



The Impact of Resource Based Industries on the Maryland Economy

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The Impact of Resource Based Industries on the Maryland Economy

Introduction

To determine the impact of resource based industries (RBI) on the Maryland economy, an IMPLAN model was utilized. Separate impacts were run for the state, each county, and each region (i.e. Western, Central, Southern, Eastern Shore, etc.). Based on these models, using the most recent datasets (2005) available, the total economic impact of resource based industries in Maryland is estimated to be around \$16.5 billion annually, supporting over 94,500 jobs, and generating over \$680 million in state and local tax revenue (see Tables 1A to 1C for more detail).¹ In 2008 dollars, this impact is estimated to be over \$18 Billion.

¹ 2004 is the latest year in which complete datasets are available for IMPLAN and complete data has been released by the federal government.

Table 1A RBI Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

All RBI Industry Sectors

| Geographic Entity | Sector Output | | | Total | % of total |
|---------------------------|----------------|---------------|---------------|----------------|------------|
| | Direct | Indirect | Induced | | |
| State of Maryland | 10,605,311,826 | 3,574,545,900 | 2,279,008,298 | 16,458,866,025 | 100.0% |
| Regions | | | | | |
| Western Maryland | 2,241,589,551 | 954,407,164 | 447,429,044 | 3,643,425,759 | 22.1% |
| Appalachian Maryland | 1,316,257,910 | 472,859,393 | 235,360,920 | 2,024,478,223 | 12.3% |
| Central Maryland | 5,162,763,415 | 1,425,378,463 | 1,146,036,664 | 7,734,178,542 | 47.0% |
| Southern Maryland | 283,947,058 | 59,105,591 | 44,465,311 | 387,517,960 | 2.4% |
| Eastern Shore of Maryland | 2,917,011,802 | 1,135,654,682 | 641,077,279 | 4,693,743,763 | 28.5% |
| Upper Eastern Shore | 667,864,352 | 202,082,605 | 136,727,415 | 1,006,674,373 | 6.3% |
| Mid Shore | 1,064,633,657 | 388,415,689 | 197,351,339 | 1,650,400,685 | 10.4% |
| Lower Eastern Shore | 1,184,513,769 | 449,757,704 | 251,367,152 | 1,885,638,625 | 11.8% |
| Counties | | | | | |
| Allegany | 281,970,046 | 69,675,970 | 40,929,022 | 392,575,038 | 2.4% |
| Anne Arundel | 724,896,768 | 290,896,451 | 145,386,411 | 1,161,179,630 | 7.1% |
| Baltimore | 1,040,928,434 | 314,140,029 | 301,473,484 | 1,656,541,948 | 10.1% |
| Baltimore City | 1,308,333,345 | 470,053,929 | 207,212,495 | 1,985,599,770 | 12.1% |
| Calvert | 54,190,042 | 8,071,076 | 10,146,380 | 72,407,498 | 0.4% |
| Caroline | 223,653,902 | 40,209,269 | 33,386,515 | 297,249,686 | 1.8% |
| Carroll | 400,762,701 | 129,884,198 | 87,447,588 | 618,094,487 | 3.8% |
| Cecil | 205,807,171 | 57,616,413 | 55,662,560 | 319,086,144 | 1.9% |
| Charles | 177,436,798 | 42,156,869 | 30,932,318 | 250,525,985 | 1.5% |
| Dorchester | 609,793,731 | 242,166,376 | 100,226,666 | 952,186,773 | 5.8% |
| Frederick | 524,568,932 | 297,011,495 | 121,760,795 | 943,341,222 | 5.7% |
| Garrett | 280,151,397 | 91,186,361 | 57,790,004 | 429,127,762 | 2.6% |
| Harford | 214,352,761 | 65,648,237 | 53,954,457 | 333,955,455 | 2.0% |
| Howard | 223,783,634 | 62,878,109 | 53,272,538 | 339,934,281 | 2.1% |
| Kent | 240,639,312 | 89,670,862 | 56,360,399 | 386,670,573 | 2.3% |
| Montgomery | 1,098,932,422 | 155,143,747 | 250,097,131 | 1,504,173,300 | 9.1% |
| Prince George's | 551,536,081 | 179,871,481 | 122,423,543 | 853,831,105 | 5.2% |
| Queen Anne's | 221,417,873 | 54,431,458 | 43,360,020 | 319,209,352 | 1.9% |
| Saint Mary's | 52,320,216 | 15,608,524 | 12,862,637 | 80,791,377 | 0.5% |
| Somerset | 217,737,438 | 44,074,856 | 25,463,547 | 287,275,841 | 1.7% |
| Talbot | 231,186,037 | 104,062,965 | 58,593,981 | 393,842,983 | 2.4% |
| Washington | 754,136,460 | 331,649,260 | 167,947,061 | 1,253,732,780 | 7.6% |
| Wicomico | 660,642,480 | 304,230,111 | 187,433,770 | 1,152,306,361 | 7.0% |
| Worcester | 306,133,846 | 114,207,852 | 54,884,977 | 475,226,675 | 2.9% |

Table 1B RBI Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

All RBI Industry Sectors

| Geographic Entity | Sector Employment | | | Total | % of total |
|---------------------------|-------------------|----------|---------|--------|------------|
| | Direct | Indirect | Induced | | |
| State of Maryland | 49,076 | 24,429 | 21,058 | 94,564 | 100.0% |
| Regions | | | | | |
| Western Maryland | 11,517 | 7,728 | 4,362 | 23,607 | 25.0% |
| Appalachian Maryland | 5,829 | 3,518 | 2,428 | 11,775 | 12.5% |
| Central Maryland | 19,841 | 8,680 | 9,958 | 38,479 | 40.7% |
| Southern Maryland | 2,288 | 452 | 443 | 3,182 | 3.4% |
| Eastern Shore of Maryland | 15,431 | 7,569 | 6,295 | 29,296 | 31.0% |
| Upper Eastern Shore | 4,541 | 1,670 | 1,407 | 7,618 | 8.4% |
| Mid Shore | 5,287 | 2,336 | 1,934 | 9,556 | 10.6% |
| Lower Eastern Shore | 5,604 | 2,818 | 2,408 | 10,829 | 12.0% |
| Counties | | | | | |
| Allegany | 900 | 601 | 430 | 1,931 | 2.0% |
| Anne Arundel | 2,857 | 1,517 | 1,332 | 5,707 | 6.0% |
| Baltimore | 5,298 | 2,184 | 2,680 | 10,163 | 10.7% |
| Baltimore City | 2,360 | 2,783 | 1,641 | 6,784 | 7.2% |
| Calvert | 507 | 67 | 98 | 672 | 0.7% |
| Caroline | 1,136 | 345 | 325 | 1,806 | 1.9% |
| Carroll | 2,670 | 1,331 | 855 | 4,857 | 5.1% |
| Cecil | 1,691 | 497 | 534 | 2,722 | 2.9% |
| Charles | 878 | 275 | 289 | 1,441 | 1.5% |
| Dorchester | 2,749 | 1,438 | 1,017 | 5,203 | 5.5% |
| Frederick | 3,018 | 2,329 | 1,119 | 6,465 | 6.8% |
| Garrett | 1,764 | 817 | 693 | 3,273 | 3.5% |
| Harford | 1,759 | 604 | 519 | 2,882 | 3.0% |
| Howard | 1,395 | 473 | 474 | 2,343 | 2.5% |
| Kent | 1,649 | 750 | 629 | 3,028 | 3.2% |
| Montgomery | 3,693 | 1,000 | 2,039 | 6,732 | 7.1% |
| Prince George's | 2,478 | 1,157 | 1,101 | 4,735 | 5.0% |
| Queen Anne's | 1,202 | 493 | 426 | 2,121 | 2.2% |
| Saint Mary's | 903 | 171 | 138 | 1,211 | 1.3% |
| Somerset | 1,085 | 416 | 246 | 1,748 | 1.8% |
| Talbot | 1,402 | 604 | 551 | 2,556 | 2.7% |
| Washington | 3,165 | 2,261 | 1,616 | 7,042 | 7.4% |
| Wicomico | 2,946 | 1,718 | 1,757 | 6,421 | 6.8% |
| Worcester | 1,572 | 599 | 549 | 2,720 | 2.9% |

Table 1C RBI Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

All RBI Industry Sectors

| Geographic Entity | Sources of Tax Revenue | | | | | % of total |
|---------------------------|------------------------|------------------------|--------------|-------------------------|-------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) | |
| State of Maryland | 4,464,312 | 173,541,347 | 88,414,402 | 413,844,954 | 680,265,014 | 100.0% |
| Regions | | | | | | |
| Western Maryland | 959,282 | 35,726,473 | 18,591,518 | 89,652,612 | 144,929,885 | 21.3% |
| Appalachian Maryland | 578,400 | 17,538,055 | 9,338,059 | 52,134,871 | 79,589,384 | 11.7% |
| Central Maryland | 1,990,793 | 84,487,031 | 36,667,178 | 225,032,070 | 348,177,072 | 51.2% |
| Southern Maryland | 116,167 | 4,448,006 | 1,847,239 | 7,952,047 | 14,363,459 | 2.1% |
| Eastern Shore of Maryland | 1,398,070 | 48,879,836 | 31,308,467 | 91,208,225 | 172,794,597 | 25.4% |
| Upper Eastern Shore | 339,551 | 12,922,745 | 5,728,085 | 22,336,587 | 41,326,968 | 6.5% |
| Mid Shore | 370,045 | 15,221,892 | 9,093,408 | 29,629,626 | 54,314,971 | 8.6% |
| Lower Eastern Shore | 596,243 | 18,033,842 | 14,532,599 | 32,553,590 | 65,716,275 | 10.3% |
| Counties | | | | | | |
| Allegany | 109,549 | 2,960,617 | 1,326,411 | 10,219,875 | 14,616,452 | 2.1% |
| Anne Arundel | 227,595 | 11,539,357 | 5,466,351 | 22,987,588 | 40,220,890 | 5.9% |
| Baltimore | 475,699 | 21,362,930 | 8,543,992 | 37,425,018 | 67,807,640 | 10.0% |
| Baltimore City | 687,337 | 11,760,281 | 6,693,671 | 35,507,322 | 54,648,612 | 8.0% |
| Calvert | 29,339 | 977,082 | 273,349 | 2,090,429 | 3,370,198 | 0.5% |
| Caroline | 62,840 | 3,203,043 | 3,401,074 | 5,244,855 | 11,911,813 | 1.8% |
| Carroll | 175,051 | 7,777,002 | 4,524,908 | 13,610,387 | 26,087,348 | 3.8% |
| Cecil | 122,185 | 4,968,137 | 1,747,892 | 7,757,895 | 14,596,109 | 2.1% |
| Charles | 84,459 | 2,919,047 | 1,231,672 | 4,715,470 | 8,950,647 | 1.3% |
| Dorchester | 292,174 | 8,521,235 | 5,657,491 | 17,585,218 | 32,056,117 | 4.7% |
| Frederick | 195,301 | 9,784,254 | 4,351,476 | 21,755,050 | 36,086,081 | 5.3% |
| Garrett | 134,323 | 4,281,007 | 2,573,124 | 16,631,598 | 23,620,052 | 3.5% |
| Harford | 99,762 | 4,656,462 | 1,741,424 | 8,094,363 | 14,592,013 | 2.1% |
| Howard | 91,189 | 4,209,495 | 1,857,932 | 7,786,397 | 13,945,013 | 2.0% |
| Kent | 102,390 | 4,601,853 | 1,175,294 | 7,353,114 | 13,232,651 | 1.9% |
| Montgomery | 266,552 | 19,253,857 | 9,354,893 | 103,478,591 | 132,353,893 | 19.5% |
| Prince George's | 260,992 | 9,929,636 | 3,772,912 | 17,480,918 | 31,444,458 | 4.6% |
| Queen Anne's | 106,180 | 4,411,130 | 2,372,003 | 7,714,007 | 14,603,320 | 2.1% |
| Saint Mary's | 16,353 | 1,225,943 | 418,043 | 1,790,248 | 3,450,587 | 0.5% |
| Somerset | 136,527 | 2,592,245 | 2,988,578 | 4,195,606 | 9,912,957 | 1.5% |
| Talbot | 62,805 | 4,003,153 | 1,323,622 | 6,525,079 | 11,914,660 | 1.8% |
| Washington | 305,756 | 11,899,995 | 5,705,173 | 27,051,035 | 44,961,958 | 6.6% |
| Wicomico | 300,360 | 12,242,689 | 7,933,812 | 20,488,241 | 40,965,102 | 6.0% |
| Worcester | 119,595 | 4,460,895 | 3,979,305 | 6,356,648 | 14,916,443 | 2.2% |

This overall impact represents a relative decline of the impact of resource-based industries when compared to other major industry sectors in the State of Maryland over the past five years. The two most important factors for this were the construction boom in the first half of these five years, and the post 9-11 growth of government related economic activity throughout the state. Both the defense and homeland security related activity and activity in other federally funded or supported industry sectors have added greatly to the growth of their relative importance. At the same time, most of the resource-based industries were subject to a variety of pressures such as energy costs, globalization effects, aging farmers, immigration-related pressures on the agricultural workforce, and pressure from housing and commercial development in the rural areas. Finally, the age of the available data sets (2005) introduces a major concern: Since, commodity prices increased drastically after this date, the total impact of Resource Based Industries on the economy of the State of Maryland is probably as much as 20% higher now than what this study indicates.

However, there is also an emerging bright spot for the future of resource-based industries in the State of Maryland: Resource-Based Inputs for Renewable Energy. The State of Maryland is one of the leading proponents of increasing the use of biomass in the production of energy. Some current and proposed initiatives throughout the state such as bio-diesel and cellulosic ethanol projects will have a positive impact of the forestry and agricultural sectors. As these activities increase their share of the State's energy pie, their economic impact will increase dramatically.

The Impacts by Industry Sectors:

Breaking-down the RBI economic output total by industry, the agriculture industry was the largest, contributing \$7.96 billion to the state economy (48.4% of the RBI total) of which the poultry, cattle, and dairy industry contributed \$4.4 billion to the state economy (26.5% of the RBI total), followed by the forestry and wood derivatives industry, contributing \$4.7 billion (28.4% of the RBI total), followed by the mining industry, which contributed \$1.8 billion to (10.6% of the RBI total), followed by the natural gas and petroleum extraction industry, which contributed \$1.5 billion (9.2% of the RBI total), and finally the seafood and misc.

animal processing industry contributed just under \$900 million to the state economy (5.5% of the RBI total).² NOTE: The impacts of the equine industry and of hunting and trapping were also included in the overall RBI impact totals.

The Impacts by Regions:

Breaking-down the RBI economic output total by region, Central Maryland was largest with \$7.7 billion in total output (47.0% of the RBI total), followed by the Eastern Shore, which contributed \$4.7 billion to the state economy (28.5% of the RBI total), followed by Western Maryland with \$3.6 billion in total output (22.1% of the RBI total), followed by Southern Maryland, which contributed just under \$400 million in total output (2.4% of the RBI total).³

Agriculture

For clarity purposes, agriculture is divided into two sectors, Crop and Nursery Production and Animal Agriculture. The crop and nursery production sector consists of oilseed farming, grain farming, vegetable and melon farming, fruit farming, greenhouse and nursery production, tobacco farming, all other crop farming, flour milling, soybean processing, fats and oils refining and blending, sugar manufacturing, and fruit and vegetable canning and drying. A complete list of the agriculture industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 2.

² This report does not include recreational fishing (only commercial fishing), because such data are not collected and reported by the federal government.

³ Regional shares of jobs supported and tax revenue generated are very similar to the output shares provided, and are hence not reported here.

Table 2 IMPLAN and NAICS Industries in Agriculture Sector

Agriculture

| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
|-------------|---|-------------|--|
| 11111 | Soybean farming | 1 | Oilseed farming |
| 11112 | Oilseed (except soybean) farming | | |
| 11113 | Dry pea and bean farming | 2 | Grain farming |
| 11114 | Wheat farming | | |
| 11115 | Corn farming | | |
| 11116 | Rice farming | | |
| 11119 | Other grain farming | | |
| 1112 | Vegetable and melon farming | 3 | Vegetable and melon farming |
| 11131 | Orange groves | 5 | Fruit farming |
| 11132 | Citrus (except orange) groves | | |
| 11133 | Noncitrus fruit and tree nut farming | | |
| 1114 | Greenhouse, nursery, and floriculture production | 6 | Greenhouse and nursery production |
| 11191 | Tobacco farming | 7 | Tobacco farming |
| 11194 | Hay farming | 10 | All other crop farming |
| 11192 | Peanut farming | | |
| 11198 | All other miscellaneous crop farming | | |
| 311211 | Flour milling | 48 | Flour milling |
| 311222 | Soybean processing | 52 | Soybean processing |
| 311225 | Fats and oils refining and blending | 54 | Fats and oils refining and blending |
| 31131 | Sugar manufacturing | 56 | Sugar manufacturing |
| 31142 | Fruit and vegetable canning, pickling, and drying | 61 | Fruit and vegetable canning and drying |

These industries represent the agricultural commodity producers (i.e. the farmers) and the immediate “down-stream” processors and refiners (e.g. flour milling). The animal agriculture sector consists of poultry and egg production, poultry processing, cattle ranching and farming, fluid milk manufacturing, cheese manufacturing, dry condensed and evaporated dairy products, animal (except poultry) slaughtering, meat processed from carcasses, rendering and meat byproduct processing, leather and hide tanning and finishing. A complete list of the poultry, cattle, and dairy industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 3.

Table 3 IMPLAN and NAICS Industries in Poultry, Cattle, and Dairy Sector

Poultry, Cattle, and Dairy

| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
|-------------|--|-------------|---|
| 1123 | Poultry and egg production | 12 | Poultry and egg production |
| 11231 | Chicken egg production | | |
| 11232 | Broilers and other meat-type chicken production | | |
| 11233 | Turkey production | | |
| 11234 | Poultry hatcheries | | |
| 11239 | Other poultry production | | |
| 311615 | Poultry processing | 70 | Poultry processing |
| 11211 | Beef cattle ranching and farming, including feedlots | | |
| 11212 | Dairy cattle and milk production | 11 | Cattle ranching and farming |
| 11213 | Dual-purpose cattle ranching and farming | | |
| 311511 | Fluid milk manufacturing | 62 | Fluid milk manufacturing |
| 311513 | Cheese manufacturing | 64 | Cheese manufacturing |
| 311514 | Dry, condensed, and evaporated dairy products | 65 | Dry, condensed, and evaporated dairy products |
| 311611 | Animal (except poultry) slaughtering | 67 | Animal (except poultry) slaughtering |
| 311612 | Meat processed from carcasses | 68 | Meat processed from carcasses |
| 311613 | Rendering and meat byproduct processing | 69 | Rendering and meat byproduct processing |
| 3161 | Leather and hide tanning and finishing | 109 | Leather and hide tanning and finishing |

The industries represent the poultry, cattle, and dairy commodity producers (e.g. poultry and egg production) and the immediate downstream processors and refiners (e.g. meat processed from carcasses).

Crop and Nursery Production:

The crop and nursery production sector produced \$2.4 billion in direct output in 2004, which in-turn generated nearly \$1.3 billion in additional indirect and induced economic activity (see section II Model Details for a description of these terms). The crop and nursery sector also supported (both directly and indirectly) a total of 47,828 jobs and generated (both directly and indirectly) over \$288 million in state and local tax revenue.

Focusing exclusively on the oilseed and grain industries, the state-level impacts for the two groups topped \$407 million and supported 5,554 jobs in 2004. Oilseed farming, which consists of soybean farming and oilseed (except soybean) farming totaled just under \$62 million, while grain farming, which consists of dry peas and beans, wheat, corn, rice, and other grain farming equaled just over \$345 million. Detailed impact data for each of these oilseed and grain sub-industries (at the state level) are provided in Table 4A, while county-level impacts for the combined group are provided in Table 4B.

Table 4A Oilseed and Grain Farming -- Output, Employment, and Tax Impact by Sub-Industry (2004)

| | Economic Impact | | | | | | | | | | | | |
|--|--------------------|--------------|-------------------|------------|-------------------|------------|--------------------|--------------|-----------------------|------------------------|------------------|-------------------------|-------------------|
| | Direct | | Indirect | | Induced | | Total | | Taxes | | | | |
| | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total |
| Oilseed Farming | | | | | | | | | | | | | |
| Soybean farming (11111) | 46,413,605 | 710 | 7,010,912 | 56 | 8,517,637 | 79 | 61,942,155 | 845 | 7,271 | 648,495 | 891,398 | 1,707,406 | 3,254,569 |
| Oilseed (except soybean) farming (11112) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grain Farming | | | | | | | | | | | | | |
| Dry pea and bean farming (11113) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wheat farming (11114) | 21,331,922 | 326 | 3,222,250 | 26 | 3,914,748 | 36 | 28,468,920 | 388 | 3,342 | 298,051 | 409,691 | 784,732 | 1,495,816 |
| Corn farming (11115) | 108,037,120 | 1,653 | 16,319,326 | 130 | 19,826,536 | 183 | 144,182,982 | 1,967 | 16,925 | 1,509,504 | 2,074,909 | 3,974,334 | 7,575,673 |
| Rice farming (11116) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other grain farming (11119) | 129,309,449 | 1,979 | 19,532,575 | 156 | 23,730,348 | 219 | 172,572,372 | 2,354 | 20,258 | 1,806,723 | 2,483,455 | 4,756,874 | 9,067,310 |
| Maryland Total >>> | <u>305,092,096</u> | <u>4,669</u> | <u>46,085,063</u> | <u>368</u> | <u>55,989,270</u> | <u>517</u> | <u>407,166,429</u> | <u>5,554</u> | <u>47,796</u> | <u>4,262,773</u> | <u>5,859,453</u> | <u>11,223,346</u> | <u>21,393,368</u> |

Notes:

1) Economic Impact is apportioned based on each industry's share of total output for the broader NAICS 1111 sector from the USDA's 2002 Census of Agriculture for the State of Maryland from the USDA's 2002 Census of Agriculture for the State of Maryland

Table 4B Oilseed and Grain Farming -- Output, Employment, and Tax Impact by County (2004)

| | Economic Impact | | | | | | | | | | | | |
|-----------------|-----------------|--------|------------|--------|------------|--------|-------------|--------|-----------------------|------------------------|--------------|-------------------------|------------|
| | Direct | | Indirect | | Induced | | Total | | Taxes | | | | |
| | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total |
| Maryland | 305,092,096 | 4,669 | 46,085,063 | 368 | 55,989,270 | 517 | 407,166,429 | 5,554 | 47,796 | 4,262,773 | 5,859,453 | 11,223,346 | 21,393,368 |
| Allegany | 1,372,434 | 21 | 207,310 | 2 | 251,864 | 2 | 1,831,608 | 25 | 215 | 19,176 | 26,358 | 50,487 | 96,236 |
| Anne Arundel | 11,665,690 | 179 | 1,762,137 | 14 | 2,140,840 | 20 | 15,568,667 | 212 | 1,828 | 162,994 | 224,046 | 429,143 | 818,010 |
| Baltimore | 8,371,848 | 128 | 1,264,592 | 10 | 1,536,368 | 14 | 11,172,808 | 152 | 1,312 | 116,972 | 160,786 | 307,973 | 587,042 |
| Calvert | 10,842,229 | 166 | 1,637,751 | 13 | 1,989,722 | 18 | 14,469,702 | 197 | 1,699 | 151,489 | 208,231 | 398,850 | 760,268 |
| Caroline | 21,958,945 | 336 | 3,316,964 | 26 | 4,029,817 | 37 | 29,305,726 | 400 | 3,440 | 306,812 | 421,733 | 807,798 | 1,539,784 |
| Carroll | 20,998,241 | 321 | 3,171,846 | 25 | 3,853,513 | 36 | 28,023,600 | 382 | 3,290 | 293,389 | 403,282 | 772,457 | 1,472,418 |
| Cecil | 14,822,288 | 227 | 2,238,950 | 18 | 2,720,126 | 25 | 19,781,365 | 270 | 2,322 | 207,098 | 284,670 | 545,264 | 1,039,354 |
| Charles | 12,077,420 | 185 | 1,824,330 | 15 | 2,216,399 | 20 | 16,118,149 | 220 | 1,892 | 168,747 | 231,953 | 444,289 | 846,881 |
| Dorchester | 13,998,828 | 214 | 2,114,564 | 17 | 2,569,008 | 24 | 18,682,400 | 255 | 2,193 | 195,593 | 268,855 | 514,971 | 981,612 |
| Frederick | 18,390,617 | 281 | 2,777,957 | 22 | 3,374,972 | 31 | 24,543,545 | 335 | 2,881 | 256,955 | 353,201 | 676,531 | 1,289,569 |
| Garrett | 4,254,546 | 65 | 642,662 | 5 | 780,777 | 7 | 5,677,984 | 77 | 667 | 59,445 | 81,711 | 156,511 | 298,333 |
| Harford | 11,940,176 | 183 | 1,803,599 | 14 | 2,191,213 | 20 | 15,934,988 | 217 | 1,871 | 166,829 | 229,317 | 439,240 | 837,257 |
| Howard | 4,254,546 | 65 | 642,662 | 5 | 780,777 | 7 | 5,677,984 | 77 | 667 | 59,445 | 81,711 | 156,511 | 298,333 |
| Kent | 23,468,623 | 359 | 3,545,005 | 28 | 4,306,867 | 40 | 31,320,495 | 427 | 3,677 | 327,906 | 450,727 | 863,334 | 1,645,644 |
| Montgomery | 5,901,467 | 90 | 891,434 | 7 | 1,083,013 | 10 | 7,875,914 | 107 | 925 | 82,456 | 113,341 | 217,096 | 413,817 |
| Prince George's | 12,626,394 | 193 | 1,907,254 | 15 | 2,317,145 | 21 | 16,850,792 | 230 | 1,978 | 176,417 | 242,496 | 464,484 | 885,376 |
| Queen Anne's | 27,036,951 | 414 | 4,084,011 | 33 | 4,961,712 | 46 | 36,082,675 | 492 | 4,236 | 377,763 | 519,259 | 994,602 | 1,895,859 |
| St Mary's | 23,194,136 | 355 | 3,503,543 | 28 | 4,256,494 | 39 | 30,954,173 | 422 | 3,634 | 324,070 | 445,455 | 853,237 | 1,626,396 |
| Somerset | 7,960,118 | 122 | 1,202,399 | 10 | 1,460,809 | 13 | 10,623,326 | 145 | 1,247 | 111,219 | 152,878 | 292,827 | 558,172 |
| Talbot | 15,508,505 | 237 | 2,342,606 | 19 | 2,846,058 | 26 | 20,697,169 | 282 | 2,430 | 216,686 | 297,849 | 570,507 | 1,087,472 |
| Washington | 9,332,552 | 143 | 1,409,710 | 11 | 1,712,672 | 16 | 12,454,934 | 170 | 1,462 | 130,395 | 179,237 | 343,314 | 654,408 |
| Wicomico | 10,979,473 | 168 | 1,658,482 | 13 | 2,014,909 | 19 | 14,652,863 | 200 | 1,720 | 153,406 | 210,867 | 403,899 | 769,892 |
| Worcester | 14,136,071 | 216 | 2,135,295 | 17 | 2,594,195 | 24 | 18,865,561 | 257 | 2,215 | 197,510 | 271,491 | 520,020 | 991,236 |

Notes:

1) Economic Impact is apportioned based on each county's share of NAICS 1111 sector farms operating in the county, as reported in the USDA's 2002 Census of Agriculture for the State of Maryland

Breaking the output figure down by region, the Eastern Shore was the largest (38.5% of the agriculture total), followed by Central Maryland (36.1% of the agriculture total), followed by Western Maryland (24.8% of the agriculture total), and the smallest was Southern Maryland (0.6% of the agriculture total). See Tables 5A to 5C for more details.

Table 5A Agriculture Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

**Industry Sector: All Agriculture (Crops, Poultry, Cattle, Dairy, and
Misc. Animal Production)**

| Geographic Entity | Sector Output | | | | % of total |
|---------------------------|---------------|---------------|---------------|---------------|------------|
| | Direct | Indirect | Induced | Total | |
| State of Maryland | 4,961,811,922 | 1,985,511,578 | 1,012,620,884 | 7,959,944,384 | 100.0% |
| Regions | | | | | |
| Western Maryland | 1,153,228,504 | 620,253,499 | 198,325,358 | 1,971,807,362 | 24.8% |
| Appalachian Maryland | 675,867,744 | 288,967,969 | 95,684,599 | 1,060,520,312 | 13.3% |
| Central Maryland | 1,877,128,650 | 596,323,149 | 401,950,576 | 2,875,402,376 | 36.1% |
| Southern Maryland | 39,011,829 | 4,163,039 | 7,439,171 | 50,614,039 | 0.6% |
| Eastern Shore of Maryland | 1,892,442,938 | 764,771,892 | 404,905,778 | 3,062,120,608 | 38.5% |
| Upper Eastern Shore | 355,244,905 | 103,516,575 | 72,332,738 | 531,094,218 | 7.0% |
| Mid Shore | 717,868,217 | 269,187,565 | 121,874,489 | 1,108,930,271 | 14.5% |
| Lower Eastern Shore | 819,329,789 | 314,706,672 | 165,255,310 | 1,299,291,771 | 17.0% |
| Counties | | | | | |
| Allegany | 167,150,656 | 38,143,637 | 14,030,872 | 219,325,166 | 2.8% |
| Anne Arundel | 25,694,495 | 52,579,432 | 11,893,938 | 90,167,865 | 1.1% |
| Baltimore | 215,376,507 | 62,445,181 | 82,441,526 | 360,263,214 | 4.5% |
| Baltimore City | 1,146,626,034 | 411,993,295 | 177,106,711 | 1,735,726,040 | 21.8% |
| Calvert | 6,253,761 | 1,278,690 | 2,151,038 | 9,683,489 | 0.1% |
| Caroline | 176,256,145 | 25,764,138 | 23,181,445 | 225,201,728 | 2.8% |
| Carroll | 145,883,665 | 56,918,742 | 33,722,048 | 236,524,454 | 3.0% |
| Cecil | 63,068,523 | 17,170,547 | 18,015,206 | 98,254,275 | 1.2% |
| Charles | 14,834,019 | 3,141,069 | 3,706,978 | 21,682,066 | 0.3% |
| Dorchester | 385,975,466 | 163,602,375 | 52,119,255 | 601,697,096 | 7.6% |
| Frederick | 331,477,090 | 235,754,881 | 69,471,258 | 636,703,229 | 8.0% |
| Garrett | 58,272,352 | 16,150,971 | 9,295,048 | 83,718,371 | 1.1% |
| Harford | 58,468,952 | 16,941,101 | 13,991,708 | 89,401,761 | 1.1% |
| Howard | 82,985,687 | 18,465,221 | 18,273,837 | 119,724,745 | 1.5% |
| Kent | 120,693,154 | 56,617,184 | 37,727,062 | 215,037,401 | 2.7% |
| Montgomery | 102,940,198 | 16,597,269 | 38,006,136 | 157,543,603 | 2.0% |
| Prince George's | 245,036,800 | 89,705,263 | 46,583,696 | 381,325,759 | 4.8% |
| Queen Anne's | 171,483,235 | 37,458,681 | 31,749,536 | 240,691,453 | 3.0% |
| Saint Mary's | 17,924,049 | 2,797,687 | 5,225,109 | 25,946,845 | 0.3% |
| Somerset | 148,876,777 | 19,116,634 | 10,343,778 | 178,337,189 | 2.2% |
| Talbot | 155,636,621 | 79,102,936 | 41,502,312 | 276,241,869 | 3.5% |
| Washington | 450,444,728 | 238,017,129 | 97,051,334 | 785,513,190 | 9.9% |
| Wicomico | 415,202,501 | 229,397,479 | 132,736,666 | 777,336,646 | 9.8% |
| Worcester | 255,250,507 | 96,352,036 | 42,294,389 | 393,896,931 | 4.9% |

Table 5B Agriculture Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

**Industry Sector: All Agriculture (Crops, Poultry, Cattle, Dairy, and
Misc. Animal Production)**

| Geographic Entity | Sector Employment | | | Total | % of total |
|---------------------------|-------------------|----------|---------|--------|------------|
| | Direct | Indirect | Induced | | |
| State of Maryland | 24,589 | 13,687 | 9,552 | 47,828 | 100.0% |
| Regions | | | | | |
| Western Maryland | 6,440 | 5,297 | 1,955 | 13,692 | 28.6% |
| Appalachian Maryland | 3,053 | 2,261 | 1,013 | 6,327 | 13.2% |
| Central Maryland | 7,417 | 3,497 | 3,342 | 14,256 | 29.8% |
| Southern Maryland | 1,362 | 68 | 65 | 1,494 | 3.1% |
| Eastern Shore of Maryland | 9,370 | 4,825 | 4,190 | 18,386 | 38.4% |
| Upper Eastern Shore | 2,644 | 914 | 755 | 4,313 | 9.6% |
| Mid Shore | 3,398 | 1,629 | 1,375 | 6,402 | 14.3% |
| Lower Eastern Shore | 3,328 | 1,592 | 1,609 | 6,529 | 14.6% |
| Counties | | | | | |
| Allegany | 325 | 383 | 159 | 868 | 1.8% |
| Anne Arundel | 392 | 145 | 83 | 620 | 1.3% |
| Baltimore | 1,543 | 584 | 782 | 2,909 | 6.1% |
| Baltimore City | 1,944 | 2,436 | 1,404 | 5,784 | 12.1% |
| Calvert | 329 | 13 | 14 | 356 | 0.7% |
| Caroline | 858 | 247 | 229 | 1,334 | 2.8% |
| Carroll | 1,409 | 794 | 341 | 2,543 | 5.3% |
| Cecil | 773 | 196 | 176 | 1,145 | 2.4% |
| Charles | 385 | 36 | 37 | 458 | 1.0% |
| Dorchester | 1,715 | 1,037 | 735 | 3,488 | 7.3% |
| Frederick | 1,979 | 1,875 | 641 | 4,495 | 9.4% |
| Garrett | 695 | 249 | 123 | 1,066 | 2.2% |
| Harford | 826 | 154 | 128 | 1,108 | 2.3% |
| Howard | 688 | 198 | 161 | 1,047 | 2.2% |
| Kent | 1,003 | 418 | 396 | 1,817 | 3.8% |
| Montgomery | 876 | 117 | 225 | 1,218 | 2.5% |
| Prince George's | 1,147 | 577 | 410 | 2,135 | 4.5% |
| Queen Anne's | 869 | 381 | 337 | 1,587 | 3.3% |
| Saint Mary's | 647 | 45 | 55 | 747 | 1.6% |
| Somerset | 316 | 169 | 116 | 600 | 1.3% |
| Talbot | 824 | 380 | 375 | 1,580 | 3.3% |
| Washington | 2,033 | 1,682 | 945 | 4,660 | 9.7% |
| Wicomico | 1,823 | 1,094 | 1,243 | 4,160 | 8.7% |
| Worcester | 1,189 | 477 | 437 | 2,103 | 4.4% |

Table 5C Agriculture Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

**Industry Sector: All Agriculture (Crops, Poultry, Cattle, Dairy, and
Misc. Animal Production)**

| Geographic Entity | Sources of Tax Revenue | | | | | Total (\$) | % of total |
|---------------------------|------------------------|------------------------|--------------|-------------------------|-------------|------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | | | |
| State of Maryland | 1,845,836 | 75,868,106 | 47,318,556 | 163,585,321 | 288,617,820 | 100.0% | |
| Regions | | | | | | | |
| Western Maryland | 402,359 | 16,220,203 | 9,094,346 | 44,691,889 | 70,408,797 | 24.4% | |
| Appalachian Maryland | 237,174 | 7,137,614 | 3,965,297 | 22,109,477 | 33,449,562 | 11.6% | |
| Central Maryland | 601,216 | 28,925,506 | 12,823,785 | 62,548,264 | 104,898,770 | 36.3% | |
| Southern Maryland | 6,558 | 692,489 | 439,604 | 1,112,188 | 2,250,840 | 0.8% | |
| Eastern Shore of Maryland | 835,702 | 30,029,909 | 24,960,821 | 55,232,980 | 111,059,412 | 38.5% | |
| Upper Eastern Shore | 155,463 | 6,799,692 | 3,767,616 | 11,473,054 | 22,195,825 | 8.4% | |
| Mid Shore | 220,410 | 9,688,703 | 7,406,896 | 19,267,735 | 36,583,744 | 13.9% | |
| Lower Eastern Shore | 367,903 | 11,145,001 | 12,094,088 | 18,850,118 | 42,457,110 | 16.1% | |
| Counties | | | | | | | |
| Allegany | 42,694 | 990,675 | 498,385 | 3,650,455 | 5,182,209 | 1.8% | |
| Anne Arundel | -12,728 | 1,009,634 | 508,863 | 1,663,428 | 3,169,198 | 1.1% | |
| Baltimore | 66,342 | 5,667,909 | 2,500,216 | 9,986,207 | 18,220,674 | 6.3% | |
| Baltimore City | 588,614 | 10,057,967 | 4,926,486 | 30,784,807 | 46,357,874 | 16.1% | |
| Calvert | -4,445 | 188,689 | 70,218 | 272,135 | 526,598 | 0.2% | |
| Caroline | 38,653 | 2,352,894 | 3,035,793 | 3,698,565 | 9,125,904 | 3.2% | |
| Carroll | 49,762 | 3,205,839 | 1,854,653 | 6,053,373 | 11,163,627 | 3.9% | |
| Cecil | 30,534 | 1,722,281 | 609,077 | 2,536,516 | 4,898,409 | 1.7% | |
| Charles | 908 | 404,751 | 215,859 | 619,745 | 1,241,263 | 0.4% | |
| Dorchester | 205,760 | 5,448,323 | 4,796,449 | 11,739,023 | 22,189,554 | 7.7% | |
| Frederick | 94,272 | 5,739,600 | 3,056,445 | 15,152,047 | 24,042,364 | 8.3% | |
| Garrett | 8,056 | 752,142 | 639,863 | 2,304,836 | 3,704,896 | 1.3% | |
| Harford | 9,148 | 1,131,544 | 661,612 | 2,132,554 | 3,934,858 | 1.4% | |
| Howard | 19,007 | 1,565,188 | 928,615 | 3,314,964 | 5,827,773 | 2.0% | |
| Kent | 40,055 | 2,684,717 | 714,286 | 3,606,637 | 7,045,695 | 2.4% | |
| Montgomery | -10,591 | 3,187,944 | 2,057,511 | 13,588,941 | 18,823,805 | 6.5% | |
| Prince George's | 87,344 | 3,981,370 | 1,613,880 | 7,606,236 | 13,288,830 | 4.6% | |
| Queen Anne's | 78,917 | 3,455,299 | 2,134,135 | 6,034,852 | 11,703,203 | 4.1% | |
| Saint Mary's | 1,994 | 456,871 | 176,413 | 511,794 | 1,147,071 | 0.4% | |
| Somerset | 63,641 | 1,019,917 | 2,640,456 | 1,488,695 | 5,212,709 | 1.8% | |
| Talbot | 23,400 | 2,389,773 | 848,614 | 3,543,416 | 6,805,204 | 2.4% | |
| Washington | 156,673 | 6,717,133 | 2,942,840 | 16,989,212 | 26,805,859 | 9.3% | |
| Wicomico | 179,417 | 8,285,663 | 6,201,648 | 11,622,215 | 26,288,943 | 9.1% | |
| Worcester | 88,407 | 3,451,983 | 3,686,241 | 4,684,670 | 11,911,301 | 4.1% | |

Animal Agriculture:

The animal agriculture sector produced just over \$2.6 billion in "direct" output in 2004, which in-turn generated just over \$1.7 billion in additional "indirect" and "induced" economic activity (see section II "Model Details" for a description of these terms). The poultry, cattle, and dairy sector also supported (both directly and indirectly) a total of 22,031 jobs and generated (both directly and indirectly) just over \$139 million in state and local tax revenue.

The poultry and egg production industry, which consists of chicken egg production, broilers and other meat-type chicken production, turkey production, poultry hatcheries, and other poultry production, accounted for just under \$1 billion in Maryland economic activity in 2004, and supported just under 3,700 jobs. A state-level breakdown of the economic impact for each of the poultry sub-industries is provided in Table 6A, while a county-level breakdown for the aggregate sector is provided in Table 6B.

Table 6A Poultry and Egg Production -- Output, Employment, and Tax Impact by Sub-Industry (2004)

| | Economic Impact | | | | | | | | | | | | | |
|--|--------------------|--------------|--------------------|------------|--------------------|--------------|--------------------|--------------|-------------------|-------------------|-------------------|--------------------------------|-------------------|--|
| | Direct | | Indirect | | Induced | | Total | | Taxes | | | | | |
| | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | Employee Comp. | Household Exp. | Corps | Indirect Businesss Taxes | Total | |
| Poultry and Egg Production | | | | | | | | | | | | | | |
| Chicken egg production (11231) | 63,847,023 | 148 | 11,343,245 | 75 | 9,931,438 | 92 | 85,121,707 | 315 | 14,108 | 756,206 | 1,016,632 | 1,164,413 | 2,951,359 | |
| Broilers and other meat-type chicken production (11232) | 594,557,061 | 1,375 | 105,630,708 | 700 | 92,483,666 | 855 | 792,671,435 | 2,929 | 131,381 | 7,041,955 | 9,467,091 | 10,843,259 | 27,483,686 | |
| Turkey production (11233) | 6,797,724 | 16 | 1,207,703 | 8 | 1,057,390 | 10 | 9,062,817 | 33 | 1,502 | 80,512 | 108,240 | 123,974 | 314,228 | |
| Poultry hatcheries (11234) | 81,766,733 | 189 | 14,526,912 | 96 | 12,718,859 | 118 | 109,012,503 | 403 | 18,068 | 968,448 | 1,301,966 | 1,491,224 | 3,779,707 | |
| Other poultry production (11239) | 760,215 | 2 | 135,062 | 1 | 118,252 | 1 | 1,013,529 | 4 | 168 | 9,019 | 12,124 | 13,887 | 35,198 | |
| Maryland Total >>> | <u>747,729,984</u> | <u>1,729</u> | <u>132,843,848</u> | <u>880</u> | <u>116,309,796</u> | <u>1,075</u> | <u>996,883,628</u> | <u>3,684</u> | <u>165,228</u> | <u>8,856,140</u> | <u>11,906,053</u> | <u>13,636,757</u> | <u>34,564,178</u> | |

Notes:

1) Economic Impact is apportioned based on each industry's share of total output for the broader NAICS 1123 sector from the USDA's 2002 Census of Agriculture for the State of Maryland

Table 6B Poultry and Egg Production-- Output, Employment, and Tax Impact by County (2004)

| | Economic Impact | | | | | | | | | | | | |
|-----------------|-----------------|--------|-------------|--------|-------------|--------|-------------|--------|-----------------------|------------------------|--------------|-------------------------|------------|
| | Direct | | Indirect | | Induced | | Total | | Taxes | | | | |
| | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | (\$) | (jobs) | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total |
| Maryland | 747,729,984 | 1,729 | 132,843,848 | 880 | 116,309,796 | 1,075 | 996,883,628 | 3,684 | 165,228 | 8,856,140 | 11,906,053 | 13,636,757 | 34,564,178 |
| Allegany | 3,102,614 | 7 | 551,219 | 4 | 482,613 | 4 | 4,136,447 | 15 | 686 | 36,747 | 49,403 | 56,584 | 143,420 |
| Anne Arundel | 2,326,961 | 5 | 413,414 | 3 | 361,960 | 3 | 3,102,335 | 11 | 514 | 27,561 | 37,052 | 42,438 | 107,565 |
| Baltimore | 9,307,842 | 22 | 1,653,658 | 11 | 1,447,840 | 13 | 12,409,340 | 46 | 2,057 | 110,242 | 148,208 | 169,752 | 430,259 |
| Calvert | 2,326,961 | 5 | 413,414 | 3 | 361,960 | 3 | 3,102,335 | 11 | 514 | 27,561 | 37,052 | 42,438 | 107,565 |
| Caroline | 96,181,035 | 222 | 17,087,798 | 113 | 14,961,011 | 138 | 128,229,844 | 474 | 21,253 | 1,139,172 | 1,531,484 | 1,754,106 | 4,446,015 |
| Carroll | 13,186,110 | 30 | 2,342,682 | 16 | 2,051,106 | 19 | 17,579,898 | 65 | 2,914 | 156,177 | 209,962 | 240,482 | 609,534 |
| Cecil | 3,102,614 | 7 | 551,219 | 4 | 482,613 | 4 | 4,136,447 | 15 | 686 | 36,747 | 49,403 | 56,584 | 143,420 |
| Charles | 8,532,189 | 20 | 1,515,853 | 10 | 1,327,186 | 12 | 11,375,228 | 42 | 1,885 | 101,056 | 135,857 | 155,606 | 394,405 |
| Dorchester | 61,276,627 | 142 | 10,886,581 | 72 | 9,531,612 | 88 | 81,694,820 | 302 | 13,540 | 725,763 | 975,704 | 1,117,535 | 2,832,542 |
| Frederick | 17,840,031 | 41 | 3,169,511 | 21 | 2,775,026 | 26 | 23,784,568 | 88 | 3,942 | 211,298 | 284,066 | 325,358 | 824,664 |
| Garrett | 4,653,921 | 11 | 826,829 | 5 | 723,920 | 7 | 6,204,670 | 23 | 1,028 | 55,121 | 74,104 | 84,876 | 215,130 |
| Harford | 10,083,496 | 23 | 1,791,463 | 12 | 1,568,493 | 14 | 13,443,451 | 50 | 2,228 | 119,429 | 160,559 | 183,898 | 466,114 |
| Howard | 3,878,268 | 9 | 689,024 | 5 | 603,267 | 6 | 5,170,558 | 19 | 857 | 45,934 | 61,753 | 70,730 | 179,275 |
| Kent | 10,083,496 | 23 | 1,791,463 | 12 | 1,568,493 | 14 | 13,443,451 | 50 | 2,228 | 119,429 | 160,559 | 183,898 | 466,114 |
| Montgomery | 5,429,575 | 13 | 964,634 | 6 | 844,573 | 8 | 7,238,782 | 27 | 1,200 | 64,308 | 86,455 | 99,022 | 250,985 |
| Prince George's | 9,307,842 | 22 | 1,653,658 | 11 | 1,447,840 | 13 | 12,409,340 | 46 | 2,057 | 110,242 | 148,208 | 169,752 | 430,259 |
| Queen Anne's | 20,942,645 | 48 | 3,720,730 | 25 | 3,257,640 | 30 | 27,921,014 | 103 | 4,628 | 248,045 | 333,468 | 381,942 | 968,084 |
| St Mary's | 6,980,882 | 16 | 1,240,243 | 8 | 1,085,880 | 10 | 9,307,005 | 34 | 1,543 | 82,682 | 111,156 | 127,314 | 322,695 |
| Somerset | 110,918,452 | 256 | 19,706,089 | 131 | 17,253,424 | 159 | 147,877,966 | 546 | 24,510 | 1,313,722 | 1,766,147 | 2,022,880 | 5,127,259 |
| Talbot | 24,045,259 | 56 | 4,271,949 | 28 | 3,740,253 | 35 | 32,057,461 | 118 | 5,313 | 284,793 | 382,871 | 438,526 | 1,111,504 |
| Washington | 6,980,882 | 16 | 1,240,243 | 8 | 1,085,880 | 10 | 9,307,005 | 34 | 1,543 | 82,682 | 111,156 | 127,314 | 322,695 |
| Wicomico | 176,849,000 | 409 | 31,419,499 | 208 | 27,508,956 | 254 | 235,777,456 | 871 | 39,079 | 2,094,606 | 2,815,954 | 3,225,291 | 8,174,930 |
| Worcester | 140,393,285 | 325 | 24,942,673 | 165 | 21,838,250 | 202 | 187,174,208 | 692 | 31,023 | 1,662,823 | 2,235,473 | 2,560,428 | 6,489,747 |

Notes:

1) Economic Impact is apportioned based on each county's share of NAICS 1123 sector farms operating in the county, as reported in the USDA's 2002 Census of Agriculture for the State of Maryland

Breaking the output figure down by region, the Eastern Shore was the largest (48.8% of the poultry, cattle, and dairy total), followed by Western Maryland (33.5% of the poultry, cattle, and dairy total), followed by Central Maryland (17.5% of the poultry, cattle, and dairy total), and the smallest was Southern Maryland (0.2% of the poultry, cattle, and dairy total). See Tables 7A to 7D for more details.

Table 7A Poultry, Cattle, and Dairy Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

Industry Sector: Poultry, Cattle, and Dairy

| Geographic Entity | Sector Output | | | |
|---------------------------|---------------|---------------|-------------|---------------|
| | Direct | Indirect | Induced | Total |
| State of Maryland | 2,632,712,594 | 1,260,915,179 | 468,101,271 | 4,361,729,044 |
| Regions | | | | |
| Western Maryland | 809,352,403 | 515,081,416 | 137,512,332 | 1,461,946,151 |
| Appalachian Maryland | 467,718,383 | 236,950,921 | 73,751,409 | 778,420,713 |
| Central Maryland | 522,680,498 | 161,959,239 | 77,499,392 | 762,139,130 |
| Southern Maryland | 5,204,826 | 2,179,147 | 550,031 | 7,934,004 |
| Eastern Shore of Maryland | 1,295,474,867 | 581,695,376 | 252,539,517 | 2,129,709,760 |
| Upper Eastern Shore | 109,445,235 | 47,652,629 | 15,960,305 | 173,058,170 |
| Mid Shore | 467,758,753 | 222,245,496 | 85,303,814 | 775,308,063 |
| Lower Eastern Shore | 718,270,840 | 277,922,882 | 138,615,326 | 1,134,809,047 |
| Counties | | | | |
| Allegany | 38,300,150 | 11,704,406 | 3,939,783 | 53,944,339 |
| Anne Arundel | 1,227,487 | 317,467 | 148,380 | 1,693,334 |
| Baltimore | 31,724,539 | 10,037,144 | 5,364,547 | 47,126,229 |
| Baltimore City | 236,970,495 | 66,707,853 | 25,176,089 | 328,854,438 |
| Calvert | 1,068,540 | 518,039 | 143,970 | 1,730,549 |
| Caroline | 121,512,345 | 16,909,358 | 12,913,201 | 151,334,904 |
| Carroll | 74,303,850 | 40,104,979 | 10,978,973 | 125,387,802 |
| Cecil | 19,477,014 | 7,522,324 | 3,242,368 | 30,241,706 |
| Charles | 1,441,390 | 685,976 | 157,532 | 2,284,898 |
| Dorchester | 218,464,747 | 141,316,041 | 36,305,849 | 396,086,637 |
| Frederick | 267,330,174 | 208,811,330 | 48,991,362 | 525,132,866 |
| Garrett | 20,879,233 | 13,898,982 | 2,415,131 | 37,193,347 |
| Harford | 16,380,626 | 9,249,239 | 2,063,787 | 27,693,652 |
| Howard | 28,651,672 | 9,715,853 | 3,595,932 | 41,963,456 |
| Kent | 56,765,058 | 36,996,327 | 11,380,430 | 105,141,815 |
| Montgomery | 6,871,845 | 1,548,792 | 517,748 | 8,938,385 |
| Prince George's | 200,853,840 | 80,173,823 | 30,996,880 | 312,024,543 |
| Queen Anne's | 33,203,168 | 7,497,255 | 3,787,521 | 44,487,944 |
| Saint Mary's | 2,694,895 | 1,329,795 | 383,694 | 4,408,384 |
| Somerset | 132,697,319 | 15,910,343 | 10,692,348 | 159,300,009 |
| Talbot | 127,781,675 | 68,080,039 | 31,591,672 | 227,453,386 |
| Washington | 408,539,004 | 218,132,375 | 83,375,369 | 710,046,748 |
| Wicomico | 362,100,531 | 206,303,284 | 104,627,815 | 673,031,630 |
| Worcester | 223,472,997 | 87,444,154 | 35,310,894 | 346,228,044 |

Table 7B Poultry, Cattle, and Dairy Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

Industry Sector: Poultry, Cattle, and Dairy

| Geographic Entity | Sector Employment (jobs) | | | Total |
|---------------------------|--------------------------|----------|---------|--------|
| | Direct | Indirect | Induced | |
| State of Maryland | 9,504 | 8,202 | 4,325 | 22,031 |
| Regions | | | | |
| Western Maryland | 3,462 | 4,221 | 1,305 | 8,988 |
| Appalachian Maryland | 1,889 | 1,820 | 755 | 4,464 |
| Central Maryland | 1,428 | 1,109 | 624 | 3,160 |
| Southern Maryland | 146 | 38 | 5 | 190 |
| Eastern Shore of Maryland | 4,467 | 2,834 | 2,392 | 9,693 |
| Upper Eastern Shore | 493 | 324 | 161 | 978 |
| Mid Shore | 1,692 | 1,004 | 806 | 3,502 |
| Lower Eastern Shore | 2,282 | 1,314 | 1,275 | 4,871 |
| Counties | | | | |
| Allegany | 106 | 117 | 43 | 266 |
| Anne Arundel | 9 | 3 | 1 | 13 |
| Baltimore | 143 | 120 | 45 | 308 |
| Baltimore City | 486 | 368 | 193 | 1,046 |
| Calvert | 39 | 13 | 1 | 53 |
| Caroline | 320 | 136 | 124 | 580 |
| Carroll | 465 | 426 | 106 | 997 |
| Cecil | 113 | 76 | 31 | 219 |
| Charles | 35 | 10 | 1 | 46 |
| Dorchester | 830 | 621 | 362 | 1,813 |
| Frederick | 1,109 | 1,709 | 435 | 3,253 |
| Garrett | 246 | 148 | 29 | 423 |
| Harford | 164 | 91 | 20 | 275 |
| Howard | 80 | 69 | 29 | 178 |
| Kent | 292 | 250 | 125 | 667 |
| Montgomery | 45 | 11 | 4 | 60 |
| Prince George's | 502 | 534 | 264 | 1,300 |
| Queen Anne's | 88 | 65 | 36 | 189 |
| Saint Mary's | 72 | 26 | 4 | 102 |
| Somerset | 204 | 123 | 101 | 427 |
| Talbot | 542 | 319 | 288 | 1,150 |
| Washington | 1,537 | 1,563 | 787 | 3,887 |
| Wicomico | 1,306 | 993 | 951 | 3,250 |
| Worcester | 772 | 413 | 345 | 1,530 |

Table 7C Poultry, Cattle, and Dairy Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

Industry Sector: Poultry, Cattle, and Dairy

| Geographic Entity | Sources of Tax Revenue | | | | Total (\$) |
|---------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| State of Maryland | 924,996 | 35,645,907 | 24,566,920 | 78,128,121 | 139,265,944 |
| Regions | | | | | |
| Western Maryland | 289,307 | 11,026,299 | 5,659,735 | 32,751,503 | 49,726,843 |
| Appalachian Maryland | 185,632 | 5,385,742 | 2,597,407 | 16,142,325 | 24,311,105 |
| Central Maryland | 126,333 | 5,548,815 | 2,140,984 | 13,670,966 | 21,487,097 |
| Southern Maryland | 1,426 | 59,698 | 37,073 | 240,557 | 338,754 |
| Eastern Shore of Maryland | 507,931 | 19,011,095 | 16,729,128 | 31,465,095 | 67,713,250 |
| Upper Eastern Shore | 39,614 | 1,563,178 | 1,093,156 | 3,330,270 | 6,026,219 |
| Mid Shore | 145,486 | 6,507,059 | 4,761,546 | 9,963,992 | 21,378,083 |
| Lower Eastern Shore | 301,201 | 9,742,424 | 10,151,460 | 15,938,249 | 36,133,335 |
| Counties | | | | | |
| Allegany | 13,871 | 279,031 | 153,590 | 791,077 | 1,237,569 |
| Anne Arundel | 170 | 12,356 | 8,793 | 46,274 | 67,594 |
| Baltimore | 6,928 | 364,585 | 138,373 | 1,073,458 | 1,583,343 |
| Baltimore City | 82,210 | 1,447,978 | 707,213 | 4,815,281 | 7,052,681 |
| Calvert | 468 | 15,824 | 7,785 | 55526.94536 | 79,604 |
| Caroline | 24,288 | 1,321,247 | 2,013,109 | 1,943,292 | 5,301,937 |
| Carroll | 22,629 | 1,037,935 | 695,156 | 3,267,149 | 5,022,869 |
| Cecil | 6,831 | 316,822 | 195,317 | 809,574 | 1,328,544 |
| Charles | 393 | 15,816 | 12,927 | 77,555 | 106,691 |
| Dorchester | 106,894 | 3,177,885 | 2,806,750 | 4,868,812 | 10,960,340 |
| Frederick | 74,849 | 4,058,512 | 2,092,468 | 12,919,310 | 19,145,139 |
| Garrett | 4,564 | 181,065 | 226,591 | 1,140,931 | 1,553,151 |
| Harford | 3,560 | 197,630 | 136,167 | 941,461 | 1,278,818 |
| Howard | 5,577 | 303,065 | 152,010 | 810,725 | 1,271,377 |
| Kent | 24,159 | 946,170 | 322,364 | 1,901,872 | 3,194,566 |
| Montgomery | 445 | 40,686 | 50,383 | 308,567 | 400,081 |
| Prince George's | 71,784 | 2,673,706 | 852,813 | 6,143,932 | 9,742,235 |
| Queen Anne's | 8,639 | 400,728 | 427,560 | 898,905 | 1,735,832 |
| Saint Mary's | 576 | 39,164 | 16,109 | 143,991 | 199,841 |
| Somerset | 44,301 | 1,124,330 | 2,383,013 | 1,767,916 | 5,319,561 |
| Talbot | 32,218 | 2,149,268 | 648,105 | 3,268,983 | 6,098,574 |
| Washington | 148,095 | 5,830,587 | 2,225,260 | 15,864,866 | 24,068,808 |
| Wicomico | 163,227 | 6,783,658 | 5,237,106 | 10,371,645 | 22,555,636 |
| Worcester | 78,321 | 2,927,860 | 3,057,957 | 3,897,016 | 9,961,154 |

Table 7D Poultry, Cattle, and Dairy: Economic Impact (Production vs. Processing)

**Resource Industry Economic Impacts:
Output, Employment, and Taxes for State of Maryland**

Industry Sector: Poultry, Cattle, & Dairy (Production vs. Processing)

| | Sector Direct | | Sector Indirect | | Sector Induced | | Sector Total | | Total Tax Impact |
|--------------------------------|----------------------|--------------|----------------------|--------------|--------------------|--------------|----------------------|---------------|--------------------|
| | Output | Jobs | Output | Jobs | Output | Jobs | Output | Total | |
| Total Animal Production | 1,030,375,584 | 4,393 | 253,857,438 | 1,917 | 149,498,050 | 1,381 | 1,433,731,072 | 7,691 | 52,334,067 |
| Total Animal Processing | 1,602,337,010 | 5,111 | 1,007,057,741 | 6,285 | 318,603,221 | 2,944 | 2,927,997,972 | 14,340 | 86,931,877 |
| Total | 2,632,712,594 | 9,504 | 1,260,915,179 | 8,202 | 468,101,271 | 4,325 | 4,361,729,044 | 22,031 | 139,265,944 |

Forestry Activities and Wood Derivatives

The forestry sector consists of logging, forest nurseries, forest products, timber, agriculture and forestry support activities, the three-digit NAICS (312) "wood product and manufacturing" sector, the three-digit NAICS (322) "paper manufacturing" sector, and the pertinent, wood-related sub-industries within the three-digit NAICS (337) "furniture and related product manufacturing" sector. A complete list of the forestry industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 8.

Table 8 IMPLAN and NAICS Industries in Forestry and Wood Derivatives
Sector

Forestry Activities and Wood Derivatives

| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
|----------------|---|-------------|---|
| 1133 | Logging | 14 | Logging |
| 1131 | Timber tract operations | 15 | Forest nurseries- forest products- and timber |
| 1132 | Forest nurseries and gathering of forest products | | |
| 115 | Support activities for agriculture and forestry | 18 | Agriculture and forestry support activities |
| 321113 | Sawmills | 112 | Sawmills |
| 321114 | Wood preservation | 113 | Wood preservation |
| 321219 | Reconstituted wood product manufacturing | 114 | Reconstituted wood product manufacturing |
| 321211, 321212 | Veneer and plywood manufacturing | 115 | Veneer and plywood manufacturing |
| 321213, 321214 | Engineered wood member and truss manufacturing | 116 | Engineered wood member and truss manufacturing |
| 321911 | Wood windows and door manufacturing | 117 | Wood windows and door manufacturing |
| 321912 | Cut stock, resawing lumber, and planing | 118 | Cut stock, resawing lumber, and planing |
| 321918 | Other millwork, including flooring | 119 | Other millwork, including flooring |
| 321920 | Wood container and pallet manufacturing | 120 | Wood container and pallet manufacturing |
| 321999 | Misc. wood product manufacturing | 123 | Misc. wood product manufacturing |
| 32212, 32213 | Paper and paperboard mills | 125 | Paper and paperboard mills |
| 32221 | Paperboard container manufacturing | 126 | Paperboard container manufacturing |
| 322221, 322222 | Coated and laminated paper/package materials | 129 | Coated and laminated paper/package materials |
| 322231 | Die-cut paper office supplies manufacturing | 131 | Die-cut paper office supplies manufacturing |
| 322232 | Envelope manufacturing | 132 | Envelope manufacturing |
| 322233 | Stationary and related product manufacturing | 133 | Stationary and related product manufacturing |
| 322299 | All other converted paper product manufacturing | 135 | All other converted paper product manufacturing |
| 33711 | Wood kitchen cabinet and countertop manufacturing | 362 | Wood kitchen cabinet and countertop manufacturing |
| 337122 | Nonupholstered wood household furniture | 364 | Nonupholstered wood household furniture |
| 337211 | Wood office furniture manufacturing | 368 | Wood office furniture manufacturing |
| 337212 | Custom architectural woodwork and millwork | 369 | Custom architectural woodwork and millwork |

These industries represent the forestry commodity producers (e.g. forestry nurseries) and the immediate "down-stream" processors, refiners, and manufactures.

The forestry and wood derivatives sector produced \$3 billion in "direct" output in 2004, which in-turn generated just over \$1.7 billion in additional "indirect" and "induced" economic activity (see section II "Model Details" for a description of these terms). The forestry sector also supported (both directly and indirectly) a total of 29,309 jobs and generated (both directly and indirectly) just under \$173 million in state and local tax revenue.

Breaking the output figure down by region, Central Maryland was the largest (56.7% of the forestry total), followed by Western Maryland (20.4% of the forestry total), followed by the Eastern Shore (19.6% of the forestry total), and the smallest was Southern Maryland (3.4% of the forestry total). See Tables 9A to 9C for more details.

Table 9A Forestry Activities Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

Industry Sector: Forest Activities and Wood Derivatives

| Geographic Entity | Sector Output | | | Total |
|---------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| State of Maryland | 2,969,435,336 | 975,073,449 | 737,449,453 | 4,681,958,238 |
| Regions | | | | |
| Western Maryland | 607,438,466 | 196,553,153 | 150,402,387 | 954,394,007 |
| Appalachian Maryland | 339,931,824 | 106,139,462 | 76,833,398 | 522,904,685 |
| Central Maryland | 1,702,833,337 | 527,709,721 | 423,791,052 | 2,654,334,110 |
| Southern Maryland | 100,625,520 | 36,785,584 | 20,382,696 | 157,793,801 |
| Eastern Shore of Maryland | 558,538,013 | 214,024,990 | 142,873,318 | 915,436,321 |
| Upper Eastern Shore | 157,670,030 | 54,949,760 | 39,516,189 | 252,135,979 |
| Mid Shore | 159,410,451 | 53,023,634 | 37,212,410 | 249,646,494 |
| Lower Eastern Shore | 241,457,539 | 96,791,816 | 62,506,982 | 400,756,337 |
| Counties | | | | |
| Allegany | 70,930,735 | 21,242,065 | 16,931,655 | 109,104,454 |
| Anne Arundel | 341,733,846 | 108,286,972 | 81,824,088 | 531,844,906 |
| Baltimore | 561,956,655 | 175,993,735 | 142,400,169 | 880,350,558 |
| Baltimore City | 846,943 | 125,686 | 226,830 | 1,199,459 |
| Calvert | 18,176,642 | 6,020,415 | 4,428,425 | 28,625,482 |
| Caroline | 34,736,221 | 11,113,036 | 8,380,326 | 54,229,583 |
| Carroll | 117,337,965 | 38,683,916 | 31,527,717 | 187,549,598 |
| Cecil | 100,722,825 | 34,233,293 | 26,566,427 | 161,522,545 |
| Charles | 50,450,168 | 21,042,367 | 10,736,876 | 82,229,411 |
| Dorchester | 66,131,843 | 22,715,077 | 15,412,832 | 104,259,753 |
| Frederick | 150,168,679 | 47,587,462 | 41,314,359 | 239,070,500 |
| Garrett | 90,260,922 | 42,727,727 | 17,200,552 | 150,189,202 |
| Harford | 123,380,827 | 38,957,152 | 32,412,889 | 194,750,868 |
| Howard | 129,480,330 | 41,137,533 | 32,485,614 | 203,103,477 |
| Kent | 33,607,260 | 15,181,705 | 8,764,854 | 57,553,820 |
| Montgomery | 319,326,177 | 100,390,701 | 82,091,798 | 501,808,676 |
| Prince George's | 226,108,553 | 71,562,709 | 56,340,584 | 354,011,847 |
| Queen Anne's | 23,339,941 | 7,493,148 | 6,282,134 | 37,115,223 |
| Saint Mary's | 31,998,710 | 12,020,551 | 7,183,807 | 51,203,068 |
| Somerset | 31,073,946 | 11,306,159 | 7,303,320 | 49,683,425 |
| Talbot | 58,542,387 | 19,155,108 | 13,867,795 | 91,565,290 |
| Washington | 178,740,166 | 56,891,530 | 44,292,050 | 279,923,747 |
| Wicomico | 175,304,836 | 58,528,719 | 39,919,757 | 273,753,313 |
| Worcester | 35,078,757 | 12,676,684 | 9,554,594 | 57,310,034 |

Table 9B Forestry and Wood Derivatives Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

Industry Sector: Forest Activities and Wood Derivatives

| Geographic Entity | Sector Employment | | | Total |
|---------------------------|-------------------|----------|---------|--------|
| | Direct | Indirect | Induced | |
| State of Maryland | 15,928 | 6,567 | 6,814 | 29,309 |
| Regions | | | | |
| Western Maryland | 3,385 | 1,418 | 1,405 | 6,209 |
| Appalachian Maryland | 1,601 | 687 | 726 | 3,015 |
| Central Maryland | 8,434 | 3,293 | 3,869 | 15,596 |
| Southern Maryland | 529 | 228 | 194 | 950 |
| Eastern Shore of Maryland | 3,580 | 1,628 | 1,346 | 6,554 |
| Upper Eastern Shore | 1,180 | 383 | 378 | 1,940 |
| Mid Shore | 901 | 326 | 348 | 1,574 |
| Lower Eastern Shore | 1,499 | 907 | 583 | 2,989 |
| Counties | | | | |
| Allegany | 337 | 139 | 159 | 635 |
| Anne Arundel | 1,698 | 668 | 748 | 3,114 |
| Baltimore | 2,643 | 1,112 | 1,300 | 5,055 |
| Baltimore City | 8 | 1 | 2 | 11 |
| Calvert | 97 | 38 | 41 | 176 |
| Caroline | 210 | 78 | 78 | 365 |
| Carroll | 971 | 272 | 294 | 1,537 |
| Cecil | 686 | 243 | 246 | 1,175 |
| Charles | 229 | 119 | 98 | 446 |
| Dorchester | 349 | 139 | 144 | 631 |
| Frederick | 813 | 353 | 376 | 1,542 |
| Garrett | 441 | 276 | 190 | 906 |
| Harford | 697 | 341 | 301 | 1,339 |
| Howard | 667 | 259 | 298 | 1,224 |
| Kent | 319 | 131 | 88 | 538 |
| Montgomery | 1,697 | 627 | 745 | 3,069 |
| Prince George's | 1,025 | 448 | 519 | 1,993 |
| Queen Anne's | 175 | 50 | 58 | 283 |
| Saint Mary's | 203 | 105 | 72 | 381 |
| Somerset | 440 | 118 | 68 | 626 |
| Talbot | 342 | 130 | 127 | 599 |
| Washington | 824 | 358 | 409 | 1,591 |
| Wicomico | 779 | 479 | 363 | 1,622 |
| Worcester | 280 | 83 | 90 | 453 |

Table 9C Forestry and Wood Derivatives Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

Industry Sector: Forest Activities and Wood Derivatives

| Geographic Entity | Sources of Tax Revenue | | | | Total (\$) |
|---------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| State of Maryland | 1,580,740 | 56,153,705 | 20,338,830 | 94,470,331 | 172,543,606 |
| Regions | | | | | |
| Western Maryland | 319,133 | 11,559,674 | 4,091,182 | 19,105,503 | 35,075,493 |
| Appalachian Maryland | 169,956 | 5,796,695 | 2,326,336 | 10,085,877 | 18,378,864 |
| Central Maryland | 897,659 | 32,028,091 | 11,597,018 | 54,089,580 | 98,612,348 |
| Southern Maryland | 45,359 | 1,781,517 | 734,629 | 2,919,474 | 5,480,979 |
| Eastern Shore of Maryland | 318,589 | 10,784,423 | 3,916,002 | 18,355,773 | 33,374,787 |
| Upper Eastern Shore | 91,422 | 3,251,755 | 1,013,878 | 5,023,498 | 9,380,553 |
| Mid Shore | 77,582 | 2,827,815 | 1,035,176 | 4,674,927 | 8,615,500 |
| Lower Eastern Shore | 154,798 | 4,528,297 | 1,773,281 | 8,188,550 | 14,644,926 |
| Counties | | | | | |
| Allegany | 37,715 | 1,274,791 | 474,737 | 2,170,281 | 3,957,524 |
| Anne Arundel | 163,672 | 6,247,532 | 2,505,194 | 10,482,316 | 19,398,713 |
| Baltimore | 297,561 | 10,633,886 | 3,854,486 | 18,128,816 | 32,914,748 |
| Baltimore City | 462 | 12,139 | 5,154 | 21,460 | 39,215 |
| Calvert | 9,845 | 352,904 | 122,292 | 566,985 | 1,052,026 |
| Caroline | 18,811 | 667,961 | 229,554 | 1,098,998 | 2,015,323 |
| Carroll | 65,329 | 2,508,902 | 766,172 | 3,800,914 | 7,141,317 |
| Cecil | 59,420 | 2,123,258 | 659,437 | 3,293,484 | 6,135,599 |
| Charles | 26,246 | 892,054 | 410,411 | 1,520,156 | 2,848,867 |
| Dorchester | 34,252 | 1,184,858 | 456,311 | 1,994,219 | 3,669,640 |
| Frederick | 81,278 | 3,154,468 | 981,173 | 5,141,020 | 9,357,938 |
| Garrett | 40,606 | 1,226,234 | 746,771 | 2,296,595 | 4,310,206 |
| Harford | 66,772 | 2,574,598 | 805,758 | 4,396,112 | 7,843,241 |
| Howard | 69,486 | 2,476,785 | 864,272 | 4,136,615 | 7,547,159 |
| Kent | 15,465 | 672,674 | 184,750 | 1,034,476 | 1,907,365 |
| Montgomery | 171,569 | 6,227,996 | 2,116,985 | 10,274,099 | 18,790,648 |
| Prince George's | 124,315 | 4,296,791 | 1,516,229 | 7,229,654 | 13,166,990 |
| Queen Anne's | 15,769 | 525,880 | 145,497 | 779,573 | 1,466,718 |
| Saint Mary's | 10,599 | 628,090 | 213,090 | 989,259 | 1,841,038 |
| Somerset | 48,653 | 674,427 | 172,558 | 884,111 | 1,779,750 |
| Talbot | 23,148 | 977,604 | 336,721 | 1,610,007 | 2,947,479 |
| Washington | 96,085 | 3,359,530 | 1,203,291 | 5,696,426 | 10,355,332 |
| Wicomico | 79,775 | 2,729,363 | 1,348,616 | 5,852,715 | 10,010,469 |
| Worcester | 23,907 | 730,984 | 219,372 | 1,072,038 | 2,046,302 |

Mining

The mining sector consists of coal mining, stone mining and quarrying, sand gravel clay and refractory mining, other nonmetallic mineral mining, support activities for other mining, cement manufacturing, ready-mix concrete manufacturing, gypsum product manufacturing, cut stone and stone product manufacturing, miscellaneous nonmetallic mineral products. A complete list of the mining industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 10.

Table 10 IMPLAN and NAICS Industries in Mining Sector

Mining and Mineral Extraction

| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
|-------------|--|-------------|--|
| 2121 | Coal mining | 20 | Coal mining |
| 21231 | Stone mining and quarrying | 24 | Stone mining and quarrying |
| 21232 | Sand, gravel, clay, and refractory mining | 25 | Sand, gravel, clay, and refractory mining |
| 21239 | Other nonmetallic mineral mining and quarrying | 26 | Other nonmetallic mineral mining |
| 213113 | Support Activities for Coal Mining | | |
| 213114 | Support Activities for Metal Mining | 29 | Support activities for other mining |
| 213115 | Support activities for nonmetallic minerals (except fuels) | | |
| 32731 | Cement manufacturing | 191 | Cement manufacturing |
| 32732 | Ready-mix concrete manufacturing | 192 | Ready-mix concrete manufacturing |
| 32742 | Gypsum product manufacturing | 197 | Gypsum product manufacturing |
| 327991 | Cut stone and stone product manufacturing | 199 | Cut stone and stone product manufacturing |
| 327999 | Miscellaneous nonmetallic mineral products | 202 | Miscellaneous nonmetallic mineral products |

These industries represent the mining commodity producers (e.g. coal mining) and the immediate "down-stream" processors and refiners (e.g. cement manufacturing).

The mining sector produced \$1.1 billion in "direct" output in 2004, which in-turn generated just under \$607 million in additional "indirect" and "induced" economic activity (see section II "Model Details" for a description of these terms). The mining sector also supported (both directly and indirectly) a total of 9,272 jobs and generated (both directly and indirectly) just over \$87 million in state and local tax revenue.

Breaking the output figure down by region, Central Maryland was the largest (52.6% of the mining total), followed by Western Maryland (36.6% of the mining total), followed by the Eastern Shore (5.8% of the mining total), and the smallest was Southern Maryland (4.9% of the mining total). See Tables 11A to 11C for more details.

Table 11A Mining Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

Industry Sector: Mining and Mineral Extraction

| Geographic Entity | Sector Output | | | Total |
|---------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| State of Maryland | 1,144,633,340 | 311,426,252 | 295,461,486 | 1,751,521,078 |
| Regions | | | | |
| Western Maryland | 428,186,952 | 121,214,397 | 91,973,912 | 641,375,262 |
| Appalachian Maryland | 268,096,031 | 71,599,590 | 59,087,748 | 398,783,370 |
| Central Maryland | 585,297,427 | 164,177,467 | 171,670,548 | 921,145,442 |
| Southern Maryland | 62,812,611 | 11,782,476 | 11,994,272 | 86,589,359 |
| Eastern Shore of Maryland | 68,336,350 | 14,251,911 | 19,822,753 | 102,411,015 |
| Upper Eastern Shore | 42,155,275 | 6,402,419 | 9,746,659 | 58,304,353 |
| Mid Shore | 11,012,585 | 1,650,889 | 2,932,381 | 15,595,855 |
| Lower Eastern Shore | 15,168,489 | 3,912,869 | 3,768,370 | 22,849,728 |
| Counties | | | | |
| Allegany | 40,607,137 | 9,446,957 | 9,580,395 | 59,634,489 |
| Anne Arundel | 66,013,861 | 16,069,788 | 22,188,282 | 104,271,931 |
| Baltimore | 155,786,331 | 45,509,602 | 54,949,003 | 256,244,936 |
| Baltimore City | 160,011,155 | 57,817,863 | 29,726,719 | 247,555,736 |
| Calvert | 0 | 0 | 0 | 0 |
| Caroline | 7,154,194 | 1,150,857 | 1,374,841 | 9,679,892 |
| Carroll | 131,084,667 | 32,880,018 | 21,455,206 | 185,419,892 |
| Cecil | 38,937,787 | 5,701,600 | 10,339,685 | 54,979,073 |
| Charles | 62,749,910 | 12,600,981 | 15,086,366 | 90,437,257 |
| Dorchester | 3,460,194 | 315,997 | 978,122 | 4,754,313 |
| Frederick | 29,006,250 | 9,360,457 | 9,037,141 | 47,403,848 |
| Garrett | 129,376,169 | 31,714,484 | 31,068,013 | 192,158,666 |
| Harford | 28,495,636 | 8,428,625 | 6,773,277 | 43,697,538 |
| Howard | 2,377,710 | 361,563 | 912,868 | 3,652,140 |
| Kent | 3,217,489 | 299,899 | 886,478 | 4,403,866 |
| Montgomery | 112,100,508 | 24,155,564 | 34,999,970 | 171,256,043 |
| Prince George's | 60,512,225 | 16,217,862 | 18,388,471 | 95,118,557 |
| Queen Anne's | 0 | 0 | 0 | 0 |
| Saint Mary's | 62,702 | 20,682 | 6,292 | 89,676 |
| Somerset | 0 | 0 | 0 | 0 |
| Talbot | 398,198 | 46,363 | 126,451 | 571,012 |
| Washington | 98,112,729 | 34,912,429 | 22,928,082 | 155,953,240 |
| Wicomico | 13,909,215 | 4,255,691 | 4,394,545 | 22,559,451 |
| Worcester | 1,259,274 | 158,970 | 261,278 | 1,679,523 |

Table 11B Mining Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

Industry Sector: Mining and Mineral Extraction

| Geographic Entity | Sector Employment (jobs) | | | Total |
|---------------------------|--------------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| State of Maryland | 4,353 | 2,188 | 2,730 | 9,271 |
| Regions | | | | |
| Western Maryland | 1,539 | 919 | 931 | 3,389 |
| Appalachian Maryland | 1,092 | 536 | 645 | 2,273 |
| Central Maryland | 2,204 | 1,062 | 1,474 | 4,740 |
| Southern Maryland | 248 | 93 | 125 | 467 |
| Eastern Shore of Maryland | 361 | 114 | 200 | 675 |
| Upper Eastern Shore | 220 | 56 | 105 | 381 |
| Mid Shore | 70 | 14 | 30 | 113 |
| Lower Eastern Shore | 71 | 31 | 37 | 139 |
| Counties | | | | |
| Allegany | 225 | 73 | 108 | 406 |
| Anne Arundel | 299 | 110 | 201 | 609 |
| Baltimore | 595 | 322 | 472 | 1,389 |
| Baltimore City | 400 | 346 | 234 | 980 |
| Calvert | 0 | 0 | 0 | 0 |
| Caroline | 47 | 9 | 13 | 70 |
| Carroll | 270 | 253 | 212 | 735 |
| Cecil | 201 | 45 | 101 | 347 |
| Charles | 247 | 91 | 141 | 479 |
| Dorchester | 21 | 3 | 10 | 33 |
| Frederick | 177 | 72 | 82 | 332 |
| Garrett | 620 | 288 | 377 | 1,286 |
| Harford | 119 | 65 | 67 | 251 |
| Howard | 7 | 3 | 8 | 17 |
| Kent | 19 | 3 | 10 | 32 |
| Montgomery | 491 | 149 | 267 | 907 |
| Prince George's | 293 | 115 | 161 | 569 |
| Queen Anne's | 0 | 0 | 0 | 0 |
| Saint Mary's | 1 | 0 | 0 | 2 |
| Somerset | 0 | 0 | 0 | 0 |
| Talbot | 3 | 0 | 1 | 4 |
| Washington | 247 | 207 | 222 | 676 |
| Wicomico | 64 | 33 | 41 | 138 |
| Worcester | 7 | 1 | 3 | 11 |

Table 11C Mining Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

Industry Sector: Mining and Mineral Extraction

| Geographic Entity | Sources of Tax Revenue | | | | Total (\$) |
|---------------------------|------------------------|------------------------|--------------|-------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| State of Maryland | 619,647 | 22,499,875 | 12,902,511 | 51,261,852 | 87,283,884 |
| Regions | | | | | |
| Western Maryland | 223,191 | 7,387,589 | 5,052,774 | 23,846,697 | 36,510,251 |
| Appalachian Maryland | 160,861 | 4,319,222 | 2,909,882 | 18,810,676 | 26,200,640 |
| Central Maryland | 298,148 | 12,311,562 | 6,571,904 | 22,428,880 | 41,610,494 |
| Southern Maryland | 43,130 | 1,305,095 | 512,195 | 2,017,760 | 3,878,181 |
| Eastern Shore of Maryland | 55,177 | 1,495,629 | 765,638 | 2,968,514 | 5,284,958 |
| Upper Eastern Shore | 34,919 | 956,486 | 442,642 | 1,806,767 | 3,240,814 |
| Mid Shore | 6,575 | 223,806 | 117,124 | 451,374 | 798,879 |
| Lower Eastern Shore | 9,723 | 265,266 | 136,848 | 525,902 | 937,739 |
| Counties | | | | | |
| Allegany | 28,248 | 668,765 | 330,839 | 4,292,780 | 5,320,632 |
| Anne Arundel | 24,187 | 1,815,955 | 776,545 | 3,055,619 | 5,672,307 |
| Baltimore | 73,011 | 3,671,597 | 1,879,168 | 6,044,937 | 11,668,714 |
| Baltimore City | 97,397 | 1,681,782 | 1,749,673 | 4,668,728 | 8,197,579 |
| Calvert | 0 | 0 | 0 | 0 | 0 |
| Caroline | 4,801 | 137,950 | 94,572 | 255,443 | 492,765 |
| Carroll | 57,632 | 1,994,940 | 1,843,384 | 3,525,098 | 7,421,055 |
| Cecil | 29,405 | 993,361 | 457,896 | 1,721,272 | 3,201,933 |
| Charles | 51,086 | 1,490,046 | 547,618 | 2,188,936 | 4,277,686 |
| Dorchester | 3,562 | 84,131 | 44,366 | 165,286 | 297,346 |
| Frederick | 16,627 | 736,373 | 197,178 | 958,667 | 1,908,844 |
| Garrett | 85,386 | 2,286,306 | 1,171,370 | 11,961,420 | 15,504,482 |
| Harford | 15,412 | 637,998 | 207,598 | 916,548 | 1,777,557 |
| Howard | 483 | 75,234 | 28,594 | 105,615 | 209,926 |
| Kent | 1,537 | 72,504 | 26,086 | 172,730 | 272,858 |
| Montgomery | 34,787 | 2,705,925 | 1,325,714 | 4,789,705 | 8,856,130 |
| Prince George's | 45,725 | 1,559,614 | 597,081 | 2,378,093 | 4,580,512 |
| Queen Anne's | 0 | 0 | 0 | 0 | 0 |
| Saint Mary's | 9 | 632 | 183 | 1,012 | 1,834 |
| Somerset | 0 | 0 | 0 | 0 | 0 |
| Talbot | 42 | 8,440 | 3,942 | 23,824 | 36,248 |
| Washington | 42,560 | 1,576,836 | 1,481,614 | 3,489,139 | 6,590,149 |
| Wicomico | 7,339 | 280,172 | 125,401 | 496,372 | 909,283 |
| Worcester | 413 | 21,313 | 13,689 | 50,628 | 86,043 |

Natural Gas and Petroleum Extraction

The natural gas and petroleum extraction sector consists of oil and gas extraction, natural gas distribution, drilling oil and gas wells, support activities for oil and gas operations, petroleum refineries, and other basic organic chemical manufacturing.⁴ A complete list of the natural gas and petroleum extraction industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 12.

Table 12 IMPLAN and NAICS Industries in Natural Gas and Petroleum Extraction Sector

| Natural Gas and Petroleum Extraction | | | |
|---|---|-------------|---|
| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
| 211 | Oil and gas extraction | 19 | Oil and gas extraction |
| 2212 | Natural gas distribution | 31 | Natural gas distribution |
| 213111 | Drilling oil and gas wells | 27 | Drilling oil and gas wells |
| 213112 | Support activities for oil and gas operations | 28 | Support activities for oil and gas operations |
| 32411 | Petroleum refineries | 142 | Petroleum refineries |
| 32519 | Other basic organic chemical manufacturing | 151 | Other basic organic chemical manufacturing |
| 325193 | Ethanol, nonpotable, manufacturing | | |

These industries represent the natural gas and petroleum extraction commodity producers (e.g. oil and gas extraction) and the immediate “down-stream” processors and refiners (e.g. petroleum refineries).

The natural gas and petroleum extraction sector produced just under \$1.2 billion in “direct” output in 2004, which in-turn generated just under \$336 million in additional “indirect” and “induced” economic activity (see section II “Model Details” for a description of these terms). The natural gas and petroleum extraction sector also supported (both directly and indirectly) a total of 4,212 jobs and generated (both directly and indirectly) just under \$110 million in state and local tax revenue.

⁴ Ethanol production is included in the “other basic organic chemical manufacturing” industry.

Breaking the output figure down by region, Central Maryland was the largest (75.8% of the natural gas and petroleum extraction total), followed by the Eastern Shore (13.4% of the natural gas and petroleum extraction total), followed by Southern Maryland (5.8% of the natural gas and petroleum extraction total), and the smallest was Western Maryland (5% of the natural gas and petroleum extraction total). See Tables 13A to 13C for more details.

Table 13A Natural Gas and Petroleum Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

Industry Sector: Natural Gas and Petroleum Extraction

| Geographic Entity | Sector Output | | | Total |
|---------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| State of Maryland | 1,177,039,746 | 175,218,158 | 160,581,812 | 1,512,839,716 |
| Regions | | | | |
| Western Maryland | 52,735,628 | 16,386,114 | 6,727,386 | 75,849,129 |
| Appalachian Maryland | 32,362,310 | 6,152,372 | 3,755,174 | 42,269,857 |
| Central Maryland | 910,721,260 | 105,814,157 | 130,672,866 | 1,147,208,283 |
| Southern Maryland | 78,291,892 | 5,216,475 | 3,986,152 | 87,494,519 |
| Eastern Shore of Maryland | 135,290,965 | 47,801,412 | 19,195,407 | 202,287,785 |
| Upper Eastern Shore | 80,907,165 | 25,693,320 | 8,535,783 | 115,136,268 |
| Mid Shore | 11,857,457 | 5,126,394 | 1,307,189 | 18,291,040 |
| Lower Eastern Shore | 42,526,339 | 10,489,608 | 6,177,386 | 59,193,332 |
| Counties | | | | |
| Allegany | 3,281,518 | 843,311 | 386,100 | 4,510,929 |
| Anne Arundel | 289,975,736 | 113,425,969 | 29,174,197 | 432,575,902 |
| Baltimore | 31,647,076 | 2,674,788 | 5,928,167 | 40,250,030 |
| Baltimore City | 849,213 | 117,086 | 152,235 | 1,118,534 |
| Calvert | 28,925,350 | 470,549 | 3,394,339 | 32,790,237 |
| Caroline | 5,507,343 | 2,181,238 | 449,903 | 8,138,484 |
| Carroll | 6,456,404 | 1,401,522 | 742,618 | 8,600,544 |
| Cecil | 2,264,830 | 217,168 | 573,024 | 3,055,023 |
| Charles | 49,078,872 | 5,255,454 | 1,335,111 | 55,669,438 |
| Dorchester | 1,490,461 | 350,612 | 121,985 | 1,963,058 |
| Frederick | 13,916,914 | 4,308,695 | 1,938,036 | 20,163,645 |
| Garrett | 2,241,954 | 593,179 | 226,391 | 3,061,523 |
| Harford | 745,486 | 142,873 | 101,845 | 990,204 |
| Howard | 3,059,721 | 789,325 | 383,862 | 4,232,908 |
| Kent | 77,151,874 | 15,415,325 | 7,747,164 | 100,314,363 |
| Montgomery | 564,565,538 | 14,000,213 | 94,999,228 | 673,564,979 |
| Prince George's | 19,878,503 | 2,385,647 | 1,110,792 | 23,374,941 |
| Queen Anne's | 1,490,461 | 409,652 | 135,362 | 2,035,474 |
| Saint Mary's | 287,667 | 30,007 | 23,975 | 341,648 |
| Somerset | 0 | 0 | 0 | 0 |
| Talbot | 4,859,653 | 1,513,666 | 667,022 | 7,040,341 |
| Washington | 26,838,837 | 1,828,172 | 3,675,595 | 32,342,604 |
| Wicomico | 40,624,419 | 6,411,512 | 7,155,521 | 54,191,452 |
| Worcester | 1,901,917 | 452,197 | 159,342 | 2,513,456 |

Table 13B Natural Gas and Petroleum Economic Impact: Employment

**Resource Industry Economic Impacts:
Employment**

**Industry Sector: Natural Gas and Petroleum
Extraction**

| Geographic Entity | Sector Employment (jobs) | | | Total |
|---------------------------|--------------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| State of Maryland | 1,715 | 1,013 | 1,484 | 4,212 |
| Regions | | | | |
| Western Maryland | 152 | 94 | 71 | 317 |
| Appalachian Maryland | 83 | 34 | 43 | 159 |
| Central Maryland | 1,234 | 612 | 1,168 | 3,013 |
| Southern Maryland | 68 | 31 | 43 | 143 |
| Eastern Shore of Maryland | 261 | 276 | 202 | 739 |
| Upper Eastern Shore | 113 | 168 | 96 | 377 |
| Mid Shore | 46 | 27 | 14 | 86 |
| Lower Eastern Shore | 103 | 52 | 63 | 218 |
| Counties | | | | |
| Allegany | 13 | 6 | 5 | 23 |
| Anne Arundel | 418 | 574 | 291 | 1,284 |
| Baltimore | 149 | 23 | 56 | 228 |
| Baltimore City | 7 | 1 | 1 | 9 |
| Calvert | 53 | 5 | 37 | 95 |
| Caroline | 21 | 12 | 5 | 38 |
| Carroll | 21 | 13 | 8 | 42 |
| Cecil | 3 | 2 | 6 | 11 |
| Charles | 14 | 28 | 14 | 56 |
| Dorchester | 6 | 2 | 1 | 9 |
| Frederick | 49 | 28 | 20 | 96 |
| Garrett | 9 | 4 | 3 | 15 |
| Harford | 5 | 1 | 1 | 7 |
| Howard | 11 | 4 | 4 | 19 |
| Kent | 105 | 119 | 96 | 319 |
| Montgomery | 630 | 107 | 802 | 1,539 |
| Prince George's | 13 | 16 | 11 | 40 |
| Queen Anne's | 6 | 2 | 1 | 9 |
| Saint Mary's | 1 | 0 | 0 | 2 |
| Somerset | 0 | 0 | 0 | 0 |
| Talbot | 19 | 9 | 7 | 35 |
| Washington | 61 | 14 | 39 | 115 |
| Wicomico | 96 | 40 | 74 | 210 |
| Worcester | 7 | 2 | 2 | 11 |

Table 13C Natural Gas and Petroleum Economic Impact: Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

Industry Sector: Natural Gas and Petroleum Extraction

| Geographic Entity | Sources of Tax Revenue | | | | Total (\$) |
|---------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| State of Maryland | 234,776 | 12,227,231 | 6,526,398 | 90,738,361 | 109,726,766 |
| Regions | | | | | |
| Western Maryland | 14,600 | 559,007 | 353,216 | 2,008,522 | 2,935,344 |
| Appalachian Maryland | 10,410 | 284,524 | 136,544 | 1,128,841 | 1,560,319 |
| Central Maryland | 153,155 | 9,716,948 | 5,380,217 | 82,910,246 | 98,160,566 |
| Southern Maryland | 15,205 | 449,789 | 117,967 | 1,457,803 | 2,040,764 |
| Eastern Shore of Maryland | 51,817 | 1,501,488 | 674,997 | 4,361,790 | 6,590,092 |
| Upper Eastern Shore | 29,511 | 868,579 | 299,382 | 1,909,344 | 3,106,816 |
| Mid Shore | 1,313 | 104,012 | 69,334 | 408,992 | 583,651 |
| Lower Eastern Shore | 19,435 | 450,680 | 206,819 | 1,650,374 | 2,327,308 |
| Counties | | | | | |
| Allegany | 892 | 26,386 | 22,450 | 106,358 | 156,087 |
| Anne Arundel | 48,757 | 2,328,878 | 1,648,892 | 7,507,378 | 11,533,904 |
| Baltimore | 11,711 | 386,310 | 113,963 | 1,228,439 | 1,740,423 |
| Baltimore City | 864 | 8,393 | 12,359 | 32,328 | 53,943 |
| Calvert | 21,846 | 357,999 | 65,687 | 1093995.758 | 1,539,527 |
| Caroline | 575 | 44,239 | 41,156 | 191,850 | 277,820 |
| Carroll | 2,328 | 67,321 | 60,699 | 231,002 | 361,350 |
| Cecil | 787 | 53,705 | 6,713 | 53,286 | 114,490 |
| Charles | 6,121 | 128,575 | 57,076 | 379,283 | 571,055 |
| Dorchester | 194 | 10,270 | 9,656 | 45,454 | 65,573 |
| Frederick | 3,124 | 153,813 | 116,681 | 503,317 | 776,935 |
| Garrett | 276 | 16,325 | 15,121 | 68,747 | 100,468 |
| Harford | 253 | 9,351 | 7,217 | 34,096 | 50,917 |
| Howard | 557 | 30,920 | 24,452 | 104,622 | 160,551 |
| Kent | 30,369 | 617,490 | 141,757 | 1,413,663 | 2,203,279 |
| Montgomery | 70,787 | 7,131,991 | 3,854,684 | 74,825,846 | 85,883,309 |
| Prince George's | 3,609 | 91,861 | 45,722 | 266,935 | 408,126 |
| Queen Anne's | 261 | 13,719 | 10,987 | 54,604 | 79,571 |
| Saint Mary's | 27 | 2,346 | 1,374 | 8,025 | 11,772 |
| Somerset | 0 | 0 | 0 | 0 | 0 |
| Talbot | 457 | 43,434 | 20,176 | 162,470 | 226,537 |
| Washington | 10,438 | 246,497 | 77,427 | 876,257 | 1,210,619 |
| Wicomico | 20,260 | 444,729 | 159,844 | 1,496,302 | 2,121,135 |
| Worcester | 284 | 12,679 | 12,307 | 54,104 | 79,374 |

Seafood and Aquaculture Industries

The seafood and aquaculture sector consists of animal production (except cattle and poultry), fishing, seafood product preparation and packaging. A complete list of the seafood and aquaculture industries along with IMPLAN industry codes, and corresponding NAICS industries and codes are provided in Table 14.

Table 14 IMPLAN and NAICS Industries in Seafood Sector

Seafood and Misc. Animal Industries

| NAICS Codes | NAICS Industries | IMPLAN Code | IMPLAN Industry |
|-------------|---|-------------|--|
| 1122 | Hog and pig farming | | |
| 1124 | Sheep and goat farming | 13 | Animal production- except cattle and poultry |
| 1125 | Animal aquaculture | | |
| 1129 | Other animal production | | |
| 11292 | Horses and Other Equine Production | | |
| 1141 | Fishing | 16 | Fishing |
| 3117 | Seafood product preparation and packaging | 71 | Seafood product preparation and packaging |
| 1142 | Hunting and trapping | 17 | Hunting and trapping |

These industries represent the seafood and aquaculture commodity producers (e.g. fishing) and the immediate òdown-streamö processors and refiners (e.g. seafood product preparation and packaging).

The seafood and aquaculture sector produced just over \$352 million in òdirectö output in 2004, which in-turn generated just over \$199 million in additional òindirectö and òinducedö economic activity (see section II òModel Detailsö for a description of these terms). The seafood and aquaculture sector also supported (both directly and indirectly) a total of 3,943 jobs and generated (both directly and indirectly) just over \$22 million in state and local tax revenue.

Breaking the output figure down by region, the Eastern Shore was the largest (74.5% of the seafood and misc. animal total), followed by Central Maryland (24.6% of the seafood and misc. animal total), followed by Southern Maryland (0.9% of the seafood and aquaculture

total), and the smallest was Western Maryland (0.0% of the seafood and aquaculture total). See Tables 15A to 15C for more details.

Table 15A Seafood and Aquaculture Economic Impact: Output

**Resource Industry Economic Impacts:
Output**

Industry Sector: Seafood and Aquaculture

| Geographic Entity | Sector Output | | | Total |
|---------------------------|---------------|-------------|------------|-------------|
| | Direct | Indirect | Induced | |
| State of Maryland | 352,391,482 | 127,316,463 | 72,894,663 | 552,602,608 |
| Regions | | | | |
| Western Maryland | 0 | 0 | 0 | 0 |
| Appalachian Maryland | 0 | 0 | 0 | 0 |
| Central Maryland | 86,782,741 | 31,353,969 | 17,951,622 | 136,088,332 |
| Southern Maryland | 3,205,205 | 1,158,017 | 663,019 | 5,026,242 |
| Eastern Shore of Maryland | 262,403,536 | 94,804,477 | 54,280,022 | 411,488,035 |
| Upper Eastern Shore | 31,886,977 | 11,520,531 | 6,596,046 | 50,003,554 |
| Mid Shore | 164,484,946 | 59,427,207 | 34,024,871 | 257,937,023 |
| Lower Eastern Shore | 66,031,614 | 23,856,739 | 13,659,105 | 103,547,457 |
| Counties | | | | |
| Allegany | 0 | 0 | 0 | 0 |
| Anne Arundel | 1,478,830 | 534,290 | 305,906 | 2,319,027 |
| Baltimore | 76,161,866 | 27,516,725 | 15,754,619 | 119,433,210 |
| Baltimore City | 0 | 0 | 0 | 0 |
| Calvert | 834,289 | 301,423 | 172,579 | 1,308,290 |
| Caroline | 0 | 0 | 0 | 0 |
| Carroll | 0 | 0 | 0 | 0 |
| Cecil | 813,206 | 293,805 | 168,217 | 1,275,229 |
| Charles | 323,829 | 116,997 | 66,986 | 507,813 |
| Dorchester | 152,735,767 | 55,182,315 | 31,594,471 | 239,512,553 |
| Frederick | 0 | 0 | 0 | 0 |
| Garrett | 0 | 0 | 0 | 0 |
| Harford | 3,261,860 | 1,178,486 | 674,739 | 5,115,084 |
| Howard | 5,880,185 | 2,124,468 | 1,216,358 | 9,221,011 |
| Kent | 5,969,534 | 2,156,749 | 1,234,840 | 9,361,124 |
| Montgomery | 0 | 0 | 0 | 0 |
| Prince George's | 0 | 0 | 0 | 0 |
| Queen Anne's | 25,104,237 | 9,069,977 | 5,192,988 | 39,367,202 |
| Saint Mary's | 2,047,087 | 739,598 | 423,454 | 3,210,139 |
| Somerset | 37,786,715 | 13,652,064 | 7,816,448 | 59,255,227 |
| Talbot | 11,749,178 | 4,244,892 | 2,430,400 | 18,424,471 |
| Washington | 0 | 0 | 0 | 0 |
| Wicomico | 15,601,507 | 5,636,710 | 3,227,282 | 24,465,499 |
| Worcester | 12,643,391 | 4,567,965 | 2,615,375 | 19,826,731 |

Table 15B Seafood and Aquaculture Economic Impact:
Employment

**Resource Industry Economic Impacts:
Employment**

Industry Sector: Seafood and Aquaculture

| Geographic Entity | Sector Output | | | Total |
|---------------------------|---------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| State of Maryland | 2,491 | 974 | 479 | 3,943 |
| Regions | | | | |
| Western Maryland | 0 | 0 | 0 | 0 |
| Appalachian Maryland | 0 | 0 | 0 | 0 |
| Central Maryland | 552 | 216 | 106 | 874 |
| Southern Maryland | 80 | 31 | 15 | 127 |
| Eastern Shore of Maryland | 1,859 | 727 | 357 | 2,942 |
| Upper Eastern Shore | 384 | 150 | 74 | 607 |
| Mid Shore | 872 | 341 | 168 | 1,380 |
| Lower Eastern Shore | 603 | 236 | 116 | 955 |
| Counties | | | | |
| Allegany | 0 | 0 | 0 | 0 |
| Anne Arundel | 50 | 20 | 10 | 80 |
| Baltimore | 368 | 144 | 71 | 582 |
| Baltimore City | 0 | 0 | 0 | 0 |
| Calvert | 28 | 11 | 5 | 45 |
| Caroline | 0 | 0 | 0 | 0 |
| Carroll | 0 | 0 | 0 | 0 |
| Cecil | 28 | 11 | 5 | 44 |
| Charles | 1 | 1 | 0 | 2 |
| Dorchester | 658 | 257 | 126 | 1,041 |
| Frederick | 0 | 0 | 0 | 0 |
| Garrett | 0 | 0 | 0 | 0 |
| Harford | 111 | 43 | 21 | 176 |
| Howard | 23 | 9 | 4 | 36 |
| Kent | 203 | 79 | 39 | 322 |
| Montgomery | 0 | 0 | 0 | 0 |
| Prince George's | 0 | 0 | 0 | 0 |
| Queen Anne's | 153 | 60 | 29 | 242 |
| Saint Mary's | 51 | 20 | 10 | 80 |
| Somerset | 329 | 129 | 63 | 521 |
| Talbot | 214 | 84 | 41 | 339 |
| Washington | 0 | 0 | 0 | 0 |
| Wicomico | 184 | 72 | 35 | 292 |
| Worcester | 89 | 35 | 17 | 142 |

Table 15C Seafood and Aquaculture Economic Impact:
Tax Revenue

**Resource Industry Economic Impacts:
State and Local Government Tax Impact**

Industry Sector: Seafood and Aquaculture

| Geographic Entity | Sources of Tax Revenue | | | | Total (\$) |
|---------------------------|------------------------|------------------------|--------------|-------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| State of Maryland | 183,312 | 6,792,429 | 1,328,107 | 13,789,089 | 22,092,937 |
| Regions | | | | | |
| Western Maryland | 0 | 0 | 0 | 0 | 0 |
| Appalachian Maryland | 0 | 0 | 0 | 0 | 0 |
| Central Maryland | 40,614 | 1,504,925 | 294,254 | 3,055,100 | 4,894,894 |
| Southern Maryland | 5,913 | 219,117 | 42,843 | 444,822 | 712,695 |
| Eastern Shore of Maryland | 136,784 | 5,068,387 | 991,009 | 10,289,168 | 16,485,348 |
| Upper Eastern Shore | 28,235 | 1,046,233 | 204,567 | 2,123,924 | 3,402,959 |
| Mid Shore | 64,165 | 2,377,556 | 464,878 | 4,826,598 | 7,733,196 |
| Lower Eastern Shore | 44,384 | 1,644,598 | 321,564 | 3,338,646 | 5,349,192 |
| Counties | | | | | |
| Allegany | 0 | 0 | 0 | 0 | 0 |
| Anne Arundel | 3,707 | 137,358 | 26,857 | 278,847 | 446,769 |
| Baltimore | 27,075 | 1,003,227 | 196,159 | 2,036,619 | 3,263,080 |
| Baltimore City | 0 | 0 | 0 | 0 | 0 |
| Calvert | 2,091 | 77,491 | 15,152 | 157,313 | 252,047 |
| Caroline | 0 | 0 | 0 | 0 | 0 |
| Carroll | 0 | 0 | 0 | 0 | 0 |
| Cecil | 2,038 | 75,533 | 14,769 | 153,337 | 245,677 |
| Charles | 98 | 3,620 | 708 | 7,350 | 11,776 |
| Dorchester | 48,407 | 1,793,653 | 350,709 | 3,641,236 | 5,834,004 |
| Frederick | 0 | 0 | 0 | 0 | 0 |
| Garrett | 0 | 0 | 0 | 0 | 0 |
| Harford | 8,177 | 302,971 | 59,239 | 615,053 | 985,440 |
| Howard | 1,656 | 61,368 | 11,999 | 124,581 | 199,605 |
| Kent | 14,964 | 554,469 | 108,414 | 1,125,608 | 1,803,455 |
| Montgomery | 0 | 0 | 0 | 0 | 0 |
| Prince George's | 0 | 0 | 0 | 0 | 0 |
| Queen Anne's | 11,233 | 416,231 | 81,385 | 844,978 | 1,353,827 |
| Saint Mary's | 3,724 | 138,005 | 26,984 | 280,159 | 448,873 |
| Somerset | 24,232 | 897,901 | 175,564 | 1,822,800 | 2,920,498 |
| Talbot | 15,758 | 583,903 | 114,169 | 1,185,362 | 1,899,192 |
| Washington | 0 | 0 | 0 | 0 | 0 |
| Wicomico | 13,568 | 502,761 | 98,304 | 1,020,639 | 1,635,271 |
| Worcester | 6,583 | 243,936 | 47,696 | 495,207 | 793,423 |

The IMPLAN Model

The IMPLAN model includes all effects when calculating total output/employment (i.e. this includes *direct plus indirect plus induced* (ripple effect) impacts). The IMPLAN model is based on Input-Output (IO) microeconomic theory. In IO models, the *jobs supported* estimates are the number of jobs that are needed to produce the current level of local output at the average productivity levels for workers in that industry. A simple example should help. Suppose that we estimate that restaurants will produce \$24,000 worth of output in a year. If the average foodservice worker produces \$6,000 worth of output per year, then we will need 4 average productivity workers ($\$24,000/\$6,000$) to supply this level of output. Notice that this is not the same as a *full time equivalent*. Average productivity numbers are influenced by the mix of full and part-time workers in an industry. If full-time food-service workers earn \$12,000 per year, then \$24,000 worth of restaurant output could be produced by only 2 full-time equivalent workers (ignoring other expenses such as materials, rent, etc. to make the exposition simpler).

The IMPLAN model is based on actual Maryland data (from 2005). The advantage of the IMPLAN model is in its use of state and county -specific data. The *direct* output, jobs, and tax revenue figures for individual counties or regions reconcile almost precisely to the state-wide aggregate estimates. However, the *indirect* and *induced* figures do not reconcile between state aggregates and county disaggregates. The underlying reason for this is that the state-wide figures are based on the aggregate Maryland dataset, from which IMPLAN constructs average *multipliers* for the entire state. Economic impact estimates at the county level are based on county-specific *multipliers*, also uniquely derived from the county-level data by IMPLAN. Thus, with differences in the underlying multipliers (and differences in trade-based leakage rates), the estimated ripple/spill-over effects are different at the county and state levels. It should be noted, however, that these differences are rather small and do not affect the underlying qualitative results of this research project.

Study Limitations and Recommendations for Future Research

Due to resource constraints, this study relies on publicly available data sets. In some cases, such as farm implements and recreational fishing, the lack or inadequacy of data sets, has forced their exclusion from this study. In addition, the tourism industry was not included due to the difficulty of separating resource-based components of the industry from conventions and other visitor segments. There is no doubt that these are important contributors to the impact of resource-based industries in the State of Maryland. Unfortunately, in the absence of a dedicated data collection methodology, statewide impact studies that cover different activity sectors over a large number of jurisdictions and sub-regions are subject to the following limitations:

- 1) Publicly available data sets reflect different data collection intervals, different units of measurement, and different jurisdictional boundaries than what is needed for this type of a study, requiring a number of assumptions to be made, and a number of conversions and/or calculations to be performed prior to analysis;
- 2) Certain activity sectors do not have publicly available data sets;
- 3) There is an ongoing debate as to what is commercial, what is industrial, and what is agricultural. Even the local, state, and federal bureaucracies divide the öturfö in such a way that a study that encompasses parts of all these different sectors requires some additional assumptions to be made before the data sets can be used in the impact estimation models;
- 4) There is not always an established consensus across all industry sectors studied as to which activity sets should be included in that industry sector's impact model;
- 5) When jurisdictional and regional impacts are being analyzed, a number of judgment calls need to be made to determine where exactly the economic activity is located and where the impacts will be. The inputs and outputs of economic activity do not

always respect jurisdictional or regional boundaries. Such determinations based on judgment calls are often subject to debate by the various parties involved.

While the effect of some of these limitations has been minimized through pre-analysis calculations and conversions, there are a few actions that can be taken to further minimize and even remove them altogether:

- 1) A Statewide, jurisdiction-by-jurisdiction dashboard of economic activity in resource-based industries can be developed to provide an ongoing feel for these industries' health and their contribution to the Gross State Product (GSP). The one-time cost of developing this statewide dashboard would be less than \$2,500 per jurisdiction. Annual operational costs should then average \$500 to \$1,000 per year per jurisdiction depending on the size of resource-based industries in each. Such a dashboard would eliminate the need for time-consuming and costly updates to this study;
- 2) For activity areas with inadequate or no publicly available data sets, data collection protocols can be developed with the help of local governments and trade organizations;
- 3) A Statewide technical summit of all local, state, and federal bureaucracies that are involved directly or indirectly with resource-based industries can be organized to discuss data collection methodology, data collection intervals, and data standardization issues across all relevant economic activity sectors and across all jurisdictions/regions;
- 4) Achieving a consensus on the economic activities that comprise each resource-based industry sector is a pre-requisite to the dashboard concept described above. Even if the dashboard idea is not immediately implemented, such a consensus will make it easier to collect data, to conduct future updates, and to conduct trend analyses;

- 5) A workshop of resource economists and other stakeholders representing all activity sectors and all jurisdictions/regions can be organized for the stakeholders to determine where the inputs and outputs of economic activities belong. This would help with the Dashboard proposed in recommendation #1 and with any future update of this study. In addition, this would form a foundation that would further facilitate trend analyses over time.

**Western Maryland
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 428,186,952 | 121,214,397 | 91,973,912 | 641,375,262 |
| Natural Gas and Petroleum | 52,735,628 | 16,386,114 | 6,727,386 | 75,849,129 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 607,438,466 | 196,553,153 | 150,402,387 | 954,394,007 |
| Poultry, Cattle, and Dairy | 809,352,403 | 515,081,416 | 137,512,332 | 1,461,946,151 |
| Other Agriculture | 343,876,101 | 105,172,083 | 60,813,026 | 509,861,211 |
| Total Agriculture | 1,153,228,504 | 620,253,499 | 198,325,358 | 1,971,807,362 |
| All Resource Based Industries | 2,241,589,551 | 954,407,164 | 447,429,044 | 3,643,425,759 |

**Western Maryland
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|--------|
| | Direct | Indirect | Induced | |
| Mining | 1,539 | 919 | 931 | 3,389 |
| Natural Gas and Petroleum | 152 | 94 | 71 | 317 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 3,385 | 1,418 | 1,405 | 6,209 |
| Poultry, Cattle, and Dairy | 3,462 | 4,221 | 1,305 | 8,988 |
| Other Agriculture | 2,978 | 1,076 | 650 | 4,704 |
| Total Agriculture | 6,440 | 5,297 | 1,955 | 13,692 |
| All Resource Based Industries | 11,517 | 7,728 | 4,362 | 23,607 |

**Western Maryland
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 223,191 | 7,387,589 | 5,052,774 | 23,846,697 | 36,510,251 |
| Natural Gas and Petroleum | 14,600 | 559,007 | 353,216 | 2,008,522 | 2,935,344 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 319,133 | 11,559,674 | 4,091,182 | 19,105,503 | 35,075,493 |
| Poultry, Cattle, and Dairy | 289,307 | 11,026,299 | 5,659,735 | 32,751,503 | 49,726,843 |
| Other Agriculture | 113,052 | 5,193,904 | 3,434,611 | 11,940,386 | 20,681,954 |
| Total Agriculture | 402,359 | 16,220,203 | 9,094,346 | 44,691,889 | 70,408,797 |
| All Resource Based Industries | 959,282 | 35,726,473 | 18,591,518 | 89,652,612 | 144,929,885 |

**Central Maryland
Economic Impact: Output**

| | Sector Output | | | |
|--------------------------------------|---------------|---------------|---------------|---------------|
| | Direct | Indirect | Induced | Total |
| Mining | 585,297,427 | 164,177,467 | 171,670,548 | 921,145,442 |
| Natural Gas and Petroleum | 910,721,260 | 105,814,157 | 130,672,866 | 1,147,208,283 |
| Seafood and Aquaculture | 86,782,741 | 31,353,969 | 17,951,622 | 136,088,332 |
| Forestry | 1,702,833,337 | 527,709,721 | 423,791,052 | 2,654,334,110 |
| Poultry, Cattle, and Dairy | 522,680,498 | 161,959,239 | 77,499,392 | 762,139,130 |
| Other Agriculture | 1,354,448,152 | 434,363,910 | 324,451,184 | 2,113,263,246 |
| Total Agriculture | 1,877,128,650 | 596,323,149 | 401,950,576 | 2,875,402,376 |
| All Resource Based Industries | 5,162,763,415 | 1,425,378,463 | 1,146,036,664 | 7,734,178,542 |

**Central Maryland
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|--------|
| | Direct | Indirect | Induced | Total |
| Mining | 2,204 | 1,062 | 1,474 | 4,740 |
| Natural Gas and Petroleum | 1,234 | 612 | 1,168 | 3,013 |
| Seafood and Aquaculture | 552 | 216 | 106 | 874 |
| Forestry and Wood Derivatives | 8,434 | 3,293 | 3,869 | 15,596 |
| Poultry, Cattle, and Dairy | 1,428 | 1,109 | 624 | 3,160 |
| Other Agriculture | 5,989 | 2,388 | 2,718 | 11,096 |
| Total Agriculture | 7,417 | 3,497 | 3,342 | 14,256 |
| All Resource Based Industries | 19,841 | 8,680 | 9,958 | 38,479 |

**Central Maryland
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 298,148 | 12,311,562 | 6,571,904 | 22,428,880 | 41,610,494 |
| Natural Gas and Petroleum | 153,155 | 9,716,948 | 5,380,217 | 82,910,246 | 98,160,566 |
| Seafood and Aquaculture | 40,614 | 1,504,925 | 294,254 | 3,055,100 | 4,894,894 |
| Forestry and Wood Derivatives | 897,659 | 32,028,091 | 11,597,018 | 54,089,580 | 98,612,348 |
| Poultry, Cattle, and Dairy | 126,333 | 5,548,815 | 2,140,984 | 13,670,966 | 21,487,097 |
| Other Agriculture | 474,883 | 23,376,691 | 10,682,801 | 48,877,298 | 83,411,673 |
| Total Agriculture | 601,216 | 28,925,506 | 12,823,785 | 62,548,264 | 104,898,770 |
| All Resource Based Industries | 1,990,793 | 84,487,031 | 36,667,178 | 225,032,070 | 348,177,072 |

**Southern Maryland
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 62,812,611 | 11,782,476 | 11,994,272 | 86,589,359 |
| Natural Gas and Petroleum | 78,291,892 | 5,216,475 | 3,986,152 | 87,494,519 |
| Seafood and Aquaculture | 3,205,205 | 1,158,017 | 663,019 | 5,026,242 |
| Forestry | 100,625,520 | 36,785,584 | 20,382,696 | 157,793,801 |
| Poultry, Cattle, and Dairy | 5,204,826 | 2,179,147 | 550,031 | 7,934,004 |
| Other Agriculture | 33,807,003 | 1,983,892 | 6,889,140 | 42,680,035 |
| Total Agriculture | 39,011,829 | 4,163,039 | 7,439,171 | 50,614,039 |
| All Resource Based Industries | 283,947,058 | 59,105,591 | 44,465,311 | 387,517,960 |

**Southern Maryland
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 248 | 93 | 125 | 467 |
| Natural Gas and Petroleum | 68 | 31 | 43 | 143 |
| Seafood and Aquaculture | 80 | 31 | 15 | 127 |
| Forestry and Wood Derivatives | 529 | 228 | 194 | 950 |
| Poultry, Cattle, and Dairy | 146 | 38 | 5 | 190 |
| Other Agriculture | 1,216 | 30 | 60 | 1,304 |
| Total Agriculture | 1,362 | 68 | 65 | 1,494 |
| All Resource Based Industries | 2,288 | 452 | 443 | 3,182 |

**Southern Maryland
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 43,130 | 1,305,095 | 512,195 | 2,017,760 | 3,878,181 |
| Natural Gas and Petroleum | 15,205 | 449,789 | 117,967 | 1,457,803 | 2,040,764 |
| Seafood and Aquaculture | 5,913 | 219,117 | 42,843 | 444,822 | 712,695 |
| Forestry and Wood Derivatives | 45,359 | 1,781,517 | 734,629 | 2,919,474 | 5,480,979 |
| Poultry, Cattle, and Dairy | 1,426 | 59,698 | 37,073 | 240,557 | 338,754 |
| Other Agriculture | 5,132 | 632,791 | 402,531 | 871,631 | 1,912,086 |
| Total Agriculture | 6,558 | 692,489 | 439,604 | 1,112,188 | 2,250,840 |
| All Resource Based Industries | 116,167 | 4,448,006 | 1,847,239 | 7,952,047 | 14,363,459 |

**Eastern Shore of Maryland
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|---------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 68,336,350 | 14,251,911 | 19,822,753 | 102,411,015 |
| Natural Gas and Petroleum | 135,290,965 | 47,801,412 | 19,195,407 | 202,287,785 |
| Seafood and Aquaculture | 262,403,536 | 94,804,477 | 54,280,022 | 411,488,035 |
| Forestry | 558,538,013 | 214,024,990 | 142,873,318 | 915,436,321 |
| Poultry, Cattle, and Dairy | 1,295,474,867 | 581,695,376 | 252,539,517 | 2,129,709,760 |
| Other Agriculture | 596,968,071 | 183,076,516 | 152,366,261 | 932,410,848 |
| Total Agriculture | 1,892,442,938 | 764,771,892 | 404,905,778 | 3,062,120,608 |
| All Resource Based Industries | 2,917,011,802 | 1,135,654,682 | 641,077,279 | 4,693,743,763 |

**Eastern Shore of Maryland
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|--------|
| | Direct | Indirect | Induced | |
| Mining | 361 | 114 | 200 | 675 |
| Natural Gas and Petroleum | 261 | 276 | 202 | 739 |
| Seafood and Aquaculture | 1,859 | 727 | 357 | 2,942 |
| Forestry and Wood Derivatives | 3,580 | 1,628 | 1,346 | 6,554 |
| Poultry, Cattle, and Dairy | 4,467 | 2,834 | 2,392 | 9,693 |
| Other Agriculture | 4,903 | 1,991 | 1,798 | 8,693 |
| Total Agriculture | 9,370 | 4,825 | 4,190 | 18,386 |
| All Resource Based Industries | 15,431 | 7,569 | 6,295 | 29,296 |

**Eastern Shore of Maryland
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 55,177 | 1,495,629 | 765,638 | 2,968,514 | 5,284,958 |
| Natural Gas and Petroleum | 51,817 | 1,501,488 | 674,997 | 4,361,790 | 6,590,092 |
| Seafood and Aquaculture | 136,784 | 5,068,387 | 991,009 | 10,289,168 | 16,485,348 |
| Forestry and Wood Derivatives | 318,589 | 10,784,423 | 3,916,002 | 18,355,773 | 33,374,787 |
| Poultry, Cattle, and Dairy | 507,931 | 19,011,095 | 16,729,128 | 31,465,095 | 67,713,250 |
| Other Agriculture | 327,771 | 11,018,814 | 8,231,693 | 23,767,885 | 43,346,162 |
| Total Agriculture | 835,702 | 30,029,909 | 24,960,821 | 55,232,980 | 111,059,412 |
| All Resource Based Industries | 1,398,070 | 48,879,836 | 31,308,467 | 91,208,225 | 172,794,597 |

**Allegany County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 40,607,137 | 9,446,957 | 9,580,395 | 59,634,489 |
| Natural Gas and Petroleum | 3,281,518 | 843,311 | 386,100 | 4,510,929 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 70,930,735 | 21,242,065 | 16,931,655 | 109,104,454 |
| Poultry, Cattle, and Dairy | 38,300,150 | 11,704,406 | 3,939,783 | 53,944,339 |
| Other Agriculture | 128,850,506 | 26,439,231 | 10,091,089 | 165,380,827 |
| Total Agriculture | 167,150,656 | 38,143,637 | 14,030,872 | 219,325,166 |
| All Resource Based Industries | 281,970,046 | 69,675,970 | 40,929,022 | 392,575,038 |

**Allegany County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 225 | 73 | 108 | 406 |
| Natural Gas and Petroleum | 13 | 6 | 5 | 23 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 337 | 139 | 159 | 635 |
| Poultry, Cattle, and Dairy | 106 | 117 | 43 | 266 |
| Other Agriculture | 219 | 266 | 116 | 602 |
| Total Agriculture | 325 | 383 | 159 | 868 |
| All Resource Based Industries | 900 | 601 | 430 | 1,931 |

**Allegany County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 28,248 | 668,765 | 330,839 | 4,292,780 | 5,320,632 |
| Natural Gas and Petroleum | 892 | 26,386 | 22,450 | 106,358 | 156,087 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 37,715 | 1,274,791 | 474,737 | 2,170,281 | 3,957,524 |
| Poultry, Cattle, and Dairy | 13,871 | 279,031 | 153,590 | 791,077 | 1,237,569 |
| Other Agriculture | 28,823 | 711,644 | 344,795 | 2,859,378 | 3,944,640 |
| Total Agriculture | 42,694 | 990,675 | 498,385 | 3,650,455 | 5,182,209 |
| All Resource Based Industries | 109,549 | 2,960,617 | 1,326,411 | 10,219,875 | 14,616,452 |

**Anne Arundel County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 66,013,861 | 16,069,788 | 22,188,282 | 104,271,931 |
| Natural Gas and Petroleum | 289,975,736 | 113,425,969 | 29,174,197 | 432,575,902 |
| Seafood and Aquaculture | 1,478,830 | 534,290 | 305,906 | 2,319,027 |
| Forestry | 341,733,846 | 108,286,972 | 81,824,088 | 531,844,906 |
| Poultry, Cattle, and Dairy | 1,227,487 | 317,467 | 148,380 | 1,693,334 |
| Other Agriculture | 24,467,008 | 52,261,965 | 11,745,558 | 88,474,531 |
| Total Agriculture | 25,694,495 | 52,579,432 | 11,893,938 | 90,167,865 |
| All Resource Based Industries | 724,896,768 | 290,896,451 | 145,386,411 | 1,161,179,630 |

**Anne Arundel County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 299 | 110 | 201 | 609 |
| Natural Gas and Petroleum | 418 | 574 | 291 | 1,284 |
| Seafood and Aquaculture | 50 | 20 | 10 | 80 |
| Forestry and Wood Derivatives | 1,698 | 668 | 748 | 3,114 |
| Poultry, Cattle, and Dairy | 9 | 3 | 1 | 13 |
| Other Agriculture | 383 | 142 | 82 | 607 |
| Total Agriculture | 392 | 145 | 83 | 620 |
| All Resource Based Industries | 2,857 | 1,517 | 1,332 | 5,707 |

**Anne Arundel County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 24,187 | 1,815,955 | 776,545 | 3,055,619 | 5,672,307 |
| Natural Gas and Petroleum | 48,757 | 2,328,878 | 1,648,892 | 7,507,378 | 11,533,904 |
| Seafood and Aquaculture | 3,707 | 137,358 | 26,857 | 278,847 | 446,769 |
| Forestry and Wood Derivatives | 163,672 | 6,247,532 | 2,505,194 | 10,482,316 | 19,398,713 |
| Poultry, Cattle, and Dairy | 170 | 12,356 | 8,793 | 46,274 | 67,594 |
| Other Agriculture | -12,898 | 997,278 | 500,070 | 1,617,154 | 3,101,604 |
| Total Agriculture | -12,728 | 1,009,634 | 508,863 | 1,663,428 | 3,169,198 |
| All Resource Based Industries | 227,595 | 11,539,357 | 5,466,351 | 22,987,588 | 40,220,890 |

**Baltimore County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 155,786,331 | 45,509,602 | 54,949,003 | 256,244,936 |
| Natural Gas and Petroleum | 31,647,076 | 2,674,788 | 5,928,167 | 40,250,030 |
| Seafood and Aquaculture | 76,161,866 | 27,516,725 | 15,754,619 | 119,433,210 |
| Forestry | 561,956,655 | 175,993,735 | 142,400,169 | 880,350,558 |
| Poultry, Cattle, and Dairy | 31,724,539 | 10,037,144 | 5,364,547 | 47,126,229 |
| Other Agriculture | 183,651,968 | 52,408,037 | 77,076,979 | 313,136,985 |
| Total Agriculture | 215,376,507 | 62,445,181 | 82,441,526 | 360,263,214 |
| All Resource Based Industries | 1,040,928,434 | 314,140,029 | 301,473,484 | 1,656,541,948 |

**Baltimore County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|--------|
| | Direct | Indirect | Induced | |
| Mining | 595 | 322 | 472 | 1,389 |
| Natural Gas and Petroleum | 149 | 23 | 56 | 228 |
| Seafood and Aquaculture | 368 | 144 | 71 | 582 |
| Forestry and Wood Derivatives | 2,643 | 1,112 | 1,300 | 5,055 |
| Poultry, Cattle, and Dairy | 143 | 120 | 45 | 308 |
| Other Agriculture | 1,400 | 464 | 737 | 2,601 |
| Total Agriculture | 1,543 | 584 | 782 | 2,909 |
| All Resource Based Industries | 5,298 | 2,184 | 2,680 | 10,163 |

**Baltimore County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 73,011 | 3,671,597 | 1,879,168 | 6,044,937 | 11,668,714 |
| Natural Gas and Petroleum | 11,711 | 386,310 | 113,963 | 1,228,439 | 1,740,423 |
| Seafood and Aquaculture | 27,075 | 1,003,227 | 196,159 | 2,036,619 | 3,263,080 |
| Forestry and Wood Derivatives | 297,561 | 10,633,886 | 3,854,486 | 18,128,816 | 32,914,748 |
| Poultry, Cattle, and Dairy | 6,928 | 364,585 | 138,373 | 1,073,458 | 1,583,343 |
| Other Agriculture | 59,414 | 5,303,324 | 2,361,843 | 8,912,749 | 16,637,331 |
| Total Agriculture | 66,342 | 5,667,909 | 2,500,216 | 9,986,207 | 18,220,674 |
| All Resource Based Industries | 475,699 | 21,362,930 | 8,543,992 | 37,425,018 | 67,807,640 |

**Baltimore City
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 160,011,155 | 57,817,863 | 29,726,719 | 247,555,736 |
| Natural Gas and Petroleum | 849,213 | 117,086 | 152,235 | 1,118,534 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 846,943 | 125,686 | 226,830 | 1,199,459 |
| Poultry, Cattle, and Dairy | 236,970,495 | 66,707,853 | 25,176,089 | 328,854,438 |
| Other Agriculture | 909,655,539 | 345,285,442 | 151,930,622 | 1,406,871,602 |
| Total Agriculture | 1,146,626,034 | 411,993,295 | 177,106,711 | 1,735,726,040 |
| All Resource Based Industries | 1,308,333,345 | 470,053,929 | 207,212,495 | 1,985,599,770 |

**Baltimore City
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 400 | 346 | 234 | 980 |
| Natural Gas and Petroleum | 7 | 1 | 1 | 9 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 8 | 1 | 2 | 11 |
| Poultry, Cattle, and Dairy | 486 | 368 | 193 | 1,046 |
| Other Agriculture | 1,458 | 2,068 | 1,211 | 4,738 |
| Total Agriculture | 1,944 | 2,436 | 1,404 | 5,784 |
| All Resource Based Industries | 2,360 | 2,783 | 1,641 | 6,784 |

**Baltimore City
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 97,397 | 1,681,782 | 1,749,673 | 4,668,728 | 8,197,579 |
| Natural Gas and Petroleum | 864 | 8,393 | 12,359 | 32,328 | 53,943 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 462 | 12,139 | 5,154 | 21,460 | 39,215 |
| Poultry, Cattle, and Dairy | 82,210 | 1,447,978 | 707,213 | 4,815,281 | 7,052,681 |
| Other Agriculture | 506,404 | 8,609,989 | 4,219,273 | 25,969,526 | 39,305,193 |
| Total Agriculture | 588,614 | 10,057,967 | 4,926,486 | 30,784,807 | 46,357,874 |
| All Resource Based Industries | 687,337 | 11,760,281 | 6,693,671 | 35,507,322 | 54,648,612 |

**Caroline County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 7,154,194 | 1,150,857 | 1,374,841 | 9,679,892 |
| Natural Gas and Petroleum | 5,507,343 | 2,181,238 | 449,903 | 8,138,484 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 34,736,221 | 11,113,036 | 8,380,326 | 54,229,583 |
| Poultry, Cattle, and Dairy | 121,512,345 | 16,909,358 | 12,913,201 | 151,334,904 |
| Other Agriculture | 54,743,800 | 8,854,780 | 10,268,244 | 73,866,824 |
| Total Agriculture | 176,256,145 | 25,764,138 | 23,181,445 | 225,201,728 |
| All Resource Based Industries | 223,653,902 | 40,209,269 | 33,386,515 | 297,249,686 |

**Caroline County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 47 | 9 | 13 | 70 |
| Natural Gas and Petroleum | 21 | 12 | 5 | 38 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 210 | 78 | 78 | 365 |
| Poultry, Cattle, and Dairy | 320 | 136 | 124 | 580 |
| Other Agriculture | 538 | 111 | 105 | 754 |
| Total Agriculture | 858 | 247 | 229 | 1,334 |
| All Resource Based Industries | 1,136 | 345 | 325 | 1,806 |

**Caroline County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 4,801 | 137,950 | 94,572 | 255,443 | 492,765 |
| Natural Gas and Petroleum | 575 | 44,239 | 41,156 | 191,850 | 277,820 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 18,811 | 667,961 | 229,554 | 1,098,998 | 2,015,323 |
| Poultry, Cattle, and Dairy | 24,288 | 1,321,247 | 2,013,109 | 1,943,292 | 5,301,937 |
| Other Agriculture | 14,365 | 1,031,647 | 1,022,684 | 1,755,273 | 3,823,967 |
| Total Agriculture | 38,653 | 2,352,894 | 3,035,793 | 3,698,565 | 9,125,904 |
| All Resource Based Industries | 62,840 | 3,203,043 | 3,401,074 | 5,244,855 | 11,911,813 |

**Carroll County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 131,084,667 | 32,880,018 | 21,455,206 | 185,419,892 |
| Natural Gas and Petroleum | 6,456,404 | 1,401,522 | 742,618 | 8,600,544 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 117,337,965 | 38,683,916 | 31,527,717 | 187,549,598 |
| Poultry, Cattle, and Dairy | 74,303,850 | 40,104,979 | 10,978,973 | 125,387,802 |
| Other Agriculture | 71,579,815 | 16,813,763 | 22,743,075 | 111,136,652 |
| Total Agriculture | 145,883,665 | 56,918,742 | 33,722,048 | 236,524,454 |
| All Resource Based Industries | 400,762,701 | 129,884,198 | 87,447,588 | 618,094,487 |

**Carroll County
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 270 | 253 | 212 | 735 |
| Natural Gas and Petroleum | 21 | 13 | 8 | 42 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 971 | 272 | 294 | 1,537 |
| Poultry, Cattle, and Dairy | 465 | 426 | 106 | 997 |
| Other Agriculture | 944 | 368 | 235 | 1,546 |
| Total Agriculture | 1,409 | 794 | 341 | 2,543 |
| All Resource Based Industries | 2,670 | 1,331 | 855 | 4,857 |

**Carroll County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 57,632 | 1,994,940 | 1,843,384 | 3,525,098 | 7,421,055 |
| Natural Gas and Petroleum | 2,328 | 67,321 | 60,699 | 231,002 | 361,350 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 65,329 | 2,508,902 | 766,172 | 3,800,914 | 7,141,317 |
| Poultry, Cattle, and Dairy | 22,629 | 1,037,935 | 695,156 | 3,267,149 | 5,022,869 |
| Other Agriculture | 27,133 | 2,167,904 | 1,159,497 | 2,786,224 | 6,140,758 |
| Total Agriculture | 49,762 | 3,205,839 | 1,854,653 | 6,053,373 | 11,163,627 |
| All Resource Based Industries | 175,051 | 7,777,002 | 4,524,908 | 13,610,387 | 26,087,348 |

**Cecil County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 38,937,787 | 5,701,600 | 10,339,685 | 54,979,073 |
| Natural Gas and Petroleum | 2,264,830 | 217,168 | 573,024 | 3,055,023 |
| Seafood and Aquaculture | 813,206 | 293,805 | 168,217 | 1,275,229 |
| Forestry | 100,722,825 | 34,233,293 | 26,566,427 | 161,522,545 |
| Poultry, Cattle, and Dairy | 19,477,014 | 7,522,324 | 3,242,368 | 30,241,706 |
| Other Agriculture | 43,591,509 | 9,648,223 | 14,772,838 | 68,012,569 |
| Total Agriculture | 63,068,523 | 17,170,547 | 18,015,206 | 98,254,275 |
| All Resource Based Industries | 205,807,171 | 57,616,413 | 55,662,560 | 319,086,144 |

**Cecil County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 201 | 45 | 101 | 347 |
| Natural Gas and Petroleum | 3 | 2 | 6 | 11 |
| Seafood and Aquaculture | 28 | 11 | 5 | 44 |
| Forestry and Wood Derivatives | 686 | 243 | 246 | 1,175 |
| Poultry, Cattle, and Dairy | 113 | 76 | 31 | 219 |
| Other Agriculture | 660 | 120 | 145 | 926 |
| Total Agriculture | 773 | 196 | 176 | 1,145 |
| All Resource Based Industries | 1,691 | 497 | 534 | 2,722 |

**Cecil County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 29,405 | 993,361 | 457,896 | 1,721,272 | 3,201,933 |
| Natural Gas and Petroleum | 787 | 53,705 | 6,713 | 53,286 | 114,490 |
| Seafood and Aquaculture | 2,038 | 75,533 | 14,769 | 153,337 | 245,677 |
| Forestry and Wood Derivatives | 59,420 | 2,123,258 | 659,437 | 3,293,484 | 6,135,599 |
| Poultry, Cattle, and Dairy | 6,831 | 316,822 | 195,317 | 809,574 | 1,328,544 |
| Other Agriculture | 23,703 | 1,405,459 | 413,760 | 1,726,942 | 3,569,865 |
| Total Agriculture | 30,534 | 1,722,281 | 609,077 | 2,536,516 | 4,898,409 |
| All Resource Based Industries | 122,185 | 4,968,137 | 1,747,892 | 7,757,895 | 14,596,109 |

**Charles County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 62,749,910 | 12,600,981 | 15,086,366 | 90,437,257 |
| Natural Gas and Petroleum | 49,078,872 | 5,255,454 | 1,335,111 | 55,669,438 |
| Seafood and Aquaculture | 323,829 | 116,997 | 66,986 | 507,813 |
| Forestry | 50,450,168 | 21,042,367 | 10,736,876 | 82,229,411 |
| Poultry, Cattle, and Dairy | 1,441,390 | 685,976 | 157,532 | 2,284,898 |
| Other Agriculture | 13,392,629 | 2,455,093 | 3,549,446 | 19,397,168 |
| Total Agriculture | 14,834,019 | 3,141,069 | 3,706,978 | 21,682,066 |
| All Resource Based Industries | 177,436,798 | 42,156,869 | 30,932,318 | 250,525,985 |

**Charles County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 247 | 91 | 141 | 479 |
| Natural Gas and Petroleum | 14 | 28 | 14 | 56 |
| Seafood and Aquaculture | 1 | 1 | 0 | 2 |
| Forestry and Wood Derivatives | 229 | 119 | 98 | 446 |
| Poultry, Cattle, and Dairy | 35 | 10 | 1 | 46 |
| Other Agriculture | 350 | 26 | 36 | 412 |
| Total Agriculture | 385 | 36 | 37 | 458 |
| All Resource Based Industries | 878 | 275 | 289 | 1,441 |

**Charles County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 51,086 | 1,490,046 | 547,618 | 2,188,936 | 4,277,686 |
| Natural Gas and Petroleum | 6,121 | 128,575 | 57,076 | 379,283 | 571,055 |
| Seafood and Aquaculture | 98 | 3,620 | 708 | 7,350 | 11,776 |
| Forestry and Wood Derivatives | 26,246 | 892,054 | 410,411 | 1,520,156 | 2,848,867 |
| Poultry, Cattle, and Dairy | 393 | 15,816 | 12,927 | 77,555 | 106,691 |
| Other Agriculture | 515 | 388,935 | 202,932 | 542,190 | 1,134,572 |
| Total Agriculture | 30,534 | 1,722,281 | 609,077 | 2,536,516 | 4,898,409 |
| All Resource Based Industries | 908 | 404,751 | 215,859 | 619,745 | 1,241,263 |

**Dorchester County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 3,460,194 | 315,997 | 978,122 | 4,754,313 |
| Natural Gas and Petroleum | 1,490,461 | 350,612 | 121,985 | 1,963,058 |
| Seafood and Aquaculture | 152,735,767 | 55,182,315 | 31,594,471 | 239,512,553 |
| Forestry | 66,131,843 | 22,715,077 | 15,412,832 | 104,259,753 |
| Poultry, Cattle, and Dairy | 218,464,747 | 141,316,041 | 36,305,849 | 396,086,637 |
| Other Agriculture | 167,510,719 | 22,286,334 | 15,813,406 | 205,610,459 |
| Total Agriculture | 385,975,466 | 163,602,375 | 52,119,255 | 601,697,096 |
| All Resource Based Industries | 609,793,731 | 242,166,376 | 100,226,666 | 952,186,773 |

**Dorchester County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 21 | 3 | 10 | 33 |
| Natural Gas and Petroleum | 6 | 2 | 1 | 9 |
| Seafood and Aquaculture | 658 | 257 | 126 | 1,041 |
| Forestry and Wood Derivatives | 349 | 139 | 144 | 631 |
| Poultry, Cattle, and Dairy | 830 | 621 | 362 | 1,813 |
| Other Agriculture | 885 | 416 | 373 | 1675 |
| Total Agriculture | 1,715 | 1,037 | 735 | 3,488 |
| All Resource Based Industries | 2,749 | 1,438 | 1,017 | 5,203 |

**Dorchester County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 3,562 | 84,131 | 44,366 | 165,286 | 297,346 |
| Natural Gas and Petroleum | 194 | 10,270 | 9,656 | 45,454 | 65,573 |
| Seafood and Aquaculture | 48,407 | 1,793,653 | 350,709 | 3,641,236 | 5,834,004 |
| Forestry and Wood Derivatives | 34,252 | 1,184,858 | 456,311 | 1,994,219 | 3,669,640 |
| Poultry, Cattle, and Dairy | 106,894 | 3,177,885 | 2,806,750 | 4,868,812 | 10,960,340 |
| Other Agriculture | 98,866 | 2,270,438 | 1,989,699 | 6,870,211 | 11,229,214 |
| Total Agriculture | 205,760 | 5,448,323 | 4,796,449 | 11,739,023 | 22,189,554 |
| All Resource Based Industries | 292,174 | 8,521,235 | 5,657,491 | 17,585,218 | 32,056,117 |

**Frederick County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 29,006,250 | 9,360,457 | 9,037,141 | 47,403,848 |
| Natural Gas and Petroleum | 13,916,914 | 4,308,695 | 1,938,036 | 20,163,645 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 150,168,679 | 47,587,462 | 41,314,359 | 239,070,500 |
| Poultry, Cattle, and Dairy | 267,330,174 | 208,811,330 | 48,991,362 | 525,132,866 |
| Other Agriculture | 64,146,916 | 26,943,551 | 20,479,896 | 111,570,363 |
| Total Agriculture | 331,477,090 | 235,754,881 | 69,471,258 | 636,703,229 |
| All Resource Based Industries | 524,568,932 | 297,011,495 | 121,760,795 | 943,341,222 |

**Frederick County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 177 | 72 | 82 | 332 |
| Natural Gas and Petroleum | 49 | 28 | 20 | 96 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 813 | 353 | 376 | 1,542 |
| Poultry, Cattle, and Dairy | 1,109 | 1,709 | 435 | 3,253 |
| Other Agriculture | 870 | 166 | 206 | 1,242 |
| Total Agriculture | 1,979 | 1,875 | 641 | 4,495 |
| All Resource Based Industries | 3,018 | 2,329 | 1,119 | 6,465 |

**Frederick County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 16,627 | 736,373 | 197,178 | 958,667 | 1,908,844 |
| Natural Gas and Petroleum | 3,124 | 153,813 | 116,681 | 503,317 | 776,935 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 81,278 | 3,154,468 | 981,173 | 5,141,020 | 9,357,938 |
| Poultry, Cattle, and Dairy | 74,849 | 4,058,512 | 2,092,468 | 12,919,310 | 19,145,139 |
| Other Agriculture | 19,423 | 1,681,088 | 963,977 | 2,232,737 | 4,897,225 |
| Total Agriculture | 94,272 | 5,739,600 | 3,056,445 | 15,152,047 | 24,042,364 |
| All Resource Based Industries | 195,301 | 9,784,254 | 4,351,476 | 21,755,050 | 36,086,081 |

**Garrett County
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 129,376,169 | 31,714,484 | 31,068,013 | 192,158,666 |
| Natural Gas and Petroleum | 2,241,954 | 593,179 | 226,391 | 3,061,523 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 90,260,922 | 42,727,727 | 17,200,552 | 150,189,202 |
| Poultry, Cattle, and Dairy | 20,879,233 | 13,898,982 | 2,415,131 | 37,193,347 |
| Other Agriculture | 37,393,119 | 2,251,989 | 6,879,917 | 46,525,024 |
| Total Agriculture | 58,272,352 | 16,150,971 | 9,295,048 | 83,718,371 |
| All Resource Based Industries | 280,151,397 | 91,186,361 | 57,790,004 | 429,127,762 |

**Garrett County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 620 | 288 | 377 | 1,286 |
| Natural Gas and Petroleum | 9 | 4 | 3 | 15 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 441 | 276 | 190 | 906 |
| Poultry, Cattle, and Dairy | 246 | 148 | 29 | 423 |
| Other Agriculture | 449 | 101 | 94 | 643 |
| Total Agriculture | 695 | 249 | 123 | 1,066 |
| All Resource Based Industries | 1,764 | 817 | 693 | 3,273 |

**Garrett County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 85,386 | 2,286,306 | 1,171,370 | 11,961,420 | 15,504,482 |
| Natural Gas and Petroleum | 276 | 16,325 | 15,121 | 68,747 | 100,468 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 40,606 | 1,226,234 | 746,771 | 2,296,595 | 4,310,206 |
| Poultry, Cattle, and Dairy | 4,564 | 181,065 | 226,591 | 1,140,931 | 1,553,151 |
| Other Agriculture | 3,492 | 571,077 | 413,272 | 1,163,905 | 2,151,745 |
| Total Agriculture | 8,056 | 752,142 | 639,863 | 2,304,836 | 3,704,896 |
| All Resource Based Industries | 134,323 | 4,281,007 | 2,573,124 | 16,631,598 | 23,620,052 |

**Hartford County
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 28,495,636 | 8,428,625 | 6,773,277 | 43,697,538 |
| Natural Gas and Petroleum | 745,486 | 142,873 | 101,845 | 990,204 |
| Seafood and Aquaculture | 3,261,860 | 1,178,486 | 674,739 | 5,115,084 |
| Forestry | 123,380,827 | 38,957,152 | 32,412,889 | 194,750,868 |
| Poultry, Cattle, and Dairy | 16,380,626 | 9,249,239 | 2,063,787 | 27,693,652 |
| Other Agriculture | 42,088,326 | 7,691,862 | 11,927,921 | 61,708,109 |
| Total Agriculture | 58,468,952 | 16,941,101 | 13,991,708 | 89,401,761 |
| All Resource Based Industries | 214,352,761 | 65,648,237 | 53,954,457 | 333,955,455 |

**Hartford County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 620 | 288 | 377 | 1,286 |
| Natural Gas and Petroleum | 5 | 1 | 1 | 7 |
| Seafood and Aquaculture | 111 | 43 | 21 | 176 |
| Forestry and Wood Derivatives | 697 | 341 | 301 | 1,339 |
| Poultry, Cattle, and Dairy | 164 | 91 | 20 | 275 |
| Other Agriculture | 662 | 63 | 108 | 833 |
| Total Agriculture | 826 | 154 | 128 | 1,108 |
| All Resource Based Industries | 1,759 | 604 | 519 | 2,882 |

**Hartford County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 15,412 | 637,998 | 207,598 | 916,548 | 1,777,557 |
| Natural Gas and Petroleum | 253 | 9,351 | 7,217 | 34,096 | 50,917 |
| Seafood and Aquaculture | 8,177 | 302,971 | 59,239 | 615,053 | 985,440 |
| Forestry and Wood Derivatives | 66,772 | 2,574,598 | 805,758 | 4,396,112 | 7,843,241 |
| Poultry, Cattle, and Dairy | 3,560 | 197,630 | 136,167 | 941,461 | 1,278,818 |
| Other Agriculture | 5,588 | 933,914 | 525,445 | 1,191,093 | 2,656,040 |
| Total Agriculture | 9,148 | 1,131,544 | 661,612 | 2,132,554 | 3,934,858 |
| All Resource Based Industries | 99,762 | 4,656,462 | 1,741,424 | 8,094,363 | 14,592,013 |

**Howard County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 2,377,710 | 361,563 | 912,868 | 3,652,140 |
| Natural Gas and Petroleum | 3,059,721 | 789,325 | 383,862 | 4,232,908 |
| Seafood and Aquaculture | 5,880,185 | 2,124,468 | 1,216,358 | 9,221,011 |
| Forestry | 129,480,330 | 41,137,533 | 32,485,614 | 203,103,477 |
| Poultry, Cattle, and Dairy | 28,651,672 | 9,715,853 | 3,595,932 | 41,963,456 |
| Other Agriculture | 54,334,015 | 8,749,368 | 14,677,905 | 77,761,289 |
| Total Agriculture | 82,985,687 | 18,465,221 | 18,273,837 | 119,724,745 |
| All Resource Based Industries | 223,783,634 | 62,878,109 | 53,272,538 | 339,934,281 |

**Howard County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 7 | 3 | 8 | 17 |
| Natural Gas and Petroleum | 11 | 4 | 4 | 19 |
| Seafood and Aquaculture | 23 | 9 | 4 | 36 |
| Forestry and Wood Derivatives | 667 | 259 | 298 | 1,224 |
| Poultry, Cattle, and Dairy | 80 | 69 | 29 | 178 |
| Other Agriculture | 608 | 129 | 132 | 869 |
| Total Agriculture | 688 | 198 | 161 | 1,047 |
| All Resource Based Industries | 1,395 | 473 | 474 | 2,343 |

**Howard County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 483 | 75,234 | 28,594 | 105,615 | 209,926 |
| Natural Gas and Petroleum | 557 | 30,920 | 24,452 | 104,622 | 160,551 |
| Seafood and Aquaculture | 1,656 | 61,368 | 11,999 | 124,581 | 199,605 |
| Forestry and Wood Derivatives | 69,486 | 2,476,785 | 864,272 | 4,136,615 | 7,547,159 |
| Poultry, Cattle, and Dairy | 5,577 | 303,065 | 152,010 | 810,725 | 1,271,377 |
| Other Agriculture | 13,430 | 1,262,123 | 776,605 | 2,504,239 | 4,556,396 |
| Total Agriculture | 19,007 | 1,565,188 | 928,615 | 3,314,964 | 5,827,773 |
| All Resource Based Industries | 91,189 | 4,209,495 | 1,857,932 | 7,786,397 | 13,945,013 |

**Kent County
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 3,217,489 | 299,899 | 886,478 | 4,403,866 |
| Natural Gas and Petroleum | 77,151,874 | 15,415,325 | 7,747,164 | 100,314,363 |
| Seafood and Aquaculture | 5,969,534 | 2,156,749 | 1,234,840 | 9,361,124 |
| Forestry | 33,607,260 | 15,181,705 | 8,764,854 | 57,553,820 |
| Poultry, Cattle, and Dairy | 56,765,058 | 36,996,327 | 11,380,430 | 105,141,815 |
| Other Agriculture | 63,928,096 | 19,620,857 | 26,346,632 | 109,895,586 |
| Total Agriculture | 120,693,154 | 56,617,184 | 37,727,062 | 215,037,401 |
| All Resource Based Industries | 240,639,312 | 89,670,862 | 56,360,399 | 386,670,573 |

**Kent County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 19 | 3 | 10 | 32 |
| Natural Gas and Petroleum | 105 | 119 | 96 | 319 |
| Seafood and Aquaculture | 203 | 79 | 39 | 322 |
| Forestry and Wood Derivatives | 203 | 79 | 39 | 322 |
| Poultry, Cattle, and Dairy | 292 | 250 | 125 | 667 |
| Other Agriculture | 711 | 168 | 271 | 1150 |
| Total Agriculture | 1,003 | 418 | 396 | 1,817 |
| All Resource Based Industries | 1,649 | 750 | 629 | 3,028 |

**Kent County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 1,537 | 72,504 | 26,086 | 172,730 | 272,858 |
| Natural Gas and Petroleum | 30,369 | 617,490 | 141,757 | 1,413,663 | 2,203,279 |
| Seafood and Aquaculture | 14,964 | 554,469 | 108,414 | 1,125,608 | 1,803,455 |
| Forestry and Wood Derivatives | 15,465 | 672,674 | 184,750 | 1,034,476 | 1,907,365 |
| Poultry, Cattle, and Dairy | 24,159 | 946,170 | 322,364 | 1,901,872 | 3,194,566 |
| Other Agriculture | 15,896 | 1,738,547 | 391,922 | 1,704,765 | 3,851,129 |
| Total Agriculture | 40,055 | 2,684,717 | 714,286 | 3,606,637 | 7,045,695 |
| All Resource Based Industries | 102,390 | 4,601,853 | 1,175,294 | 7,353,114 | 13,232,651 |

**Montgomery County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 112,100,508 | 24,155,564 | 34,999,970 | 171,256,043 |
| Natural Gas and Petroleum | 564,565,538 | 14,000,213 | 94,999,228 | 673,564,979 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 319,326,177 | 100,390,701 | 82,091,798 | 501,808,676 |
| Poultry, Cattle, and Dairy | 6,871,845 | 1,548,792 | 517,748 | 8,938,385 |
| Other Agriculture | 96,068,353 | 15,048,477 | 37,488,388 | 148,605,218 |
| Total Agriculture | 102,940,198 | 16,597,269 | 38,006,136 | 157,543,603 |
| All Resource Based Industries | 1,098,932,422 | 155,143,747 | 250,097,131 | 1,504,173,300 |

**Montgomery County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 491 | 149 | 267 | 907 |
| Natural Gas and Petroleum | 630 | 107 | 802 | 1,539 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 1,697 | 627 | 745 | 3,069 |
| Poultry, Cattle, and Dairy | 45 | 11 | 4 | 60 |
| Other Agriculture | 831 | 106 | 221 | 1,158 |
| Total Agriculture | 876 | 117 | 225 | 1,218 |
| All Resource Based Industries | 3,693 | 1,000 | 2,039 | 6,732 |

**Montgomery County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|-------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 34,787 | 2,705,925 | 1,325,714 | 4,789,705 | 8,856,130 |
| Natural Gas and Petroleum | 70,787 | 7,131,991 | 3,854,684 | 74,825,846 | 85,883,309 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 15,465 | 672,674 | 184,750 | 1,034,476 | 1,907,365 |
| Poultry, Cattle, and Dairy | 445 | 40,686 | 50,383 | 308,567 | 400,081 |
| Other Agriculture | -11,036 | 3,147,258 | 2,007,128 | 13,280,374 | 18,423,724 |
| Total Agriculture | -10,591 | 3,187,944 | 2,057,511 | 13,588,941 | 18,823,805 |
| All Resource Based Industries | 266,552 | 19,253,857 | 9,354,893 | 103,478,591 | 132,353,893 |

**Prince George's County
Economic Impact: Output**

| | Sector Output | | | |
|--------------------------------------|---------------|-------------|-------------|-------------|
| | Direct | Indirect | Induced | Total |
| Mining | 60,512,225 | 16,217,862 | 18,388,471 | 95,118,557 |
| Natural Gas and Petroleum | 19,878,503 | 2,385,647 | 1,110,792 | 23,374,941 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 226,108,553 | 71,562,709 | 56,340,584 | 354,011,847 |
| Poultry, Cattle, and Dairy | 200,853,840 | 80,173,823 | 30,996,880 | 312,024,543 |
| Other Agriculture | 44,182,960 | 9,531,440 | 15,586,816 | 69,301,216 |
| Total Agriculture | 245,036,800 | 89,705,263 | 46,583,696 | 381,325,759 |
| All Resource Based Industries | 551,536,081 | 179,871,481 | 122,423,543 | 853,831,105 |

**Prince George's County
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 293 | 115 | 161 | 569 |
| Natural Gas and Petroleum | 13 | 16 | 11 | 40 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 1,025 | 448 | 519 | 1,993 |
| Poultry, Cattle, and Dairy | 502 | 534 | 264 | 1,300 |
| Other Agriculture | 645 | 43 | 146 | 835 |
| Total Agriculture | 1,147 | 577 | 410 | 2,135 |
| All Resource Based Industries | 2,478 | 1,157 | 1,101 | 4,735 |

**Prince George's County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 45,725 | 1,559,614 | 597,081 | 2,378,093 | 4,580,512 |
| Natural Gas and Petroleum | 3,609 | 91,861 | 45,722 | 266,935 | 408,126 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 171,569 | 6,227,996 | 2,116,985 | 10,274,099 | 18,790,648 |
| Poultry, Cattle, and Dairy | 71,784 | 2,673,706 | 852,813 | 6,143,932 | 9,742,235 |
| Other Agriculture | 15,560 | 1,307,664 | 761,067 | 1,462,304 | 3,546,595 |
| Total Agriculture | 87,344 | 3,981,370 | 1,613,880 | 7,606,236 | 13,288,830 |
| All Resource Based Industries | 260,992 | 9,929,636 | 3,772,912 | 17,480,918 | 31,444,458 |

**Queen Anne's County
Economic Impact: Output**

| | Sector Output | | | |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | Total |
| Mining | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 1,490,461 | 409,652 | 135,362 | 2,035,474 |
| Seafood and Aquaculture | 25,104,237 | 9,069,977 | 5,192,988 | 39,367,202 |
| Forestry | 23,339,941 | 7,493,148 | 6,282,134 | 37,115,223 |
| Poultry, Cattle, and Dairy | 33,203,168 | 7,497,255 | 3,787,521 | 44,487,944 |
| Other Agriculture | 138,280,067 | 29,961,426 | 27,962,015 | 196,203,509 |
| Total Agriculture | 171,483,235 | 37,458,681 | 31,749,536 | 240,691,453 |
| All Resource Based Industries | 221,417,873 | 54,431,458 | 43,360,020 | 319,209,352 |

**Queen Anne's County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 6 | 2 | 1 | 9 |
| Seafood and Aquaculture | 153 | 60 | 29 | 242 |
| Forestry and Wood Derivatives | 175 | 50 | 58 | 283 |
| Poultry, Cattle, and Dairy | 88 | 65 | 36 | 189 |
| Other Agriculture | 781 | 316 | 301 | 1398 |
| Total Agriculture | 869 | 381 | 337 | 1,587 |
| All Resource Based Industries | 1,202 | 493 | 426 | 2,121 |

**Queen Anne's County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|------------------------|------------------------|--------------|-------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 0 | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 261 | 13,719 | 10,987 | 54,604 | 79,571 |
| Seafood and Aquaculture | 11,233 | 416,231 | 81,385 | 844,978 | 1,353,827 |
| Forestry and Wood Derivatives | 15,769 | 525,880 | 145,497 | 779,573 | 1,466,718 |
| Poultry, Cattle, and Dairy | 8,639 | 400,728 | 427,560 | 898,905 | 1,735,832 |
| Other Agriculture | 70,278 | 3,054,571 | 1,706,575 | 5,135,947 | 9,967,371 |
| Total Agriculture | 78,917 | 3,455,299 | 2,134,135 | 6,034,852 | 11,703,203 |
| All Resource Based Industries | 106,180 | 4,411,130 | 2,372,003 | 7,714,007 | 14,603,320 |

**Saint Mary's County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|------------|------------|------------|
| | Direct | Indirect | Induced | |
| Mining | 62,702 | 20,682 | 6,292 | 89,676 |
| Natural Gas and Petroleum | 287,667 | 30,007 | 23,975 | 341,648 |
| Seafood and Aquaculture | 2,047,087 | 739,598 | 423,454 | 3,210,139 |
| Forestry | 31,998,710 | 12,020,551 | 7,183,807 | 51,203,068 |
| Poultry, Cattle, and Dairy | 2,694,895 | 1,329,795 | 383,694 | 4,408,384 |
| Other Agriculture | 15,229,154 | 1,467,892 | 4,841,415 | 21,538,461 |
| Total Agriculture | 17,924,049 | 2,797,687 | 5,225,109 | 25,946,845 |
| All Resource Based Industries | 52,320,216 | 15,608,524 | 12,862,637 | 80,791,377 |

**Saint Mary's County
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 1 | 0 | 0 | 2 |
| Natural Gas and Petroleum | 1 | 0 | 0 | 2 |
| Seafood and Aquaculture | 51 | 20 | 10 | 80 |
| Forestry and Wood Derivatives | 203 | 105 | 72 | 381 |
| Poultry, Cattle, and Dairy | 72 | 26 | 4 | 102 |
| Other Agriculture | 575 | 19 | 51 | 645 |
| Total Agriculture | 647 | 45 | 55 | 747 |
| All Resource Based Industries | 903 | 171 | 138 | 1,211 |

**Saint Mary's County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 9 | 632 | 183 | 1,012 | 1,834 |
| Natural Gas and Petroleum | 27 | 2,346 | 1,374 | 8,025 | 11,772 |
| Seafood and Aquaculture | 3,724 | 138,005 | 26,984 | 280,159 | 448,873 |
| Forestry and Wood Derivatives | 10,599 | 628,090 | 213,090 | 989,259 | 1,841,038 |
| Poultry, Cattle, and Dairy | 576 | 39,164 | 16,109 | 143,991 | 199,841 |
| Other Agriculture | 1,418 | 417,707 | 160,304 | 367,803 | 947,230 |
| Total Agriculture | 1,994 | 456,871 | 176,413 | 511,794 | 1,147,071 |
| All Resource Based Industries | 16,353 | 1,225,943 | 418,043 | 1,790,248 | 3,450,587 |

**Somerset County
Economic Impact: Output**

| | Sector Output | | | |
|--------------------------------------|---------------|------------|------------|-------------|
| | Direct | Indirect | Induced | Total |
| Mining | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 0 | 0 | 0 | 0 |
| Seafood and Aquaculture | 37,786,715 | 13,652,064 | 7,816,448 | 59,255,227 |
| Forestry | 31,073,946 | 11,306,159 | 7,303,320 | 49,683,425 |
| Poultry, Cattle, and Dairy | 132,697,319 | 15,910,343 | 10,692,348 | 159,300,009 |
| Other Agriculture | 16,179,458 | 3,206,291 | -348,570 | 19,037,180 |
| Total Agriculture | 148,876,777 | 19,116,634 | 10,343,778 | 178,337,189 |
| All Resource Based Industries | 217,737,438 | 44,074,856 | 25,463,547 | 287,275,841 |

**Somerset County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 0 | 0 | 0 | 0 |
| Seafood and Aquaculture | 329 | 129 | 63 | 521 |
| Forestry and Wood Derivatives | 440 | 118 | 68 | 626 |
| Poultry, Cattle, and Dairy | 72 | 26 | 4 | 102 |
| Other Agriculture | 204 | 123 | 101 | 427 |
| Total Agriculture | 316 | 169 | 116 | 600 |
| All Resource Based Industries | 1,085 | 416 | 246 | 1,748 |

**Somerset County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 0 | 0 | 0 | 0 | 0 |
| Natural Gas and Petroleum | 0 | 0 | 0 | 0 | 0 |
| Seafood and Aquaculture | 24,232 | 897,901 | 175,564 | 1,822,800 | 2,920,498 |
| Forestry and Wood Derivatives | 48,653 | 674,427 | 172,558 | 884,111 | 1,779,750 |
| Poultry, Cattle, and Dairy | 44,301 | 1,124,330 | 2,383,013 | 1,767,916 | 5,319,561 |
| Other Agriculture | 19,340 | -104,413 | 257,443 | -279,221 | -106,852 |
| Total Agriculture | 63,641 | 1,019,917 | 2,640,456 | 1,488,695 | 5,212,709 |
| All Resource Based Industries | 136,527 | 2,592,245 | 2,988,578 | 4,195,606 | 9,912,957 |

**Talbot County
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|-------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 398,198 | 46,363 | 126,451 | 571,012 |
| Natural Gas and Petroleum | 4,859,653 | 1,513,666 | 667,022 | 7,040,341 |
| Seafood and Aquaculture | 11,749,178 | 4,244,892 | 2,430,400 | 18,424,471 |
| Forestry | 58,542,387 | 19,155,108 | 13,867,795 | 91,565,290 |
| Poultry, Cattle, and Dairy | 127,781,675 | 68,080,039 | 31,591,672 | 227,453,386 |
| Other Agriculture | 27,854,946 | 11,022,897 | 9,910,640 | 48,788,483 |
| Total Agriculture | 155,636,621 | 79,102,936 | 41,502,312 | 276,241,869 |
| All Resource Based Industries | 231,186,037 | 104,062,965 | 58,593,981 | 393,842,983 |

**Talbot County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 3 | 0 | 1 | 4 |
| Natural Gas and Petroleum | 19 | 9 | 7 | 35 |
| Seafood and Aquaculture | 214 | 84 | 41 | 339 |
| Forestry and Wood Derivatives | 342 | 130 | 127 | 599 |
| Poultry, Cattle, and Dairy | 542 | 319 | 288 | 1,150 |
| Other Agriculture | 282 | 61 | 87 | 430 |
| Total Agriculture | 824 | 380 | 375 | 1,580 |
| All Resource Based Industries | 1,402 | 604 | 551 | 2,556 |

**Talbot County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 42 | 8,440 | 3,942 | 23,824 | 36,248 |
| Natural Gas and Petroleum | 457 | 43,434 | 20,176 | 162,470 | 226,537 |
| Seafood and Aquaculture | 15,758 | 583,903 | 114,169 | 1,185,362 | 1,899,192 |
| Forestry and Wood Derivatives | 23,148 | 977,604 | 336,721 | 1,610,007 | 2,947,479 |
| Poultry, Cattle, and Dairy | 32,218 | 2,149,268 | 648,105 | 3,268,983 | 6,098,574 |
| Other Agriculture | -8,818 | 240,505 | 200,509 | 274,433 | 706,630 |
| Total Agriculture | 23,400 | 2,389,773 | 848,614 | 3,543,416 | 6,805,204 |
| All Resource Based Industries | 62,805 | 4,003,153 | 1,323,622 | 6,525,079 | 11,914,660 |

**Washington County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 98,112,729 | 34,912,429 | 22,928,082 | 155,953,240 |
| Natural Gas and Petroleum | 26,838,837 | 1,828,172 | 3,675,595 | 32,342,604 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry | 178,740,166 | 56,891,530 | 44,292,050 | 279,923,747 |
| Poultry, Cattle, and Dairy | 408,539,004 | 218,132,375 | 83,375,369 | 710,046,748 |
| Other Agriculture | 41,905,724 | 19,884,754 | 13,675,965 | 75,466,442 |
| Total Agriculture | 450,444,728 | 238,017,129 | 97,051,334 | 785,513,190 |
| All Resource Based Industries | 754,136,460 | 331,649,260 | 167,947,061 | 1,253,732,780 |

**Washington County
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 247 | 207 | 222 | 676 |
| Natural Gas and Petroleum | 61 | 14 | 39 | 115 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 824 | 358 | 409 | 1,591 |
| Poultry, Cattle, and Dairy | 1,537 | 1,563 | 787 | 3,887 |
| Other Agriculture | 496 | 119 | 158 | 773 |
| Total Agriculture | 2,033 | 1,682 | 945 | 4,660 |
| All Resource Based Industries | 3,165 | 2,261 | 1,616 | 7,042 |

**Washington County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | Total (\$) |
| Mining | 42,560 | 1,576,836 | 1,481,614 | 3,489,139 | 6,590,149 |
| Natural Gas and Petroleum | 10,438 | 246,497 | 77,427 | 876,257 | 1,210,619 |
| Seafood and Aquaculture | 0 | 0 | 0 | 0 | 0 |
| Forestry and Wood Derivatives | 96,085 | 3,359,530 | 1,203,291 | 5,696,426 | 10,355,332 |
| Poultry, Cattle, and Dairy | 148,095 | 5,830,587 | 2,225,260 | 15,864,866 | 24,068,808 |
| Other Agriculture | 8,578 | 886,546 | 717,580 | 1,124,346 | 2,737,051 |
| Total Agriculture | 156,673 | 6,717,133 | 2,942,840 | 16,989,212 | 26,805,859 |
| All Resource Based Industries | 305,756 | 11,899,995 | 5,705,173 | 27,051,035 | 44,961,958 |

**Wicomico County
Economic Impact: Output**

| | Sector Output | | | Total |
|--------------------------------------|---------------|-------------|-------------|---------------|
| | Direct | Indirect | Induced | |
| Mining | 13,909,215 | 4,255,691 | 4,394,545 | 22,559,451 |
| Natural Gas and Petroleum | 40,624,419 | 6,411,512 | 7,155,521 | 54,191,452 |
| Seafood and Aquaculture | 15,601,507 | 5,636,710 | 3,227,282 | 24,465,499 |
| Forestry | 175,304,836 | 58,528,719 | 39,919,757 | 273,753,313 |
| Poultry, Cattle, and Dairy | 362,100,531 | 206,303,284 | 104,627,815 | 673,031,630 |
| Other Agriculture | 53,101,970 | 23,094,195 | 28,108,851 | 104,305,016 |
| Total Agriculture | 415,202,501 | 229,397,479 | 132,736,666 | 777,336,646 |
| All Resource Based Industries | 660,642,480 | 304,230,111 | 187,433,770 | 1,152,306,361 |

**Wicomico County
Economic Impact: Employment**

| | Sector Employment | | | Total |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | |
| Mining | 64 | 33 | 41 | 138 |
| Natural Gas and Petroleum | 96 | 40 | 74 | 210 |
| Seafood and Aquaculture | 184 | 72 | 35 | 292 |
| Forestry and Wood Derivatives | 779 | 479 | 363 | 1,622 |
| Poultry, Cattle, and Dairy | 1,306 | 993 | 951 | 3,250 |
| Other Agriculture | 517 | 101 | 292 | 910 |
| Total Agriculture | 1,823 | 1,094 | 1,243 | 4,160 |
| All Resource Based Industries | 2,946 | 1,718 | 1,757 | 6,421 |

**Wicomico County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 7,339 | 280,172 | 125,401 | 496,372 | 909,283 |
| Natural Gas and Petroleum | 20,260 | 444,729 | 159,844 | 1,496,302 | 2,121,135 |
| Seafood and Aquaculture | 13,568 | 502,761 | 98,304 | 1,020,639 | 1,635,271 |
| Forestry and Wood Derivatives | 79,775 | 2,729,363 | 1,348,616 | 5,852,715 | 10,010,469 |
| Poultry, Cattle, and Dairy | 163,227 | 6,783,658 | 5,237,106 | 10,371,645 | 22,555,636 |
| Other Agriculture | 16,190 | 1,502,005 | 964,542 | 1,250,570 | 3,733,307 |
| Total Agriculture | 179,417 | 8,285,663 | 6,201,648 | 11,622,215 | 26,288,943 |
| All Resource Based Industries | 300,360 | 12,242,689 | 7,933,812 | 20,488,241 | 40,965,102 |

**Worcester County
Economic Impact: Output**

| | Sector Output | | | Total |
|--|---------------|-------------|------------|-------------|
| | Direct | Indirect | Induced | |
| Mining | 1,259,274 | 158,970 | 261,278 | 1,679,523 |
| Natural Gas and Petroleum | 1,901,917 | 452,197 | 159,342 | 2,513,456 |
| Seafood and Aquaculture | 12,643,391 | 4,567,965 | 2,615,375 | 19,826,731 |
| Forestry | 35,078,757 | 12,676,684 | 9,554,594 | 57,310,034 |
| Poultry, Cattle, and Dairy | 223,472,997 | 87,444,154 | 35,310,894 | 346,228,044 |
| Other Agriculture | 31,777,510 | 8,907,882 | 6,983,495 | 47,668,887 |
| Total Agriculture | 255,250,507 | 96,352,036 | 42,294,389 | 393,896,931 |
| All Resource Based Industries | 306,133,846 | 114,207,852 | 54,884,977 | 475,226,675 |

**Worcester County
Economic Impact: Employment**

| | Sector Employment | | | |
|--------------------------------------|----------------------|----------|---------|-------|
| | Direct | Indirect | Induced | Total |
| Mining | 7 | 1 | 3 | 11 |
| Natural Gas and Petroleum | 7 | 2 | 2 | 11 |
| Seafood and Aquaculture | 89 | 35 | 17 | 142 |
| Forestry and Wood Derivatives | 280 | 83 | 90 | 453 |
| Poultry, Cattle, and Dairy | 772 | 413 | 345 | 1,530 |
| Other Agriculture | 417 | 64 | 92 | 573 |
| Total Agriculture | 1,189 | 477 | 437 | 2,103 |
| All Resource Based Industries | 1,572 | 599 | 549 | 2,720 |

**Worcester County
Economic Impact: Tax Revenue**

| | Sources of Tax Revenue | | | | Total (\$) |
|--------------------------------------|--------------------------|---------------------------|--------------|-------------------------------|------------|
| | Employee Compensation | Household Expenditures | Corporations | Indirect Business Taxes | |
| Mining | 413 | 21,313 | 13,689 | 50,628 | 86,043 |
| Natural Gas and Petroleum | 284 | 12,679 | 12,307 | 54,104 | 79,374 |
| Seafood and Aquaculture | 6,583 | 243,936 | 47,696 | 495,207 | 793,423 |
| Forestry and Wood Derivatives | 23,907 | 730,984 | 219,372 | 1,072,038 | 2,046,302 |
| Poultry, Cattle, and Dairy | 78,321 | 2,927,860 | 3,057,957 | 3,897,016 | 9,961,154 |
| Other Agriculture | 10,086 | 524,123 | 628,284 | 787,654 | 1,950,147 |
| Total Agriculture | 88,407 | 3,451,983 | 3,686,241 | 4,684,670 | 11,911,301 |
| All Resource Based Industries | 119,595 | 4,460,895 | 3,979,305 | 6,356,648 | 14,916,443 |