

UCSB Economic Forecast Project

Apr 21, 2025

Economic Impact: Oil in Santa Barbara County

Prepared for the County of Santa Barbara

Executive Summary

This study addresses the economic impacts of oil production in Santa Barbara County. The particular focus is on oil and gas extraction in Santa Barbara County (NAICS code 211). To calculate the impact the study used IMPLAN (Impact Analysis for Planning) to examine the contribution of oil and gas extraction in the County and the economic effects of policies designed to limit production. IMPLAN is the industry standard used to evaluate the economic impact of a policy.

The results of the study show a total economic impact of the oil and gas extraction sector of \$766 million for Santa Barbara County. The total tax generated to the county from the production was about \$32 million. Moreover, the industry itself employed about 600 workers and another 1,200 was generated across other industries. A policy that reduces production by 10% would lead to a decrease in economic activity in Santa Barbara County by about \$77 million.

Analysis

These effects can be categorized into three main types of economic impacts: Direct impacts represent the immediate effect of reduced oil production on the industry itself. However, this initial change triggers additional economic effects through two main channels, indirect and induced.

Indirect impacts capture the ripple effects through business-to-business relationships. When oil production decreases, it reduces purchases from suppliers - everything from equipment and materials to professional services like accounting and legal counsel. These suppliers, in turn, reduce their own purchases from their suppliers, creating a chain reaction through the supply network.

Induced impacts reflect changes in household spending patterns. As employment and income in both the oil industry and its supply chain are affected, workers adjust their consumer spending accordingly. This affects revenue for local businesses in sectors like retail, restaurants, housing, and personal services.

To quantify these interconnected effects, the study utilizes IMPLAN, a specialized input-output modeling system. This software analyzes how economic changes propagate through regional industry relationships and spending patterns. The analysis also calculates the resulting changes in tax revenue across local, state, and federal government levels.

In the latest year of IMPLAN data, 2023, direct crude oil extraction produced approximately \$512 million of output and generated another \$250 million (indirect plus induced) for the county, in 2025 dollars. For every dollar of output there is about 50 cents of additional output in other sectors, i.e., an output multiplier of 1.5. This economic activity also generated roughly \$32 million in tax revenue to the county and another \$30 million to the state and \$50 million to the federal government.

Our economic impact analysis, conducted using IMPLAN modeling software, demonstrates that a \$51 million (10%) reduction in crude oil extraction activities will result in the following economic impacts for the region.

Total Economic Impact: The analysis shows that a \$51 million decrease in direct crude oil extraction will result in an estimated \$76 million reduction in total regional economic output when accounting for all economic multiplier effects.

Direct Effects: The immediate \$51 million reduction in crude oil extraction activities represents the direct loss in output from decreased wellhead production and operational activities.

Indirect Effects: An estimated \$16 million decrease in output is projected across the supply chain, affecting businesses providing support services such as transportation, equipment maintenance, geological consulting, and other auxiliary services to the extraction industry.

Induced Effects: The region is expected to experience approximately \$9 million in reduced household spending as workers in both the oil industry and supporting sectors adjust their consumption patterns. This will impact local businesses in retail, restaurants, housing, and personal services.

Employment impacts suggest a loss of approximately 180 full-time equivalent

positions across all affected sectors, with 51 direct jobs in extraction operations and the remainder distributed across supporting industries and consumer services. This analysis demonstrates how the interconnected nature of regional economies means that changes in crude oil extraction activity have ripple effects beyond the immediate industry, affecting both specialized suppliers and general consumer businesses.

Detailed IMPLAN Findings

Output and Employment

The IMPLAN program used the oil and gas extraction industry in Santa Barbara County (NAICS code 211) for the analysis. The total effects are the sum of the Direct, Indirect and Induced effects in the County. Table 1 indicates that the oil and gas industry produced \$512 million of output in 2023 (the latest year of data) in 2025 dollars. When Indirect and Induced effects are added that number rises to \$767 million, giving an output multiplier of 1.5.

Direct employment of the industry was 560 and when the other effects are added in the resulting employment was 1,800, an employment multiplier of 3.21.

Table 1. Economic Impacts

Impact	Employment	Labor Income	Value Added	Output
Direct	560	\$69,086,528	\$273,165,935	\$512,184,938
Indirect	775	\$88,760,086	\$107,663,537	\$164,555,118
Induced	466	\$31,313,492	\$59,055,925	\$90,101,397
Total	1,800	\$189,160,105	\$439,885,397	\$766,841,452

The Indirect and Induced effects are spread across many industries. Table A.1 in the Appendix shows the breakdown of how those effects impacted other industries.

Tax Impacts

The Tax Impact Report from an analysis provides detailed information about taxes and other payments received by governments. It is calculated based on the collected and reported taxes within the region for the given data year. The categories within the Tax Impact Report correspond to the categories found in the detailed Social

Accounting Matrix (SAM). Within the SAM and Tax Impact report, tax revenue flows to the government via different tax types and from various paying entities. Table 2 reports the tax effects.

Table 2. Tax Effects

Impact	Sub County General	Sub County Special Districts	County	State	Federal	Total
Direct	\$5,841,794	\$10,345,244	\$9,033,938	\$21,785,388	\$23,969,598	\$70,975,961
Indirect	\$767,797	\$1,378,989	\$1,202,891	\$5,044,916	\$18,747,185	\$27,141,778
Induced	\$770,881	\$1,370,295	\$1,196,256	\$3,474,118	\$7,338,150	\$14,149,700
Total	\$7,380,473	\$13,094,527	\$11,433,085	\$30,304,421	\$50,054,933	\$112,267,439

The Tax Impact Report is supplemental to the economic impact estimates from an IMPLAN analysis. These tax results cannot be added to any summary or detailed economic indicator results as they are a portion of Total Output (by Direct, Indirect, and Induced Effects).

Taxes are levied at different levels of government. In IMPLAN, we display tax results for the following levels of government; Federal, State, County, Sub County General, and Sub County Special Districts. Sub County General includes city and township governments. Sub County Special includes fire and public school districts. Taxes received by the county totalled about \$11.4 million. Tax payments to the state totalled about \$30 million.

Detailed County Tax Payments

	Type Code Paying	8001		
	Type Description Paying	Tax on Production and Imports	Personal tax, Property Taxes	
Transfer Code	Description			
15014	Social Insurance Tax- Employee Contribution	\$0		\$0
15015	Social Insurance Tax- Employer Contribution	\$0		\$0
15020	TOPI: Sales Tax	\$998,821		\$998,821
15021	TOPI: Property Tax	\$9,646,551		\$9,646,551
15022	TOPI: Motor Vehicle License	\$0		\$0
15023	TOPI: Severance Tax	\$0		\$0
15024	TOPI: Other Taxes	\$688,584		\$688,584
15025	TOPI: Special Assessments	\$44,612		\$44,612
15026	OPI: Corporate Profits Tax	\$0		\$0
15027	Personal Tax: Income Tax	\$0		\$0
15030	Personal Tax: Motor Vehicle License	\$0		\$0
15031	Personal Tax: Property Taxes	\$0	\$54,516	\$54,516
15032	Personal Tax: Other Tax (Fish/Hunt)	\$0		\$0
		\$11,378,569	\$54,516	\$11,433,085

Detailed State Tax Payments

	Type Code Paying	5001	8001	13001		
	Type Description Paying	Employee Compens ation	Tax on Production and Imports	Enterprises (Corporatio ns)	Other Personal Taxes	
Transfer Code	Description					
15014	Social Insurance Tax- Employee Contribution	\$399,729	\$0	\$0		\$399,729
15015	Social Insurance Tax- Employer Contribution	\$470,015	\$0	\$0		\$470,015
15020	TOPI: Sales Tax	\$0	\$17,105,950	\$0		\$17,105,950
15021	TOPI: Property Tax	\$0	\$808,331	\$0		\$808,331
15022	TOPI: Motor Vehicle License	\$0	\$702,241	\$0		\$702,241
15023	TOPI: Severance Tax	\$0	\$28,440	\$0		\$28,440
15024	TOPI: Other Taxes	\$0	\$1,629,775	\$0		\$1,629,775
15025	TOPI: Special Assessments	\$0	\$0	\$0		\$0
15026	OPI: Corporate Profits Tax	\$0	\$0	\$4,245,222		\$4,245,222
15027	Personal Tax: Income Tax	\$0	\$0	\$0		\$4,659,387
15030	Personal Tax: Motor Vehicle License	\$0	\$0	\$0		\$212,089

15031	Personal Tax: Property Taxes	\$0	\$0	\$0		\$4,568
15032	Personal Tax: Other Tax (Fish/Hunt)	\$0	\$0	\$0		\$38,673
Total		\$869,744	\$20,274,738	\$4,245,222	\$4,914,718	\$30,304,421

Appendix

Table A.1. Output Effects by Industry

Impact	1 - Direct	2 - Indirect	3 - Induced	Total
Industry Display	Output	Output	Output	Output
20 - Oil and gas extraction	\$512,184,938	\$0	\$0	\$512,184,938
441 - Custom computer programming services	\$0	\$57,632,049	\$157,151	\$57,789,199
451 - Management of companies and enterprises	\$0	\$35,738,267	\$1,612,747	\$37,351,013
431 - Owner-occupied housing	\$0	\$0	\$13,041,692	\$13,041,692
429 - Other real estate	\$0	\$5,721,445	\$2,918,288	\$8,639,733
454 - Employment services	\$0	\$5,905,182	\$859,670	\$6,764,851
401 - Pipeline transportation	\$0	\$6,435,318	\$21,471	\$6,456,789
516 - Other local government enterprises	\$0	\$3,698,959	\$2,204,986	\$5,903,946
378 - Wholesale - Machinery, equipment, and supplies	\$0	\$5,566,631	\$102,164	\$5,668,795
472 - Hospitals	\$0	\$0	\$5,080,960	\$5,080,960
435 - Commercial and industrial machinery and equipment rental and leasing	\$0	\$4,266,045	\$114,190	\$4,380,235
423 - Monetary authorities and depository credit intermediation	\$0	\$2,843,819	\$1,534,571	\$4,378,390
491 - Full-service restaurants	\$0	\$587,167	\$3,271,735	\$3,858,902
492 - Limited-service restaurants	\$0	\$203,139	\$3,623,147	\$3,826,286
465 - Offices of physicians	\$0	\$0	\$3,657,679	\$3,657,679
426 - Insurance carriers, except direct life	\$0	\$1,976,378	\$1,025,515	\$3,001,892
410 - Software publishers	\$0	\$687,420	\$2,116,109	\$2,803,529
420 - Internet publishing and broadcasting and web search portals	\$0	\$1,671,643	\$1,085,714	\$2,757,357

430 - Tenant-occupied housing	\$0	\$0	\$2,701,274	\$2,701,274
424 - Other financial investment activities	\$0	\$278,724	\$2,217,609	\$2,496,333
442 - Computer systems design services	\$0	\$2,401,225	\$68,139	\$2,469,364
439 - Architectural, engineering, and related services	\$0	\$2,121,272	\$212,989	\$2,334,261
383 - Wholesale - Other nondurable goods merchant wholesalers	\$0	\$1,022,715	\$1,293,076	\$2,315,791
382 - Wholesale - Petroleum and petroleum products	\$0	\$1,620,057	\$491,211	\$2,111,268
427 - Insurance agencies, brokerages, and related activities	\$0	\$1,283,395	\$633,127	\$1,916,522
446 - Scientific research and development services	\$0	\$1,174,210	\$737,433	\$1,911,643
385 - Retail - Motor vehicle and parts dealers	\$0	\$149,902	\$1,651,286	\$1,801,187
389 - Retail - Food and beverage stores	\$0	\$2,769	\$1,619,308	\$1,622,077
437 - Legal services	\$0	\$995,821	\$587,806	\$1,583,627
399 - Truck transportation	\$0	\$1,038,499	\$540,465	\$1,578,964
418 - Data processing, hosting, and related services	\$0	\$749,915	\$809,902	\$1,559,817
493 - All other food and drinking places	\$0	\$237,237	\$1,285,477	\$1,522,714
436 - Lessors of nonfinancial intangible assets	\$0	\$1,180,212	\$247,222	\$1,427,434
461 - Waste management and remediation services	\$0	\$989,996	\$388,848	\$1,378,843
494 - Automotive repair and maintenance, except car washes	\$0	\$152,455	\$1,105,642	\$1,258,097
438 - Accounting, tax preparation, bookkeeping, and payroll services	\$0	\$779,415	\$323,903	\$1,103,318

394 - Retail - General merchandise stores	\$0	\$11,646	\$1,067,943	\$1,079,589
379 - Wholesale - Other durable goods merchant wholesalers	\$0	\$847,174	\$216,020	\$1,063,194
475 - Individual and family services	\$0	\$0	\$1,046,731	\$1,046,731
55 - Maintenance and repair construction of nonresidential structures	\$0	\$744,755	\$278,094	\$1,022,848
414 - Cable and other subscription programming	\$0	\$662,584	\$351,555	\$1,014,139
458 - Services to buildings	\$0	\$688,955	\$309,337	\$998,292
392 - Retail - Clothing and clothing accessories stores	\$0	\$329	\$994,210	\$994,538
466 - Offices of dentists	\$0	\$0	\$930,047	\$930,047
422 - Securities and commodity contracts intermediation and brokerage	\$0	\$347,853	\$541,148	\$889,001
421 - Nondepository credit intermediation and related activities	\$0	\$454,601	\$419,468	\$874,069
43 - Natural gas distribution	\$0	\$568,182	\$304,244	\$872,426
468 - Outpatient care centers	\$0	\$0	\$838,699	\$838,699
473 - Nursing and community care facilities	\$0	\$0	\$831,859	\$831,859
459 - Landscape and horticultural services	\$0	\$498,087	\$333,041	\$831,128
376 - Wholesale - Professional and commercial equipment and supplies	\$0	\$287,515	\$528,639	\$816,153
390 - Retail - Health and personal care stores	\$0	\$443	\$771,019	\$771,462
444 - Management consulting services	\$0	\$588,021	\$179,030	\$767,051
413 - Radio and television broadcasting	\$0	\$498,760	\$251,616	\$750,376

482 - Promoters of performing arts and sports and agents for public figures	\$0	\$193,962	\$535,245	\$729,207
381 - Wholesale - Grocery and related product wholesalers	\$0	\$39,344	\$685,282	\$724,626
447 - Advertising, public relations, and related services	\$0	\$465,832	\$233,046	\$698,878
388 - Retail - Building material and garden equipment and supplies stores	\$0	\$99,818	\$577,793	\$677,611
503 - Religious organizations	\$0	\$0	\$651,127	\$651,127
428 - Funds, trusts, and other financial vehicles	\$0	\$11,672	\$630,369	\$642,042
395 - Retail - Miscellaneous store retailers	\$0	\$6,580	\$628,739	\$635,319
377 - Wholesale - Household appliances and electrical and electronic goods	\$0	\$385,359	\$248,137	\$633,496
445 - Environmental and other technical consulting services	\$0	\$432,907	\$175,931	\$608,838
504 - Grantmaking, giving, and social advocacy organizations	\$0	\$60	\$604,615	\$604,676
443 - Other computer related services, including facilities management	\$0	\$501,082	\$73,343	\$574,425
391 - Retail - Gasoline stores	\$0	\$19,093	\$550,219	\$569,312
31 - Support activities for oil and gas operations	\$0	\$552,986	\$23	\$553,009
502 - Other personal services	\$0	\$19,456	\$533,225	\$552,681
380 - Wholesale - Drugs and druggists' sundries	\$0	\$191,199	\$352,797	\$543,996
452 - Office administrative services	\$0	\$434,740	\$105,824	\$540,564
456 - Travel arrangement and reservation services	\$0	\$279,747	\$256,526	\$536,273
469 - Medical and diagnostic laboratories	\$0	\$38	\$526,638	\$526,676

464 - Other educational services	\$0	\$6,985	\$496,757	\$503,741
467 - Offices of other health practitioners	\$0	\$0	\$499,680	\$499,680
463 - Junior colleges, colleges, universities, and professional schools	\$0	\$3,434	\$491,322	\$494,756
415 - Wired telecommunications carriers	\$0	\$170,919	\$306,191	\$477,110
477 - Community food, housing, and other relief services, including rehabilitation services	\$0	\$0	\$470,940	\$470,940
481 - Independent artists, writers, and performers	\$0	\$232,692	\$236,842	\$469,534
403 - Couriers and messengers	\$0	\$283,260	\$181,680	\$464,940
393 - Retail - Sporting goods, hobby, musical instrument and book stores	\$0	\$4,566	\$435,990	\$440,556
375 - Wholesale - Motor vehicle and motor vehicle parts and supplies	\$0	\$244,449	\$186,757	\$431,206
56 - Maintenance and repair construction of residential structures	\$0	\$60,079	\$366,306	\$426,385
498 - Personal and household goods repair and maintenance	\$0	\$211,015	\$214,182	\$425,197
497 - Commercial and industrial machinery and equipment repair and maintenance	\$0	\$300,476	\$123,741	\$424,217
496 - Electronic and precision equipment repair and maintenance	\$0	\$262,946	\$150,566	\$413,512
416 - Wireless telecommunications carriers (except satellite)	\$0	\$137,058	\$270,638	\$407,696
400 - Transit and ground passenger transportation	\$0	\$106,960	\$300,335	\$407,296

386 - Retail - Furniture and home furnishings stores	\$0	\$4,089	\$390,126	\$394,215
411 - Motion picture and video industries	\$0	\$89,809	\$302,367	\$392,176
478 - Performing arts companies	\$0	\$56,751	\$324,849	\$381,600
486 - Other amusement and recreation industries	\$0	\$20,606	\$358,801	\$379,407
508 - Postal service	\$0	\$187,758	\$183,367	\$371,125
506 - Labor and civic organizations	\$0	\$5	\$363,106	\$363,111
396 - Air transportation	\$0	\$84,484	\$275,877	\$360,361
449 - Veterinary services	\$0	\$669	\$349,082	\$349,751
433 - General and consumer goods rental except video tapes and discs	\$0	\$216,063	\$121,514	\$337,577
470 - Home health care services	\$0	\$0	\$335,915	\$335,915
462 - Elementary and secondary schools	\$0	\$0	\$330,484	\$330,484
474 - Residential mental health, substance abuse, and other residential care facilities	\$0	\$0	\$327,948	\$327,948
476 - Child day care services	\$0	\$0	\$325,334	\$325,334
440 - Specialized design services	\$0	\$152,166	\$169,084	\$321,250
450 - All other miscellaneous professional, scientific, and technical services	\$0	\$271,624	\$38,787	\$310,410
457 - Investigation and security services	\$0	\$255,015	\$53,973	\$308,988
499 - Personal care services	\$0	\$0	\$306,758	\$306,758
487 - Fitness and recreational sports centers	\$0	\$7,997	\$297,023	\$305,020
471 - Other ambulatory health care services	\$0	\$376	\$293,756	\$294,132
453 - Facilities support services	\$0	\$234,632	\$31,203	\$265,835

432 - Automotive equipment rental and leasing	\$0	\$76,839	\$179,972	\$256,812
146 - Petroleum refineries	\$0	\$190,150	\$52,298	\$242,448
485 - Gambling industries (except casino hotels)	\$0	\$386	\$239,600	\$239,985
402 - Scenic and sightseeing transportation and support activities for transportation	\$0	\$124,699	\$80,704	\$205,403
387 - Retail - Electronics and appliance stores	\$0	\$2,114	\$202,114	\$204,228
417 - Satellite, telecommunications resellers, and all other telecommunications	\$0	\$92,403	\$108,256	\$200,659
460 - Other support services	\$0	\$126,454	\$72,168	\$198,622
455 - Business support services	\$0	\$135,100	\$62,495	\$197,595
483 - Museums, historical sites, zoos, and parks	\$0	\$37	\$193,782	\$193,818
408 - Directory, mailing list, and other publishers	\$0	\$90,751	\$88,903	\$179,654
404 - Warehousing and storage	\$0	\$100,459	\$67,046	\$167,505
507 - Private households	\$0	\$0	\$162,754	\$162,754
495 - Car washes	\$0	\$12,298	\$147,133	\$159,431
397 - Rail transportation	\$0	\$134,779	\$21,328	\$156,107
256 - Oil and gas field machinery and equipment manufacturing	\$0	\$146,534	\$51	\$146,585
505 - Business and professional associations	\$0	\$39,889	\$98,501	\$138,389
501 - Dry-cleaning and laundry services	\$0	\$14,128	\$120,962	\$135,090
3 - Vegetable and melon farming	\$0	\$1,055	\$126,366	\$127,421
500 - Death care services	\$0	\$0	\$115,330	\$115,330
44 - Water, sewage and other systems	\$0	\$88,664	\$15,826	\$104,489

425 - Direct life insurance carriers	\$0	\$951	\$99,503	\$100,453
412 - Sound recording industries	\$0	\$33,037	\$58,602	\$91,639
405 - Newspaper publishers	\$0	\$31,956	\$58,397	\$90,353
177 - Other miscellaneous chemical product manufacturing	\$0	\$79,044	\$686	\$79,730
490 - Other accommodations	\$0	\$1,067	\$77,048	\$78,115
72 - Frozen fruits, juices and vegetables manufacturing	\$0	\$666	\$76,529	\$77,195
4 - Fruit farming	\$0	\$1,032	\$74,843	\$75,874
479 - Commercial Sports Except Racing	\$0	\$19,156	\$54,041	\$73,197
448 - Photographic services	\$0	\$29,818	\$39,726	\$69,545
407 - Book publishers	\$0	\$4,745	\$63,455	\$68,201
406 - Periodical publishers	\$0	\$28,000	\$38,618	\$66,617
419 - News syndicates, libraries, archives and all other information services	\$0	\$9,257	\$55,784	\$65,042
510 - Other federal government enterprises	\$0	\$33,897	\$30,569	\$64,465
384 - Wholesale - Wholesale electronic markets and agents and brokers	\$0	\$50,495	\$6,762	\$57,256
144 - Printing	\$0	\$29,834	\$15,819	\$45,653
155 - Other basic organic chemical manufacturing	\$0	\$36,725	\$8,547	\$45,272
6 - Greenhouse, nursery, and floriculture production	\$0	\$2,385	\$42,353	\$44,738
19 - Support activities for agriculture and forestry	\$0	\$3,160	\$38,128	\$41,289
196 - Ready-mix concrete manufacturing	\$0	\$28,203	\$9,927	\$38,130
102 - Wineries	\$0	\$791	\$32,981	\$33,772
207 - Iron and steel mills and ferroalloy manufacturing	\$0	\$27,170	\$980	\$28,150

42 - Electric power transmission and distribution	\$0	\$21,091	\$5,176	\$26,267
99 - Bottled and canned soft drinks and water	\$0	\$272	\$23,746	\$24,018
199 - Other concrete product manufacturing	\$0	\$10,324	\$7,613	\$17,938
101 - Breweries	\$0	\$306	\$17,605	\$17,911
29 - Other nonmetallic mineral mining and quarrying	\$0	\$17,021	\$772	\$17,792
254 - Construction machinery manufacturing	\$0	\$16,111	\$50	\$16,161
104 - Tobacco manufacturing	\$0	\$0	\$15,098	\$15,098
484 - Amusement parks and arcades	\$0	\$668	\$13,675	\$14,343
2 - Grain farming	\$0	\$1,436	\$12,300	\$13,737
10 - All other crop farming	\$0	\$939	\$12,445	\$13,384
14 - Animal production, except cattle and poultry and eggs	\$0	\$691	\$12,363	\$13,054
488 - Bowling centers	\$0	\$0	\$12,060	\$12,060
514 - Local government passenger transit	\$0	\$2,876	\$8,002	\$10,877
88 - Bread and bakery product, except frozen, manufacturing	\$0	\$160	\$10,248	\$10,407
5 - Tree nut farming	\$0	\$28	\$10,293	\$10,322
398 - Water transportation	\$0	\$4,810	\$5,502	\$10,312
489 - Hotels and motels, including casino hotels	\$0	\$1,941	\$8,196	\$10,138
228 - Fabricated structural metal manufacturing	\$0	\$9,634	\$52	\$9,686
239 - Machine shops	\$0	\$5,995	\$1,418	\$7,413
156 - Plastics material and resin manufacturing	\$0	\$7,200	\$60	\$7,260
91 - Tortilla manufacturing	\$0	\$32	\$6,910	\$6,941
40 - Electric power generation - Biomass	\$0	\$5,561	\$1,365	\$6,925
139 - Paperboard container manufacturing	\$0	\$4,003	\$2,509	\$6,512

27 - Sand and gravel mining	\$0	\$4,369	\$2,027	\$6,396
79 - Fluid milk manufacturing	\$0	\$82	\$6,014	\$6,096
26 - Stone mining and quarrying	\$0	\$3,789	\$1,886	\$5,674
30 - Drilling oil and gas wells	\$0	\$5,420	\$0	\$5,420
135 - All other miscellaneous wood product manufacturing	\$0	\$2,905	\$2,410	\$5,315
274 - Measuring, dispensing, and other pumping equipment manufacturing	\$0	\$4,533	\$10	\$4,543
368 - Sign manufacturing	\$0	\$2,952	\$1,485	\$4,438
201 - Gypsum product manufacturing	\$0	\$2,881	\$1,348	\$4,229
335 - Other motor vehicle parts manufacturing	\$0	\$3,256	\$943	\$4,200
78 - Dry, condensed, and evaporated dairy product manufacturing	\$0	\$104	\$3,790	\$3,894
59 - Other animal food manufacturing	\$0	\$327	\$2,664	\$2,992
169 - Soap and other detergent manufacturing	\$0	\$1,320	\$1,617	\$2,936
268 - Machine tool manufacturing	\$0	\$2,798	\$90	\$2,889
129 - Wood windows and door manufacturing	\$0	\$1,752	\$1,010	\$2,763
11 - Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$0	\$740	\$1,862	\$2,601
185 - Other plastics product manufacturing	\$0	\$1,299	\$1,087	\$2,386
37 - Electric power generation - Solar	\$0	\$1,886	\$463	\$2,349
226 - Handtool manufacturing	\$0	\$2,253	\$74	\$2,327
178 - Plastics packaging materials and unlaminated film and sheet manufacturing	\$0	\$1,930	\$178	\$2,108

203 - Cut stone and stone product manufacturing	\$0	\$85	\$2,017	\$2,102
12 - Dairy cattle and milk production	\$0	\$51	\$2,032	\$2,083
132 - Wood container and pallet manufacturing	\$0	\$296	\$1,587	\$1,883
74 - Canned fruits and vegetables manufacturing	\$0	\$29	\$1,812	\$1,840
286 - Scales, balances, and miscellaneous general purpose machinery manufacturing	\$0	\$1,750	\$6	\$1,757
331 - Motor vehicle electrical and electronic equipment manufacturing	\$0	\$1,249	\$302	\$1,551
65 - Fats and oils refining and blending	\$0	\$89	\$1,445	\$1,534
260 - All other industrial machinery manufacturing	\$0	\$1,437	\$77	\$1,514
161 - Fertilizer mixing	\$0	\$823	\$679	\$1,503
170 - Polish and other sanitation good manufacturing	\$0	\$791	\$540	\$1,331
434 - Video tape and disc rental	\$0	\$11	\$1,284	\$1,295
90 - Dry pasta, mixes, and dough manufacturing	\$0	\$5	\$1,230	\$1,235
348 - Wood kitchen cabinet and countertop manufacturing	\$0	\$490	\$620	\$1,109
344 - Boat building	\$0	\$2	\$1,099	\$1,101
186 - Tire manufacturing	\$0	\$188	\$862	\$1,050
366 - Doll, toy, and game manufacturing	\$0	\$615	\$339	\$954
232 - Ornamental and architectural metal work manufacturing	\$0	\$700	\$245	\$945
296 - Semiconductor and related device manufacturing	\$0	\$734	\$190	\$924
124 - Sawmills	\$0	\$586	\$301	\$887

41 - Electric power generation - All other	\$0	\$642	\$158	\$799
164 - Pharmaceutical preparation manufacturing	\$0	\$8	\$774	\$781
93 - Other snack food manufacturing	\$0	\$15	\$762	\$777
359 - Surgical and medical instrument manufacturing	\$0	\$492	\$270	\$762
222 - Metal crown, closure, and other metal stamping (except automotive)	\$0	\$533	\$211	\$744
122 - Footwear manufacturing	\$0	\$595	\$139	\$734
369 - Gasket, packing, and sealing device manufacturing	\$0	\$336	\$374	\$709
141 - Stationery product manufacturing	\$0	\$238	\$454	\$691
165 - In-vitro diagnostic substance manufacturing	\$0	\$2	\$671	\$673
280 - Power-driven handtool manufacturing	\$0	\$630	\$8	\$638
127 - Engineered wood member and truss manufacturing	\$0	\$363	\$240	\$603
163 - Medicinal and botanical manufacturing	\$0	\$128	\$474	\$602
94 - Coffee and tea manufacturing	\$0	\$7	\$586	\$592
240 - Turned product and screw, nut, and bolt manufacturing	\$0	\$500	\$34	\$534
306 - Analytical laboratory instrument manufacturing	\$0	\$459	\$66	\$525
370 - Musical instrument manufacturing	\$0	\$13	\$509	\$522
365 - Sporting and athletic goods manufacturing	\$0	\$22	\$460	\$482
364 - Jewelry and silverware manufacturing	\$0	\$38	\$429	\$467

223 - Iron and steel forging	\$0	\$363	\$87	\$450
123 - Other leather and allied product manufacturing	\$0	\$363	\$77	\$440
17 - Commercial fishing	\$0	\$25	\$401	\$425
172 - Toilet preparation manufacturing	\$0	\$14	\$406	\$420
71 - Confectionery manufacturing from purchased chocolate	\$0	\$3	\$407	\$410
311 - Lighting fixture manufacturing	\$0	\$286	\$110	\$396
85 - Meat processed from carcasses	\$0	\$1	\$367	\$368
360 - Surgical appliance and supplies manufacturing	\$0	\$12	\$355	\$368
363 - Dental laboratories	\$0	\$0	\$366	\$366
84 - Animal, except poultry, slaughtering	\$0	\$9	\$346	\$355
252 - Farm machinery and equipment manufacturing	\$0	\$273	\$71	\$344
167 - Paint and coating manufacturing	\$0	\$115	\$221	\$336
321 - Wiring device manufacturing	\$0	\$266	\$66	\$332
87 - Seafood product preparation and packaging	\$0	\$13	\$311	\$324
234 - Metal tank (heavy gauge) manufacturing	\$0	\$298	\$2	\$299
92 - Roasted nuts and peanut butter manufacturing	\$0	\$6	\$267	\$273
367 - Office supplies (except paper) manufacturing	\$0	\$75	\$188	\$263
242 - Metal coating and nonprecious engraving	\$0	\$238	\$23	\$261
116 - Other textile product mills	\$0	\$125	\$133	\$258
70 - Chocolate and confectionery manufacturing from cacao beans	\$0	\$2	\$256	\$257

264 - Air conditioning, refrigeration, and warm air heating equipment manufacturing	\$0	\$152	\$103	\$255
374 - All other miscellaneous manufacturing	\$0	\$58	\$191	\$249
98 - All other food manufacturing	\$0	\$2	\$241	\$243
57 - Maintenance and repair construction of highways, streets, bridges, and tunnels	\$0	\$30	\$209	\$240
230 - Metal window and door manufacturing	\$0	\$149	\$84	\$233
145 - Support activities for printing	\$0	\$177	\$51	\$228
214 - Other aluminum rolling, drawing and extruding	\$0	\$193	\$29	\$222
168 - Adhesive manufacturing	\$0	\$128	\$83	\$212
82 - Frozen cakes and other pastries manufacturing	\$0	\$4	\$207	\$211
243 - Electroplating, anodizing, and coloring metal	\$0	\$193	\$17	\$210
188 - Other rubber product manufacturing	\$0	\$75	\$119	\$194
103 - Distilleries	\$0	\$7	\$176	\$183
317 - Relay and industrial control manufacturing	\$0	\$178	\$2	\$180
227 - Prefabricated metal buildings and components manufacturing	\$0	\$120	\$51	\$171
16 - Commercial logging	\$0	\$86	\$63	\$149
354 - Custom architectural woodwork and millwork	\$0	\$86	\$59	\$144
189 - Pottery, ceramics, and plumbing fixture manufacturing	\$0	\$22	\$122	\$144
120 - Apparel accessories and other apparel manufacturing	\$0	\$7	\$121	\$128

25 - Other metal ore mining	\$0	\$82	\$35	\$117
225 - Cutlery, utensil, pot, and pan manufacturing	\$0	\$50	\$67	\$117
272 - Mechanical power transmission equipment manufacturing	\$0	\$100	\$16	\$116
236 - Metal barrels, drums and pails manufacturing	\$0	\$48	\$66	\$114
231 - Sheet metal work manufacturing	\$0	\$73	\$36	\$109
358 - Blind and shade manufacturing	\$0	\$4	\$89	\$93
261 - Commercial and service industry machinery manufacturing	\$0	\$67	\$18	\$86
343 - Ship building and repairing	\$0	\$32	\$46	\$77
341 - Propulsion units and parts for space vehicles and guided missiles manufacturing	\$0	\$66	\$1	\$67
355 - Office furniture, except wood, manufacturing	\$0	\$41	\$24	\$65
316 - Switchgear and switchboard apparatus manufacturing	\$0	\$59	\$1	\$61
13 - Poultry and egg production	\$0	\$0	\$59	\$60
298 - Electronic connector manufacturing	\$0	\$48	\$8	\$56
251 - Other fabricated metal manufacturing	\$0	\$46	\$8	\$54
303 - Industrial process variable instruments manufacturing	\$0	\$48	\$5	\$54
262 - Industrial and commercial fan and blower and air purification equipment manufacturing	\$0	\$48	\$6	\$53

309 - Manufacturing and reproducing magnetic and optical media	\$0	\$35	\$18	\$53
351 - Other household nonupholstered furniture manufacturing	\$0	\$0	\$51	\$51
295 - Bare printed circuit board manufacturing	\$0	\$46	\$4	\$49
15 - Forestry, forest products, and timber tract production	\$0	\$18	\$30	\$49
333 - Motor vehicle seating and interior trim manufacturing	\$0	\$41	\$7	\$48
361 - Dental equipment and supplies manufacturing	\$0	\$6	\$41	\$47
257 - Semiconductor machinery manufacturing	\$0	\$29	\$15	\$44
96 - Mayonnaise, dressing, and sauce manufacturing	\$0	\$1	\$43	\$44
300 - Electromedical and electrotherapeutic apparatus manufacturing	\$0	\$10	\$32	\$42
187 - Rubber and plastics hoses and belting manufacturing	\$0	\$13	\$29	\$42
308 - Watch, clock, and other measuring and controlling device manufacturing	\$0	\$4	\$34	\$38
349 - Upholstered household furniture manufacturing	\$0	\$1	\$37	\$38
290 - Telephone apparatus manufacturing	\$0	\$32	\$5	\$37
350 - Nonupholstered wood household furniture manufacturing	\$0	\$8	\$27	\$35
480 - Racing and Track Operation	\$0	\$0	\$34	\$34
249 - Small arms, ordnance, and accessories manufacturing	\$0	\$13	\$20	\$32

292 - Other communications equipment manufacturing	\$0	\$23	\$7	\$30
106 - Broadwoven fabric mills	\$0	\$15	\$15	\$30
114 - Textile bag and canvas mills	\$0	\$2	\$21	\$22
353 - Wood office furniture manufacturing	\$0	\$10	\$9	\$20
289 - Computer terminals and other computer peripheral equipment manufacturing	\$0	\$14	\$3	\$17
157 - Synthetic rubber manufacturing	\$0	\$16	\$1	\$16
287 - Electronic computer manufacturing	\$0	\$1	\$15	\$16
291 - Broadcast and wireless communications equipment manufacturing	\$0	\$7	\$8	\$15
326 - Motor vehicle body manufacturing	\$0	\$11	\$3	\$15
258 - Food product machinery manufacturing	\$0	\$7	\$6	\$14
302 - Automatic environmental control manufacturing	\$0	\$11	\$2	\$13
301 - Search, detection, and navigation instruments manufacturing	\$0	\$7	\$6	\$12
33 - Other nonmetallic minerals services	\$0	\$11	\$0	\$11
294 - Printed circuit assembly (electronic assembly) manufacturing	\$0	\$10	\$1	\$11
281 - Welding and soldering equipment manufacturing	\$0	\$7	\$3	\$10
110 - Textile and fabric finishing mills	\$0	\$2	\$6	\$9
299 - Other electronic component manufacturing	\$0	\$4	\$4	\$8

320 - Other communication and energy wire manufacturing	\$0	\$5	\$2	\$8
119 - Cut and sew apparel manufacturing (except contractors)	\$0	\$2	\$5	\$7
86 - Rendering and meat byproduct processing	\$0	\$0	\$6	\$6
32 - Metal mining services	\$0	\$6	\$0	\$6
337 - Aircraft manufacturing	\$0	\$2	\$3	\$5
345 - Motorcycle, bicycle, and parts manufacturing	\$0	\$0	\$5	\$5
105 - Fiber, yarn, and thread mills	\$0	\$0	\$4	\$5
307 - Irradiation apparatus manufacturing	\$0	\$0	\$4	\$4
313 - Major household appliance manufacturing	\$0	\$0	\$4	\$4
118 - Cut and sew apparel contractors	\$0	\$1	\$2	\$3
339 - Other aircraft parts and auxiliary equipment manufacturing	\$0	\$1	\$0	\$2
340 - Guided missile and space vehicle manufacturing	\$0	\$1	\$0	\$1
327 - Truck trailer manufacturing	\$0	\$1	\$0	\$1
323 - All other miscellaneous electrical equipment and component manufacturing	\$0	\$0	\$0	\$0
305 - Electricity and signal testing instruments manufacturing	\$0	\$0	\$0	\$0
Total	\$512,184,938	\$164,555,118	\$90,101,397	\$766,841,452

A.2 How IMPLAN Works

IMPLAN (Impact Analysis for Planning) is a widely used economic modeling system that helps analysts estimate the economic impacts of projects, policies, and industry changes within specific geographic regions. Here's an explanation of how this powerful tool functions.

The Fundamentals of IMPLAN

IMPLAN operates on the principle of input-output analysis, a methodology developed by economist Wassily Leontief that earned him the Nobel Prize in Economics. At its core, IMPLAN creates a mathematical model of how money flows through a regional economy by tracking:

1. **Direct effects:** The immediate economic changes from a project or policy or an industry
2. **Indirect effects:** Business-to-business transactions that occur as a result of direct effects
3. **Induced effects:** Household spending from those who receive income from the direct and indirect effects

The IMPLAN Database

IMPLAN's foundation is its comprehensive database, which includes:

- Economic data for 528 industry sectors
- Information on household spending patterns
- Government revenue and expenditure data
- Employment statistics and wage data
- Trade flows between regions

This data is compiled from various government sources, including the Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, and Department of Agriculture. IMPLAN processes this raw data into a consistent format and fills gaps where official statistics are incomplete.

The Social Accounting Matrix

IMPLAN organizes its data into a Social Accounting Matrix (SAM), which provides a complete picture of the transactions within an economy. The SAM shows how

industries interact with each other, with households, with government, and with markets outside the defined region.

The SAM captures:

- Industry production and purchasing patterns
- Household income and spending behaviors
- Government taxation and spending
- Trade relationships with external markets

Multipliers and Impact Analysis

Using the relationships defined in the SAM, IMPLAN calculates economic multipliers that quantify how an initial change in economic activity ripples through the regional economy. These multipliers allow analysts to estimate the total economic impact of a project, including:

- Output (total value of industry production)
- Employment (number of jobs supported)
- Labor income (employee compensation and proprietor income)
- Value added (contribution to GDP)
- Tax revenue (local, state, and federal)