$84,147,963)	-1,150
Machinery, Except Electrical	(\$553,767,431)	(\$175,807,443)	(\$145,650,969)	-876
Electric & Electronic Equipment	(\$295,792,181)	(\$186,491,705)	(\$110,585,640)	-841
Motor Vehicles & Equipment	(\$154,043,616)	(\$48,786,551)	(\$27,348,631)	-294
Transp. Equip., Exc. Motor Vehicles	(\$129,621,175)	(\$69,399,473)	(\$41,585,168)	-447
Instruments & Related Products	(\$48,754,298)	(\$17,575,070)	(\$14,009,101)	-146
Miscellaneous Manufacturing	(\$75,446,261)	(\$22,982,848)	(\$21,987,646)	-214
Transportation	(\$855,394,148)	(\$564,820,294)	(\$373,029,556)	-5,284
Communication	(\$791,690,866)	(\$530,999,866)	(\$231,673,321)	-2,034
Electric, Gas, Water, Sanitary Services	(\$2,063,338,685)	(\$449,595,049)	(\$193,623,233)	-752
Wholesale Trade	(\$1,114,748,815)	(\$869,592,822)	(\$488,213,584)	-5,773
Retail Trade	(\$3,147,470,132)	(\$2,666,858,504)	(\$1,580,587,428)	-42,911
Finance	(\$1,089,806,872)	(\$476,222,159)	(\$316,392,069)	-2,664
Insurance	(\$561,819,277)	(\$330,480,299)	(\$196,999,595)	-2,276
Real Estate	(\$4,873,564,704)	(\$1,132,705,926)	(\$177,537,530)	-1,746
Hotels, Lodging Places, Amusements	(\$458,701,140)	(\$233,227,673)	(\$151,628,699)	-3,553
Personal Services	(\$638,650,361)	(\$397,079,721)	(\$308,389,027)	-5,580
Business Services	(\$1,996,484,339)	(\$1,448,368,270)	(\$1,172,643,250)	-13,963
Eating & Drinking Places	(\$1,424,490,337)	(\$872,059,700)	(\$459,613,715)	-22,275
Health Services	(\$1,293,121,710)	(\$1,039,656,112)	(\$831,325,138)	-14,852
Miscellaneous Services	(\$951,417,242)	(\$429,400,565)	(\$352,329,105)	-8,780
Households	(\$46,316,653)	(\$46,316,653)	(\$30,497,994)	-2,122
<b>Total</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>-155,684</b>

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Comptroller's Economic Region Results**

<b>Economic Region</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
High Plains	(\$1,049,226,675)	(\$535,982,994)	(\$310,470,459)	(\$176,819,142)	-5,642
Northwest Texas	(\$887,345,393)	(\$456,603,608)	(\$259,710,435)	(\$153,140,540)	-4,714
Metroplex	(\$8,148,921,587)	(\$4,007,101,102)	(\$2,319,293,303)	(\$1,128,083,942)	-39,839
Upper East Texas	(\$1,844,027,794)	(\$926,496,505)	(\$536,179,398)	(\$313,029,129)	-9,802
Southeast Texas	(\$1,224,745,901)	(\$615,483,532)	(\$372,413,652)	(\$225,690,053)	-6,927
Gulf Coast	(\$8,219,403,650)	(\$3,796,827,379)	(\$2,151,383,152)	(\$908,982,146)	-34,364
Capital	(\$1,641,847,471)	(\$845,728,432)	(\$504,463,657)	(\$270,017,341)	-9,127
Central Texas	(\$1,340,601,809)	(\$676,041,521)	(\$400,683,614)	(\$241,715,639)	-7,627
Alamo	(\$3,174,942,644)	(\$1,579,362,447)	(\$931,522,703)	(\$509,013,410)	-16,954
South Texas	(\$2,190,093,919)	(\$1,106,073,762)	(\$643,848,984)	(\$379,914,554)	-11,993
West Texas	(\$760,241,937)	(\$378,072,710)	(\$211,227,837)	(\$120,144,418)	-3,719
Upper Rio Grande	(\$963,142,067)	(\$467,317,618)	(\$273,360,672)	(\$145,410,155)	-4,975
<b>TOTAL STATE IMPACT</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Council of Governments (COG) Region Results**

<b>COG</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Panhandle	(\$553,419,167)	(\$279,234,010)	(\$158,922,648)	(\$90,772,739)	-2,850
South Plains	(\$495,807,508)	(\$256,748,984)	(\$151,547,811)	(\$86,046,403)	-2,793
North Texas	(\$363,747,063)	(\$190,590,833)	(\$108,390,562)	(\$63,542,385)	-1,957
North Central Texas	(\$7,840,879,389)	(\$3,849,547,940)	(\$2,224,166,280)	(\$1,069,517,077)	-38,040
North East Texas	(\$399,324,473)	(\$201,913,483)	(\$121,450,248)	(\$77,729,308)	-2,337
East Texas	(\$1,444,703,321)	(\$724,583,023)	(\$414,729,150)	(\$235,299,821)	-7,464
West Central Texas	(\$523,598,330)	(\$266,012,775)	(\$151,319,873)	(\$89,598,156)	-2,757
Upper Rio Grande	(\$963,142,067)	(\$467,317,618)	(\$273,360,672)	(\$145,410,155)	-4,975
Permian Basin	(\$524,316,070)	(\$262,173,894)	(\$146,729,611)	(\$81,839,655)	-2,528
Concho Valley	(\$235,925,866)	(\$115,898,815)	(\$64,498,226)	(\$38,304,763)	-1,191
Heart of Texas	(\$549,142,344)	(\$265,315,967)	(\$155,672,085)	(\$92,339,060)	-2,949
Capital	(\$1,641,847,471)	(\$845,728,432)	(\$504,463,657)	(\$270,017,341)	-9,127
Brazos Valley	(\$341,638,080)	(\$174,624,360)	(\$101,311,816)	(\$60,792,719)	-1,891
Deep East Texas	(\$609,706,928)	(\$312,209,242)	(\$186,759,728)	(\$117,441,780)	-3,557
South East Texas	(\$615,038,973)	(\$303,274,290)	(\$185,653,924)	(\$108,248,273)	-3,371
Gulf Coast	(\$8,219,403,650)	(\$3,796,827,379)	(\$2,151,383,152)	(\$908,982,146)	-34,364
Golden Crescent	(\$298,304,318)	(\$148,019,279)	(\$85,566,823)	(\$49,439,553)	-1,528
Alamo	(\$2,876,638,326)	(\$1,431,343,168)	(\$845,955,881)	(\$459,573,857)	-15,426
South Texas	(\$219,563,057)	(\$116,189,670)	(\$65,167,713)	(\$42,126,093)	-1,225
Coastal Bend	(\$887,302,585)	(\$421,948,629)	(\$239,761,816)	(\$134,567,338)	-4,229
Lower Rio Grande Valley	(\$927,981,014)	(\$486,240,339)	(\$290,863,590)	(\$172,016,686)	-5,597
Texoma	(\$308,042,198)	(\$157,553,162)	(\$95,127,023)	(\$58,566,865)	-1,799
Central Texas	(\$449,821,385)	(\$236,101,194)	(\$143,699,713)	(\$88,583,860)	-2,787
Middle Rio Grande	(\$155,247,263)	(\$81,695,125)	(\$48,055,865)	(\$31,204,437)	-942
Border Region	(\$2,267,322,032)	(\$1,152,264,730)	(\$677,936,278)	(\$391,014,169)	-12,747
<b>TOTAL STATE IMPACT</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Metropolitan Statistical Area (MSA) and Rural Texas Results**

<b>MSA</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Abilene	(\$256,639,494)	(\$127,694,867)	(\$72,164,824)	(\$38,693,755)	-1,271
Amarillo	(\$353,400,834)	(\$183,246,335)	(\$104,874,738)	(\$57,381,860)	-1,881
Austin-Round Rock-San Marcos	(\$1,412,509,389)	(\$733,059,648)	(\$440,063,201)	(\$231,730,587)	-7,929
Beaumont-Port Arthur	(\$615,038,973)	(\$303,274,290)	(\$185,653,924)	(\$108,248,273)	-3,371
Brownsville-Harlingen	(\$372,785,148)	(\$188,866,987)	(\$112,610,310)	(\$67,169,328)	-2,183
College Station-Bryan	(\$220,842,122)	(\$112,025,506)	(\$64,861,437)	(\$37,593,906)	-1,202
Corpus Christi	(\$703,314,347)	(\$326,745,672)	(\$186,727,421)	(\$100,906,612)	-3,248
Dallas-Plano-Irving MD*	(\$4,827,356,692)	(\$2,365,224,285)	(\$1,359,332,574)	(\$621,759,209)	-22,825
Fort Worth-Arlington MD*	(\$2,743,620,618)	(\$1,352,890,426)	(\$786,966,936)	(\$399,936,408)	-13,730
El Paso	(\$934,180,858)	(\$452,226,526)	(\$264,434,404)	(\$139,393,788)	-4,800
Houston-Sugar Land-Baytown	(\$7,977,426,095)	(\$3,674,367,860)	(\$2,079,421,539)	(\$862,700,718)	-32,990
Killeen-Temple-Fort Hood	(\$386,577,610)	(\$203,477,833)	(\$124,046,364)	(\$75,536,442)	-2,404
Laredo	(\$169,279,424)	(\$88,723,927)	(\$49,170,306)	(\$30,388,892)	-905
Longview	(\$361,816,520)	(\$185,926,268)	(\$107,456,253)	(\$58,786,503)	-1,893
Lubbock	(\$370,481,110)	(\$192,997,230)	(\$115,076,285)	(\$62,108,038)	-2,105
McAllen-Edinburg-Mission	(\$536,428,704)	(\$286,769,385)	(\$172,105,962)	(\$100,579,678)	-3,293
Midland	(\$158,305,460)	(\$80,346,328)	(\$44,609,793)	(\$23,555,476)	-752
Odessa	(\$185,728,508)	(\$91,857,009)	(\$52,572,110)	(\$28,413,323)	-897
San Angelo	(\$166,862,284)	(\$81,258,456)	(\$44,882,426)	(\$25,986,742)	-830
San Antonio-New Braunfels	(\$2,678,393,765)	(\$1,334,547,030)	(\$790,347,204)	(\$425,444,483)	-14,375
Sherman-Denison	(\$181,330,276)	(\$94,215,367)	(\$57,440,263)	(\$36,780,437)	-1,117
Texarkana	(\$129,015,101)	(\$67,967,896)	(\$41,223,238)	(\$25,101,341)	-786
Tyler	(\$380,680,444)	(\$187,300,599)	(\$103,437,015)	(\$56,260,150)	-1,814
Victoria	(\$184,077,074)	(\$88,652,923)	(\$50,705,308)	(\$27,897,273)	-872
Waco	(\$365,211,037)	(\$174,478,797)	(\$102,645,857)	(\$57,872,536)	-1,921
Wichita Falls	(\$227,174,506)	(\$121,767,595)	(\$69,305,927)	(\$39,137,069)	-1,237
Rural Area	(\$4,546,064,456)	(\$2,291,182,568)	(\$1,332,422,246)	(\$832,597,643)	-25,054
<b>TOTAL STATE IMPACT</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

\*Metropolitan Division

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Anderson	(\$72,466,749)	(\$39,414,964)	(\$22,828,668)	(\$13,176,602)	-416
Andrews	(\$17,616,194)	(\$9,134,018)	(\$5,034,288)	(\$2,721,275)	-85
Angelina	(\$129,425,439)	(\$64,723,598)	(\$39,328,764)	(\$24,229,766)	-748
Aransas	(\$67,356,614)	(\$31,116,757)	(\$16,961,794)	(\$10,052,157)	-300
Archer	(\$10,975,576)	(\$5,671,807)	(\$3,040,843)	(\$1,901,093)	-56
Armstrong	(\$3,688,514)	(\$1,863,923)	(\$1,051,424)	(\$442,508)	-17
Atascosa	(\$62,078,175)	(\$29,990,839)	(\$16,918,779)	(\$9,238,688)	-291
Austin	(\$43,834,595)	(\$20,823,571)	(\$12,499,148)	(\$5,859,186)	-207
Bailey	(\$5,458,240)	(\$2,813,779)	(\$1,689,791)	(\$1,164,982)	-33
Bandera	(\$39,098,065)	(\$18,582,795)	(\$10,479,535)	(\$6,914,490)	-202
Bastrop	(\$94,308,418)	(\$46,356,548)	(\$27,381,782)	(\$17,024,752)	-526
Baylor	(\$8,995,001)	(\$4,787,563)	(\$2,786,296)	(\$1,685,044)	-52
Bee	(\$30,782,651)	(\$16,333,979)	(\$9,194,291)	(\$5,810,496)	-173
Bell	(\$286,686,414)	(\$153,073,595)	(\$94,210,306)	(\$55,896,967)	-1,808
Bexar	(\$2,129,526,529)	(\$1,068,534,639)	(\$636,427,773)	(\$328,525,418)	-11,432
Blanco	(\$14,468,410)	(\$6,859,962)	(\$3,924,380)	(\$2,536,648)	-77
Borden	(\$5,255,753)	(\$2,614,559)	(\$1,390,622)	(\$663,336)	-22
Bosque	(\$30,752,747)	(\$15,161,488)	(\$9,181,312)	(\$5,156,581)	-171
Bowie	(\$129,015,101)	(\$67,967,896)	(\$41,223,238)	(\$25,101,341)	-786
Brazoria	(\$341,123,254)	(\$162,642,272)	(\$95,684,607)	(\$56,547,835)	-1,716
Brazos	(\$163,836,155)	(\$82,796,836)	(\$47,755,003)	(\$26,089,125)	-875
Brewster	(\$11,925,326)	(\$6,546,168)	(\$3,979,017)	(\$2,382,303)	-76
Briscoe	(\$2,670,815)	(\$1,257,152)	(\$722,713)	(\$458,960)	-13
Brooks	(\$8,201,078)	(\$4,475,116)	(\$2,591,831)	(\$1,743,149)	-49
Brown	(\$53,895,358)	(\$29,231,951)	(\$17,785,068)	(\$12,492,565)	-361
Burleson	(\$30,535,745)	(\$16,206,009)	(\$9,260,741)	(\$5,810,496)	-169
Burnet	(\$72,864,288)	(\$34,883,554)	(\$20,167,121)	(\$11,969,621)	-374
Caldwell	(\$53,494,043)	(\$26,885,727)	(\$15,404,276)	(\$8,948,163)	-280
Calhoun	(\$22,211,101)	(\$9,122,549)	(\$5,244,132)	(\$2,912,143)	-90
Callahan	(\$26,643,148)	(\$12,924,273)	(\$7,079,328)	(\$4,357,872)	-130
Cameron	(\$372,785,148)	(\$188,866,987)	(\$112,610,310)	(\$67,169,328)	-2,183
Camp	(\$15,847,498)	(\$7,771,373)	(\$4,620,030)	(\$2,855,340)	-89
Carson	(\$4,637,051)	(\$1,955,963)	(\$912,523)	(\$363,759)	-14
Cass	(\$45,594,976)	(\$23,073,924)	(\$13,769,459)	(\$9,660,645)	-269
Castro	(\$4,625,389)	(\$2,243,672)	(\$1,332,512)	(\$957,345)	-27
Chambers	(\$45,220,988)	(\$19,470,543)	(\$10,530,578)	(\$4,811,023)	-168
Cherokee	(\$67,267,886)	(\$33,803,623)	(\$20,828,376)	(\$13,159,971)	-396
Childress	(\$9,899,307)	(\$4,953,782)	(\$2,852,449)	(\$1,975,568)	-56
Clay	(\$17,759,277)	(\$9,051,055)	(\$5,422,377)	(\$2,779,737)	-94
Cochran	(\$2,669,620)	(\$1,430,313)	(\$744,640)	(\$351,188)	-12





(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
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County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Coke	(\$8,480,638)	(\$4,105,234)	(\$2,292,470)	(\$1,343,668)	-39
Coleman	(\$19,634,173)	(\$10,158,066)	(\$5,653,035)	(\$3,428,192)	-103
Collin	(\$644,313,206)	(\$331,304,924)	(\$196,222,474)	(\$105,436,081)	-3,506
Collingsworth	(\$4,493,370)	(\$2,473,555)	(\$1,485,027)	(\$950,198)	-27
Colorado	(\$38,813,247)	(\$19,759,557)	(\$11,394,165)	(\$7,722,187)	-230
Comal	(\$151,751,152)	(\$73,496,998)	(\$42,805,081)	(\$26,902,594)	-842
Comanche	(\$22,749,412)	(\$11,576,304)	(\$6,975,425)	(\$4,349,360)	-133
Concho	(\$3,932,323)	(\$2,103,664)	(\$1,323,100)	(\$729,202)	-25
Cooke	(\$70,993,089)	(\$35,373,936)	(\$20,497,909)	(\$11,098,046)	-351
Coryell	(\$65,071,326)	(\$32,863,466)	(\$19,456,607)	(\$12,666,880)	-386
Cottle	(\$3,765,455)	(\$2,188,002)	(\$1,303,492)	(\$679,185)	-22
Crane	(\$3,037,564)	(\$1,652,343)	(\$898,655)	(\$460,462)	-15
Crockett	(\$4,354,073)	(\$2,249,717)	(\$1,229,221)	(\$929,679)	-24
Crosby	(\$7,752,116)	(\$4,194,365)	(\$2,354,776)	(\$1,097,835)	-40
Culberson	(\$2,177,233)	(\$1,296,385)	(\$761,415)	(\$639,155)	-16
Dallam	(\$5,616,930)	(\$3,014,664)	(\$1,796,016)	(\$947,455)	-33
Dallas	(\$3,141,272,111)	(\$1,531,476,231)	(\$864,510,215)	(\$346,702,262)	-13,865
Dawson	(\$19,383,586)	(\$9,805,218)	(\$5,336,865)	(\$3,355,247)	-97
Deaf Smith	(\$11,834,837)	(\$5,783,310)	(\$3,403,736)	(\$1,814,097)	-63
Delta	(\$7,232,957)	(\$3,782,855)	(\$2,287,605)	(\$924,552)	-39
Denton	(\$573,173,167)	(\$274,800,439)	(\$162,398,895)	(\$84,368,395)	-2,869
DeWitt	(\$35,744,480)	(\$17,952,073)	(\$10,711,974)	(\$6,507,755)	-202
Dickens	(\$4,279,798)	(\$2,259,576)	(\$1,361,094)	(\$846,741)	-25
Dimmit	(\$8,918,511)	(\$4,646,873)	(\$2,606,192)	(\$1,859,359)	-51
Donley	(\$6,474,550)	(\$3,657,664)	(\$2,211,900)	(\$1,685,044)	-46
Duval	(\$14,216,163)	(\$6,939,254)	(\$3,734,877)	(\$2,053,707)	-66
Eastland	(\$34,671,885)	(\$17,175,769)	(\$9,628,655)	(\$6,333,440)	-180
Ector	(\$185,728,508)	(\$91,857,009)	(\$52,572,110)	(\$28,413,323)	-897
Edwards	(\$2,725,049)	(\$1,344,316)	(\$719,812)	(\$476,664)	-13
El Paso	(\$934,180,858)	(\$452,226,526)	(\$264,434,404)	(\$139,393,788)	-4,800
Ellis	(\$160,473,936)	(\$74,300,986)	(\$44,082,720)	(\$26,978,328)	-811
Erath	(\$39,489,081)	(\$21,352,812)	(\$13,086,091)	(\$8,773,848)	-263
Falls	(\$25,936,304)	(\$13,744,966)	(\$8,407,124)	(\$5,080,177)	-162
Fannin	(\$55,718,833)	(\$27,963,859)	(\$17,188,851)	(\$10,688,381)	-331
Fayette	(\$58,679,001)	(\$29,971,804)	(\$16,842,454)	(\$9,064,373)	-299
Fisher	(\$5,950,768)	(\$3,085,585)	(\$1,805,572)	(\$1,272,469)	-36
Floyd	(\$6,600,181)	(\$2,972,434)	(\$1,716,841)	(\$909,154)	-31
Foard	(\$1,450,294)	(\$815,376)	(\$503,055)	(\$303,361)	-10
Fort Bend	(\$600,132,366)	(\$281,714,605)	(\$158,147,179)	(\$78,896,228)	-2,620
Franklin	(\$13,833,767)	(\$6,884,493)	(\$3,739,394)	(\$2,397,717)	-70



(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
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County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Freestone	(\$31,627,766)	(\$15,644,330)	(\$8,506,077)	(\$5,810,496)	-159
Frio	(\$19,577,637)	(\$9,486,480)	(\$5,156,096)	(\$3,101,328)	-93
Gaines	(\$12,775,135)	(\$6,181,007)	(\$3,243,177)	(\$1,913,026)	-56
Galveston	(\$479,492,378)	(\$223,762,801)	(\$130,759,823)	(\$74,897,287)	-2,374
Garza	(\$7,048,300)	(\$3,456,650)	(\$1,902,416)	(\$1,172,391)	-34
Gillespie	(\$51,977,198)	(\$25,455,506)	(\$15,120,270)	(\$9,296,793)	-291
Glasscock	(\$676,460)	(\$333,915)	(\$161,969)	(\$56,700)	-2
Goliad	(\$10,812,772)	(\$5,792,556)	(\$3,310,361)	(\$2,382,303)	-64
Gonzales	(\$20,046,385)	(\$10,228,078)	(\$6,118,301)	(\$3,896,031)	-118
Gray	(\$46,664,258)	(\$21,820,170)	(\$12,229,566)	(\$7,420,412)	-211
Grayson	(\$181,330,276)	(\$94,215,367)	(\$57,440,263)	(\$36,780,437)	-1,117
Gregg	(\$214,190,392)	(\$113,034,905)	(\$65,607,353)	(\$34,688,658)	-1,143
Grimes	(\$27,739,508)	(\$13,965,979)	(\$8,248,693)	(\$4,981,731)	-153
Guadalupe	(\$134,654,285)	(\$66,632,187)	(\$39,409,413)	(\$25,740,495)	-755
Hale	(\$29,947,465)	(\$16,070,054)	(\$9,731,999)	(\$7,293,853)	-199
Hall	(\$5,899,549)	(\$2,979,149)	(\$1,719,183)	(\$1,117,517)	-33
Hamilton	(\$12,924,860)	(\$6,382,611)	(\$3,856,858)	(\$2,730,933)	-77
Hansford	(\$4,883,114)	(\$2,210,322)	(\$1,072,114)	(\$484,983)	-16
Hardeman	(\$5,947,001)	(\$3,268,272)	(\$1,927,614)	(\$1,568,834)	-41
Hardin	(\$82,915,726)	(\$40,715,516)	(\$23,196,421)	(\$14,758,659)	-428
Harris	(\$5,618,299,930)	(\$2,556,710,685)	(\$1,438,719,200)	(\$524,199,137)	-21,914
Harrison	(\$118,523,670)	(\$55,146,862)	(\$31,477,935)	(\$15,319,125)	-517
Hartley	(\$1,385,807)	(\$683,156)	(\$394,836)	(\$254,527)	-8
Haskell	(\$9,893,843)	(\$5,096,285)	(\$2,968,306)	(\$1,711,404)	-54
Hays	(\$133,141,910)	(\$67,348,498)	(\$39,971,805)	(\$23,706,822)	-753
Hemphill	(\$3,040,233)	(\$1,433,044)	(\$732,406)	(\$384,516)	-12
Henderson	(\$174,008,598)	(\$84,209,613)	(\$48,574,690)	(\$28,761,953)	-913
Hidalgo	(\$536,428,704)	(\$286,769,385)	(\$172,105,962)	(\$100,579,678)	-3,293
Hill	(\$60,161,758)	(\$27,972,211)	(\$16,131,806)	(\$11,388,571)	-333
Hockley	(\$24,051,222)	(\$12,374,234)	(\$6,882,551)	(\$4,341,714)	-128
Hood	(\$100,650,031)	(\$47,556,902)	(\$28,145,311)	(\$17,722,011)	-539
Hopkins	(\$47,602,254)	(\$24,957,517)	(\$15,172,197)	(\$10,284,577)	-298
Houston	(\$48,538,300)	(\$23,756,582)	(\$14,469,830)	(\$6,587,974)	-241
Howard	(\$57,400,705)	(\$27,605,557)	(\$15,531,754)	(\$8,890,058)	-271
Hudspeth	(\$1,596,134)	(\$831,820)	(\$470,483)	(\$505,904)	-11
Hunt	(\$111,909,738)	(\$56,175,575)	(\$33,885,543)	(\$23,067,667)	-665
Hutchinson	(\$37,383,277)	(\$17,541,995)	(\$9,764,503)	(\$6,717,576)	-171
Irion	(\$2,503,163)	(\$1,049,469)	(\$537,892)	(\$304,352)	-9
Jack	(\$12,670,337)	(\$6,358,845)	(\$3,594,930)	(\$2,140,415)	-63
Jackson	(\$20,420,378)	(\$10,567,327)	(\$5,715,344)	(\$3,736,133)	-105





(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
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County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Jasper	(\$55,539,371)	(\$28,292,925)	(\$16,959,169)	(\$11,472,760)	-337
Jeff Davis	(\$4,362,824)	(\$2,143,118)	(\$1,244,428)	(\$803,961)	-24
Jefferson	(\$400,635,052)	(\$198,040,948)	(\$123,204,825)	(\$69,435,422)	-2,224
Jim Hogg	(\$6,993,024)	(\$3,537,683)	(\$1,902,768)	(\$1,394,519)	-35
Jim Wells	(\$46,049,131)	(\$25,495,855)	(\$14,304,494)	(\$9,064,373)	-267
Johnson	(\$187,550,866)	(\$92,529,292)	(\$56,754,898)	(\$33,642,769)	-1,061
Jones	(\$33,371,326)	(\$16,882,986)	(\$9,505,258)	(\$5,225,300)	-170
Karnes	(\$27,652,722)	(\$12,674,317)	(\$6,950,386)	(\$4,009,242)	-120
Kaufman	(\$124,096,814)	(\$60,363,979)	(\$36,204,372)	(\$22,544,723)	-696
Kendall	(\$54,187,457)	(\$25,022,296)	(\$14,340,242)	(\$8,657,638)	-263
Kenedy	(\$2,278,844)	(\$1,170,320)	(\$600,904)	(\$439,193)	-12
Kent	(\$1,883,245)	(\$911,771)	(\$494,244)	(\$265,254)	-8
Kerr	(\$99,037,004)	(\$49,179,835)	(\$28,381,926)	(\$17,722,011)	-546
Kimble	(\$10,077,759)	(\$4,411,555)	(\$2,423,203)	(\$1,568,834)	-45
King	(\$1,795,376)	(\$964,395)	(\$580,206)	(\$237,607)	-10
Kinney	(\$8,044,121)	(\$3,791,845)	(\$1,947,307)	(\$1,249,337)	-36
Kleberg	(\$40,273,350)	(\$20,423,560)	(\$11,460,441)	(\$6,798,280)	-210
Knox	(\$6,526,381)	(\$3,445,508)	(\$1,902,587)	(\$940,126)	-32
La Salle	(\$5,602,727)	(\$3,026,685)	(\$1,658,195)	(\$1,220,204)	-33
Lamar	(\$77,951,269)	(\$38,659,421)	(\$23,534,933)	(\$15,741,070)	-469
Lamb	(\$12,901,578)	(\$5,966,388)	(\$3,535,504)	(\$2,249,585)	-64
Lampasas	(\$34,819,870)	(\$17,540,772)	(\$10,379,451)	(\$6,972,595)	-210
Lavaca	(\$38,016,002)	(\$20,618,878)	(\$12,315,896)	(\$7,402,360)	-232
Lee	(\$24,827,128)	(\$12,527,071)	(\$7,086,990)	(\$4,082,904)	-127
Leon	(\$25,133,905)	(\$13,480,737)	(\$7,590,068)	(\$5,415,634)	-146
Liberty	(\$117,420,878)	(\$60,470,758)	(\$35,192,636)	(\$19,365,670)	-624
Limestone	(\$35,452,732)	(\$18,314,176)	(\$10,799,910)	(\$7,030,700)	-203
Lipscomb	(\$4,480,952)	(\$2,154,505)	(\$1,078,466)	(\$520,467)	-18
Live Oak	(\$28,703,567)	(\$13,634,893)	(\$7,594,123)	(\$4,880,816)	-135
Llano	(\$58,499,255)	(\$28,426,392)	(\$16,379,512)	(\$10,633,207)	-322
Loving	(\$1,320,670)	(\$640,474)	(\$266,772)	(\$81,351)	-3
Lubbock	(\$362,728,994)	(\$188,802,865)	(\$112,721,510)	(\$61,010,203)	-2,065
Lynn	(\$5,291,291)	(\$2,579,901)	(\$1,495,023)	(\$616,678)	-25
Madison	(\$14,722,498)	(\$7,540,680)	(\$4,248,962)	(\$3,253,878)	-87
Marion	(\$20,784,214)	(\$10,645,343)	(\$6,152,611)	(\$4,067,347)	-121
Martin	(\$4,948,916)	(\$2,349,909)	(\$1,294,486)	(\$695,939)	-21
Mason	(\$10,032,641)	(\$4,969,666)	(\$2,670,683)	(\$1,626,939)	-49
Matagorda	(\$59,671,117)	(\$27,385,767)	(\$15,971,486)	(\$10,432,363)	-292
Maverick	(\$40,235,565)	(\$20,667,766)	(\$11,920,158)	(\$8,134,694)	-239
McCulloch	(\$15,066,171)	(\$7,828,993)	(\$4,739,802)	(\$2,963,353)	-90



**(continued)**  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
McLennan	(\$365,211,037)	(\$174,478,797)	(\$102,645,857)	(\$57,872,536)	-1,921
McMullen	(\$786,279)	(\$378,802)	(\$194,429)	(\$81,675)	-3
Medina	(\$55,641,993)	(\$26,673,812)	(\$15,162,045)	(\$9,877,842)	-297
Menard	(\$4,825,036)	(\$2,521,190)	(\$1,378,825)	(\$929,679)	-25
Midland	(\$158,305,460)	(\$80,346,328)	(\$44,609,793)	(\$23,555,476)	-752
Milam	(\$35,671,890)	(\$18,001,316)	(\$10,764,688)	(\$6,817,218)	-204
Mills	(\$5,851,195)	(\$3,546,538)	(\$2,246,717)	(\$1,523,699)	-45
Mitchell	(\$13,217,410)	(\$6,835,090)	(\$3,864,239)	(\$2,359,374)	-70
Montague	(\$41,120,287)	(\$20,071,170)	(\$10,966,395)	(\$6,798,280)	-204
Montgomery	(\$642,781,818)	(\$307,403,087)	(\$174,359,125)	(\$82,668,434)	-2,918
Moore	(\$21,342,111)	(\$9,344,668)	(\$5,140,304)	(\$2,908,805)	-87
Morris	(\$20,682,905)	(\$9,066,147)	(\$5,430,305)	(\$2,454,496)	-90
Motley	(\$3,178,614)	(\$1,509,598)	(\$799,103)	(\$502,003)	-15
Nacogdoches	(\$73,769,662)	(\$39,320,433)	(\$24,065,018)	(\$16,095,073)	-489
Navarro	(\$73,636,626)	(\$36,546,238)	(\$22,039,854)	(\$12,547,321)	-416
Newton	(\$10,186,125)	(\$6,347,765)	(\$4,109,856)	(\$2,800,584)	-79
Nolan	(\$29,023,423)	(\$15,306,599)	(\$8,588,925)	(\$5,055,576)	-155
Nueces	(\$539,771,128)	(\$250,622,053)	(\$143,893,202)	(\$74,258,133)	-2,472
Ochiltree	(\$8,931,309)	(\$4,302,200)	(\$2,312,048)	(\$1,231,431)	-38
Oldham	(\$855,415)	(\$483,634)	(\$295,678)	(\$271,670)	-7
Orange	(\$131,488,195)	(\$64,517,826)	(\$39,252,679)	(\$24,054,193)	-718
Palo Pinto	(\$56,776,923)	(\$26,700,745)	(\$15,007,572)	(\$8,948,163)	-274
Panola	(\$39,223,830)	(\$19,996,863)	(\$11,385,519)	(\$6,496,799)	-203
Parker	(\$161,213,531)	(\$75,384,903)	(\$43,477,103)	(\$25,508,075)	-797
Parmer	(\$3,786,296)	(\$1,736,350)	(\$1,000,620)	(\$347,570)	-17
Pecos	(\$15,982,325)	(\$7,998,002)	(\$4,402,188)	(\$2,963,353)	-83
Polk	(\$115,821,760)	(\$59,339,881)	(\$33,552,741)	(\$21,208,309)	-611
Potter	(\$183,128,745)	(\$95,469,253)	(\$54,208,371)	(\$28,936,268)	-959
Presidio	(\$8,899,692)	(\$4,273,602)	(\$2,470,925)	(\$1,685,044)	-48
Rains	(\$17,908,364)	(\$8,346,803)	(\$4,632,398)	(\$3,234,843)	-88
Randall	(\$161,946,524)	(\$83,957,196)	(\$48,702,420)	(\$27,639,325)	-890
Reagan	(\$2,662,345)	(\$1,377,341)	(\$736,642)	(\$502,056)	-13
Real	(\$9,148,543)	(\$4,181,312)	(\$2,268,208)	(\$1,394,519)	-41
Red River	(\$26,417,718)	(\$12,548,553)	(\$7,211,885)	(\$4,598,469)	-138
Reeves	(\$14,373,334)	(\$7,424,192)	(\$4,118,801)	(\$3,021,458)	-79
Refugio	(\$12,697,176)	(\$6,351,179)	(\$3,359,005)	(\$2,789,038)	-65
Roberts	(\$1,223,162)	(\$556,533)	(\$289,035)	(\$227,786)	-5
Robertson	(\$26,470,222)	(\$13,022,662)	(\$7,845,694)	(\$5,694,286)	-158
Rockwall	(\$64,884,762)	(\$33,019,295)	(\$19,740,748)	(\$11,737,201)	-373
Runnels	(\$22,628,267)	(\$10,189,196)	(\$5,552,528)	(\$3,249,510)	-97



**(continued)**  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Rusk	(\$80,017,844)	(\$38,990,562)	(\$22,449,046)	(\$12,128,224)	-394
Sabine	(\$21,510,699)	(\$10,661,837)	(\$6,643,270)	(\$4,303,895)	-127
San Augustine	(\$18,683,941)	(\$8,978,552)	(\$4,958,756)	(\$3,064,604)	-92
San Jacinto	(\$42,507,645)	(\$20,786,111)	(\$12,232,131)	(\$7,902,274)	-236
San Patricio	(\$96,186,605)	(\$45,006,861)	(\$25,872,426)	(\$16,596,322)	-477
San Saba	(\$8,795,831)	(\$4,692,896)	(\$2,785,085)	(\$1,975,568)	-57
Schleicher	(\$2,927,797)	(\$1,503,775)	(\$835,093)	(\$330,092)	-14
Scurry	(\$22,567,248)	(\$12,323,031)	(\$6,753,992)	(\$4,626,823)	-126
Shackelford	(\$4,760,755)	(\$2,396,180)	(\$1,279,565)	(\$739,338)	-22
Shelby	(\$29,307,762)	(\$15,821,448)	(\$10,072,984)	(\$6,558,861)	-198
Sherman	(\$963,869)	(\$445,753)	(\$254,176)	(\$137,508)	-5
Smith	(\$380,680,444)	(\$187,300,599)	(\$103,437,015)	(\$56,260,150)	-1,814
Somervell	(\$6,582,377)	(\$3,059,387)	(\$1,875,548)	(\$754,668)	-33
Starr	(\$31,988,619)	(\$18,086,634)	(\$10,836,481)	(\$8,018,484)	-222
Stephens	(\$15,249,419)	(\$8,242,037)	(\$4,624,928)	(\$3,237,729)	-86
Sterling	(\$1,135,323)	(\$653,914)	(\$371,345)	(\$290,525)	-7
Stonewall	(\$2,419,235)	(\$1,357,007)	(\$763,664)	(\$532,199)	-15
Sutton	(\$5,569,476)	(\$2,915,309)	(\$1,615,416)	(\$1,103,994)	-30
Swisher	(\$6,628,827)	(\$3,061,728)	(\$1,796,710)	(\$1,070,044)	-34
Tarrant	(\$2,324,732,153)	(\$1,148,507,905)	(\$666,279,125)	(\$328,467,313)	-11,504
Taylor	(\$196,625,020)	(\$97,887,608)	(\$55,580,238)	(\$29,110,583)	-971
Terrell	(\$1,388,631)	(\$821,978)	(\$488,439)	(\$256,798)	-8
Terry	(\$14,707,047)	(\$7,595,803)	(\$3,994,258)	(\$2,898,999)	-74
Throckmorton	(\$1,888,013)	(\$987,528)	(\$514,316)	(\$311,040)	-9
Titus	(\$30,993,526)	(\$14,972,677)	(\$9,081,232)	(\$6,566,442)	-179
Tom Green	(\$164,359,120)	(\$80,208,988)	(\$44,344,534)	(\$25,682,390)	-822
Travis	(\$892,569,255)	(\$464,839,731)	(\$278,757,633)	(\$137,824,277)	-4,909
Trinity	(\$29,906,953)	(\$16,339,716)	(\$9,616,622)	(\$6,330,542)	-191
Tyler	(\$34,509,273)	(\$17,840,395)	(\$10,750,587)	(\$6,887,137)	-208
Upshur	(\$67,608,283)	(\$33,900,801)	(\$19,399,854)	(\$11,969,621)	-356
Upton	(\$4,302,833)	(\$2,178,096)	(\$1,150,847)	(\$636,923)	-20
Uvalde	(\$32,240,603)	(\$16,825,011)	(\$9,999,326)	(\$6,101,020)	-194
Val Verde	(\$42,445,147)	(\$23,719,819)	(\$14,703,279)	(\$8,948,163)	-285
Van Zandt	(\$76,910,847)	(\$43,401,862)	(\$25,455,542)	(\$16,734,227)	-500
Victoria	(\$151,053,201)	(\$73,737,818)	(\$42,150,816)	(\$22,602,828)	-718
Walker	(\$120,573,695)	(\$61,968,354)	(\$37,487,625)	(\$23,997,347)	-732
Waller	(\$46,612,244)	(\$20,583,428)	(\$11,297,112)	(\$7,553,644)	-213
Ward	(\$13,967,424)	(\$7,170,087)	(\$3,982,267)	(\$2,730,933)	-74
Washington	(\$53,200,048)	(\$27,611,458)	(\$16,362,655)	(\$9,547,570)	-303
Webb	(\$169,279,424)	(\$88,723,927)	(\$49,170,306)	(\$30,388,892)	-905



(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Wharton	(\$65,427,140)	(\$34,131,952)	(\$19,340,468)	(\$12,031,805)	-356
Wheeler	(\$6,934,954)	(\$3,850,668)	(\$2,163,910)	(\$1,507,399)	-41
Wichita	(\$198,439,653)	(\$107,044,733)	(\$60,842,707)	(\$34,456,239)	-1,086
Wilbarger	(\$25,486,615)	(\$12,218,104)	(\$7,376,686)	(\$4,706,501)	-139
Willacy	(\$18,767,161)	(\$10,603,967)	(\$6,147,318)	(\$4,267,680)	-121
Williamson	(\$238,995,762)	(\$127,629,144)	(\$78,547,704)	(\$44,226,573)	-1,460
Wilson	(\$51,456,108)	(\$25,613,463)	(\$14,804,336)	(\$9,587,318)	-292
Winkler	(\$7,852,575)	(\$4,061,201)	(\$2,246,581)	(\$1,423,997)	-40
Wise	(\$70,124,067)	(\$36,468,326)	(\$20,455,810)	(\$12,318,251)	-369
Wood	(\$99,264,702)	(\$48,618,851)	(\$27,880,114)	(\$16,446,962)	-515
Yoakum	(\$7,397,666)	(\$3,758,628)	(\$2,038,100)	(\$1,353,470)	-37
Young	(\$37,137,567)	(\$19,115,906)	(\$10,626,167)	(\$6,523,697)	-189
Zapata	(\$11,301,990)	(\$5,841,425)	(\$3,258,157)	(\$2,324,198)	-63
Zavala	(\$5,886,996)	(\$3,491,496)	(\$2,233,390)	(\$1,820,478)	-50
<b>TOTAL STATE IMPACT</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

**NOTE:** Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$216,077,195)	(\$110,753,311)	(\$66,575,614)	(\$41,283,829)	-1,267
2	(\$206,728,949)	(\$107,924,240)	(\$63,973,482)	(\$43,036,737)	-1,252
3	(\$204,031,491)	(\$101,805,515)	(\$61,027,246)	(\$40,512,827)	-1,192
4	(\$298,105,412)	(\$144,573,592)	(\$84,779,062)	(\$51,306,676)	-1,609
5	(\$301,244,153)	(\$145,437,887)	(\$83,377,933)	(\$46,591,048)	-1,477
6	(\$312,157,964)	(\$153,586,491)	(\$84,818,352)	(\$46,133,323)	-1,487
7	(\$282,712,872)	(\$146,749,012)	(\$84,226,015)	(\$44,815,485)	-1,469
8	(\$213,183,872)	(\$109,919,708)	(\$64,174,509)	(\$38,565,118)	-1,194
9	(\$198,811,433)	(\$103,075,194)	(\$62,699,197)	(\$41,495,193)	-1,243
10	(\$220,635,694)	(\$102,273,198)	(\$60,214,526)	(\$38,366,899)	-1,144
11	(\$235,047,860)	(\$116,547,630)	(\$69,132,772)	(\$38,372,968)	-1,234
12	(\$236,349,309)	(\$119,689,819)	(\$71,928,104)	(\$45,349,720)	-1,382
13	(\$245,347,846)	(\$124,369,362)	(\$74,598,121)	(\$44,385,834)	-1,394
14	(\$152,367,624)	(\$77,001,057)	(\$44,412,152)	(\$24,262,886)	-813
15	(\$289,251,818)	(\$138,331,389)	(\$78,461,606)	(\$37,200,795)	-1,313
16	(\$295,679,637)	(\$141,405,420)	(\$80,205,198)	(\$38,027,479)	-1,342
17	(\$258,632,070)	(\$130,616,768)	(\$75,308,982)	(\$45,530,951)	-1,412
18	(\$291,093,002)	(\$147,476,917)	(\$84,437,698)	(\$48,014,138)	-1,498
19	(\$203,551,935)	(\$101,258,256)	(\$60,278,526)	(\$37,764,765)	-1,110
20	(\$143,219,983)	(\$75,434,430)	(\$46,111,155)	(\$26,719,176)	-861
21	(\$212,336,578)	(\$104,961,702)	(\$65,298,557)	(\$36,800,773)	-1,179
22	(\$209,336,586)	(\$103,402,098)	(\$64,186,696)	(\$36,483,319)	-1,160
23	(\$265,787,482)	(\$122,401,431)	(\$70,680,097)	(\$39,263,775)	-1,260
24	(\$258,925,884)	(\$120,831,912)	(\$70,610,305)	(\$40,444,535)	-1,282
25	(\$194,440,255)	(\$92,706,095)	(\$54,540,226)	(\$32,232,266)	-978
26	(\$243,053,608)	(\$114,094,415)	(\$64,049,607)	(\$31,952,972)	-1,061
27	(\$243,053,608)	(\$114,094,415)	(\$64,049,607)	(\$31,952,972)	-1,061
28	(\$226,064,534)	(\$108,241,155)	(\$60,685,543)	(\$34,575,732)	-1,067
29	(\$206,354,116)	(\$97,321,944)	(\$57,115,867)	(\$34,747,932)	-1,030
30	(\$257,931,237)	(\$129,227,275)	(\$74,253,034)	(\$43,038,114)	-1,322
31	(\$108,290,599)	(\$57,484,491)	(\$32,580,607)	(\$21,513,057)	-623
32	(\$245,129,145)	(\$112,814,594)	(\$63,906,603)	(\$37,729,016)	-1,138
33	(\$240,198,152)	(\$111,526,814)	(\$64,032,475)	(\$33,044,869)	-1,100
34	(\$240,198,152)	(\$111,526,814)	(\$64,032,475)	(\$33,044,869)	-1,100
35	(\$206,865,296)	(\$104,301,240)	(\$58,466,862)	(\$35,467,592)	-1,054
36	(\$134,107,176)	(\$71,692,346)	(\$43,026,490)	(\$25,144,919)	-823
37	(\$149,114,059)	(\$75,546,795)	(\$45,044,124)	(\$26,867,731)	-873
38	(\$149,114,059)	(\$75,546,795)	(\$45,044,124)	(\$26,867,731)	-873
39	(\$134,107,176)	(\$71,692,346)	(\$43,026,490)	(\$25,144,919)	-823
40	(\$134,107,176)	(\$71,692,346)	(\$43,026,490)	(\$25,144,919)	-823



(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
41	(\$134,107,176)	(\$71,692,346)	(\$43,026,490)	(\$25,144,919)	-823
42	(\$118,495,597)	(\$62,106,749)	(\$34,419,214)	(\$21,272,224)	-633
43	(\$151,070,486)	(\$77,984,043)	(\$45,225,324)	(\$28,076,686)	-864
44	(\$206,156,778)	(\$102,473,729)	(\$60,332,050)	(\$39,223,844)	-1,165
45	(\$201,104,363)	(\$101,094,187)	(\$59,300,461)	(\$35,191,633)	-1,111
46	(\$151,736,773)	(\$79,022,754)	(\$47,388,798)	(\$23,430,127)	-835
47	(\$151,736,773)	(\$79,022,754)	(\$47,388,798)	(\$23,430,127)	-835
48	(\$142,811,081)	(\$74,374,357)	(\$44,601,221)	(\$22,051,884)	-785
49	(\$151,736,773)	(\$79,022,754)	(\$47,388,798)	(\$23,430,127)	-835
50	(\$142,811,081)	(\$74,374,357)	(\$44,601,221)	(\$22,051,884)	-785
51	(\$151,736,773)	(\$79,022,754)	(\$47,388,798)	(\$23,430,127)	-835
52	(\$131,447,669)	(\$70,196,029)	(\$43,201,237)	(\$24,324,615)	-803
53	(\$301,171,498)	(\$148,255,839)	(\$84,314,963)	(\$52,942,651)	-1,598
54	(\$219,491,860)	(\$112,123,028)	(\$67,288,592)	(\$40,742,033)	-1,289
55	(\$174,878,713)	(\$93,374,893)	(\$57,468,287)	(\$34,097,150)	-1,103
56	(\$233,735,063)	(\$111,666,430)	(\$65,693,348)	(\$37,038,423)	-1,229
57	(\$223,738,902)	(\$110,601,411)	(\$65,044,357)	(\$40,278,086)	-1,245
58	(\$218,303,613)	(\$107,690,779)	(\$65,936,209)	(\$38,799,351)	-1,232
59	(\$152,668,251)	(\$78,781,117)	(\$47,497,246)	(\$30,799,389)	-937
60	(\$266,004,371)	(\$131,303,585)	(\$76,471,100)	(\$49,473,247)	-1,461
61	(\$231,337,598)	(\$111,853,229)	(\$63,932,913)	(\$37,826,326)	-1,166
62	(\$237,049,109)	(\$122,179,226)	(\$74,629,114)	(\$47,468,818)	-1,448
63	(\$189,147,145)	(\$90,684,145)	(\$53,591,636)	(\$27,841,570)	-947
64	(\$194,878,877)	(\$93,432,149)	(\$55,215,624)	(\$28,685,254)	-975
65	(\$189,147,145)	(\$90,684,145)	(\$53,591,636)	(\$27,841,570)	-947
66	(\$173,964,566)	(\$89,452,329)	(\$52,980,068)	(\$28,467,742)	-947
67	(\$173,964,566)	(\$89,452,329)	(\$52,980,068)	(\$28,467,742)	-947
68	(\$252,886,948)	(\$127,511,118)	(\$73,130,531)	(\$42,832,021)	-1,310
69	(\$209,415,229)	(\$112,716,540)	(\$63,883,550)	(\$36,357,332)	-1,142
70	(\$173,964,566)	(\$89,452,329)	(\$52,980,068)	(\$28,467,742)	-947
71	(\$225,648,444)	(\$113,194,208)	(\$64,169,163)	(\$34,166,159)	-1,126
72	(\$208,624,416)	(\$103,472,343)	(\$57,255,235)	(\$34,012,255)	-1,057
73	(\$297,013,872)	(\$142,557,595)	(\$82,745,128)	(\$51,771,515)	-1,598
74	(\$153,404,393)	(\$81,034,972)	(\$47,607,150)	(\$30,596,107)	-916
75	(\$186,836,172)	(\$90,445,305)	(\$52,886,881)	(\$27,878,758)	-960
76	(\$186,836,172)	(\$90,445,305)	(\$52,886,881)	(\$27,878,758)	-960
77	(\$186,836,172)	(\$90,445,305)	(\$52,886,881)	(\$27,878,758)	-960
78	(\$186,836,172)	(\$90,445,305)	(\$52,886,881)	(\$27,878,758)	-960
79	(\$186,836,172)	(\$90,445,305)	(\$52,886,881)	(\$27,878,758)	-960
80	(\$143,907,551)	(\$71,784,958)	(\$40,683,381)	(\$27,263,241)	-798





(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
81	(\$211,197,276)	(\$105,052,229)	(\$59,852,979)	(\$32,558,595)	-1,022
82	(\$189,978,358)	(\$96,331,893)	(\$53,290,645)	(\$28,704,047)	-906
83	(\$191,985,241)	(\$99,265,329)	(\$57,997,071)	(\$32,363,480)	-1,060
84	(\$217,637,396)	(\$113,281,719)	(\$67,632,906)	(\$36,606,122)	-1,239
85	(\$184,604,722)	(\$92,741,314)	(\$52,494,275)	(\$31,991,160)	-956
86	(\$181,639,514)	(\$93,921,960)	(\$54,592,686)	(\$30,927,074)	-1,002
87	(\$210,071,775)	(\$107,215,637)	(\$60,515,374)	(\$32,346,340)	-1,065
88	(\$180,067,696)	(\$86,876,579)	(\$49,039,883)	(\$30,913,891)	-881
89	(\$187,304,271)	(\$95,967,231)	(\$57,023,018)	(\$31,770,056)	-1,040
90	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
91	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
92	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
93	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
94	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
95	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
96	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
97	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
98	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
99	(\$232,473,215)	(\$114,850,791)	(\$66,627,913)	(\$32,846,731)	-1,150
100	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
101	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
102	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
103	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
104	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
105	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
106	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
107	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
108	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
109	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
110	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
111	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
112	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
113	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
114	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
115	(\$196,329,507)	(\$95,717,264)	(\$54,031,888)	(\$21,668,891)	-867
116	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
117	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
118	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
119	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
120	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143



(continued)  
**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
121	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
122	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
123	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
124	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
125	(\$212,952,653)	(\$106,853,464)	(\$63,642,777)	(\$32,852,542)	-1,143
126	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
127	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
128	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
129	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
130	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
131	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
132	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
133	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
134	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
135	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
136	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
137	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
138	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
139	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
140	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
141	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
142	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
143	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
144	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
145	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
146	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
147	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
148	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
149	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
150	(\$224,731,997)	(\$102,268,427)	(\$57,548,768)	(\$20,967,965)	-877
<b>TOTAL</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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



**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas Senate District**

Senate District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$1,228,357,962)	(\$613,659,030)	(\$355,025,116)	(\$204,248,345)	-6,427
2	(\$1,063,108,486)	(\$529,875,814)	(\$307,517,117)	(\$163,880,045)	-5,478
3	(\$1,277,363,712)	(\$638,291,624)	(\$372,920,923)	(\$220,600,085)	-6,878
4	(\$1,131,125,867)	(\$545,797,705)	(\$320,646,294)	(\$163,716,457)	-5,515
5	(\$854,032,258)	(\$441,193,591)	(\$262,228,606)	(\$156,128,902)	-4,905
6	(\$1,067,476,987)	(\$485,775,030)	(\$273,356,648)	(\$99,597,836)	-4,164
7	(\$1,123,659,986)	(\$511,342,137)	(\$287,743,840)	(\$104,839,827)	-4,383
8	(\$921,798,782)	(\$464,355,050)	(\$270,132,227)	(\$131,600,151)	-4,645
9	(\$998,976,367)	(\$486,877,851)	(\$280,918,313)	(\$130,663,720)	-4,749
10	(\$1,139,118,755)	(\$562,768,873)	(\$326,476,771)	(\$160,948,983)	-5,637
11	(\$1,138,356,863)	(\$527,646,241)	(\$303,782,419)	(\$148,162,188)	-5,123
12	(\$1,032,102,847)	(\$507,388,057)	(\$295,242,945)	(\$146,843,424)	-5,117
13	(\$1,087,140,109)	(\$496,618,030)	(\$279,374,643)	(\$106,471,023)	-4,302
14	(\$767,609,560)	(\$399,762,169)	(\$239,731,564)	(\$118,528,879)	-4,222
15	(\$1,123,659,986)	(\$511,342,137)	(\$287,743,840)	(\$104,839,827)	-4,383
16	(\$942,381,633)	(\$459,442,869)	(\$259,353,064)	(\$104,010,679)	-4,160
17	(\$1,170,295,468)	(\$542,634,750)	(\$310,063,138)	(\$137,737,543)	-5,024
18	(\$1,144,453,555)	(\$557,317,163)	(\$318,802,983)	(\$183,601,207)	-5,699
19	(\$890,486,022)	(\$447,740,634)	(\$263,084,351)	(\$148,834,387)	-4,856
20	(\$889,057,125)	(\$438,316,186)	(\$255,447,806)	(\$140,384,477)	-4,599
21	(\$763,068,586)	(\$383,581,730)	(\$219,363,730)	(\$131,953,011)	-4,039
22	(\$1,076,027,007)	(\$518,213,733)	(\$308,721,036)	(\$183,809,843)	-5,833
23	(\$973,794,355)	(\$474,757,632)	(\$267,998,167)	(\$107,477,701)	-4,298
24	(\$1,079,634,010)	(\$550,079,849)	(\$324,451,978)	(\$197,192,707)	-6,157
25	(\$1,045,895,072)	(\$521,969,817)	(\$309,202,442)	(\$173,293,286)	-5,701
26	(\$979,582,203)	(\$491,525,934)	(\$292,756,775)	(\$151,121,692)	-5,259
27	(\$675,497,420)	(\$350,111,057)	(\$208,266,656)	(\$123,935,336)	-4,007
28	(\$956,485,343)	(\$486,168,656)	(\$279,806,082)	(\$162,752,724)	-5,134
29	(\$878,130,006)	(\$425,092,935)	(\$248,568,339)	(\$131,030,161)	-4,512
30	(\$1,119,047,469)	(\$564,865,938)	(\$327,566,557)	(\$191,356,139)	-5,966
31	(\$906,817,048)	(\$456,579,391)	(\$258,263,492)	(\$142,399,883)	-4,512
<b>TOTAL</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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

**The Total Annual Impact of Morbidity Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by US Congressional District in Texas**

US Congressional District in Texas	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$1,198,285,678)	(\$600,829,193)	(\$346,355,071)	(\$196,148,188)	-6,230
2	(\$1,047,008,077)	(\$497,250,962)	(\$292,415,443)	(\$135,798,618)	-4,865
3	(\$885,960,086)	(\$445,508,038)	(\$258,756,980)	(\$124,898,776)	-4,434
4	(\$977,670,220)	(\$496,672,397)	(\$298,787,854)	(\$187,268,690)	-5,709
5	(\$1,053,793,691)	(\$524,219,565)	(\$302,803,192)	(\$159,362,754)	-5,377
6	(\$1,032,468,313)	(\$507,152,373)	(\$296,064,367)	(\$157,155,120)	-5,234
7	(\$1,067,476,987)	(\$485,775,030)	(\$273,356,648)	(\$99,597,836)	-4,164
8	(\$1,287,743,764)	(\$634,274,296)	(\$367,716,577)	(\$205,097,019)	-6,560
9	(\$1,093,141,432)	(\$499,435,176)	(\$280,956,115)	(\$107,259,986)	-4,328
10	(\$926,822,587)	(\$449,912,522)	(\$261,027,241)	(\$121,835,575)	-4,395
11	(\$1,057,909,160)	(\$529,495,238)	(\$300,929,695)	(\$178,071,168)	-5,480
12	(\$1,056,617,512)	(\$519,573,535)	(\$300,462,002)	(\$154,432,222)	-5,249
13	(\$1,002,002,645)	(\$511,398,965)	(\$290,903,520)	(\$167,184,824)	-5,223
14	(\$1,114,012,549)	(\$526,824,198)	(\$303,630,107)	(\$174,469,882)	-5,400
15	(\$712,551,349)	(\$370,243,076)	(\$217,466,159)	(\$131,229,707)	-4,121
16	(\$896,813,623)	(\$434,137,465)	(\$253,857,028)	(\$133,818,036)	-4,608
17	(\$998,721,597)	(\$486,135,444)	(\$287,470,546)	(\$169,359,139)	-5,414
18	(\$1,067,476,987)	(\$485,775,030)	(\$273,356,648)	(\$99,597,836)	-4,164
19	(\$905,713,592)	(\$460,057,022)	(\$265,842,393)	(\$151,231,184)	-4,824
20	(\$1,000,877,469)	(\$502,211,280)	(\$299,121,053)	(\$154,406,946)	-5,373
21	(\$1,042,883,344)	(\$518,831,215)	(\$305,907,536)	(\$168,311,140)	-5,614
22	(\$1,105,712,539)	(\$512,137,795)	(\$289,986,996)	(\$131,481,709)	-4,708
23	(\$877,379,894)	(\$443,350,897)	(\$261,983,936)	(\$146,694,582)	-4,835
24	(\$957,462,200)	(\$467,949,726)	(\$268,594,136)	(\$121,523,851)	-4,494
25	(\$845,312,841)	(\$435,039,966)	(\$257,830,084)	(\$140,029,043)	-4,684
26	(\$1,007,043,035)	(\$491,172,729)	(\$286,950,352)	(\$144,666,713)	-4,991
27	(\$931,777,858)	(\$448,235,381)	(\$260,180,777)	(\$144,928,492)	-4,702
28	(\$692,035,006)	(\$356,637,370)	(\$206,468,204)	(\$127,572,348)	-3,894
29	(\$1,067,476,987)	(\$485,775,030)	(\$273,356,648)	(\$99,597,836)	-4,164
30	(\$910,968,912)	(\$444,128,107)	(\$250,707,962)	(\$100,543,656)	-4,021
31	(\$712,452,002)	(\$376,824,482)	(\$230,604,629)	(\$137,843,939)	-4,406
32	(\$910,968,912)	(\$444,128,107)	(\$250,707,962)	(\$100,543,656)	-4,021
<b>TOTAL</b>	<b>(\$31,444,540,848)</b>	<b>(\$15,391,091,612)</b>	<b>(\$8,914,557,864)</b>	<b>(\$4,571,960,469)</b>	<b>-155,684</b>

NOTE: Allocations reflect best available evidence regarding incidence and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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

**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity in Texas  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	(\$799,297,320)	(\$237,448,134)	(\$148,776,380)	-2,757
Forestry & Fishery Products	(\$64,072,179)	(\$19,588,477)	(\$6,657,948)	-133
Coal Mining	(\$121,869,817)	(\$30,601,843)	(\$36,609,365)	-248
Crude Petroleum & Natural Gas	(\$6,014,383,059)	(\$2,908,885,980)	(\$961,336,924)	-3,583
Miscellaneous Mining	(\$58,538,279)	(\$37,620,377)	(\$20,162,507)	-355
New Construction	(\$1,370,785,647)	(\$508,428,293)	(\$419,849,737)	-6,025
Maintenance & Repair Construction	(\$1,108,045,504)	(\$699,836,308)	(\$491,233,688)	-8,315
Food Products & Tobacco	(\$2,104,176,345)	(\$500,487,538)	(\$247,575,422)	-3,995
Textile Mill Products	(\$32,774,387)	(\$7,130,245)	(\$6,374,947)	-119
Apparel	(\$224,281,117)	(\$124,076,687)	(\$62,692,717)	-1,760
Paper & Allied Products	(\$274,521,323)	(\$115,742,658)	(\$55,870,734)	-824
Printing & Publishing	(\$535,450,057)	(\$297,090,950)	(\$178,667,332)	-2,622
Chemicals & Petroleum Refining	(\$4,693,811,389)	(\$1,067,116,845)	(\$551,708,417)	-2,049
Rubber & Leather Products	(\$345,048,058)	(\$157,901,683)	(\$94,132,632)	-1,407
Lumber Products & Furniture	(\$176,228,556)	(\$66,248,530)	(\$46,792,991)	-1,050
Stone, Clay, & Glass Products	(\$207,068,121)	(\$113,442,125)	(\$60,158,479)	-926
Primary Metal	(\$225,469,653)	(\$60,216,849)	(\$45,990,841)	-538
Fabricated Metal Products	(\$649,839,618)	(\$287,894,613)	(\$180,097,916)	-2,462
Machinery, Except Electrical	(\$1,185,202,310)	(\$376,272,376)	(\$311,729,899)	-1,874
Electric & Electronic Equipment	(\$633,070,052)	(\$399,139,399)	(\$236,681,228)	-1,800
Motor Vehicles & Equipment	(\$329,692,284)	(\$104,415,553)	(\$58,532,985)	-630
Transp. Equip., Exc. Motor Vehicles	(\$277,422,087)	(\$148,532,419)	(\$89,002,773)	-957
Instruments & Related Products	(\$104,346,523)	(\$37,615,094)	(\$29,983,017)	-313
Miscellaneous Manufacturing	(\$161,474,074)	(\$49,189,105)	(\$47,059,121)	-458
Transportation	(\$1,830,759,743)	(\$1,208,858,231)	(\$798,377,562)	-11,310
Communication	(\$1,694,418,616)	(\$1,136,473,965)	(\$495,839,481)	-4,354
Electric, Gas, Water, Sanitary Services	(\$4,416,066,455)	(\$962,247,074)	(\$414,402,671)	-1,609
Wholesale Trade	(\$2,385,844,304)	(\$1,861,148,495)	(\$1,044,900,503)	-12,356
Retail Trade	(\$6,736,381,849)	(\$5,707,751,455)	(\$3,382,856,712)	-91,841
Finance	(\$2,332,462,240)	(\$1,019,235,823)	(\$677,159,021)	-5,702
Insurance	(\$1,202,435,297)	(\$707,311,395)	(\$421,628,941)	-4,871
Real Estate	(\$10,430,660,638)	(\$2,424,277,060)	(\$379,975,200)	-3,738
Hotels, Lodging Places, Amusements	(\$981,736,412)	(\$499,166,187)	(\$324,523,751)	-7,604
Personal Services	(\$1,366,873,241)	(\$849,850,996)	(\$660,030,486)	-11,942
Business Services	(\$4,272,981,251)	(\$3,099,874,285)	(\$2,509,753,032)	-29,885
Eating & Drinking Places	(\$3,048,769,473)	(\$1,866,428,238)	(\$983,689,553)	-47,675
Health Services	(\$2,767,607,395)	(\$2,225,126,935)	(\$1,779,245,977)	-31,786
Miscellaneous Services	(\$2,036,273,443)	(\$919,025,774)	(\$754,073,363)	-18,791
Households	(\$99,129,349)	(\$99,129,349)	(\$65,273,418)	-4,541
<b>Total</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>-333,204</b>

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

**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Comptroller's Economic Region Results**

<b>Economic Region</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
High Plains	(\$2,318,220,542)	(\$1,184,872,123)	(\$686,050,148)	(\$389,305,070)	-12,448
Northwest Texas	(\$2,275,526,732)	(\$1,170,012,985)	(\$665,466,809)	(\$390,426,941)	-12,056
Metroplex	(\$17,014,195,410)	(\$8,358,057,305)	(\$4,835,794,761)	(\$2,335,902,035)	-82,874
Upper East Texas	(\$4,371,616,488)	(\$2,200,234,089)	(\$1,274,903,450)	(\$743,351,805)	-23,311
Southeast Texas	(\$2,904,913,017)	(\$1,460,027,127)	(\$884,530,083)	(\$532,625,196)	-16,415
Gulf Coast	(\$16,917,788,938)	(\$7,809,095,327)	(\$4,427,108,953)	(\$1,858,760,168)	-70,600
Capital	(\$3,064,131,820)	(\$1,572,600,451)	(\$935,733,923)	(\$499,809,940)	-16,902
Central Texas	(\$3,088,597,719)	(\$1,553,375,117)	(\$920,140,905)	(\$553,676,061)	-17,496
Alamo	(\$6,855,207,876)	(\$3,410,529,594)	(\$2,011,002,065)	(\$1,094,366,580)	-36,548
South Texas	(\$4,617,946,863)	(\$2,323,567,550)	(\$1,351,423,841)	(\$792,529,929)	-25,084
West Texas	(\$1,798,052,406)	(\$893,089,300)	(\$499,414,837)	(\$284,431,591)	-8,803
Upper Rio Grande	(\$2,073,069,651)	(\$1,005,366,375)	(\$587,837,901)	(\$309,966,008)	-10,667
<b>TOTAL STATE IMPACT</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area.

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



**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Council of Governments (COG) Region Results**

<b>COG</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Panhandle	(\$1,238,368,218)	(\$626,131,033)	(\$356,560,584)	(\$202,613,460)	-6,386
South Plains	(\$1,079,852,324)	(\$558,741,090)	(\$329,489,563)	(\$186,691,610)	-6,061
North Texas	(\$930,459,775)	(\$487,302,687)	(\$276,973,823)	(\$161,627,124)	-4,990
North Central Texas	(\$16,300,700,184)	(\$7,993,145,472)	(\$4,615,309,764)	(\$2,200,620,827)	-78,707
North East Texas	(\$1,002,525,670)	(\$506,908,984)	(\$304,520,151)	(\$193,777,103)	-5,847
East Texas	(\$3,369,090,819)	(\$1,693,325,104)	(\$970,383,299)	(\$549,574,702)	-17,463
West Central Texas	(\$1,345,066,957)	(\$682,710,299)	(\$388,492,986)	(\$228,799,817)	-7,066
Upper Rio Grande	(\$2,073,069,651)	(\$1,005,366,375)	(\$587,837,901)	(\$309,966,008)	-10,667
Permian Basin	(\$1,230,686,496)	(\$614,773,709)	(\$344,567,649)	(\$192,745,430)	-5,947
Concho Valley	(\$567,365,910)	(\$278,315,592)	(\$154,847,188)	(\$91,686,161)	-2,856
Heart of Texas	(\$1,346,468,315)	(\$650,044,222)	(\$381,138,178)	(\$225,425,417)	-7,212
Capital	(\$3,064,131,820)	(\$1,572,600,451)	(\$935,733,923)	(\$499,809,940)	-16,902
Brazos Valley	(\$751,722,874)	(\$383,831,217)	(\$222,849,471)	(\$133,934,921)	-4,161
Deep East Texas	(\$1,400,645,752)	(\$718,463,452)	(\$430,273,330)	(\$269,161,641)	-8,183
South East Texas	(\$1,504,267,265)	(\$741,563,676)	(\$454,256,752)	(\$263,463,555)	-8,233
Gulf Coast	(\$16,917,788,938)	(\$7,809,095,327)	(\$4,427,108,953)	(\$1,858,760,168)	-70,600
Golden Crescent	(\$684,580,123)	(\$340,570,205)	(\$197,022,831)	(\$114,083,785)	-3,526
Alamo	(\$6,170,627,754)	(\$3,069,959,390)	(\$1,813,979,234)	(\$980,282,795)	-33,022
South Texas	(\$436,391,862)	(\$230,909,074)	(\$129,583,665)	(\$83,863,442)	-2,438
Coastal Bend	(\$2,008,929,119)	(\$954,172,684)	(\$542,590,992)	(\$302,344,262)	-9,554
Lower Rio Grande Valley	(\$1,813,009,778)	(\$948,921,666)	(\$567,501,867)	(\$333,841,305)	-10,900
Texoma	(\$713,495,227)	(\$364,911,833)	(\$220,484,996)	(\$135,281,208)	-4,167
Central Texas	(\$990,406,530)	(\$519,499,678)	(\$316,153,256)	(\$194,315,722)	-6,122
Middle Rio Grande	(\$359,616,104)	(\$189,564,127)	(\$111,747,317)	(\$72,480,920)	-2,191
Border Region	(\$4,683,196,444)	(\$2,375,418,732)	(\$1,397,061,971)	(\$800,356,218)	-26,203
<b>TOTAL STATE IMPACT</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area.

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



**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Metropolitan Statistical Area (MSA) and Rural Texas Results**

<b>MSA</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Abilene	(\$658,966,000)	(\$327,690,037)	(\$185,284,040)	(\$98,733,180)	-3,256
Amarillo	(\$800,637,136)	(\$415,358,276)	(\$237,553,797)	(\$128,996,043)	-4,247
Austin-Round Rock-San Marcos	(\$2,546,788,574)	(\$1,318,842,166)	(\$790,649,219)	(\$413,854,250)	-14,206
Beaumont-Port Arthur	(\$1,504,267,265)	(\$741,563,676)	(\$454,256,752)	(\$263,463,555)	-8,233
Brownsville-Harlingen	(\$733,557,881)	(\$371,249,282)	(\$221,217,648)	(\$131,250,963)	-4,279
College Station-Bryan	(\$464,902,337)	(\$235,553,209)	(\$136,476,523)	(\$79,187,042)	-2,529
Corpus Christi	(\$1,622,663,750)	(\$753,450,793)	(\$430,733,890)	(\$231,794,633)	-7,484
Dallas-Plano-Irving MD*	(\$9,901,675,416)	(\$4,843,787,197)	(\$2,779,802,804)	(\$1,252,618,751)	-46,434
Fort Worth-Arlington MD*	(\$5,765,736,692)	(\$2,840,584,329)	(\$1,652,619,290)	(\$836,452,101)	-28,792
El Paso	(\$2,026,208,517)	(\$980,622,112)	(\$573,147,178)	(\$300,224,888)	-10,380
Houston-Sugar Land-Baytown	(\$16,498,926,959)	(\$7,598,214,633)	(\$4,304,342,814)	(\$1,780,098,650)	-68,281
Killeen-Temple-Fort Hood	(\$830,503,002)	(\$436,901,167)	(\$266,344,297)	(\$161,179,924)	-5,149
Laredo	(\$327,872,019)	(\$171,692,998)	(\$95,147,103)	(\$58,610,881)	-1,749
Longview	(\$859,352,806)	(\$441,160,361)	(\$255,036,877)	(\$139,021,548)	-4,489
Lubbock	(\$790,895,893)	(\$411,757,946)	(\$245,383,664)	(\$131,517,379)	-4,477
McAllen-Edinburg-Mission	(\$1,048,009,944)	(\$559,920,417)	(\$335,993,824)	(\$195,473,525)	-6,419
Midland	(\$331,737,619)	(\$168,448,826)	(\$93,572,359)	(\$49,236,185)	-1,577
Odessa	(\$464,673,165)	(\$229,703,186)	(\$131,523,961)	(\$70,769,522)	-2,241
San Angelo	(\$399,231,063)	(\$194,492,236)	(\$107,454,457)	(\$61,970,644)	-1,987
San Antonio-New Braunfels	(\$5,686,965,065)	(\$2,833,730,676)	(\$1,678,272,002)	(\$897,245,303)	-30,458
Sherman-Denison	(\$428,590,549)	(\$222,516,355)	(\$135,632,404)	(\$86,357,522)	-2,631
Texarkana	(\$344,505,420)	(\$181,397,812)	(\$109,988,987)	(\$66,716,642)	-2,095
Tyler	(\$775,035,501)	(\$380,857,089)	(\$210,323,103)	(\$113,855,815)	-3,682
Victoria	(\$402,813,395)	(\$194,377,743)	(\$111,219,622)	(\$61,226,159)	-1,914
Waco	(\$889,341,985)	(\$424,396,310)	(\$249,532,254)	(\$139,980,244)	-4,661
Wichita Falls	(\$579,076,810)	(\$310,453,121)	(\$176,752,851)	(\$99,321,722)	-3,148
Rural Area	(\$10,616,332,702)	(\$5,352,105,389)	(\$3,111,145,955)	(\$1,935,994,254)	-58,406
<b>TOTAL STATE IMPACT</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

\*Metropolitan Division

NOTE: Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area.

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





**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Anderson	(\$258,812,025)	(\$140,798,138)	(\$81,574,941)	(\$46,927,668)	-1,486
Andrews	(\$36,323,058)	(\$18,854,955)	(\$10,397,363)	(\$5,594,671)	-175
Angelina	(\$273,200,163)	(\$136,430,397)	(\$82,871,271)	(\$50,816,881)	-1,573
Aransas	(\$146,946,451)	(\$67,802,338)	(\$36,956,900)	(\$21,823,201)	-652
Archer	(\$23,639,108)	(\$12,208,191)	(\$6,543,634)	(\$4,081,290)	-121
Armstrong	(\$6,612,729)	(\$3,343,118)	(\$1,886,610)	(\$791,423)	-31
Atascosa	(\$136,524,874)	(\$65,963,124)	(\$37,221,733)	(\$20,264,401)	-640
Austin	(\$109,862,581)	(\$52,202,194)	(\$31,338,041)	(\$14,580,059)	-518
Bailey	(\$15,213,119)	(\$7,853,796)	(\$4,716,642)	(\$3,240,707)	-91
Bandera	(\$79,676,942)	(\$37,855,470)	(\$21,344,124)	(\$14,029,200)	-410
Bastrop	(\$199,593,795)	(\$98,068,211)	(\$57,914,379)	(\$35,852,401)	-1,112
Baylor	(\$28,354,754)	(\$15,101,070)	(\$8,788,807)	(\$5,299,920)	-163
Bee	(\$74,530,737)	(\$39,536,660)	(\$22,256,228)	(\$14,029,200)	-418
Bell	(\$624,611,071)	(\$333,165,709)	(\$204,974,881)	(\$120,962,883)	-3,925
Bexar	(\$4,555,855,403)	(\$2,286,016,863)	(\$1,361,590,689)	(\$698,965,938)	-24,418
Blanco	(\$30,867,289)	(\$14,628,088)	(\$8,361,849)	(\$5,388,112)	-164
Borden	(\$4,204,654)	(\$2,092,165)	(\$1,113,288)	(\$527,695)	-17
Bosque	(\$72,293,360)	(\$35,619,049)	(\$21,562,283)	(\$12,064,759)	-402
Bowie	(\$344,505,420)	(\$181,397,812)	(\$109,988,987)	(\$66,716,642)	-2,095
Brazoria	(\$739,084,607)	(\$352,057,234)	(\$207,149,045)	(\$121,796,501)	-3,707
Brazos	(\$335,365,613)	(\$169,273,329)	(\$97,620,487)	(\$52,999,201)	-1,784
Brewster	(\$21,975,791)	(\$12,057,059)	(\$7,326,573)	(\$4,364,640)	-140
Briscoe	(\$5,230,823)	(\$2,460,998)	(\$1,414,376)	(\$895,929)	-26
Brooks	(\$14,665,202)	(\$8,013,856)	(\$4,645,835)	(\$3,117,600)	-88
Brown	(\$133,768,857)	(\$72,498,864)	(\$44,102,594)	(\$30,864,241)	-893
Burleson	(\$65,668,316)	(\$34,862,070)	(\$19,933,256)	(\$12,470,400)	-364
Burnet	(\$179,428,094)	(\$85,837,072)	(\$49,606,841)	(\$29,305,441)	-918
Caldwell	(\$128,959,667)	(\$64,796,232)	(\$37,139,632)	(\$21,511,441)	-675
Calhoun	(\$46,298,266)	(\$19,000,803)	(\$10,922,725)	(\$6,044,637)	-186
Callahan	(\$64,964,295)	(\$31,502,293)	(\$17,253,975)	(\$10,599,840)	-316
Cameron	(\$733,557,881)	(\$371,249,282)	(\$221,217,648)	(\$131,250,963)	-4,279
Camp	(\$37,279,250)	(\$18,281,860)	(\$10,865,902)	(\$6,698,704)	-208
Carson	(\$8,574,112)	(\$3,608,467)	(\$1,681,085)	(\$669,030)	-26
Cass	(\$108,250,111)	(\$54,807,194)	(\$32,709,696)	(\$22,901,051)	-640
Castro	(\$9,702,456)	(\$4,698,291)	(\$2,788,371)	(\$1,996,399)	-56
Chambers	(\$85,734,095)	(\$36,912,199)	(\$19,977,683)	(\$9,101,527)	-319
Cherokee	(\$141,803,783)	(\$71,240,226)	(\$43,899,765)	(\$27,640,276)	-832
Childress	(\$25,057,167)	(\$12,539,769)	(\$7,220,418)	(\$4,988,160)	-142
Clay	(\$41,002,461)	(\$20,895,443)	(\$12,526,168)	(\$6,388,829)	-218
Cochran	(\$8,058,062)	(\$4,317,588)	(\$2,247,898)	(\$1,059,412)	-37



(continued)  
**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Coke	(\$25,570,284)	(\$12,379,334)	(\$6,918,242)	(\$4,036,324)	-119
Coleman	(\$51,868,469)	(\$26,841,989)	(\$14,938,836)	(\$9,041,040)	-272
Collin	(\$1,058,133,103)	(\$543,600,821)	(\$321,950,406)	(\$171,578,716)	-5,736
Collingsworth	(\$13,417,977)	(\$7,397,159)	(\$4,443,919)	(\$2,831,543)	-82
Colorado	(\$75,936,783)	(\$38,607,583)	(\$22,250,514)	(\$15,038,003)	-449
Comal	(\$311,415,425)	(\$150,703,034)	(\$87,710,873)	(\$54,869,761)	-1,723
Comanche	(\$59,006,134)	(\$30,024,767)	(\$18,085,851)	(\$11,242,907)	-345
Concho	(\$8,470,294)	(\$4,533,465)	(\$2,852,143)	(\$1,565,404)	-54
Cooke	(\$154,348,965)	(\$76,865,542)	(\$44,577,042)	(\$24,005,521)	-763
Coryell	(\$135,355,759)	(\$68,272,800)	(\$40,401,816)	(\$26,187,841)	-800
Cottle	(\$6,253,536)	(\$3,635,898)	(\$2,167,337)	(\$1,120,913)	-37
Crane	(\$8,715,503)	(\$4,738,527)	(\$2,577,487)	(\$1,317,491)	-44
Crockett	(\$10,223,347)	(\$5,285,081)	(\$2,888,816)	(\$2,182,320)	-56
Crosby	(\$19,557,645)	(\$10,576,284)	(\$5,937,798)	(\$2,760,495)	-102
Culberson	(\$5,314,227)	(\$3,165,840)	(\$1,859,978)	(\$1,558,800)	-39
Dallam	(\$10,756,690)	(\$5,776,688)	(\$3,440,189)	(\$1,803,993)	-64
Dallas	(\$6,769,738,947)	(\$3,300,051,958)	(\$1,863,280,331)	(\$741,727,561)	-29,821
Dawson	(\$46,414,606)	(\$23,463,777)	(\$12,773,022)	(\$8,000,331)	-232
Deaf Smith	(\$27,470,064)	(\$13,426,624)	(\$7,898,531)	(\$4,193,047)	-146
Delta	(\$16,781,898)	(\$8,767,901)	(\$5,299,115)	(\$2,124,614)	-90
Denton	(\$1,020,183,827)	(\$488,957,827)	(\$288,858,496)	(\$149,021,284)	-5,089
DeWitt	(\$96,198,817)	(\$48,315,801)	(\$28,839,802)	(\$17,458,560)	-542
Dickens	(\$11,516,230)	(\$6,085,256)	(\$3,667,085)	(\$2,270,939)	-67
Dimmit	(\$20,937,580)	(\$10,911,743)	(\$6,121,302)	(\$4,364,640)	-119
Donley	(\$14,417,521)	(\$8,139,050)	(\$4,920,988)	(\$3,741,120)	-103
Duval	(\$36,665,054)	(\$17,893,655)	(\$9,628,704)	(\$5,288,333)	-171
Eastland	(\$94,043,113)	(\$46,586,076)	(\$26,129,494)	(\$17,146,800)	-489
Ector	(\$464,673,165)	(\$229,703,186)	(\$131,523,961)	(\$70,769,522)	-2,241
Edwards	(\$8,816,457)	(\$4,343,078)	(\$2,323,464)	(\$1,533,548)	-43
El Paso	(\$2,026,208,517)	(\$980,622,112)	(\$573,147,178)	(\$300,224,888)	-10,380
Ellis	(\$363,342,114)	(\$168,080,718)	(\$99,684,276)	(\$60,656,733)	-1,829
Erath	(\$94,563,637)	(\$51,120,163)	(\$31,316,739)	(\$20,887,921)	-627
Falls	(\$67,633,075)	(\$35,862,341)	(\$21,930,097)	(\$13,210,733)	-422
Fannin	(\$130,555,713)	(\$65,529,937)	(\$40,275,550)	(\$24,918,165)	-774
Fayette	(\$121,543,588)	(\$62,064,184)	(\$34,880,060)	(\$18,705,600)	-618
Fisher	(\$16,699,221)	(\$8,658,365)	(\$5,064,470)	(\$3,561,600)	-101
Floyd	(\$13,209,443)	(\$5,942,880)	(\$3,429,318)	(\$1,810,970)	-62
Foard	(\$1,155,162)	(\$649,800)	(\$400,881)	(\$241,489)	-8
Fort Bend	(\$972,791,786)	(\$456,543,148)	(\$256,435,950)	(\$127,051,086)	-4,239
Franklin	(\$42,116,396)	(\$20,929,065)	(\$11,361,653)	(\$7,269,046)	-211





(continued)  
**The Total Annual Impact of Mortality Losses Associated with the Incidence  
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County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Freestone	(\$81,586,402)	(\$40,347,825)	(\$21,935,131)	(\$14,964,480)	-410
Frio	(\$42,127,614)	(\$20,407,049)	(\$11,090,223)	(\$6,656,291)	-200
Gaines	(\$36,551,104)	(\$17,677,916)	(\$9,275,519)	(\$5,458,457)	-162
Galveston	(\$1,125,390,192)	(\$524,743,068)	(\$306,559,450)	(\$174,897,364)	-5,559
Garza	(\$17,277,512)	(\$8,464,957)	(\$4,660,609)	(\$2,858,541)	-82
Gillespie	(\$115,753,773)	(\$56,629,395)	(\$33,625,455)	(\$20,576,161)	-647
Glasscock	(\$538,592)	(\$266,051)	(\$129,041)	(\$45,099)	-2
Goliad	(\$28,279,109)	(\$15,166,141)	(\$8,673,639)	(\$6,235,200)	-168
Gonzales	(\$45,867,594)	(\$23,409,810)	(\$14,002,066)	(\$8,889,494)	-270
Gray	(\$99,260,465)	(\$46,404,268)	(\$26,021,248)	(\$15,745,077)	-449
Grayson	(\$428,590,549)	(\$222,516,355)	(\$135,632,404)	(\$86,357,522)	-2,631
Gregg	(\$496,818,507)	(\$262,170,453)	(\$152,243,266)	(\$80,122,322)	-2,648
Grimes	(\$71,942,142)	(\$36,217,369)	(\$21,397,996)	(\$12,871,100)	-397
Guadalupe	(\$265,981,327)	(\$131,493,781)	(\$77,758,635)	(\$50,505,121)	-1,487
Hale	(\$67,889,295)	(\$36,391,395)	(\$22,029,505)	(\$16,443,306)	-450
Hall	(\$15,120,954)	(\$7,636,569)	(\$4,404,758)	(\$2,854,482)	-84
Hamilton	(\$38,476,101)	(\$18,997,648)	(\$11,476,759)	(\$8,105,760)	-230
Hansford	(\$8,394,065)	(\$3,799,745)	(\$1,843,516)	(\$832,300)	-27
Hardeman	(\$13,016,984)	(\$7,153,888)	(\$4,219,223)	(\$3,429,360)	-89
Hardin	(\$196,874,776)	(\$96,620,858)	(\$55,047,115)	(\$34,917,121)	-1,014
Harris	(\$11,663,616,150)	(\$5,306,577,679)	(\$2,987,433,740)	(\$1,082,228,041)	-45,445
Harrison	(\$279,378,853)	(\$129,907,542)	(\$74,182,731)	(\$35,965,949)	-1,217
Hartley	(\$4,673,874)	(\$2,300,012)	(\$1,327,522)	(\$853,300)	-27
Haskell	(\$29,704,445)	(\$15,306,687)	(\$8,918,256)	(\$5,129,107)	-162
Hays	(\$231,309,433)	(\$116,858,920)	(\$69,320,804)	(\$40,840,561)	-1,302
Hemphill	(\$5,820,691)	(\$2,745,439)	(\$1,403,324)	(\$736,333)	-23
Henderson	(\$411,123,208)	(\$198,911,062)	(\$114,700,328)	(\$67,651,922)	-2,153
Hidalgo	(\$1,048,009,944)	(\$559,920,417)	(\$335,993,824)	(\$195,473,525)	-6,419
Hill	(\$152,172,335)	(\$70,684,791)	(\$40,728,503)	(\$28,681,921)	-840
Hockley	(\$58,898,763)	(\$30,285,521)	(\$16,847,096)	(\$10,611,244)	-313
Hood	(\$211,778,374)	(\$100,018,732)	(\$59,172,120)	(\$37,099,441)	-1,131
Hopkins	(\$110,089,583)	(\$57,698,096)	(\$35,066,839)	(\$23,693,761)	-688
Houston	(\$127,995,346)	(\$62,656,150)	(\$38,171,475)	(\$17,281,090)	-635
Howard	(\$133,270,429)	(\$64,061,573)	(\$36,050,706)	(\$20,576,161)	-628
Hudspeth	(\$1,270,991)	(\$663,021)	(\$374,794)	(\$402,938)	-9
Hunt	(\$246,340,015)	(\$123,522,396)	(\$74,480,363)	(\$50,505,121)	-1,459
Hutchinson	(\$82,701,353)	(\$38,779,488)	(\$21,601,890)	(\$14,821,008)	-378
Irion	(\$2,002,206)	(\$837,973)	(\$429,286)	(\$242,162)	-7
Jack	(\$35,782,840)	(\$17,964,322)	(\$10,164,594)	(\$6,029,708)	-179
Jackson	(\$52,112,540)	(\$26,992,324)	(\$14,604,407)	(\$9,533,137)	-268



(continued)  
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County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Jasper	(\$133,080,739)	(\$67,794,128)	(\$40,632,272)	(\$27,424,424)	-807
Jeff Davis	(\$6,717,070)	(\$3,297,314)	(\$1,914,242)	(\$1,232,422)	-37
Jefferson	(\$992,397,814)	(\$490,486,938)	(\$305,209,646)	(\$171,156,244)	-5,500
Jim Hogg	(\$20,342,113)	(\$10,294,282)	(\$5,537,954)	(\$4,052,880)	-103
Jim Wells	(\$100,069,834)	(\$55,397,731)	(\$31,085,337)	(\$19,640,880)	-579
Johnson	(\$424,750,992)	(\$209,367,587)	(\$128,389,859)	(\$75,757,682)	-2,395
Jones	(\$73,251,158)	(\$37,057,386)	(\$20,868,522)	(\$11,440,378)	-373
Karnes	(\$64,754,290)	(\$29,662,317)	(\$16,267,636)	(\$9,352,800)	-281
Kaufman	(\$284,742,568)	(\$138,402,861)	(\$82,988,851)	(\$51,440,401)	-1,593
Kendall	(\$111,856,195)	(\$51,596,387)	(\$29,562,695)	(\$17,770,320)	-540
Kenedy	(\$1,813,946)	(\$931,791)	(\$478,811)	(\$350,158)	-10
Kent	(\$1,504,806)	(\$728,601)	(\$395,180)	(\$211,067)	-6
Kerr	(\$261,027,011)	(\$129,529,953)	(\$74,723,917)	(\$46,452,241)	-1,437
Kimble	(\$28,171,755)	(\$12,320,752)	(\$6,764,303)	(\$4,364,640)	-124
King	(\$1,439,121)	(\$772,683)	(\$464,680)	(\$188,991)	-8
Kinney	(\$14,428,048)	(\$6,796,778)	(\$3,488,217)	(\$2,234,765)	-64
Kleberg	(\$92,723,888)	(\$46,981,620)	(\$26,365,627)	(\$15,588,000)	-482
Knox	(\$17,557,026)	(\$9,267,388)	(\$5,117,608)	(\$2,520,336)	-85
La Salle	(\$11,484,206)	(\$6,196,447)	(\$3,393,667)	(\$2,494,080)	-68
Lamar	(\$182,177,748)	(\$90,325,998)	(\$54,976,346)	(\$36,679,520)	-1,094
Lamb	(\$31,764,502)	(\$14,696,106)	(\$8,707,893)	(\$5,528,813)	-159
Lampasas	(\$70,536,173)	(\$35,462,658)	(\$20,967,600)	(\$14,029,200)	-424
Lavaca	(\$87,587,777)	(\$47,474,527)	(\$28,356,933)	(\$16,976,435)	-532
Lee	(\$59,722,142)	(\$30,141,466)	(\$17,061,926)	(\$9,798,056)	-305
Leon	(\$52,144,932)	(\$27,947,708)	(\$15,730,917)	(\$11,194,425)	-303
Liberty	(\$297,394,841)	(\$153,125,729)	(\$89,151,505)	(\$48,876,774)	-1,579
Limestone	(\$83,441,159)	(\$43,133,905)	(\$25,449,910)	(\$16,523,280)	-477
Lipscomb	(\$8,044,891)	(\$3,861,577)	(\$1,932,090)	(\$929,895)	-31
Live Oak	(\$36,753,192)	(\$17,449,512)	(\$9,721,482)	(\$6,235,200)	-173
Llano	(\$125,782,133)	(\$61,087,475)	(\$35,174,028)	(\$22,758,481)	-692
Loving	(\$1,049,286)	(\$509,004)	(\$212,169)	(\$64,810)	-3
Lubbock	(\$771,338,248)	(\$401,181,662)	(\$239,445,866)	(\$128,756,883)	-4,376
Lynn	(\$11,172,757)	(\$5,455,956)	(\$3,160,972)	(\$1,300,025)	-53
Madison	(\$39,714,721)	(\$20,301,126)	(\$11,427,410)	(\$8,729,280)	-235
Marion	(\$55,939,584)	(\$28,629,343)	(\$16,545,501)	(\$10,911,600)	-326
Martin	(\$15,958,612)	(\$7,576,517)	(\$4,173,435)	(\$2,238,796)	-69
Mason	(\$21,217,002)	(\$10,503,226)	(\$5,641,587)	(\$3,429,360)	-104
Matagorda	(\$136,188,409)	(\$62,512,132)	(\$36,474,913)	(\$23,744,782)	-666
Maverick	(\$89,886,384)	(\$46,110,323)	(\$26,578,706)	(\$18,082,080)	-532
McCulloch	(\$35,039,523)	(\$18,200,899)	(\$11,017,798)	(\$6,858,720)	-208



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County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
McLennan	(\$889,341,985)	(\$424,396,310)	(\$249,532,254)	(\$139,980,244)	-4,661
McMullen	(\$624,704)	(\$301,499)	(\$154,828)	(\$65,057)	-2
Medina	(\$112,903,900)	(\$54,075,098)	(\$30,718,038)	(\$19,952,641)	-602
Menard	(\$11,342,944)	(\$5,930,570)	(\$3,244,250)	(\$2,182,320)	-60
Midland	(\$331,737,619)	(\$168,448,826)	(\$93,572,359)	(\$49,236,185)	-1,577
Milam	(\$82,816,913)	(\$41,828,448)	(\$25,021,445)	(\$15,814,534)	-475
Mills	(\$16,312,014)	(\$9,879,261)	(\$6,256,462)	(\$4,227,344)	-125
Mitchell	(\$36,388,612)	(\$18,819,776)	(\$10,643,698)	(\$6,483,766)	-192
Montague	(\$105,993,186)	(\$51,676,692)	(\$28,225,023)	(\$17,458,560)	-525
Montgomery	(\$1,296,334,873)	(\$619,595,028)	(\$351,583,070)	(\$165,714,896)	-5,875
Moore	(\$44,627,272)	(\$19,537,887)	(\$10,751,055)	(\$6,069,261)	-182
Morris	(\$51,750,259)	(\$22,659,135)	(\$13,572,199)	(\$6,111,158)	-224
Motley	(\$6,843,787)	(\$3,248,184)	(\$1,718,309)	(\$1,076,903)	-32
Nacogdoches	(\$171,188,432)	(\$91,146,558)	(\$55,757,885)	(\$37,099,441)	-1,130
Navarro	(\$187,964,797)	(\$93,257,601)	(\$56,232,748)	(\$31,884,342)	-1,059
Newton	(\$33,239,257)	(\$20,720,711)	(\$13,426,247)	(\$9,107,436)	-258
Nolan	(\$73,682,313)	(\$38,870,214)	(\$21,820,723)	(\$12,799,959)	-394
Nueces	(\$1,246,394,565)	(\$578,418,047)	(\$332,124,822)	(\$170,532,724)	-5,696
Ochiltree	(\$17,807,464)	(\$8,585,236)	(\$4,615,895)	(\$2,453,356)	-77
Oldham	(\$683,069)	(\$386,103)	(\$236,093)	(\$216,261)	-5
Orange	(\$314,994,675)	(\$154,455,880)	(\$93,999,991)	(\$57,390,190)	-1,718
Palo Pinto	(\$141,160,469)	(\$66,350,731)	(\$37,297,927)	(\$22,134,961)	-679
Panola	(\$99,644,839)	(\$50,811,443)	(\$28,942,440)	(\$16,476,597)	-516
Parker	(\$350,778,009)	(\$163,869,602)	(\$94,492,066)	(\$55,181,521)	-1,729
Parmer	(\$7,702,890)	(\$3,534,178)	(\$2,036,828)	(\$705,506)	-34
Pecos	(\$42,106,503)	(\$21,077,674)	(\$11,605,328)	(\$7,794,000)	-220
Polk	(\$245,639,968)	(\$125,875,954)	(\$71,195,145)	(\$44,893,441)	-1,297
Potter	(\$463,609,146)	(\$241,621,306)	(\$137,237,473)	(\$72,951,842)	-2,425
Presidio	(\$11,583,056)	(\$5,561,030)	(\$3,215,135)	(\$2,182,320)	-62
Rains	(\$52,344,270)	(\$24,388,170)	(\$13,532,183)	(\$9,412,041)	-256
Randall	(\$321,841,150)	(\$166,785,385)	(\$96,748,628)	(\$54,583,748)	-1,765
Reagan	(\$7,789,849)	(\$4,033,636)	(\$2,158,343)	(\$1,468,744)	-38
Real	(\$20,524,668)	(\$9,372,518)	(\$5,082,430)	(\$3,117,600)	-91
Red River	(\$72,594,981)	(\$34,457,320)	(\$19,790,920)	(\$12,592,137)	-378
Reeves	(\$37,093,810)	(\$19,171,594)	(\$10,642,937)	(\$7,794,000)	-205
Refugio	(\$28,418,812)	(\$14,215,567)	(\$7,520,250)	(\$6,235,200)	-146
Roberts	(\$974,187)	(\$443,390)	(\$230,409)	(\$181,413)	-4
Robertson	(\$63,868,409)	(\$31,417,810)	(\$18,922,780)	(\$13,717,440)	-381
Rockwall	(\$142,412,944)	(\$72,402,716)	(\$43,260,966)	(\$25,564,321)	-816
Runnels	(\$58,035,819)	(\$26,101,759)	(\$14,220,932)	(\$8,299,422)	-249



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<b>County</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Retail Sales (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Rusk	(\$199,879,741)	(\$97,400,512)	(\$56,106,750)	(\$30,217,305)	-984
Sabine	(\$42,955,425)	(\$21,265,661)	(\$13,250,401)	(\$8,558,509)	-252
San Augustine	(\$46,230,726)	(\$22,201,353)	(\$12,253,770)	(\$7,564,780)	-228
San Jacinto	(\$92,686,382)	(\$45,289,791)	(\$26,644,625)	(\$17,146,800)	-513
San Patricio	(\$229,322,734)	(\$107,230,409)	(\$61,652,168)	(\$39,438,708)	-1,136
San Saba	(\$22,298,499)	(\$11,893,153)	(\$7,054,293)	(\$4,988,160)	-144
Schleicher	(\$5,237,266)	(\$2,693,033)	(\$1,496,318)	(\$590,460)	-24
Scurry	(\$49,467,569)	(\$27,005,278)	(\$14,802,307)	(\$10,113,409)	-276
Shackelford	(\$13,951,893)	(\$7,020,847)	(\$3,750,823)	(\$2,163,315)	-65
Shelby	(\$71,956,218)	(\$38,813,398)	(\$24,709,932)	(\$16,033,662)	-485
Sherman	(\$2,837,314)	(\$1,310,547)	(\$746,828)	(\$402,185)	-14
Smith	(\$775,035,501)	(\$380,857,089)	(\$210,323,103)	(\$113,855,815)	-3,682
Somervell	(\$14,602,697)	(\$6,794,619)	(\$4,167,251)	(\$1,667,925)	-74
Starr	(\$68,463,772)	(\$38,729,431)	(\$23,211,453)	(\$17,146,800)	-476
Stephens	(\$38,851,439)	(\$20,992,957)	(\$11,786,111)	(\$8,228,261)	-218
Sterling	(\$904,134)	(\$521,182)	(\$296,195)	(\$231,384)	-6
Stonewall	(\$6,496,809)	(\$3,643,959)	(\$2,051,085)	(\$1,427,371)	-39
Sutton	(\$14,168,449)	(\$7,422,177)	(\$4,114,737)	(\$2,805,840)	-76
Swisher	(\$14,411,479)	(\$6,664,000)	(\$3,910,649)	(\$2,323,431)	-74
Tarrant	(\$4,828,099,312)	(\$2,383,030,777)	(\$1,382,429,290)	(\$677,142,737)	-23,816
Taylor	(\$520,750,547)	(\$259,130,358)	(\$147,161,542)	(\$76,692,962)	-2,566
Terrell	(\$1,109,049)	(\$657,491)	(\$391,221)	(\$204,543)	-7
Terry	(\$31,972,004)	(\$16,505,919)	(\$8,678,662)	(\$6,280,852)	-161
Throckmorton	(\$5,074,432)	(\$2,652,734)	(\$1,380,977)	(\$834,036)	-24
Titus	(\$74,259,274)	(\$35,866,464)	(\$21,754,398)	(\$15,689,173)	-428
Tom Green	(\$397,228,857)	(\$193,654,264)	(\$107,025,171)	(\$61,728,482)	-1,980
Travis	(\$1,596,591,165)	(\$830,786,191)	(\$498,099,636)	(\$244,077,655)	-8,742
Trinity	(\$79,137,478)	(\$43,213,782)	(\$25,422,488)	(\$16,682,973)	-504
Tyler	(\$83,335,620)	(\$43,055,568)	(\$25,937,820)	(\$16,552,205)	-500
Upshur	(\$162,654,558)	(\$81,589,396)	(\$46,686,862)	(\$28,681,921)	-856
Upton	(\$8,154,033)	(\$4,130,152)	(\$2,182,407)	(\$1,205,686)	-37
Uvalde	(\$77,751,538)	(\$40,564,653)	(\$24,102,978)	(\$14,652,720)	-468
Val Verde	(\$98,200,923)	(\$54,846,765)	(\$33,991,249)	(\$20,576,161)	-658
Van Zandt	(\$178,214,348)	(\$100,534,635)	(\$58,955,161)	(\$38,658,241)	-1,156
Victoria	(\$328,236,020)	(\$160,210,799)	(\$91,623,259)	(\$48,946,321)	-1,560
Walker	(\$143,390,369)	(\$73,618,635)	(\$44,522,273)	(\$28,370,161)	-867
Waller	(\$116,031,452)	(\$51,168,565)	(\$28,069,705)	(\$18,705,600)	-529
Ward	(\$38,325,753)	(\$19,680,964)	(\$10,937,272)	(\$7,482,240)	-203
Washington	(\$123,018,742)	(\$63,811,805)	(\$37,816,625)	(\$21,953,073)	-698
Webb	(\$327,872,019)	(\$171,692,998)	(\$95,147,103)	(\$58,610,881)	-1,749



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**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
County Results**

County	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
Wharton	(\$156,032,799)	(\$81,432,134)	(\$46,163,065)	(\$28,655,373)	-849
Wheeler	(\$18,618,414)	(\$10,345,740)	(\$5,817,894)	(\$4,043,418)	-111
Wichita	(\$514,435,241)	(\$277,349,487)	(\$157,683,049)	(\$88,851,602)	-2,809
Wilbarger	(\$60,930,852)	(\$29,210,591)	(\$17,637,927)	(\$11,223,360)	-332
Willacy	(\$31,441,953)	(\$17,751,966)	(\$10,290,395)	(\$7,116,817)	-202
Williamson	(\$390,334,514)	(\$208,332,611)	(\$128,174,767)	(\$71,572,193)	-2,374
Wilson	(\$112,750,999)	(\$56,026,920)	(\$32,365,216)	(\$20,887,921)	-638
Winkler	(\$24,460,720)	(\$12,663,337)	(\$7,010,133)	(\$4,435,743)	-125
Wise	(\$162,108,380)	(\$84,316,363)	(\$47,308,075)	(\$28,370,161)	-851
Wood	(\$220,162,352)	(\$107,805,234)	(\$61,824,366)	(\$36,354,341)	-1,142
Yoakum	(\$13,701,836)	(\$6,962,903)	(\$3,777,232)	(\$2,503,529)	-69
Young	(\$99,895,651)	(\$51,457,304)	(\$28,617,180)	(\$17,502,091)	-509
Zapata	(\$19,713,959)	(\$10,192,363)	(\$5,687,156)	(\$4,052,880)	-110
Zavala	(\$17,586,301)	(\$10,421,822)	(\$6,665,303)	(\$5,425,326)	-148
<b>TOTAL STATE IMPACT</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

**NOTE:** Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area.

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



**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$560,445,374)	(\$287,493,483)	(\$172,816,382)	(\$106,640,452)	-3,285
2	(\$476,898,632)	(\$248,445,201)	(\$146,967,708)	(\$98,575,403)	-2,872
3	(\$498,019,880)	(\$248,044,844)	(\$148,249,270)	(\$98,048,252)	-2,889
4	(\$695,865,775)	(\$337,313,923)	(\$197,689,179)	(\$119,092,323)	-3,745
5	(\$699,475,014)	(\$337,584,032)	(\$193,559,861)	(\$107,700,915)	-3,423
6	(\$635,529,111)	(\$312,302,813)	(\$172,464,945)	(\$93,361,768)	-3,020
7	(\$636,324,897)	(\$330,724,729)	(\$190,101,424)	(\$100,616,369)	-3,311
8	(\$611,804,383)	(\$317,537,470)	(\$185,192,730)	(\$110,299,771)	-3,432
9	(\$465,411,539)	(\$241,221,098)	(\$146,604,260)	(\$96,680,815)	-2,903
10	(\$515,514,449)	(\$238,765,509)	(\$140,412,779)	(\$89,338,654)	-2,669
11	(\$569,323,709)	(\$282,108,332)	(\$167,120,429)	(\$91,615,268)	-2,968
12	(\$528,359,642)	(\$267,989,538)	(\$160,876,204)	(\$101,198,859)	-3,090
13	(\$448,213,834)	(\$225,850,003)	(\$135,074,935)	(\$77,774,393)	-2,480
14	(\$311,890,020)	(\$157,424,196)	(\$90,787,053)	(\$49,289,257)	-1,659
15	(\$583,350,693)	(\$278,817,763)	(\$158,212,382)	(\$74,571,703)	-2,644
16	(\$596,314,042)	(\$285,013,713)	(\$161,728,212)	(\$76,228,852)	-2,702
17	(\$545,940,217)	(\$275,592,647)	(\$158,873,569)	(\$95,574,404)	-2,972
18	(\$659,704,948)	(\$334,765,235)	(\$191,989,126)	(\$108,684,556)	-3,405
19	(\$494,709,560)	(\$247,084,509)	(\$147,433,354)	(\$92,232,316)	-2,715
20	(\$258,467,444)	(\$135,578,123)	(\$82,700,091)	(\$48,022,021)	-1,543
21	(\$525,970,842)	(\$259,958,077)	(\$161,761,112)	(\$90,712,809)	-2,915
22	(\$516,826,121)	(\$255,241,802)	(\$158,488,532)	(\$89,625,865)	-2,860
23	(\$603,413,583)	(\$278,294,010)	(\$160,995,030)	(\$89,554,314)	-2,875
24	(\$607,710,703)	(\$283,361,257)	(\$165,542,103)	(\$94,444,577)	-3,002
25	(\$421,278,226)	(\$200,672,623)	(\$118,074,956)	(\$69,424,006)	-2,113
26	(\$393,980,673)	(\$184,899,975)	(\$103,856,560)	(\$51,455,690)	-1,717
27	(\$393,980,673)	(\$184,899,975)	(\$103,856,560)	(\$51,455,690)	-1,717
28	(\$456,894,690)	(\$219,343,896)	(\$122,955,600)	(\$71,500,680)	-2,183
29	(\$453,994,790)	(\$213,896,743)	(\$125,549,002)	(\$76,117,277)	-2,260
30	(\$592,553,966)	(\$297,209,017)	(\$170,944,650)	(\$99,149,654)	-3,048
31	(\$223,204,390)	(\$118,323,348)	(\$67,071,444)	(\$44,071,278)	-1,282
32	(\$559,670,853)	(\$257,659,535)	(\$146,065,523)	(\$86,065,145)	-2,601
33	(\$554,645,581)	(\$257,396,031)	(\$147,795,546)	(\$75,887,062)	-2,535
34	(\$554,645,581)	(\$257,396,031)	(\$147,795,546)	(\$75,887,062)	-2,535
35	(\$441,536,740)	(\$223,476,984)	(\$125,380,883)	(\$75,822,739)	-2,262
36	(\$262,002,486)	(\$139,980,104)	(\$83,998,456)	(\$48,868,381)	-1,605
37	(\$293,423,153)	(\$148,499,713)	(\$88,487,059)	(\$52,500,385)	-1,712
38	(\$293,423,153)	(\$148,499,713)	(\$88,487,059)	(\$52,500,385)	-1,712
39	(\$262,002,486)	(\$139,980,104)	(\$83,998,456)	(\$48,868,381)	-1,605
40	(\$262,002,486)	(\$139,980,104)	(\$83,998,456)	(\$48,868,381)	-1,605





(continued)  
**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
41	(\$262,002,486)	(\$139,980,104)	(\$83,998,456)	(\$48,868,381)	-1,605
42	(\$229,510,413)	(\$120,185,098)	(\$66,602,972)	(\$41,027,617)	-1,224
43	(\$307,698,677)	(\$158,223,371)	(\$91,562,152)	(\$56,475,648)	-1,740
44	(\$424,599,920)	(\$210,930,512)	(\$124,125,916)	(\$80,282,536)	-2,394
45	(\$391,136,388)	(\$196,283,241)	(\$114,822,285)	(\$67,740,113)	-2,142
46	(\$271,420,498)	(\$141,233,653)	(\$84,676,938)	(\$41,493,201)	-1,486
47	(\$271,420,498)	(\$141,233,653)	(\$84,676,938)	(\$41,493,201)	-1,486
48	(\$255,454,586)	(\$132,925,791)	(\$79,695,942)	(\$39,052,425)	-1,399
49	(\$271,420,498)	(\$141,233,653)	(\$84,676,938)	(\$41,493,201)	-1,486
50	(\$255,454,586)	(\$132,925,791)	(\$79,695,942)	(\$39,052,425)	-1,399
51	(\$271,420,498)	(\$141,233,653)	(\$84,676,938)	(\$41,493,201)	-1,486
52	(\$214,683,983)	(\$114,582,936)	(\$70,496,122)	(\$39,364,706)	-1,306
53	(\$738,371,474)	(\$363,218,343)	(\$206,468,363)	(\$129,235,848)	-3,907
54	(\$493,562,585)	(\$251,234,357)	(\$150,514,645)	(\$90,510,165)	-2,872
55	(\$381,012,753)	(\$203,231,083)	(\$125,034,677)	(\$73,787,359)	-2,394
56	(\$569,178,870)	(\$271,613,639)	(\$159,700,643)	(\$89,587,356)	-2,983
57	(\$543,524,250)	(\$268,311,656)	(\$157,842,816)	(\$97,244,767)	-3,019
58	(\$497,044,352)	(\$244,986,636)	(\$149,952,142)	(\$87,822,441)	-2,797
59	(\$358,316,342)	(\$185,089,259)	(\$111,704,878)	(\$72,319,698)	-2,201
60	(\$633,554,146)	(\$313,468,207)	(\$182,239,070)	(\$117,637,019)	-3,475
61	(\$512,886,388)	(\$248,185,965)	(\$141,800,141)	(\$83,551,682)	-2,581
62	(\$559,146,261)	(\$288,046,292)	(\$175,907,954)	(\$111,275,687)	-3,405
63	(\$336,660,663)	(\$161,356,083)	(\$95,323,304)	(\$49,177,024)	-1,680
64	(\$346,862,501)	(\$166,245,661)	(\$98,211,889)	(\$50,667,236)	-1,730
65	(\$336,660,663)	(\$161,356,083)	(\$95,323,304)	(\$49,177,024)	-1,680
66	(\$285,695,938)	(\$146,772,222)	(\$86,926,610)	(\$46,326,253)	-1,549
67	(\$285,695,938)	(\$146,772,222)	(\$86,926,610)	(\$46,326,253)	-1,549
68	(\$618,869,433)	(\$311,943,483)	(\$178,591,097)	(\$104,720,063)	-3,200
69	(\$538,074,349)	(\$289,557,678)	(\$164,226,683)	(\$92,932,893)	-2,930
70	(\$285,695,938)	(\$146,772,222)	(\$86,926,610)	(\$46,326,253)	-1,549
71	(\$594,432,860)	(\$298,000,572)	(\$168,982,265)	(\$89,492,921)	-2,960
72	(\$508,655,321)	(\$251,858,652)	(\$139,389,419)	(\$82,361,980)	-2,568
73	(\$618,702,334)	(\$296,784,285)	(\$172,243,148)	(\$107,245,443)	-3,321
74	(\$351,314,453)	(\$185,595,487)	(\$108,897,342)	(\$69,843,143)	-2,093
75	(\$405,241,703)	(\$196,124,422)	(\$114,629,436)	(\$60,044,978)	-2,076
76	(\$405,241,703)	(\$196,124,422)	(\$114,629,436)	(\$60,044,978)	-2,076
77	(\$405,241,703)	(\$196,124,422)	(\$114,629,436)	(\$60,044,978)	-2,076
78	(\$405,241,703)	(\$196,124,422)	(\$114,629,436)	(\$60,044,978)	-2,076
79	(\$405,241,703)	(\$196,124,422)	(\$114,629,436)	(\$60,044,978)	-2,076
80	(\$309,354,033)	(\$154,919,259)	(\$88,055,456)	(\$59,209,822)	-1,733



(continued)  
**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
81	(\$525,456,943)	(\$261,221,478)	(\$148,931,457)	(\$80,799,936)	-2,542
82	(\$410,980,373)	(\$208,357,799)	(\$115,278,711)	(\$61,998,488)	-1,959
83	(\$425,745,064)	(\$219,716,592)	(\$127,926,090)	(\$71,135,395)	-2,330
84	(\$462,802,949)	(\$240,708,997)	(\$143,667,519)	(\$77,254,130)	-2,626
85	(\$407,740,515)	(\$205,238,282)	(\$116,452,980)	(\$71,185,851)	-2,128
86	(\$365,424,848)	(\$188,674,812)	(\$109,650,963)	(\$61,650,350)	-2,007
87	(\$519,647,843)	(\$266,078,207)	(\$150,416,440)	(\$80,092,317)	-2,646
88	(\$400,273,149)	(\$193,927,916)	(\$109,917,717)	(\$69,640,314)	-1,983
89	(\$343,458,234)	(\$175,686,872)	(\$104,431,543)	(\$58,164,277)	-1,906
90	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
91	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
92	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
93	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
94	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
95	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
96	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
97	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
98	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
99	(\$482,809,931)	(\$238,303,078)	(\$138,242,929)	(\$67,714,274)	-2,382
100	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
101	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
102	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
103	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
104	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
105	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
106	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
107	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
108	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
109	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
110	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
111	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
112	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
113	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
114	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
115	(\$423,108,684)	(\$206,253,247)	(\$116,455,021)	(\$46,357,973)	-1,864
116	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
117	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
118	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
119	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
120	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442





(continued)  
**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas House District**

House District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
121	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
122	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
123	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
124	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
125	(\$455,585,540)	(\$228,601,686)	(\$136,159,069)	(\$69,896,594)	-2,442
126	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
127	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
128	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
129	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
130	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
131	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
132	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
133	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
134	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
135	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
136	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
137	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
138	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
139	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
140	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
141	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
142	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
143	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
144	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
145	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
146	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
147	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
148	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
149	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
150	(\$466,544,646)	(\$212,263,107)	(\$119,497,350)	(\$43,289,122)	-1,818
<b>TOTAL</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

NOTE: Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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

**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by Texas Senate District**

Senate District	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$2,892,433,174)	(\$1,445,553,024)	(\$837,745,877)	(\$481,700,956)	-15,177
2	(\$2,351,325,167)	(\$1,171,947,350)	(\$680,673,777)	(\$363,193,358)	-12,134
3	(\$2,908,145,277)	(\$1,459,435,607)	(\$853,404,611)	(\$505,173,887)	-15,758
4	(\$2,538,125,943)	(\$1,228,339,296)	(\$724,650,138)	(\$372,425,982)	-12,504
5	(\$1,677,128,455)	(\$863,292,235)	(\$510,792,261)	(\$302,988,615)	-9,511
6	(\$2,216,087,069)	(\$1,008,249,759)	(\$567,612,411)	(\$205,623,328)	-8,634
7	(\$2,332,723,230)	(\$1,061,315,536)	(\$597,486,748)	(\$216,445,608)	-9,089
8	(\$1,699,095,779)	(\$852,438,689)	(\$494,374,091)	(\$234,572,152)	-8,420
9	(\$2,022,041,347)	(\$985,720,139)	(\$567,990,805)	(\$260,536,357)	-9,556
10	(\$2,365,768,663)	(\$1,167,685,081)	(\$677,390,352)	(\$331,799,941)	-11,670
11	(\$2,494,102,957)	(\$1,155,981,373)	(\$666,162,939)	(\$326,448,974)	-11,262
12	(\$2,092,451,893)	(\$1,028,408,736)	(\$598,156,386)	(\$295,249,198)	-10,339
13	(\$2,196,828,938)	(\$1,002,557,698)	(\$564,279,645)	(\$211,930,006)	-8,658
14	(\$1,373,068,402)	(\$714,476,124)	(\$428,365,687)	(\$209,906,783)	-7,518
15	(\$2,332,723,230)	(\$1,061,315,536)	(\$597,486,748)	(\$216,445,608)	-9,089
16	(\$2,030,921,684)	(\$990,015,587)	(\$558,984,099)	(\$222,518,268)	-8,946
17	(\$2,398,187,773)	(\$1,112,367,770)	(\$637,421,802)	(\$282,617,107)	-10,339
18	(\$2,435,685,752)	(\$1,188,999,271)	(\$681,250,013)	(\$394,249,974)	-12,218
19	(\$1,932,564,719)	(\$972,657,643)	(\$571,293,138)	(\$322,448,651)	-10,533
20	(\$1,937,535,069)	(\$949,785,863)	(\$552,652,598)	(\$300,801,644)	-9,895
21	(\$1,630,481,134)	(\$818,651,747)	(\$468,665,317)	(\$281,272,332)	-8,630
22	(\$2,519,235,488)	(\$1,212,354,548)	(\$721,801,208)	(\$427,191,620)	-13,614
23	(\$2,098,619,073)	(\$1,023,016,107)	(\$577,616,903)	(\$229,935,544)	-9,245
24	(\$2,599,828,434)	(\$1,321,770,370)	(\$777,879,055)	(\$470,104,534)	-14,709
25	(\$2,100,814,778)	(\$1,047,025,730)	(\$620,021,001)	(\$344,939,483)	-11,404
26	(\$2,095,693,485)	(\$1,051,567,757)	(\$626,331,717)	(\$321,524,331)	-11,232
27	(\$1,331,142,143)	(\$688,878,848)	(\$409,549,703)	(\$242,269,025)	-7,861
28	(\$2,162,493,047)	(\$1,098,082,214)	(\$631,192,747)	(\$367,142,824)	-11,576
29	(\$1,904,636,006)	(\$921,784,785)	(\$538,758,347)	(\$282,211,394)	-9,757
30	(\$2,556,694,135)	(\$1,293,797,482)	(\$748,925,644)	(\$437,710,362)	-13,630
31	(\$2,072,685,221)	(\$1,043,355,440)	(\$590,491,910)	(\$323,773,475)	-10,297
<b>TOTAL</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

NOTE: Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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

**The Total Annual Impact of Mortality Losses Associated with the Incidence  
of Cancer on Business Activity:  
Results by US Congressional District in Texas**

US Congressional District in Texas	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Retail Sales (2011 Dollars)	Employment (Permanent Jobs)
1	(\$2,685,707,559)	(\$1,346,703,865)	(\$777,144,881)	(\$438,594,886)	-13,963
2	(\$2,372,883,715)	(\$1,131,395,230)	(\$668,142,103)	(\$314,570,326)	-11,182
3	(\$1,648,293,825)	(\$825,450,883)	(\$477,934,461)	(\$224,554,493)	-8,110
4	(\$2,251,431,350)	(\$1,142,225,871)	(\$686,906,136)	(\$430,974,402)	-13,133
5	(\$2,442,621,735)	(\$1,219,699,430)	(\$704,802,658)	(\$372,514,708)	-12,537
6	(\$2,264,172,362)	(\$1,111,167,319)	(\$649,150,391)	(\$344,228,852)	-11,473
7	(\$2,216,087,069)	(\$1,008,249,759)	(\$567,612,411)	(\$205,623,328)	-8,634
8	(\$2,671,912,450)	(\$1,316,694,302)	(\$763,712,922)	(\$425,545,613)	-13,603
9	(\$2,206,556,856)	(\$1,007,123,129)	(\$566,844,004)	(\$213,200,517)	-8,701
10	(\$1,897,647,797)	(\$917,270,612)	(\$531,268,338)	(\$247,399,499)	-8,923
11	(\$2,507,203,861)	(\$1,254,231,740)	(\$713,288,988)	(\$421,151,919)	-12,979
12	(\$2,226,861,644)	(\$1,094,161,891)	(\$632,562,539)	(\$323,937,354)	-11,035
13	(\$2,367,931,067)	(\$1,210,660,708)	(\$688,772,347)	(\$394,312,779)	-12,354
14	(\$2,472,743,630)	(\$1,169,976,130)	(\$674,781,577)	(\$387,529,359)	-12,010
15	(\$1,471,835,535)	(\$763,431,808)	(\$447,781,796)	(\$269,644,131)	-8,469
16	(\$1,945,160,176)	(\$941,397,227)	(\$550,221,290)	(\$288,215,892)	-9,965
17	(\$2,309,482,068)	(\$1,122,142,189)	(\$663,326,280)	(\$389,810,428)	-12,485
18	(\$2,216,087,069)	(\$1,008,249,759)	(\$567,612,411)	(\$205,623,328)	-8,634
19	(\$2,129,301,189)	(\$1,079,662,259)	(\$622,521,396)	(\$353,289,247)	-11,267
20	(\$2,141,252,039)	(\$1,074,427,926)	(\$639,947,624)	(\$328,513,991)	-11,476
21	(\$2,209,785,967)	(\$1,098,115,456)	(\$646,879,502)	(\$355,421,144)	-11,869
22	(\$2,142,054,878)	(\$990,817,116)	(\$561,974,588)	(\$252,243,345)	-9,109
23	(\$1,898,810,503)	(\$960,577,103)	(\$567,602,823)	(\$317,203,693)	-10,469
24	(\$1,984,519,857)	(\$969,812,289)	(\$556,182,482)	(\$248,595,653)	-9,267
25	(\$1,611,253,435)	(\$828,194,758)	(\$490,153,676)	(\$266,084,033)	-8,897
26	(\$1,969,612,698)	(\$961,156,777)	(\$561,016,652)	(\$280,397,456)	-9,724
27	(\$2,045,921,142)	(\$979,929,226)	(\$568,102,451)	(\$313,193,476)	-10,204
28	(\$1,397,287,422)	(\$718,931,800)	(\$416,061,835)	(\$256,232,235)	-7,835
29	(\$2,216,087,069)	(\$1,008,249,759)	(\$567,612,411)	(\$205,623,328)	-8,634
30	(\$1,963,224,295)	(\$957,015,068)	(\$540,351,296)	(\$215,100,993)	-8,648
31	(\$1,452,312,908)	(\$766,690,886)	(\$468,784,112)	(\$280,719,923)	-8,964
32	(\$1,963,224,295)	(\$957,015,068)	(\$540,351,296)	(\$215,100,993)	-8,648
<b>TOTAL</b>	<b>(\$67,299,267,464)</b>	<b>(\$32,940,827,343)</b>	<b>(\$19,079,407,675)</b>	<b>(\$9,785,151,322)</b>	<b>-333,204</b>

NOTE: Allocations reflect best available evidence regarding mortality and industrial structure and composition of each area. In cases in which a county was part of more than one district, allocations are based on the percentage of the population residing in a district. This convention is adopted because of a lack of subcounty data sufficient for allocation purposes. In some instances, this approach will result in districts which reflect the same proportion of a large urban county reporting identical results. Allocations reflect district maps defined in 2003, as redistricting process is not yet complete, subsequent reports will reflect new maps when finalized.

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



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# The Economic Impact of the Cancer Prevention and Research Institute of Texas (CPRIT) and Its Programs



**The Annual Impact of All Direct Outlays for Operations and Programs  
Associated with the Cancer Prevention and Research Institute of Texas (CPRIT)  
on Business Activity in Texas  
(Based on Budgeted Operations and Awards in Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$14,074,733	\$4,004,029	\$2,726,966	46
Forestry & Fishery Products	\$296,279	\$262,932	\$97,512	1
Coal Mining	\$1,410,788	\$399,124	\$420,580	3
Crude Petroleum & Natural Gas	\$10,618,206	\$2,338,431	\$1,078,484	6
Miscellaneous Mining	\$308,644	\$122,387	\$71,947	1
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$21,984,007	\$11,794,202	\$9,719,160	144
Food Products & Tobacco	\$28,945,041	\$7,498,650	\$3,830,667	68
Textile Mill Products	\$429,332	\$89,571	\$75,782	2
Apparel	\$6,769,580	\$3,740,945	\$1,895,598	54
Paper & Allied Products	\$4,998,121	\$2,209,618	\$998,951	16
Printing & Publishing	\$9,354,036	\$4,402,291	\$2,873,475	51
Chemicals & Petroleum Refining	\$28,246,519	\$4,347,782	\$2,041,537	16
Rubber & Leather Products	\$4,097,772	\$1,776,746	\$1,038,677	22
Lumber Products & Furniture	\$1,757,130	\$615,803	\$439,036	10
Stone, Clay, & Glass Products	\$2,396,365	\$1,354,982	\$708,659	12
Primary Metal	\$1,633,223	\$437,624	\$325,744	5
Fabricated Metal Products	\$4,103,350	\$1,475,290	\$952,451	17
Machinery, Except Electrical	\$2,444,589	\$966,741	\$690,645	8
Electric & Electronic Equipment	\$3,014,610	\$1,566,262	\$936,368	8
Motor Vehicles & Equipment	\$2,284,240	\$482,982	\$313,774	5
Transp. Equip., Exc. Motor Vehicles	\$1,104,061	\$455,775	\$297,827	4
Instruments & Related Products	\$922,120	\$370,126	\$281,328	4
Miscellaneous Manufacturing	\$1,882,661	\$733,516	\$505,915	8
Transportation	\$26,556,680	\$17,528,546	\$11,592,753	169
Communication	\$18,437,769	\$11,369,325	\$4,853,927	46
Electric, Gas, Water, Sanitary Services	\$40,917,537	\$9,268,640	\$4,044,584	18
Wholesale Trade	\$26,246,680	\$17,762,712	\$10,242,138	121
Retail Trade	\$78,976,374	\$65,454,694	\$39,139,816	1,122
Finance	\$11,528,621	\$6,241,004	\$3,634,153	34
Insurance	\$15,300,338	\$9,178,532	\$5,487,289	70
Real Estate	\$111,354,695	\$22,339,656	\$3,599,404	33
Hotels, Lodging Places, Amusements	\$7,993,331	\$4,150,648	\$2,722,966	71
Personal Services	\$16,595,800	\$10,143,434	\$7,891,757	146
Business Services	\$37,809,741	\$23,037,391	\$18,792,606	241
Eating & Drinking Places	\$37,714,465	\$22,091,467	\$11,753,841	577
Health Services	\$50,443,435	\$35,822,419	\$30,288,187	527
Miscellaneous Services	\$243,165,711	\$151,388,902	\$131,241,566	3,222
Households	\$1,272,409	\$1,272,409	\$1,245,488	90
<b>Total</b>	<b>\$877,388,993</b>	<b>\$458,495,588</b>	<b>\$318,851,560</b>	<b>6,997</b>

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

**The Cumulative Ten-Year Impact of All Direct Outlays for Operations and Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$180,737,739	\$51,441,348	\$35,034,414	592
Forestry & Fishery Products	\$3,806,152	\$3,376,849	\$1,252,370	17
Coal Mining	\$18,132,604	\$5,128,753	\$5,404,475	38
Crude Petroleum & Natural Gas	\$136,483,519	\$30,058,120	\$13,862,794	71
Miscellaneous Mining	\$3,960,696	\$1,570,422	\$923,189	11
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$282,938,109	\$151,800,630	\$125,093,201	1,859
Food Products & Tobacco	\$371,287,822	\$96,195,280	\$49,141,126	870
Textile Mill Products	\$5,514,172	\$1,149,664	\$972,686	23
Apparel	\$86,916,577	\$48,031,685	\$24,338,433	697
Paper & Allied Products	\$64,201,874	\$28,384,006	\$12,832,195	206
Printing & Publishing	\$120,153,456	\$56,537,015	\$36,902,987	657
Chemicals & Petroleum Refining	\$362,652,229	\$55,779,134	\$26,191,546	203
Rubber & Leather Products	\$52,579,638	\$22,799,227	\$13,328,323	280
Lumber Products & Furniture	\$22,579,950	\$7,912,881	\$5,641,467	124
Stone, Clay, & Glass Products	\$30,811,224	\$17,419,013	\$9,110,199	156
Primary Metal	\$20,982,453	\$5,620,906	\$4,183,913	67
Fabricated Metal Products	\$52,743,799	\$18,963,183	\$12,242,678	220
Machinery, Except Electrical	\$31,397,102	\$12,412,373	\$8,867,460	100
Electric & Electronic Equipment	\$38,487,328	\$19,979,558	\$11,944,486	103
Motor Vehicles & Equipment	\$29,328,998	\$6,201,489	\$4,028,866	60
Transp. Equip., Exc. Motor Vehicles	\$14,177,315	\$5,852,180	\$3,824,139	47
Instruments & Related Products	\$11,811,456	\$4,741,234	\$3,603,761	48
Miscellaneous Manufacturing	\$24,162,084	\$9,415,287	\$6,493,839	108
Transportation	\$340,963,469	\$225,072,397	\$148,854,839	2,171
Communication	\$236,552,545	\$145,864,286	\$62,274,124	587
Electric, Gas, Water, Sanitary Services	\$525,666,573	\$119,045,579	\$51,948,278	235
Wholesale Trade	\$336,945,777	\$228,031,176	\$131,484,812	1,552
Retail Trade	\$1,014,786,013	\$841,043,186	\$502,916,947	14,400
Finance	\$147,845,853	\$80,042,645	\$46,609,047	436
Insurance	\$196,402,769	\$117,822,323	\$70,438,833	893
Real Estate	\$1,431,892,161	\$287,507,669	\$46,323,731	429
Hotels, Lodging Places, Amusements	\$102,616,349	\$53,283,776	\$34,955,973	916
Personal Services	\$213,222,584	\$130,323,766	\$101,394,008	1,872
Business Services	\$466,641,087	\$284,946,862	\$232,443,608	2,981
Eating & Drinking Places	\$484,181,709	\$283,612,183	\$150,896,828	7,407
Health Services	\$643,812,019	\$457,153,903	\$386,527,859	6,730
Miscellaneous Services	\$3,140,478,701	\$1,955,621,613	\$1,695,361,022	41,616
Households	\$16,334,000	\$16,334,000	\$15,988,404	1,160
<b>Total</b>	<b>\$11,264,187,904</b>	<b>\$5,886,475,604</b>	<b>\$4,093,636,860</b>	<b>89,941</b>

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



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## CPRIT Operations



**The Annual Impact of Operations Associated with the Cancer Prevention and  
Research Institute of Texas (CPRIT) on Business Activity in Texas  
(Based on Budget Levels Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$297,468	\$78,590	\$53,524	1
Forestry & Fishery Products	\$5,886	\$5,698	\$2,108	0
Coal Mining	\$26,863	\$7,883	\$8,303	0
Crude Petroleum & Natural Gas	\$190,233	\$41,728	\$19,248	0
Miscellaneous Mining	\$7,092	\$2,781	\$1,637	0
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$306,548	\$162,119	\$133,599	2
Food Products & Tobacco	\$729,431	\$186,847	\$95,449	1
Textile Mill Products	\$8,386	\$1,961	\$1,656	0
Apparel	\$141,141	\$77,821	\$39,438	1
Paper & Allied Products	\$99,515	\$43,785	\$19,794	0
Printing & Publishing	\$197,656	\$96,390	\$62,916	1
Chemicals & Petroleum Refining	\$596,715	\$99,355	\$46,653	0
Rubber & Leather Products	\$91,956	\$39,388	\$23,025	0
Lumber Products & Furniture	\$32,238	\$11,495	\$8,198	0
Stone, Clay, & Glass Products	\$41,316	\$24,061	\$12,582	0
Primary Metal	\$32,334	\$9,076	\$6,755	0
Fabricated Metal Products	\$73,608	\$26,620	\$17,188	0
Machinery, Except Electrical	\$52,928	\$22,106	\$15,793	0
Electric & Electronic Equipment	\$133,511	\$74,530	\$44,560	0
Motor Vehicles & Equipment	\$48,147	\$10,290	\$6,682	0
Transp. Equip., Exc. Motor Vehicles	\$23,162	\$9,581	\$6,255	0
Instruments & Related Products	\$18,379	\$7,404	\$5,627	0
Miscellaneous Manufacturing	\$43,617	\$16,618	\$11,462	0
Transportation	\$600,351	\$388,713	\$257,080	3
Communication	\$471,336	\$291,148	\$124,298	1
Electric, Gas, Water, Sanitary Services	\$859,558	\$203,005	\$88,582	0
Wholesale Trade	\$573,943	\$388,548	\$224,041	2
Retail Trade	\$1,633,731	\$1,353,800	\$809,530	22
Finance	\$301,779	\$161,507	\$94,044	1
Insurance	\$329,683	\$197,208	\$117,900	1
Real Estate	\$1,897,246	\$291,671	\$46,996	0
Hotels, Lodging Places, Amusements	\$188,778	\$98,453	\$64,586	1
Personal Services	\$356,856	\$218,241	\$169,797	3
Business Services	\$6,760,046	\$3,921,141	\$3,198,644	40
Eating & Drinking Places	\$902,472	\$528,615	\$281,252	13
Health Services	\$577,067	\$403,661	\$341,300	6
Miscellaneous Services	\$567,712	\$233,246	\$202,206	5
Households	\$27,365	\$27,365	\$26,790	2
<b>Total</b>	<b>\$19,246,054</b>	<b>\$9,762,448</b>	<b>\$6,689,497</b>	<b>107</b>

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





**The Cumulative Ten-Year Impact of Operations Associated with the Cancer  
Prevention and Research Institute of Texas (CPRIT) on Business Activity  
in Texas (Based Upon Attaining Planned Levels of Funding in Year 3)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$2,898,416	\$765,751	\$521,515	6
Forestry & Fishery Products	\$57,355	\$55,515	\$20,543	0
Coal Mining	\$261,745	\$76,805	\$80,904	0
Crude Petroleum & Natural Gas	\$1,853,562	\$406,581	\$187,543	0
Miscellaneous Mining	\$69,099	\$27,098	\$15,952	0
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$2,986,896	\$1,579,632	\$1,301,742	17
Food Products & Tobacco	\$7,107,312	\$1,820,568	\$930,016	14
Textile Mill Products	\$81,709	\$19,103	\$16,133	0
Apparel	\$1,375,230	\$758,263	\$384,266	9
Paper & Allied Products	\$969,633	\$426,627	\$192,869	3
Printing & Publishing	\$1,925,887	\$939,187	\$613,035	9
Chemicals & Petroleum Refining	\$5,814,175	\$968,075	\$454,573	3
Rubber & Leather Products	\$895,982	\$383,778	\$224,350	4
Lumber Products & Furniture	\$314,118	\$112,003	\$79,874	1
Stone, Clay, & Glass Products	\$402,564	\$234,440	\$122,593	1
Primary Metal	\$315,055	\$88,430	\$65,815	1
Fabricated Metal Products	\$717,214	\$259,372	\$167,472	1
Machinery, Except Electrical	\$515,712	\$215,393	\$153,886	1
Electric & Electronic Equipment	\$1,300,886	\$726,194	\$434,176	3
Motor Vehicles & Equipment	\$469,129	\$100,266	\$65,108	1
Transp. Equip., Exc. Motor Vehicles	\$225,681	\$93,356	\$60,948	0
Instruments & Related Products	\$179,074	\$72,147	\$54,829	0
Miscellaneous Manufacturing	\$424,989	\$161,916	\$111,679	1
Transportation	\$5,849,599	\$3,787,478	\$2,504,894	33
Communication	\$4,592,528	\$2,836,839	\$1,211,118	9
Electric, Gas, Water, Sanitary Services	\$8,375,219	\$1,978,005	\$863,113	3
Wholesale Trade	\$5,592,293	\$3,785,873	\$2,182,971	22
Retail Trade	\$15,918,483	\$13,190,937	\$7,887,769	212
Finance	\$2,940,426	\$1,573,668	\$916,326	6
Insurance	\$3,212,308	\$1,921,523	\$1,148,771	12
Real Estate	\$18,486,074	\$2,841,932	\$457,910	3
Hotels, Lodging Places, Amusements	\$1,839,383	\$959,291	\$629,302	13
Personal Services	\$3,477,074	\$2,126,465	\$1,654,439	26
Business Services	\$65,867,422	\$38,206,166	\$31,166,421	387
Eating & Drinking Places	\$8,793,362	\$5,150,629	\$2,740,414	124
Health Services	\$5,622,733	\$3,933,130	\$3,325,498	55
Miscellaneous Services	\$5,531,582	\$2,272,667	\$1,970,218	47
Households	\$266,635	\$266,635	\$261,029	17
<b>Total</b>	<b>\$187,526,545</b>	<b>\$95,121,740</b>	<b>\$65,180,019</b>	<b>1,044</b>

**NOTE:** Assumes percentage leveraging of external funds remains constant over time.

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



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## CPRIT Prevention and Screening



**The Annual Impact of Outlays for Prevention and Screening Associated with  
the Cancer Prevention and Research Institute of Texas (CPRIT) on Business  
Activity in Texas (Based on Budget Levels Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$831,091	\$216,018	\$147,120	4
Forestry & Fishery Products	\$16,100	\$11,975	\$4,441	0
Coal Mining	\$56,627	\$16,859	\$17,765	0
Crude Petroleum & Natural Gas	\$536,295	\$117,968	\$54,407	0
Miscellaneous Mining	\$21,652	\$9,444	\$5,552	0
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$783,902	\$421,737	\$347,537	9
Food Products & Tobacco	\$1,824,292	\$469,482	\$239,834	6
Textile Mill Products	\$29,979	\$6,562	\$5,552	0
Apparel	\$476,337	\$262,951	\$133,241	5
Paper & Allied Products	\$294,796	\$128,940	\$58,293	1
Printing & Publishing	\$414,713	\$195,626	\$127,689	4
Chemicals & Petroleum Refining	\$1,941,434	\$366,521	\$172,103	2
Rubber & Leather Products	\$335,323	\$146,249	\$85,496	2
Lumber Products & Furniture	\$101,596	\$35,042	\$24,983	1
Stone, Clay, & Glass Products	\$106,038	\$61,567	\$32,200	1
Primary Metal	\$85,496	\$23,121	\$17,210	0
Fabricated Metal Products	\$204,303	\$71,374	\$46,079	1
Machinery, Except Electrical	\$107,703	\$43,518	\$31,090	1
Electric & Electronic Equipment	\$186,538	\$98,436	\$58,848	1
Motor Vehicles & Equipment	\$150,451	\$29,909	\$19,431	0
Transp. Equip., Exc. Motor Vehicles	\$68,286	\$29,735	\$19,431	0
Instruments & Related Products	\$183,762	\$72,310	\$54,962	1
Miscellaneous Manufacturing	\$117,141	\$45,076	\$31,090	1
Transportation	\$1,312,980	\$874,689	\$578,488	13
Communication	\$904,374	\$557,860	\$238,168	4
Electric, Gas, Water, Sanitary Services	\$1,577,241	\$365,133	\$159,334	2
Wholesale Trade	\$1,683,279	\$1,139,017	\$656,768	11
Retail Trade	\$2,663,711	\$2,208,734	\$1,320,752	105
Finance	\$726,164	\$390,897	\$227,620	3
Insurance	\$1,110,342	\$664,899	\$397,503	7
Real Estate	\$4,620,135	\$1,071,601	\$172,658	2
Hotels, Lodging Places, Amusements	\$336,989	\$174,328	\$114,365	6
Personal Services	\$473,006	\$283,288	\$220,403	14
Business Services	\$1,955,313	\$1,212,096	\$988,760	19
Eating & Drinking Places	\$1,394,035	\$817,021	\$434,699	53
Health Services	\$24,352,584	\$17,561,733	\$14,848,608	266
Miscellaneous Services	\$1,231,370	\$550,101	\$476,892	20
Households	\$90,180	\$90,180	\$88,272	9
<b>Total</b>	<b>\$53,305,558</b>	<b>\$30,841,999</b>	<b>\$22,657,646</b>	<b>577</b>

**NOTE:** Includes effects of leveraged external funds for screening and prevention purposes.

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



**The Cumulative Ten-Year Impact of Outlays for Prevention and Screening  
Associated with the Cancer Prevention and Research Institute of Texas  
(CPRIT) on Business Activity in Texas  
(Based Upon Attaining Planned Levels of Funding by Year 3)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$10,526,839	\$2,736,147	\$1,863,468	50
Forestry & Fishery Products	\$203,927	\$151,680	\$56,256	2
Coal Mining	\$717,260	\$213,541	\$225,023	3
Crude Petroleum & Natural Gas	\$6,792,870	\$1,494,218	\$689,132	6
Miscellaneous Mining	\$274,246	\$119,623	\$70,320	1
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$9,929,122	\$5,341,835	\$4,402,005	116
Food Products & Tobacco	\$23,107,008	\$5,946,595	\$3,037,805	82
Textile Mill Products	\$379,726	\$83,111	\$70,320	2
Apparel	\$6,033,419	\$3,330,607	\$1,687,670	66
Paper & Allied Products	\$3,733,969	\$1,633,195	\$738,355	18
Printing & Publishing	\$5,252,871	\$2,477,852	\$1,617,350	45
Chemicals & Petroleum Refining	\$24,590,751	\$4,642,464	\$2,179,906	23
Rubber & Leather Products	\$4,247,302	\$1,852,429	\$1,082,921	30
Lumber Products & Furniture	\$1,286,848	\$443,846	\$316,438	10
Stone, Clay, & Glass Products	\$1,343,104	\$779,828	\$407,853	11
Primary Metal	\$1,082,921	\$292,860	\$217,991	6
Fabricated Metal Products	\$2,587,760	\$904,045	\$583,652	17
Machinery, Except Electrical	\$1,364,200	\$551,214	\$393,790	8
Electric & Electronic Equipment	\$2,362,737	\$1,246,813	\$745,387	9
Motor Vehicles & Equipment	\$1,905,660	\$378,839	\$246,118	5
Transp. Equip., Exc. Motor Vehicles	\$864,931	\$376,636	\$246,118	4
Instruments & Related Products	\$2,327,578	\$915,895	\$696,164	10
Miscellaneous Manufacturing	\$1,483,743	\$570,948	\$393,790	9
Transportation	\$16,630,577	\$11,079,065	\$7,327,298	168
Communication	\$11,455,057	\$7,066,017	\$3,016,709	52
Electric, Gas, Water, Sanitary Services	\$19,977,788	\$4,624,874	\$2,018,171	20
Wholesale Trade	\$21,320,892	\$14,427,117	\$8,318,804	143
Retail Trade	\$33,739,326	\$27,976,453	\$16,729,024	1,335
Finance	\$9,197,799	\$4,951,207	\$2,883,102	39
Insurance	\$14,063,913	\$8,421,795	\$5,034,881	90
Real Estate	\$58,519,940	\$13,573,210	\$2,186,938	29
Hotels, Lodging Places, Amusements	\$4,268,397	\$2,208,089	\$1,448,583	82
Personal Services	\$5,991,227	\$3,588,212	\$2,791,687	171
Business Services	\$24,766,550	\$15,352,755	\$12,523,914	239
Eating & Drinking Places	\$17,657,242	\$10,348,627	\$5,506,022	672
Health Services	\$308,456,764	\$222,441,920	\$188,076,704	3,371
Miscellaneous Services	\$15,596,879	\$6,967,740	\$6,040,450	257
Households	\$1,142,251	\$1,142,251	\$1,118,081	108
<b>Total</b>	<b>\$675,183,392</b>	<b>\$390,653,554</b>	<b>\$286,988,201</b>	<b>7,312</b>

**NOTE:** Assumes percentage leveraging of external funds remains constant over time.

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

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## CPRIT Research



**The Annual Impact of Outlays for Research Associated with the Cancer  
Prevention and Research Institute of Texas (CPRIT) on Business Activity  
in Texas (Based on Budget Levels Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$12,946,174	\$3,709,421	\$2,526,322	41
Forestry & Fishery Products	\$274,292	\$245,259	\$90,962	1
Coal Mining	\$1,327,298	\$374,382	\$394,511	3
Crude Petroleum & Natural Gas	\$9,891,678	\$2,178,735	\$1,004,830	5
Miscellaneous Mining	\$279,900	\$110,162	\$64,758	1
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$20,893,557	\$11,210,346	\$9,238,023	134
Food Products & Tobacco	\$26,391,317	\$6,842,321	\$3,495,384	60
Textile Mill Products	\$390,967	\$81,049	\$68,574	2
Apparel	\$6,152,102	\$3,400,173	\$1,722,920	48
Paper & Allied Products	\$4,603,810	\$2,036,892	\$920,864	14
Printing & Publishing	\$8,741,667	\$4,110,276	\$2,682,869	47
Chemicals & Petroleum Refining	\$25,708,370	\$3,881,906	\$1,822,780	14
Rubber & Leather Products	\$3,670,493	\$1,591,109	\$930,156	19
Lumber Products & Furniture	\$1,623,295	\$569,267	\$405,855	9
Stone, Clay, & Glass Products	\$2,249,012	\$1,269,353	\$663,877	11
Primary Metal	\$1,515,392	\$405,427	\$301,780	5
Fabricated Metal Products	\$3,825,438	\$1,377,296	\$889,184	16
Machinery, Except Electrical	\$2,283,958	\$901,117	\$643,762	7
Electric & Electronic Equipment	\$2,694,561	\$1,393,297	\$832,960	7
Motor Vehicles & Equipment	\$2,085,642	\$442,782	\$287,661	4
Transp. Equip., Exc. Motor Vehicles	\$1,012,613	\$416,459	\$272,141	3
Instruments & Related Products	\$719,980	\$290,412	\$220,739	3
Miscellaneous Manufacturing	\$1,721,902	\$671,822	\$463,363	8
Transportation	\$24,643,350	\$16,265,143	\$10,757,185	152
Communication	\$17,062,059	\$10,520,317	\$4,491,461	41
Electric, Gas, Water, Sanitary Services	\$38,480,738	\$8,700,503	\$3,796,667	16
Wholesale Trade	\$23,989,458	\$16,235,147	\$9,361,330	107
Retail Trade	\$74,678,931	\$61,892,160	\$37,009,533	995
Finance	\$10,500,678	\$5,688,600	\$3,312,489	30
Insurance	\$13,860,313	\$8,316,426	\$4,971,887	61
Real Estate	\$104,837,314	\$20,976,384	\$3,379,750	31
Hotels, Lodging Places, Amusements	\$7,467,564	\$3,877,867	\$2,544,015	64
Personal Services	\$15,765,939	\$9,641,904	\$7,501,557	130
Business Services	\$29,094,383	\$17,904,154	\$14,605,202	182
Eating & Drinking Places	\$35,417,957	\$20,745,831	\$11,037,890	512
Health Services	\$25,513,784	\$17,857,025	\$15,098,280	256
Miscellaneous Services	\$241,366,629	\$150,605,554	\$130,562,468	3,197
Households	\$1,154,864	\$1,154,864	\$1,130,426	80
<b>Total</b>	<b>\$804,837,380</b>	<b>\$417,891,140</b>	<b>\$289,504,417</b>	<b>6,313</b>

**NOTE:** Includes effects of leveraged external funds for research purposes.

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



**The Cumulative Ten-Year Impact of Outlays for Research Associated with  
the Cancer Prevention and Research Institute of Texas (CPRIT) on  
Business Activity in Texas  
(Based Upon Attaining Planned Levels of Funding by Year 3)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$167,312,485	\$47,939,450	\$32,649,430	535
Forestry & Fishery Products	\$3,544,870	\$3,169,654	\$1,175,571	15
Coal Mining	\$17,153,599	\$4,838,406	\$5,098,549	35
Crude Petroleum & Natural Gas	\$127,837,087	\$28,157,320	\$12,986,120	65
Miscellaneous Mining	\$3,617,350	\$1,423,701	\$836,918	10
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$270,022,091	\$144,879,164	\$119,389,454	1,726
Food Products & Tobacco	\$341,073,501	\$88,428,117	\$45,173,305	774
Textile Mill Products	\$5,052,737	\$1,047,450	\$886,233	20
Apparel	\$79,507,928	\$43,942,815	\$22,266,497	622
Paper & Allied Products	\$59,498,271	\$26,324,184	\$11,900,970	185
Printing & Publishing	\$112,974,697	\$53,119,976	\$34,672,602	603
Chemicals & Petroleum Refining	\$332,247,303	\$50,168,595	\$23,557,067	178
Rubber & Leather Products	\$47,436,354	\$20,563,021	\$12,021,052	246
Lumber Products & Furniture	\$20,978,984	\$7,357,031	\$5,245,155	112
Stone, Clay, & Glass Products	\$29,065,556	\$16,404,744	\$8,579,752	143
Primary Metal	\$19,584,476	\$5,239,616	\$3,900,108	60
Fabricated Metal Products	\$49,438,825	\$17,799,767	\$11,491,553	201
Machinery, Except Electrical	\$29,517,191	\$11,645,766	\$8,319,784	91
Electric & Electronic Equipment	\$34,823,705	\$18,006,551	\$10,764,923	91
Motor Vehicles & Equipment	\$26,954,209	\$5,722,384	\$3,717,639	54
Transp. Equip., Exc. Motor Vehicles	\$13,086,704	\$5,382,187	\$3,517,072	43
Instruments & Related Products	\$9,304,805	\$3,753,192	\$2,852,768	37
Miscellaneous Manufacturing	\$22,253,352	\$8,682,423	\$5,988,370	98
Transportation	\$318,483,293	\$210,205,853	\$139,022,647	1,970
Communication	\$220,504,960	\$135,961,430	\$58,046,296	526
Electric, Gas, Water, Sanitary Services	\$497,313,566	\$112,442,701	\$49,066,994	213
Wholesale Trade	\$310,032,592	\$209,818,186	\$120,983,036	1,387
Retail Trade	\$965,128,204	\$799,875,797	\$478,300,154	12,853
Finance	\$135,707,629	\$73,517,770	\$42,809,619	390
Insurance	\$179,126,548	\$107,479,005	\$64,255,181	792
Real Estate	\$1,354,886,146	\$271,092,528	\$43,678,882	398
Hotels, Lodging Places, Amusements	\$96,508,569	\$50,116,395	\$32,878,088	821
Personal Services	\$203,754,283	\$124,609,089	\$96,947,883	1,675
Business Services	\$376,007,114	\$231,387,941	\$188,753,273	2,354
Eating & Drinking Places	\$457,731,105	\$268,112,927	\$142,650,392	6,611
Health Services	\$329,732,522	\$230,778,854	\$195,125,657	3,303
Miscellaneous Services	\$3,119,350,240	\$1,946,381,205	\$1,687,350,353	41,312
Households	\$14,925,114	\$14,925,114	\$14,609,294	1,035
<b>Total</b>	<b>\$10,401,477,966</b>	<b>\$5,400,700,310</b>	<b>\$3,741,468,639</b>	<b>81,584</b>

**NOTE:** Assumes percentage leveraging of external funds remains constant over time.

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



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# Potential Economic Development and Social Benefits Associated with the Cancer Prevention and Research Institute of Texas





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## Economic Benefits of All Prevention and Research Activity



**The Annual Impact of All Direct Outlays for Operations and Programs  
Associated with the Cancer Prevention and Research Institute of Texas (CPRIT)  
on Business Activity in Texas  
(Based on Budgeted Operations and Awards in Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$14,074,733	\$4,004,029	\$2,726,966	46
Forestry & Fishery Products	\$296,279	\$262,932	\$97,512	1
Coal Mining	\$1,410,788	\$399,124	\$420,580	3
Crude Petroleum & Natural Gas	\$10,618,206	\$2,338,431	\$1,078,484	6
Miscellaneous Mining	\$308,644	\$122,387	\$71,947	1
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$21,984,007	\$11,794,202	\$9,719,160	144
Food Products & Tobacco	\$28,945,041	\$7,498,650	\$3,830,667	68
Textile Mill Products	\$429,332	\$89,571	\$75,782	2
Apparel	\$6,769,580	\$3,740,945	\$1,895,598	54
Paper & Allied Products	\$4,998,121	\$2,209,618	\$998,951	16
Printing & Publishing	\$9,354,036	\$4,402,291	\$2,873,475	51
Chemicals & Petroleum Refining	\$28,246,519	\$4,347,782	\$2,041,537	16
Rubber & Leather Products	\$4,097,772	\$1,776,746	\$1,038,677	22
Lumber Products & Furniture	\$1,757,130	\$615,803	\$439,036	10
Stone, Clay, & Glass Products	\$2,396,365	\$1,354,982	\$708,659	12
Primary Metal	\$1,633,223	\$437,624	\$325,744	5
Fabricated Metal Products	\$4,103,350	\$1,475,290	\$952,451	17
Machinery, Except Electrical	\$2,444,589	\$966,741	\$690,645	8
Electric & Electronic Equipment	\$3,014,610	\$1,566,262	\$936,368	8
Motor Vehicles & Equipment	\$2,284,240	\$482,982	\$313,774	5
Transp. Equip., Exc. Motor Vehicles	\$1,104,061	\$455,775	\$297,827	4
Instruments & Related Products	\$922,120	\$370,126	\$281,328	4
Miscellaneous Manufacturing	\$1,882,661	\$733,516	\$505,915	8
Transportation	\$26,556,680	\$17,528,546	\$11,592,753	169
Communication	\$18,437,769	\$11,369,325	\$4,853,927	46
Electric, Gas, Water, Sanitary Services	\$40,917,537	\$9,268,640	\$4,044,584	18
Wholesale Trade	\$26,246,680	\$17,762,712	\$10,242,138	121
Retail Trade	\$78,976,374	\$65,454,694	\$39,139,816	1,122
Finance	\$11,528,621	\$6,241,004	\$3,634,153	34
Insurance	\$15,300,338	\$9,178,532	\$5,487,289	70
Real Estate	\$111,354,695	\$22,339,656	\$3,599,404	33
Hotels, Lodging Places, Amusements	\$7,993,331	\$4,150,648	\$2,722,966	71
Personal Services	\$16,595,800	\$10,143,434	\$7,891,757	146
Business Services	\$37,809,741	\$23,037,391	\$18,792,606	241
Eating & Drinking Places	\$37,714,465	\$22,091,467	\$11,753,841	577
Health Services	\$50,443,435	\$35,822,419	\$30,288,187	527
Miscellaneous Services	\$243,165,711	\$151,388,902	\$131,241,566	3,222
Households	\$1,272,409	\$1,272,409	\$1,245,488	90
<b>Total</b>	<b>\$877,388,993</b>	<b>\$458,495,588</b>	<b>\$318,851,560</b>	<b>6,997</b>

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

**The Cumulative Ten-Year Impact of All Direct Outlays for Operations and Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$180,737,739	\$51,441,348	\$35,034,414	592
Forestry & Fishery Products	\$3,806,152	\$3,376,849	\$1,252,370	17
Coal Mining	\$18,132,604	\$5,128,753	\$5,404,475	38
Crude Petroleum & Natural Gas	\$136,483,519	\$30,058,120	\$13,862,794	71
Miscellaneous Mining	\$3,960,696	\$1,570,422	\$923,189	11
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$282,938,109	\$151,800,630	\$125,093,201	1,859
Food Products & Tobacco	\$371,287,822	\$96,195,280	\$49,141,126	870
Textile Mill Products	\$5,514,172	\$1,149,664	\$972,686	23
Apparel	\$86,916,577	\$48,031,685	\$24,338,433	697
Paper & Allied Products	\$64,201,874	\$28,384,006	\$12,832,195	206
Printing & Publishing	\$120,153,456	\$56,537,015	\$36,902,987	657
Chemicals & Petroleum Refining	\$362,652,229	\$55,779,134	\$26,191,546	203
Rubber & Leather Products	\$52,579,638	\$22,799,227	\$13,328,323	280
Lumber Products & Furniture	\$22,579,950	\$7,912,881	\$5,641,467	124
Stone, Clay, & Glass Products	\$30,811,224	\$17,419,013	\$9,110,199	156
Primary Metal	\$20,982,453	\$5,620,906	\$4,183,913	67
Fabricated Metal Products	\$52,743,799	\$18,963,183	\$12,242,678	220
Machinery, Except Electrical	\$31,397,102	\$12,412,373	\$8,867,460	100
Electric & Electronic Equipment	\$38,487,328	\$19,979,558	\$11,944,486	103
Motor Vehicles & Equipment	\$29,328,998	\$6,201,489	\$4,028,866	60
Transp. Equip., Exc. Motor Vehicles	\$14,177,315	\$5,852,180	\$3,824,139	47
Instruments & Related Products	\$11,811,456	\$4,741,234	\$3,603,761	48
Miscellaneous Manufacturing	\$24,162,084	\$9,415,287	\$6,493,839	108
Transportation	\$340,963,469	\$225,072,397	\$148,854,839	2,171
Communication	\$236,552,545	\$145,864,286	\$62,274,124	587
Electric, Gas, Water, Sanitary Services	\$525,666,573	\$119,045,579	\$51,948,278	235
Wholesale Trade	\$336,945,777	\$228,031,176	\$131,484,812	1,552
Retail Trade	\$1,014,786,013	\$841,043,186	\$502,916,947	14,400
Finance	\$147,845,853	\$80,042,645	\$46,609,047	436
Insurance	\$196,402,769	\$117,822,323	\$70,438,833	893
Real Estate	\$1,431,892,161	\$287,507,669	\$46,323,731	429
Hotels, Lodging Places, Amusements	\$102,616,349	\$53,283,776	\$34,955,973	916
Personal Services	\$213,222,584	\$130,323,766	\$101,394,008	1,872
Business Services	\$466,641,087	\$284,946,862	\$232,443,608	2,981
Eating & Drinking Places	\$484,181,709	\$283,612,183	\$150,896,828	7,407
Health Services	\$643,812,019	\$457,153,903	\$386,527,859	6,730
Miscellaneous Services	\$3,140,478,701	\$1,955,621,613	\$1,695,361,022	41,616
Households	\$16,334,000	\$16,334,000	\$15,988,404	1,160
<b>Total</b>	<b>\$11,264,187,904</b>	<b>\$5,886,475,604</b>	<b>\$4,093,636,860</b>	<b>89,941</b>

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

**The Anticipated Gross Cumulative Ten-Year Benefits of the All Prevention and Research Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$1,361,574,376	\$385,234,327	\$251,306,404	4,396
Forestry & Fishery Products	\$74,018,249	\$30,643,458	\$10,846,143	177
Coal Mining	\$172,917,311	\$45,984,388	\$52,185,266	351
Crude Petroleum & Natural Gas	\$5,978,326,253	\$2,670,129,656	\$906,452,253	3,482
Miscellaneous Mining	\$74,478,426	\$42,375,340	\$23,241,264	365
New Construction	\$1,256,011,088	\$471,690,603	\$389,448,791	5,592
Maintenance & Repair Construction	\$1,815,373,833	\$1,055,981,256	\$797,134,586	12,605
Food Products & Tobacco	\$3,176,689,513	\$777,067,081	\$390,041,604	6,495
Textile Mill Products	\$48,133,515	\$10,606,682	\$9,266,574	183
Apparel	\$479,140,857	\$265,206,662	\$134,231,441	3,761
Paper & Allied Products	\$502,158,663	\$217,967,009	\$101,570,844	1,536
Printing & Publishing	\$848,046,132	\$444,532,155	\$277,120,653	4,415
Chemicals & Petroleum Refining	\$6,996,148,776	\$1,828,809,871	\$902,012,804	5,055
Rubber & Leather Products	\$540,154,386	\$239,851,449	\$141,775,022	2,449
Lumber Products & Furniture	\$239,793,920	\$87,688,256	\$62,142,036	1,361
Stone, Clay, & Glass Products	\$310,821,678	\$171,396,307	\$90,348,447	1,438
Primary Metal	\$319,454,988	\$84,135,323	\$63,624,830	821
Fabricated Metal Products	\$808,037,381	\$338,722,729	\$213,750,352	3,150
Machinery, Except Electrical	\$1,230,636,017	\$408,686,662	\$328,652,712	2,268
Electric & Electronic Equipment	\$728,590,378	\$443,986,167	\$263,773,622	2,050
Motor Vehicles & Equipment	\$404,241,572	\$115,854,238	\$67,315,394	781
Transp. Equip., Exc. Motor Vehicles	\$304,047,220	\$157,448,870	\$95,999,719	1,055
Instruments & Related Products	\$612,944,143	\$251,472,134	\$192,331,525	2,492
Miscellaneous Manufacturing	\$224,847,321	\$75,860,544	\$63,547,236	763
Transportation	\$3,650,053,110	\$2,034,022,249	\$1,344,273,987	19,112
Communication	\$2,347,791,098	\$1,524,793,212	\$660,079,607	5,873
Electric, Gas, Water, Sanitary Services	\$5,635,150,904	\$1,243,394,202	\$537,886,022	2,173
Wholesale Trade	\$3,338,740,254	\$2,470,009,690	\$1,400,079,162	16,424
Retail Trade	\$9,195,133,841	\$7,727,210,560	\$4,594,814,621	125,244
Finance	\$2,603,458,159	\$1,211,121,738	\$776,743,808	6,674
Insurance	\$2,424,639,425	\$1,461,141,494	\$872,476,885	10,495
Real Estate	\$13,724,281,546	\$3,044,173,886	\$481,397,741	4,618
Hotels, Lodging Places, Amusements	\$1,276,872,733	\$652,566,613	\$425,587,669	10,232
Personal Services	\$1,888,253,205	\$1,167,686,464	\$907,481,262	16,255
Business Services	\$5,707,110,704	\$3,937,876,680	\$3,196,100,734	38,743
Eating & Drinking Places	\$4,272,027,828	\$2,571,180,870	\$1,360,013,672	65,275
Health Services	\$7,157,260,775	\$5,422,226,747	\$4,497,256,269	77,762
Miscellaneous Services	\$5,680,519,530	\$3,086,990,879	\$2,639,712,671	65,025
Households	\$138,001,505	\$138,001,505	\$107,935,852	7,593
<b>Total</b>	<b>\$97,545,880,615</b>	<b>\$48,313,727,958</b>	<b>\$29,629,959,484</b>	<b>538,539</b>

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



**The Anticipated Net Annual Benefits of All Prevention and Research  
Programs Associated with the Cancer Prevention and Research Institute  
of Texas (CPRIT) on Business Activity in Texas  
(Based on Budgeted Operations and Awards in Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$18,962,733	\$5,361,898	\$3,473,063	61
Forestry & Fishery Products	\$1,131,637	\$438,107	\$154,102	3
Coal Mining	\$2,489,886	\$656,971	\$752,535	5
Crude Petroleum & Natural Gas	\$94,304,853	\$42,637,583	\$14,413,282	55
Miscellaneous Mining	\$1,132,916	\$656,670	\$359,056	6
New Construction	\$20,293,217	\$7,621,047	\$6,292,276	90
Maintenance & Repair Construction	\$24,650,851	\$14,550,813	\$10,810,358	173
Food Products & Tobacco	\$45,065,568	\$10,936,844	\$5,475,235	90
Textile Mill Products	\$685,359	\$151,939	\$133,278	3
Apparel	\$6,293,224	\$3,484,508	\$1,763,183	49
Paper & Allied Products	\$6,977,851	\$3,018,719	\$1,413,689	21
Printing & Publishing	\$11,665,434	\$6,220,195	\$3,849,448	60
Chemicals & Petroleum Refining	\$104,906,073	\$27,663,445	\$13,688,869	75
Rubber & Leather Products	\$7,783,387	\$3,467,961	\$2,052,542	35
Lumber Products & Furniture	\$3,495,625	\$1,284,126	\$909,454	20
Stone, Clay, & Glass Products	\$4,487,871	\$2,464,758	\$1,300,509	21
Primary Metal	\$4,786,510	\$1,260,593	\$954,458	12
Fabricated Metal Products	\$12,145,246	\$5,144,867	\$3,241,887	47
Machinery, Except Electrical	\$19,353,065	\$6,392,502	\$5,159,549	35
Electric & Electronic Equipment	\$11,122,363	\$6,835,977	\$4,060,017	31
Motor Vehicles & Equipment	\$6,042,764	\$1,768,593	\$1,020,529	12
Transp. Equip., Exc. Motor Vehicles	\$4,675,885	\$2,446,109	\$1,487,165	16
Instruments & Related Products	\$9,004,798	\$3,688,960	\$2,823,169	36
Miscellaneous Manufacturing	\$3,227,581	\$1,067,511	\$917,641	11
Transportation	\$53,269,728	\$29,096,481	\$19,227,933	272
Communication	\$33,957,390	\$22,185,553	\$9,618,695	85
Electric, Gas, Water, Sanitary Services	\$82,255,471	\$18,098,447	\$7,821,775	31
Wholesale Trade	\$48,205,266	\$36,024,323	\$20,381,750	239
Retail Trade	\$131,666,044	\$110,842,375	\$65,863,183	1,784
Finance	\$39,573,814	\$18,219,628	\$11,764,626	100
Insurance	\$35,899,690	\$21,643,174	\$12,922,160	155
Real Estate	\$197,987,890	\$44,434,953	\$7,012,654	68
Hotels, Lodging Places, Amusements	\$18,915,932	\$9,653,496	\$6,292,335	150
Personal Services	\$26,949,672	\$16,691,035	\$12,969,776	231
Business Services	\$84,363,247	\$58,835,318	\$47,732,841	576
Eating & Drinking Places	\$60,914,572	\$36,792,938	\$19,446,685	931
Health Services	\$105,059,703	\$80,096,089	\$66,311,705	1,146
Miscellaneous Services	\$40,869,598	\$18,206,060	\$15,194,199	377
Households	\$1,957,377	\$1,957,377	\$1,477,371	103
<b>Total</b>	<b>\$1,386,530,090</b>	<b>\$681,997,942</b>	<b>\$410,542,983</b>	<b>7,215</b>

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



**The Anticipated Net Annual Benefits of All Prevention and Research Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Impact in Year 10 Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$221,500,153	\$62,610,448	\$40,568,071	714
Forestry & Fishery Products	\$13,164,923	\$5,114,329	\$1,799,540	30
Coal Mining	\$29,028,810	\$7,662,506	\$8,773,399	59
Crude Petroleum & Natural Gas	\$1,095,162,766	\$494,906,073	\$167,327,089	639
Miscellaneous Mining	\$13,227,003	\$7,652,320	\$4,185,543	66
New Construction	\$235,439,975	\$88,418,665	\$73,002,392	1,048
Maintenance & Repair Construction	\$287,397,947	\$169,564,959	\$126,036,994	2,015
Food Products & Tobacco	\$526,215,610	\$127,713,443	\$63,944,714	1,055
Textile Mill Products	\$7,993,254	\$1,773,845	\$1,555,643	30
Apparel	\$73,580,102	\$40,741,451	\$20,615,660	575
Paper & Allied Products	\$82,223,704	\$35,595,478	\$16,660,348	250
Printing & Publishing	\$136,568,258	\$72,793,498	\$45,070,444	705
Chemicals & Petroleum Refining	\$1,246,423,916	\$333,642,253	\$164,777,341	914
Rubber & Leather Products	\$91,519,560	\$40,737,499	\$24,107,184	407
Lumber Products & Furniture	\$40,735,035	\$14,960,214	\$10,595,537	232
Stone, Clay, & Glass Products	\$52,535,519	\$28,893,273	\$15,243,920	241
Primary Metal	\$55,995,788	\$14,727,981	\$11,149,982	141
Fabricated Metal Products	\$141,656,023	\$59,967,173	\$37,790,847	550
Machinery, Except Electrical	\$224,827,955	\$74,294,991	\$59,953,321	407
Electric & Electronic Equipment	\$129,396,250	\$79,499,440	\$47,216,969	365
Motor Vehicles & Equipment	\$70,296,745	\$20,558,464	\$11,865,690	135
Transp. Equip., Exc. Motor Vehicles	\$54,346,099	\$28,421,097	\$17,281,117	189
Instruments & Related Products	\$113,608,694	\$46,639,090	\$35,672,987	462
Miscellaneous Manufacturing	\$37,638,013	\$12,463,100	\$10,700,140	123
Transportation	\$620,545,648	\$339,259,430	\$224,194,928	3,177
Communication	\$395,953,887	\$258,603,524	\$112,111,282	991
Electric, Gas, Water, Sanitary Services	\$958,165,437	\$210,848,126	\$91,127,854	364
Wholesale Trade	\$563,073,251	\$420,520,599	\$237,948,912	2,790
Retail Trade	\$1,534,068,764	\$1,291,361,055	\$767,354,477	20,787
Finance	\$460,438,339	\$212,093,480	\$136,906,137	1,170
Insurance	\$417,817,229	\$251,885,317	\$150,389,942	1,800
Real Estate	\$2,305,024,911	\$516,874,925	\$81,576,828	785
Hotels, Lodging Places, Amusements	\$220,188,797	\$112,373,908	\$73,249,062	1,747
Personal Services	\$314,134,071	\$194,545,172	\$151,172,271	2,697
Business Services	\$982,729,874	\$684,985,322	\$555,736,257	6,706
Eating & Drinking Places	\$710,407,072	\$429,024,599	\$226,765,919	10,853
Health Services	\$1,221,181,588	\$930,867,906	\$770,695,502	13,317
Miscellaneous Services	\$476,353,916	\$212,171,765	\$177,102,437	4,390
Households	\$22,817,621	\$22,817,621	\$17,246,348	1,207
<b>Total</b>	<b>\$16,183,382,508</b>	<b>\$7,957,584,341</b>	<b>\$4,789,473,029</b>	<b>84,134</b>

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



**The Anticipated Net Cumulative Ten-Year Benefits of All Prevention and Research Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$1,180,836,637	\$333,792,980	\$216,271,990	3,804
Forestry & Fishery Products	\$70,212,097	\$27,266,609	\$9,593,773	160
Coal Mining	\$154,784,707	\$40,855,635	\$46,780,791	312
Crude Petroleum & Natural Gas	\$5,841,842,734	\$2,640,071,537	\$892,589,459	3,410
Miscellaneous Mining	\$70,517,731	\$40,804,918	\$22,318,075	354
New Construction	\$1,256,011,088	\$471,690,603	\$389,448,791	5,592
Maintenance & Repair Construction	\$1,532,435,724	\$904,180,625	\$672,041,385	10,747
Food Products & Tobacco	\$2,805,401,692	\$680,871,801	\$340,900,478	5,625
Textile Mill Products	\$42,619,343	\$9,457,018	\$8,293,887	160
Apparel	\$392,224,280	\$217,174,977	\$109,893,008	3,064
Paper & Allied Products	\$437,956,790	\$189,583,002	\$88,738,649	1,331
Printing & Publishing	\$727,892,676	\$387,995,140	\$240,217,666	3,757
Chemicals & Petroleum Refining	\$6,633,496,547	\$1,773,030,737	\$875,821,258	4,852
Rubber & Leather Products	\$487,574,748	\$217,052,221	\$128,446,699	2,169
Lumber Products & Furniture	\$217,213,970	\$79,775,375	\$56,500,569	1,238
Stone, Clay, & Glass Products	\$280,010,454	\$153,977,294	\$81,238,248	1,282
Primary Metal	\$298,472,535	\$78,514,417	\$59,440,917	753
Fabricated Metal Products	\$755,293,583	\$319,759,546	\$201,507,675	2,930
Machinery, Except Electrical	\$1,199,238,915	\$396,274,289	\$319,785,252	2,169
Electric & Electronic Equipment	\$690,103,051	\$424,006,609	\$251,829,136	1,947
Motor Vehicles & Equipment	\$374,912,574	\$109,652,749	\$63,286,528	721
Transp. Equip., Exc. Motor Vehicles	\$289,869,905	\$151,596,690	\$92,175,580	1,008
Instruments & Related Products	\$601,132,687	\$246,730,900	\$188,727,764	2,445
Miscellaneous Manufacturing	\$200,685,237	\$66,445,257	\$57,053,397	655
Transportation	\$3,309,089,642	\$1,808,949,853	\$1,195,419,148	16,940
Communication	\$2,111,238,553	\$1,378,928,926	\$597,805,483	5,285
Electric, Gas, Water, Sanitary Services	\$5,109,484,331	\$1,124,348,623	\$485,937,744	1,939
Wholesale Trade	\$3,001,794,476	\$2,241,978,514	\$1,268,594,350	14,872
Retail Trade	\$8,180,347,828	\$6,886,167,374	\$4,091,897,674	110,845
Finance	\$2,455,612,306	\$1,131,079,092	\$730,134,762	6,238
Insurance	\$2,228,236,656	\$1,343,319,171	\$802,038,053	9,602
Real Estate	\$12,292,389,385	\$2,756,666,217	\$435,074,010	4,188
Hotels, Lodging Places, Amusements	\$1,174,256,384	\$599,282,837	\$390,631,696	9,316
Personal Services	\$1,675,030,622	\$1,037,362,698	\$806,087,254	14,383
Business Services	\$5,240,469,618	\$3,652,929,818	\$2,963,657,126	35,762
Eating & Drinking Places	\$3,787,846,119	\$2,287,568,687	\$1,209,116,844	57,868
Health Services	\$6,513,448,756	\$4,965,072,844	\$4,110,728,410	71,032
Miscellaneous Services	\$2,540,040,828	\$1,131,369,266	\$944,351,649	23,409
Households	\$121,667,505	\$121,667,505	\$91,947,448	6,433
<b>Total</b>	<b>\$86,281,692,711</b>	<b>\$42,427,252,354</b>	<b>\$25,536,322,624</b>	<b>448,598</b>

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



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## Enhanced Cancer Prevention





**The Anticipated Total Annual Benefits of Enhanced Cancer Prevention and Screening Services (Net Reduction in Treatment Cost, Morbidity, and Mortality) Associated with the Efforts of the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas  
(Based on Budget Levels Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$2,033,483	\$576,789	\$372,447	7
Forestry & Fishery Products	\$125,969	\$47,250	\$16,568	0
Coal Mining	\$271,758	\$71,439	\$82,150	1
Crude Petroleum & Natural Gas	\$10,664,578	\$4,842,809	\$1,634,640	6
Miscellaneous Mining	\$122,040	\$71,982	\$39,239	1
New Construction	\$2,314,318	\$869,134	\$717,596	10
Maintenance & Repair Construction	\$2,690,392	\$1,594,911	\$1,179,687	19
Food Products & Tobacco	\$4,848,765	\$1,176,082	\$588,045	10
Textile Mill Products	\$74,556	\$16,373	\$14,392	0
Apparel	\$668,808	\$370,250	\$187,330	5
Paper & Allied Products	\$686,436	\$294,864	\$138,888	2
Printing & Publishing	\$1,224,506	\$655,245	\$403,674	6
Chemicals & Petroleum Refining	\$9,434,737	\$2,059,651	\$1,046,874	5
Rubber & Leather Products	\$782,608	\$352,140	\$208,732	3
Lumber Products & Furniture	\$383,200	\$141,105	\$99,909	2
Stone, Clay, & Glass Products	\$471,464	\$255,432	\$134,896	2
Primary Metal	\$505,912	\$134,902	\$102,254	1
Fabricated Metal Products	\$1,320,552	\$562,848	\$354,293	5
Machinery, Except Electrical	\$2,181,602	\$717,828	\$580,416	4
Electric & Electronic Equipment	\$1,237,752	\$763,287	\$453,267	3
Motor Vehicles & Equipment	\$672,819	\$198,296	\$114,176	1
Transp. Equip., Exc. Motor Vehicles	\$524,893	\$275,377	\$167,258	2
Instruments & Related Products	\$238,704	\$89,379	\$70,129	1
Miscellaneous Manufacturing	\$351,527	\$115,019	\$100,014	1
Transportation	\$5,858,068	\$3,172,912	\$2,096,690	30
Communication	\$3,701,501	\$2,425,829	\$1,052,425	9
Electric, Gas, Water, Sanitary Services	\$9,048,970	\$1,988,812	\$859,208	3
Wholesale Trade	\$5,169,627	\$3,886,633	\$2,196,568	26
Retail Trade	\$14,455,602	\$12,176,860	\$7,233,815	196
Finance	\$4,400,411	\$2,016,486	\$1,305,959	11
Insurance	\$3,980,905	\$2,400,693	\$1,433,292	17
Real Estate	\$21,890,099	\$4,951,506	\$781,056	8
Hotels, Lodging Places, Amusements	\$2,094,440	\$1,068,571	\$696,379	17
Personal Services	\$2,946,915	\$1,826,087	\$1,418,887	25
Business Services	\$9,279,839	\$6,504,159	\$5,275,882	64
Eating & Drinking Places	\$6,629,257	\$4,009,956	\$2,118,785	101
Health Services	\$11,783,937	\$8,996,367	\$7,445,678	129
Miscellaneous Services	\$4,472,088	\$1,994,603	\$1,661,990	41
Households	\$213,881	\$213,881	\$159,337	11
<b>Total</b>	<b>\$149,756,920</b>	<b>\$73,885,748</b>	<b>\$44,542,821</b>	<b>786</b>

**NOTE:** Based on typical results of screening and prevention measures determined in various studies. Includes effects of leveraged external funds for screening and prevention purposes.

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



**The Anticipated Total Cumulative Ten-Year Benefits of Enhanced Cancer Prevention and Screening Services (Net Reduction in Treatment Cost, Morbidity, and Mortality) Associated with the Anticipated Efforts of the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas**  
**(Based Upon Attaining Planned Levels of Funding in Year 3)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$25,756,674	\$7,305,778	\$4,717,523	83
Forestry & Fishery Products	\$1,595,564	\$598,481	\$209,855	4
Coal Mining	\$3,442,163	\$904,862	\$1,040,531	7
Crude Petroleum & Natural Gas	\$135,080,582	\$61,340,402	\$20,704,810	79
Miscellaneous Mining	\$1,545,787	\$911,742	\$497,013	8
New Construction	\$29,313,810	\$11,008,700	\$9,089,273	131
Maintenance & Repair Construction	\$34,077,272	\$20,201,601	\$14,942,249	240
Food Products & Tobacco	\$61,415,833	\$14,896,585	\$7,448,351	122
Textile Mill Products	\$944,351	\$207,383	\$182,289	3
Apparel	\$8,471,316	\$4,689,696	\$2,372,773	66
Paper & Allied Products	\$8,694,592	\$3,734,828	\$1,759,195	26
Printing & Publishing	\$15,509,948	\$8,299,517	\$5,113,048	79
Chemicals & Petroleum Refining	\$119,503,065	\$26,088,127	\$13,260,003	58
Rubber & Leather Products	\$9,912,738	\$4,460,307	\$2,643,860	43
Lumber Products & Furniture	\$4,853,724	\$1,787,277	\$1,265,481	28
Stone, Clay, & Glass Products	\$5,971,698	\$3,235,380	\$1,708,629	27
Primary Metal	\$6,408,028	\$1,708,704	\$1,295,182	16
Fabricated Metal Products	\$16,726,484	\$7,129,197	\$4,487,570	65
Machinery, Except Electrical	\$27,632,786	\$9,092,218	\$7,351,708	49
Electric & Electronic Equipment	\$15,677,722	\$9,668,017	\$5,741,210	44
Motor Vehicles & Equipment	\$8,522,118	\$2,511,680	\$1,446,183	16
Transp. Equip., Exc. Motor Vehicles	\$6,648,450	\$3,488,003	\$2,118,541	23
Instruments & Related Products	\$3,023,489	\$1,132,100	\$888,268	10
Miscellaneous Manufacturing	\$4,452,540	\$1,456,861	\$1,266,800	14
Transportation	\$74,199,962	\$40,189,008	\$26,557,270	376
Communication	\$46,884,271	\$30,726,239	\$13,330,318	118
Electric, Gas, Water, Sanitary Services	\$114,616,831	\$25,190,859	\$10,882,973	43
Wholesale Trade	\$65,479,974	\$49,229,196	\$27,822,351	326
Retail Trade	\$183,098,776	\$154,235,576	\$91,625,563	2,481
Finance	\$55,736,866	\$25,541,389	\$16,541,646	141
Insurance	\$50,423,281	\$30,407,864	\$18,154,489	217
Real Estate	\$277,266,227	\$62,717,191	\$9,893,073	95
Hotels, Lodging Places, Amusements	\$26,528,777	\$13,534,819	\$8,820,529	210
Personal Services	\$37,326,460	\$23,129,740	\$17,972,026	321
Business Services	\$117,541,081	\$82,383,537	\$66,825,824	805
Eating & Drinking Places	\$83,968,057	\$50,791,251	\$26,837,137	1,285
Health Services	\$149,258,706	\$113,950,545	\$94,309,074	1,630
Miscellaneous Services	\$56,644,742	\$25,264,207	\$21,051,233	522
Households	\$2,709,078	\$2,709,078	\$2,018,208	141
<b>Total</b>	<b>\$1,896,863,823</b>	<b>\$935,857,945</b>	<b>\$564,192,061</b>	<b>9,951</b>

NOTE: Based on typical results of screening and prevention measures determined in various studies. Includes effects of leveraged external funds for screening and prevention purposes.

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



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## Returns on Research



**The Anticipated Annual Benefits of the Research and Related Programs  
Associated with the Cancer Prevention and Research Institute  
of Texas (CPRIT) on Business Activity in Texas  
(Based on Budget Levels Fiscal Year 2011)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$16,929,251	\$4,785,109	\$3,100,615	55
Forestry & Fishery Products	\$1,005,668	\$390,857	\$137,534	2
Coal Mining	\$2,218,129	\$585,532	\$670,385	4
Crude Petroleum & Natural Gas	\$83,640,275	\$37,794,773	\$12,778,642	49
Miscellaneous Mining	\$1,010,877	\$584,688	\$319,817	5
New Construction	\$17,978,899	\$6,751,913	\$5,574,680	80
Maintenance & Repair Construction	\$21,960,458	\$12,955,902	\$9,630,672	154
Food Products & Tobacco	\$40,216,804	\$9,760,763	\$4,887,189	81
Textile Mill Products	\$610,803	\$135,566	\$118,886	2
Apparel	\$5,624,416	\$3,114,258	\$1,575,854	44
Paper & Allied Products	\$6,291,415	\$2,723,855	\$1,274,801	19
Printing & Publishing	\$10,440,927	\$5,564,950	\$3,445,774	54
Chemicals & Petroleum Refining	\$95,471,336	\$25,603,794	\$12,641,995	70
Rubber & Leather Products	\$7,000,779	\$3,115,820	\$1,843,810	31
Lumber Products & Furniture	\$3,112,425	\$1,143,020	\$809,545	18
Stone, Clay, & Glass Products	\$4,016,407	\$2,209,326	\$1,165,614	18
Primary Metal	\$4,280,598	\$1,125,691	\$852,204	11
Fabricated Metal Products	\$10,824,694	\$4,582,018	\$2,887,595	42
Machinery, Except Electrical	\$17,171,464	\$5,674,674	\$4,579,134	31
Electric & Electronic Equipment	\$9,884,610	\$6,072,689	\$3,606,750	28
Motor Vehicles & Equipment	\$5,369,945	\$1,570,296	\$906,353	10
Transp. Equip., Exc. Motor Vehicles	\$4,150,991	\$2,170,732	\$1,319,907	14
Instruments & Related Products	\$8,766,095	\$3,599,581	\$2,753,040	36
Miscellaneous Manufacturing	\$2,876,054	\$952,492	\$817,628	9
Transportation	\$47,411,659	\$25,923,569	\$17,131,243	243
Communication	\$30,255,889	\$19,759,724	\$8,566,270	76
Electric, Gas, Water, Sanitary Services	\$73,206,502	\$16,109,635	\$6,962,567	28
Wholesale Trade	\$43,035,639	\$32,137,691	\$18,185,183	213
Retail Trade	\$117,210,442	\$98,665,515	\$58,629,368	1,588
Finance	\$35,173,403	\$16,203,142	\$10,458,667	89
Insurance	\$31,918,784	\$19,242,481	\$11,488,868	138
Real Estate	\$176,097,791	\$39,483,447	\$6,231,599	60
Hotels, Lodging Places, Amusements	\$16,821,492	\$8,584,925	\$5,595,956	133
Personal Services	\$24,002,757	\$14,864,948	\$11,550,889	206
Business Services	\$75,083,408	\$52,331,158	\$42,456,959	512
Eating & Drinking Places	\$54,285,315	\$32,782,982	\$17,327,899	829
Health Services	\$93,275,765	\$71,099,722	\$58,866,028	1,017
Miscellaneous Services	\$36,397,510	\$16,211,457	\$13,532,209	335
Households	\$1,743,496	\$1,743,496	\$1,318,034	92
<b>Total</b>	<b>\$1,236,773,170</b>	<b>\$608,112,194</b>	<b>\$366,000,162</b>	<b>6,429</b>

**NOTE:** Based on typical annual rate of return to health-related research, the reported location of 16 additional researchers to the state, and standard patterns in spinoff companies from research outlays (fully adjusted for attrition). Includes effects of leveraged external research funding.

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



**The Anticipated Annual Benefits of the Research and Related Programs  
Associated with the Cancer Prevention and Research Institute  
of Texas (CPRIT) on Business Activity in Texas (Impact in Year 10 Based  
Upon Attaining Planned Levels of Funding for all Grant and Research  
Programs by Year 3)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$218,788,578	\$61,841,321	\$40,071,426	705
Forestry & Fishery Products	\$12,996,948	\$5,051,323	\$1,777,448	30
Coal Mining	\$28,666,431	\$7,567,245	\$8,663,856	58
Crude Petroleum & Natural Gas	\$1,080,941,942	\$488,448,364	\$165,147,357	631
Miscellaneous Mining	\$13,064,267	\$7,556,335	\$4,133,220	65
New Construction	\$232,353,917	\$87,259,707	\$72,045,504	1,035
Maintenance & Repair Construction	\$283,810,408	\$167,438,203	\$124,463,925	1,990
Food Products & Tobacco	\$519,749,960	\$126,145,181	\$63,160,577	1,042
Textile Mill Products	\$7,893,836	\$1,752,012	\$1,536,452	30
Apparel	\$72,688,271	\$40,247,735	\$20,365,862	568
Paper & Allied Products	\$81,308,367	\$35,202,288	\$16,475,146	247
Printing & Publishing	\$134,935,424	\$71,919,753	\$44,532,159	697
Chemicals & Petroleum Refining	\$1,233,843,040	\$330,895,784	\$163,381,373	908
Rubber & Leather Products	\$90,475,980	\$40,267,933	\$23,828,848	403
Lumber Products & Furniture	\$40,224,052	\$14,772,055	\$10,462,311	229
Stone, Clay, & Glass Products	\$51,906,839	\$28,552,663	\$15,064,041	238
Primary Metal	\$55,321,173	\$14,548,095	\$11,013,629	140
Fabricated Metal Products	\$139,895,116	\$59,216,636	\$37,318,411	543
Machinery, Except Electrical	\$221,918,869	\$73,337,793	\$59,179,358	401
Electric & Electronic Equipment	\$127,745,752	\$78,481,624	\$46,612,554	360
Motor Vehicles & Equipment	\$69,399,565	\$20,294,043	\$11,713,441	133
Transp. Equip., Exc. Motor Vehicles	\$53,646,173	\$28,053,892	\$17,058,084	187
Instruments & Related Products	\$113,290,391	\$46,519,907	\$35,579,473	461
Miscellaneous Manufacturing	\$37,169,265	\$12,309,727	\$10,566,775	121
Transportation	\$612,734,128	\$335,028,468	\$221,399,069	3,138
Communication	\$391,018,070	\$255,368,770	\$110,707,912	979
Electric, Gas, Water, Sanitary Services	\$946,098,966	\$208,196,118	\$89,982,132	359
Wholesale Trade	\$556,179,742	\$415,337,917	\$235,019,869	2,755
Retail Trade	\$1,514,792,747	\$1,275,123,658	\$757,708,450	20,526
Finance	\$454,570,551	\$209,404,570	\$135,164,688	1,155
Insurance	\$412,508,837	\$248,684,080	\$148,478,699	1,778
Real Estate	\$2,275,835,265	\$510,272,272	\$80,535,318	775
Hotels, Lodging Places, Amusements	\$217,395,937	\$110,949,008	\$72,320,467	1,725
Personal Services	\$310,204,468	\$192,110,152	\$149,280,237	2,664
Business Services	\$970,355,549	\$676,312,264	\$548,701,062	6,621
Eating & Drinking Places	\$701,567,200	\$423,677,469	\$223,940,597	10,718
Health Services	\$1,205,468,139	\$918,871,580	\$760,766,964	13,146
Miscellaneous Services	\$470,390,550	\$209,512,035	\$174,886,235	4,335
Households	\$22,532,419	\$22,532,419	\$17,033,877	1,192
<b>Total</b>	<b>\$15,983,687,133</b>	<b>\$7,859,060,398</b>	<b>\$4,730,076,807</b>	<b>83,086</b>

**NOTE:** Based on typical annual rate of return to health-related research, the reported location of 16 additional researchers to the state, and standard patterns in spinoff companies from research outlays (fully adjusted for attrition). Includes effects of leveraged external research funding.

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

**The Anticipated Cumulative Ten-Year Benefits of the Research and Related Programs Associated with the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (Based Upon Attaining Planned Levels of Funding for all Grant and Research Programs by Year 3)  
Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$1,155,079,963	\$326,487,202	\$211,554,467	3,721
Forestry & Fishery Products	\$68,616,534	\$26,668,127	\$9,383,918	157
Coal Mining	\$151,342,544	\$39,950,774	\$45,740,260	305
Crude Petroleum & Natural Gas	\$5,706,762,152	\$2,578,731,135	\$871,884,649	3,332
Miscellaneous Mining	\$68,971,944	\$39,893,175	\$21,821,062	346
New Construction	\$1,226,697,278	\$460,681,904	\$380,359,518	5,462
Maintenance & Repair Construction	\$1,498,358,452	\$883,979,024	\$657,099,136	10,507
Food Products & Tobacco	\$2,743,985,859	\$665,975,216	\$333,452,127	5,503
Textile Mill Products	\$41,674,992	\$9,249,635	\$8,111,598	156
Apparel	\$383,752,964	\$212,485,282	\$107,520,235	2,998
Paper & Allied Products	\$429,262,197	\$185,848,174	\$86,979,454	1,304
Printing & Publishing	\$712,382,728	\$379,695,624	\$235,104,618	3,679
Chemicals & Petroleum Refining	\$6,513,993,482	\$1,746,942,610	\$862,561,255	4,794
Rubber & Leather Products	\$477,662,011	\$212,591,914	\$125,802,840	2,125
Lumber Products & Furniture	\$212,360,246	\$77,988,098	\$55,235,088	1,210
Stone, Clay, & Glass Products	\$274,038,756	\$150,741,914	\$79,529,620	1,256
Primary Metal	\$292,064,507	\$76,805,713	\$58,145,734	737
Fabricated Metal Products	\$738,567,098	\$312,630,348	\$197,020,104	2,866
Machinery, Except Electrical	\$1,171,606,128	\$387,182,072	\$312,433,544	2,119
Electric & Electronic Equipment	\$674,425,328	\$414,338,592	\$246,087,926	1,903
Motor Vehicles & Equipment	\$366,390,456	\$107,141,069	\$61,840,345	704
Transp. Equip., Exc. Motor Vehicles	\$283,221,454	\$148,108,686	\$90,057,039	985
Instruments & Related Products	\$598,109,198	\$245,598,800	\$187,839,496	2,435
Miscellaneous Manufacturing	\$196,232,698	\$64,988,396	\$55,786,598	641
Transportation	\$3,234,889,680	\$1,768,760,845	\$1,168,861,878	16,564
Communication	\$2,064,354,281	\$1,348,202,687	\$584,475,165	5,168
Electric, Gas, Water, Sanitary Services	\$4,994,867,500	\$1,099,157,764	\$475,054,770	1,896
Wholesale Trade	\$2,936,314,502	\$2,192,749,318	\$1,240,771,999	14,546
Retail Trade	\$7,997,249,052	\$6,731,931,798	\$4,000,272,111	108,364
Finance	\$2,399,875,440	\$1,105,537,704	\$713,593,115	6,097
Insurance	\$2,177,813,375	\$1,312,911,307	\$783,883,564	9,385
Real Estate	\$12,015,123,158	\$2,693,949,026	\$425,180,937	4,093
Hotels, Lodging Places, Amusements	\$1,147,727,607	\$585,748,018	\$381,811,167	9,106
Personal Services	\$1,637,704,162	\$1,014,232,959	\$788,115,228	14,062
Business Services	\$5,122,928,536	\$3,570,546,280	\$2,896,831,302	34,957
Eating & Drinking Places	\$3,703,878,062	\$2,236,777,436	\$1,182,279,707	56,583
Health Services	\$6,364,190,050	\$4,851,122,299	\$4,016,419,336	69,403
Miscellaneous Services	\$2,483,396,086	\$1,106,105,059	\$923,300,416	22,888
Households	\$118,958,427	\$118,958,427	\$89,929,240	6,293
<b>Total</b>	<b>\$84,384,828,888</b>	<b>\$41,491,394,409</b>	<b>\$24,972,130,563</b>	<b>438,648</b>

NOTE: Based on typical annual rate of return to health-related research, the reported location of 16 additional researchers to the state, and standard patterns in spinoff companies from research outlays (fully adjusted for attrition). Includes effects of leveraged external research funding.

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



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## Reduction in Cancer Incidence



**The Potential Annual Impact of a Substantial Reduction in Cancer Incidence as a Consequence of the Catalytic Effect Resulting from the Initiatives of the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in Texas (as of 2040)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$303,257,471	\$86,017,771	\$55,543,823	980
Forestry & Fishery Products	\$18,786,065	\$7,046,483	\$2,470,821	42
Coal Mining	\$40,527,817	\$10,653,785	\$12,251,149	82
Crude Petroleum & Natural Gas	\$1,590,430,353	\$722,218,071	\$243,777,139	930
Miscellaneous Mining	\$18,200,002	\$10,734,795	\$5,851,803	94
New Construction	\$345,138,976	\$129,615,744	\$107,016,537	1,537
Maintenance & Repair Construction	\$401,223,674	\$237,852,396	\$175,929,112	2,824
Food Products & Tobacco	\$723,106,189	\$175,391,462	\$87,696,416	1,441
Textile Mill Products	\$11,118,731	\$2,441,717	\$2,146,265	41
Apparel	\$99,740,746	\$55,216,183	\$27,936,878	777
Paper & Allied Products	\$102,369,586	\$43,973,636	\$20,712,649	307
Printing & Publishing	\$182,613,159	\$97,717,994	\$60,200,712	929
Chemicals & Petroleum Refining	\$1,407,021,633	\$307,159,981	\$156,122,451	679
Rubber & Leather Products	\$116,711,955	\$52,515,376	\$31,128,638	509
Lumber Products & Furniture	\$57,147,449	\$21,043,287	\$14,899,693	326
Stone, Clay, & Glass Products	\$70,310,402	\$38,093,160	\$20,117,288	315
Primary Metal	\$75,447,722	\$20,118,174	\$15,249,396	190
Fabricated Metal Products	\$196,936,584	\$83,938,726	\$52,836,374	760
Machinery, Except Electrical	\$325,346,704	\$107,051,207	\$86,558,556	581
Electric & Electronic Equipment	\$184,588,525	\$113,830,629	\$67,596,650	521
Motor Vehicles & Equipment	\$100,338,885	\$29,572,363	\$17,027,266	193
Transp. Equip., Exc. Motor Vehicles	\$78,278,438	\$41,067,534	\$24,943,568	272
Instruments & Related Products	\$35,598,366	\$13,329,280	\$10,458,412	116
Miscellaneous Manufacturing	\$52,423,925	\$17,152,988	\$14,915,221	167
Transportation	\$873,625,722	\$473,182,869	\$312,683,635	4,426
Communication	\$552,012,489	\$361,768,820	\$156,950,338	1,384
Electric, Gas, Water, Sanitary Services	\$1,349,491,420	\$296,595,607	\$128,135,450	509
Wholesale Trade	\$770,957,132	\$579,621,487	\$327,578,625	3,841
Retail Trade	\$2,155,793,572	\$1,815,960,057	\$1,078,793,666	29,206
Finance	\$656,242,386	\$300,722,720	\$194,760,312	1,660
Insurance	\$593,680,564	\$358,020,296	\$213,749,816	2,555
Real Estate	\$3,264,515,270	\$738,428,294	\$116,480,430	1,123
Hotels, Lodging Places, Amusements	\$312,348,165	\$159,358,111	\$103,852,358	2,471
Personal Services	\$439,479,412	\$272,328,112	\$211,601,516	3,778
Business Services	\$1,383,921,365	\$969,978,634	\$786,803,084	9,476
Eating & Drinking Places	\$988,634,663	\$598,013,022	\$315,978,781	15,131
Health Services	\$1,757,362,694	\$1,341,646,611	\$1,110,389,153	19,187
Miscellaneous Services	\$666,931,665	\$297,459,198	\$247,855,909	6,141
Households	\$31,896,512	\$31,896,512	\$23,762,257	1,659
<b>Total</b>	<b>\$22,333,556,389</b>	<b>\$11,018,733,091</b>	<b>\$6,642,762,147</b>	<b>117,159</b>

**NOTE:** This scenario assumes that the incidence of and death rate from cancer in Texas over time is reduced to the average of current levels observed in the five states with the lowest incidence and death rates.

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





**The Potential Annual Impact of a Substantial Reduction in Cancer Incidence as a Consequence of the Catalytic Effect Resulting from the Initiatives of the Cancer Prevention and Research Institute of Texas (CPRIT) on Business Activity in the United States (as of 2040)**  
**Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$4,481,509,882	\$1,271,162,386	\$820,821,305	14,487
Forestry & Fishery Products	\$393,534,724	\$147,611,312	\$51,759,312	878
Coal Mining	\$660,486,804	\$173,626,036	\$199,658,475	1,330
Crude Petroleum & Natural Gas	\$20,552,858,933	\$9,333,100,375	\$3,150,290,199	12,013
Miscellaneous Mining	\$257,124,961	\$151,658,434	\$82,672,774	1,332
New Construction	\$4,521,985,990	\$1,698,216,138	\$1,402,122,953	20,134
Maintenance & Repair Construction	\$5,458,024,911	\$3,235,612,415	\$2,393,242,322	38,417
Food Products & Tobacco	\$26,454,762,628	\$6,416,677,884	\$3,208,364,007	52,714
Textile Mill Products	\$219,415,533	\$48,184,512	\$42,354,096	809
Apparel	\$1,823,679,403	\$1,009,583,544	\$510,803,361	14,212
Paper & Allied Products	\$1,500,434,989	\$644,523,291	\$303,586,098	4,505
Printing & Publishing	\$2,634,062,874	\$1,409,511,468	\$868,351,776	13,401
Chemicals & Petroleum Refining	\$28,944,128,967	\$6,318,650,607	\$3,211,626,780	13,958
Rubber & Leather Products	\$1,680,619,864	\$756,206,893	\$448,243,769	7,329
Lumber Products & Furniture	\$920,073,628	\$338,796,815	\$239,884,971	5,255
Stone, Clay, & Glass Products	\$965,659,804	\$523,180,532	\$276,295,621	4,321
Primary Metal	\$1,268,931,207	\$338,361,152	\$256,474,727	3,197
Fabricated Metal Products	\$3,356,135,540	\$1,430,459,159	\$900,421,993	12,947
Machinery, Except Electrical	\$5,319,037,620	\$1,750,161,874	\$1,415,131,026	9,505
Electric & Electronic Equipment	\$2,653,208,275	\$1,636,160,024	\$971,609,650	7,489
Motor Vehicles & Equipment	\$2,470,847,107	\$728,220,047	\$419,296,785	4,751
Transp. Equip., Exc. Motor Vehicles	\$1,228,912,131	\$644,729,151	\$391,595,113	4,272
Instruments & Related Products	\$490,127,767	\$183,521,071	\$143,994,200	1,603
Miscellaneous Manufacturing	\$779,856,885	\$255,167,391	\$221,878,431	2,489
Transportation	\$12,601,970,091	\$6,825,619,038	\$4,510,432,467	63,847
Communication	\$7,482,980,321	\$4,904,071,952	\$2,127,590,068	18,767
Electric, Gas, Water, Sanitary Services	\$22,778,487,442	\$5,006,329,946	\$2,162,838,307	8,588
Wholesale Trade	\$10,260,930,228	\$7,714,379,172	\$4,359,855,140	51,116
Retail Trade	\$28,732,208,111	\$24,202,939,909	\$14,378,057,587	389,260
Finance	\$9,338,951,810	\$4,279,569,631	\$2,771,624,026	23,619
Insurance	\$8,132,652,515	\$4,904,412,974	\$2,928,094,807	34,995
Real Estate	\$42,186,771,453	\$9,542,582,315	\$1,505,256,642	14,507
Hotels, Lodging Places, Amusements	\$4,067,435,206	\$2,075,180,398	\$1,352,377,845	32,173
Personal Services	\$5,902,261,075	\$3,657,399,119	\$2,841,833,673	50,735
Business Services	\$18,527,722,132	\$12,985,921,783	\$10,533,596,261	126,859
Eating & Drinking Places	\$13,357,203,089	\$8,079,608,854	\$4,269,112,652	204,428
Health Services	\$23,133,501,540	\$17,661,114,610	\$14,616,896,829	252,569
Miscellaneous Services	\$9,559,158,552	\$4,263,494,718	\$3,552,528,779	88,026
Households	\$437,782,688	\$437,782,688	\$326,139,264	22,771
<b>Total</b>	<b>\$335,535,436,678</b>	<b>\$156,983,489,616</b>	<b>\$94,166,714,088</b>	<b>1,633,605</b>

**NOTE:** This scenario assumes that the incidence of and death rate from cancer in the US over time is reduced to the average of current levels observed in the five states with the lowest incidence and death rates.

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



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## Texas as a Center of Biomedical Production



**The Potential Annual Incremental Impact Associated with Becoming a Major Center of Biomedical Production as a Partial Consequence of the Catalytic Effect Resulting from the Initiatives of the Cancer Prevention and Research Institute of Texas (CPRIT) and Other Initiatives on Business Activity in Texas (Scenario I\* as of 2040)—Detailed Industrial Category**

Category	Total Expenditures (2011 Dollars)	Gross Product (2011 Dollars)	Personal Income (2011 Dollars)	Employment (Permanent Jobs)
Agricultural Products & Services	\$515,333,137	\$138,070,378	\$94,033,613	1,573
Forestry & Fishery Products	\$12,376,897	\$10,299,315	\$3,819,838	52
Coal Mining	\$51,182,407	\$14,759,854	\$15,553,427	110
Crude Petroleum & Natural Gas	\$373,858,488	\$81,423,437	\$37,552,387	193
Miscellaneous Mining	\$27,548,621	\$11,427,911	\$6,717,828	78
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$508,796,961	\$271,523,658	\$223,752,408	3,305
Food Products & Tobacco	\$1,184,876,337	\$294,498,364	\$150,443,840	2,633
Textile Mill Products	\$16,527,678	\$4,284,078	\$3,624,723	87
Apparel	\$212,570,033	\$118,157,100	\$59,872,010	1,709
Paper & Allied Products	\$474,252,301	\$213,919,184	\$96,711,290	1,539
Printing & Publishing	\$391,276,443	\$198,817,298	\$129,772,535	2,307
Chemicals & Petroleum Refining	\$8,195,124,496	\$3,457,496,230	\$1,623,495,245	12,574
Rubber & Leather Products	\$522,370,604	\$217,433,370	\$127,110,551	2,652
Lumber Products & Furniture	\$71,060,762	\$24,361,802	\$17,368,617	378
Stone, Clay, & Glass Products	\$160,559,086	\$100,467,617	\$52,544,982	897
Primary Metal	\$227,177,191	\$47,314,791	\$35,218,817	555
Fabricated Metal Products	\$291,297,869	\$110,734,646	\$71,490,431	1,282
Machinery, Except Electrical	\$114,910,656	\$51,400,605	\$36,720,800	410
Electric & Electronic Equipment	\$153,334,949	\$82,418,965	\$49,272,859	429
Motor Vehicles & Equipment	\$70,032,600	\$14,714,813	\$9,559,709	142
Transp. Equip., Exc. Motor Vehicles	\$36,386,569	\$15,467,320	\$10,107,349	127
Instruments & Related Products	\$5,616,789,282	\$2,360,661,173	\$1,794,317,546	24,072
Miscellaneous Manufacturing	\$68,144,609	\$27,312,643	\$18,837,839	313
Transportation	\$914,035,008	\$610,944,582	\$404,056,939	5,850
Communication	\$691,306,230	\$422,544,362	\$180,397,756	1,671
Electric, Gas, Water, Sanitary Services	\$1,409,686,315	\$320,625,621	\$139,912,465	621
Wholesale Trade	\$1,398,865,157	\$945,759,043	\$545,333,090	6,387
Retail Trade	\$2,404,616,800	\$1,992,514,511	\$1,191,459,969	32,716
Finance	\$462,503,807	\$250,845,408	\$146,068,011	1,360
Insurance	\$482,567,318	\$288,088,288	\$172,230,527	2,170
Real Estate	\$2,894,399,634	\$471,790,942	\$76,015,750	707
Hotels, Lodging Places, Amusements	\$267,448,433	\$138,257,233	\$90,701,529	2,315
Personal Services	\$536,050,984	\$328,745,068	\$255,768,974	4,515
Business Services	\$1,344,962,696	\$812,087,889	\$662,455,624	8,443
Eating & Drinking Places	\$1,326,768,178	\$777,169,982	\$413,495,917	19,580
Health Services	\$847,748,357	\$592,734,932	\$501,162,874	8,671
Miscellaneous Services	\$795,193,904	\$340,833,250	\$295,474,030	7,392
Households	\$40,142,586	\$40,142,586	\$39,293,163	2,844
<b>Total</b>	<b>\$35,112,083,385</b>	<b>\$16,200,048,248</b>	<b>\$9,781,725,261</b>	<b>162,660</b>

\*This scenario assumes that Texas achieves a concentration in the biomedical industry (pharmaceuticals and medical equipment) by 2040 equivalent to that of the US. Only incremental gains above baseline projections are included.

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

**The Potential Annual Incremental Impact Associated with Becoming a Major Center of Biomedical Production as a Partial Consequence of the Catalytic Effect Resulting from the Initiatives of the Cancer Prevention and Research Institute of Texas (CPRIT) and Other Initiatives on Business Activity in Texas (Scenario II\* as of 2040)—Detailed Industrial Category**

<b>Category</b>	<b>Total Expenditures (2011 Dollars)</b>	<b>Gross Product (2011 Dollars)</b>	<b>Personal Income (2011 Dollars)</b>	<b>Employment (Permanent Jobs)</b>
Agricultural Products & Services	\$595,596,241	\$159,773,658	\$108,814,755	1,820
Forestry & Fishery Products	\$14,280,515	\$12,137,796	\$4,501,706	61
Coal Mining	\$58,057,735	\$16,684,880	\$17,581,956	125
Crude Petroleum & Natural Gas	\$426,212,729	\$92,961,751	\$42,873,847	220
Miscellaneous Mining	\$32,298,378	\$13,285,985	\$7,810,087	91
New Construction	\$0	\$0	\$0	0
Maintenance & Repair Construction	\$576,482,992	\$307,658,515	\$253,529,778	3,745
Food Products & Tobacco	\$1,358,617,728	\$335,833,662	\$171,559,885	3,003
Textile Mill Products	\$18,160,247	\$4,743,163	\$4,013,157	96
Apparel	\$238,018,996	\$132,229,016	\$67,002,463	1,912
Paper & Allied Products	\$531,482,222	\$239,875,463	\$108,445,933	1,726
Printing & Publishing	\$466,001,942	\$237,381,017	\$154,943,945	2,754
Chemicals & Petroleum Refining	\$10,308,349,842	\$4,398,538,204	\$2,065,369,087	15,996
Rubber & Leather Products	\$558,339,566	\$231,768,135	\$135,490,586	2,827
Lumber Products & Furniture	\$78,002,116	\$26,817,723	\$19,119,553	417
Stone, Clay, & Glass Products	\$185,789,249	\$116,974,983	\$61,178,408	1,044
Primary Metal	\$232,764,070	\$49,425,021	\$36,789,567	580
Fabricated Metal Products	\$321,839,485	\$121,216,633	\$78,257,614	1,404
Machinery, Except Electrical	\$127,026,093	\$56,454,838	\$40,331,572	450
Electric & Electronic Equipment	\$163,633,962	\$87,638,956	\$52,393,548	456
Motor Vehicles & Equipment	\$78,790,250	\$16,504,693	\$10,722,537	159
Transp. Equip., Exc. Motor Vehicles	\$40,730,593	\$17,370,182	\$11,350,792	142
Instruments & Related Products	\$5,403,838,766	\$2,271,228,043	\$1,726,340,221	23,161
Miscellaneous Manufacturing	\$77,857,287	\$31,359,141	\$21,628,760	360
Transportation	\$1,035,367,081	\$692,584,012	\$458,050,345	6,632
Communication	\$795,367,014	\$485,618,126	\$207,325,968	1,920
Electric, Gas, Water, Sanitary Services	\$1,591,651,101	\$361,568,502	\$157,778,846	700
Wholesale Trade	\$1,577,096,014	\$1,066,327,961	\$614,854,201	7,202
Retail Trade	\$2,704,794,324	\$2,241,108,637	\$1,340,111,307	36,798
Finance	\$529,045,492	\$287,295,130	\$167,292,788	1,558
Insurance	\$544,268,908	\$324,885,562	\$194,229,385	2,447
Real Estate	\$3,282,120,161	\$541,469,602	\$87,242,497	811
Hotels, Lodging Places, Amusements	\$301,731,083	\$155,775,764	\$102,194,286	2,608
Personal Services	\$605,901,364	\$371,275,965	\$288,858,705	5,099
Business Services	\$1,562,061,241	\$942,447,913	\$768,796,000	9,798
Eating & Drinking Places	\$1,507,569,734	\$883,023,670	\$469,815,729	22,248
Health Services	\$953,604,638	\$666,796,576	\$563,782,682	9,754
Miscellaneous Services	\$900,816,231	\$387,418,225	\$335,859,327	8,402
Households	\$45,145,752	\$45,145,752	\$44,190,465	3,199
<b>Total</b>	<b>\$39,828,711,146</b>	<b>\$18,430,602,854</b>	<b>\$11,000,432,289</b>	<b>181,722</b>

\*This scenario assumes that Texas achieves a concentration in the biomedical industry (pharmaceuticals and medical equipment) by 2040 equivalent to that of California. Only incremental gains above baseline projections are included.

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

