

# Rural Maryland Council Economic Impact Analysis and Rural Maryland Profile

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*Prepared for*  
The Rural Maryland Council

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## 1.0 Executive Summary

The Regional Economic Studies Institute (RESI) of Towson University was tasked with estimating the economic and fiscal impact that the Rural Maryland Council’s (RMC) grants have had on Maryland’s economy. RMC administers two grant programs that work to benefit the six rural jurisdictions in Maryland. The Rural Maryland Prosperity Investment Fund (RMPIF) provides funding intended to improve the standard of living, while the Maryland Agricultural Education and Rural Development Assistance Fund (MAERDAF) focuses on economic and community development, regional planning, and agricultural education.<sup>1, 2</sup>

From 2018 to 2021, RMC has awarded many grants to Maryland’s rural regions as shown below in Figure 1.

**Figure 1: Number of Grants Awarded, 2018 to 2021**

Region	MAERDAF	RMPIF
Middle Shore	28	36
Southern	17	39
Upper Shore	14	15
North Central	11	14
Lower Shore	28	27
Western	23	15
Statewide	25	5
<b>Total</b>	<b>146</b>	<b>151</b>

Sources: RMC, RESI

Over four years, RMC has awarded a total of 297 RMPIF and MAERDAF grants to the rural regions of Maryland. The Middle Shore received the largest total number of grants (64), followed by the Southern region (56), and then the Lower Shore region (55).

Throughout the years, varying amounts have been awarded via each grant to the rural regions of Maryland. Figure 2 below totals the amount of funding, both awarded and matched, that each rural region has received over the four years and ranks them with the first row being the region that has received the most significant total awarded and matched amounts.

<sup>1</sup> Rural Maryland Council, “Maryland Agricultural Education and Rural Development Assistance Fund Background,” 1, 2020, accessed October 14, 2021, [https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/MAERDAF\\_Background.pdf](https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/MAERDAF_Background.pdf).

<sup>2</sup> Rural Maryland Council, “Rural Maryland Prosperity Investment Fund Background,” 1, 2020, accessed October 14, 2021, [https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/RMPIF\\_Background.pdf](https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/RMPIF_Background.pdf).

**Figure 2: Awarded and Matched Grant Amounts, 2018 to 2021**

Region	MAERDAF		RMPIF		Total
	Awarded	Matched	Awarded	Matched	
Middle Shore	\$639,078	\$767,894	\$3,354,053	\$49,656,023	<b>\$54,417,048</b>
Southern	\$488,987	\$275,868	\$3,249,580	\$4,607,472	<b>\$8,621,907</b>
Upper Shore	\$268,508	\$121,643	\$2,198,736	\$5,206,109	<b>\$7,794,996</b>
North Central	\$244,129	\$675,871	\$1,452,184	\$2,461,404	<b>\$4,833,587</b>
Lower Shore	\$819,818	\$960,633	\$2,865,996	\$1,165,361	<b>\$5,811,809</b>
Western	\$647,976	\$116,696	\$2,178,663	\$528,444	<b>\$3,471,778</b>
Statewide	\$646,640	\$829,294	\$490,137	\$439,921	<b>\$2,405,992</b>
<b>Total</b>	<b>\$3,755,137</b>	<b>\$3,747,898</b>	<b>\$15,789,350</b>	<b>\$64,064,733</b>	<b>\$87,357,118</b>

Sources: RMC, RESI

The vast majority (91 percent) of total funds were associated with the RMPIF grant, and more than three quarters of those dollars came from matched funds. The Middle Shore region was an outlier among the rural regions, receiving nearly 50 million in matching funds for RMPIF grants (more than half of the total of all awarded and matched grants).

Over the same four years these grants have had significant impacts on Maryland's economy. Figure 3 below, details the annual economic impact of MAERDAF grants.

**Figure 3: Summary of MAERDAF Annual Economic Impact by Region, 2018 to 2021**

<b>Region</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
<i>Western</i>					
Output	\$259,869	\$441,638	\$123,813	\$384,029	<b>\$1,209,350</b>
Employment	3	5	1	4	<b>13</b>
Employee Compensation	\$100,052	\$168,374	\$46,949	\$145,689	<b>\$461,065</b>
<i>North Central</i>					
Output	\$49,422	\$118,742	\$189,200	\$1,064,709	<b>\$1,422,073</b>
Employment	0	1	2	10	<b>14</b>
Employee Compensation	\$18,002	\$43,252	\$68,914	\$387,814	<b>\$517,982</b>
<i>Southern</i>					
Output	\$144,516	\$124,223	\$549,822	\$331,580	<b>\$1,150,141</b>
Employment	2	1	5	4	<b>11</b>
Employee Compensation	\$50,229	\$45,795	\$216,082	\$116,446	<b>\$428,553</b>
<i>Upper Shore</i>					
Output	\$110,897	\$158,414	\$250,844	\$61,121	<b>\$581,276</b>
Employment	1	2	3	1	<b>6</b>
Employee Compensation	\$41,851	\$61,641	\$80,835	\$22,247	<b>\$206,574</b>
<i>Middle Shore</i>					
Output	\$228,168	\$415,892	\$898,244	\$696,415	<b>\$2,238,719</b>
Employment	2	4	8	7	<b>21</b>
Employee Compensation	\$81,190	\$137,313	\$307,040	\$239,268	<b>\$764,811</b>
<i>Lower Shore</i>					
Output	\$127,700	\$257,326	\$1,498,274	\$991,331	<b>\$2,874,631</b>
Employment	1	2	13	9	<b>26</b>
Employee Compensation	\$47,401	\$87,039	\$563,315	\$312,716	<b>\$1,010,471</b>
<i>Statewide</i>					
Output	\$201,327	\$292,422	\$585,437	\$1,580,888	<b>\$2,660,073</b>
Employment	2	3	5	14	<b>23</b>
Employee Compensation	\$80,226	\$119,473	\$244,912	\$602,789	<b>\$1,047,400</b>

Sources: RMC, RESI, IMPLAN

From 2018 to 2021, the MAERDAF grants generated approximately \$12.1 million in output (GDP), over 100 jobs, and \$4.4 million in employee compensation. Figure 4 displays the annual economic impact of RMPIF grants.

**Rural Maryland Council Economic Impact Analysis and Rural Maryland Profile**  
RESI of Towson University

**Figure 4: Summary of RMPIF Annual Economic Impact by Region, 2018 to 2021**

<b>Economic Impact Type</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
<i>Western</i>					
Output	\$540,460	\$1,056,601	\$1,014,561	\$1,593,323	<b>\$4,204,944</b>
Employment	4	5	6	7	<b>22</b>
Employee Compensation	\$218,084	\$401,956	\$393,776	\$620,873	<b>\$1,748,548</b>
<i>North Central</i>					
Output	\$149,411	\$858,055	\$1,086,042	\$3,982,745	<b>\$6,076,254</b>
Employment	1	5	10	31	<b>47</b>
Employee Compensation	\$57,906	\$321,580	\$401,938	\$1,556,509	<b>\$2,337,933</b>
<i>Southern</i>					
Output	\$907,248	\$952,608	\$6,809,009	\$3,239,538	<b>\$11,908,402</b>
Employment	8	10	61	33	<b>60</b>
Employee Compensation	\$331,944	\$333,908	\$2,378,367	\$1,133,816	<b>\$4,178,035</b>
<i>Upper Shore</i>					
Output	\$738,293	\$981,727	\$8,835,643	\$1,010,666	<b>\$11,566,329</b>
Employment	8	11	63	11	<b>92</b>
Employee Compensation	\$239,486	\$319,377	\$1,981,787	\$323,187	<b>\$2,863,837</b>
<i>Middle Shore</i>					
Output	\$1,161,999	\$1,996,814	\$6,869,761	\$72,751,490	<b>\$82,780,065</b>
Employment	10	18	66	713	<b>807</b>
Employee Compensation	\$374,275	\$683,097	\$2,275,510	\$23,523,365	<b>\$3,656,070</b>
<i>Lower Shore</i>					
Output	\$721,106	\$1,568,297	\$1,429,588	\$2,812,612	<b>\$6,531,603</b>
Employment	6	13	7	23	<b>50</b>
Employee Compensation	\$241,996	\$539,776	\$592,481	\$970,330	<b>\$2,344,583</b>
<i>Statewide</i>					
Output	\$0	\$57,320	\$1,643,495	\$58,527	<b>\$1,759,342</b>
Employment	0	0	8	0	<b>8</b>
Employee Compensation	\$0	\$24,220	\$694,444	\$24,730	<b>\$743,395</b>

Sources: RMC, RESI, IMPLAN

From 2018 to 2021, the RMPIF grants generated approximately \$124.8 million in output, over 1,000 jobs, and \$40.9 million in employee compensation. The RMPIF grants had the biggest impact in 2021. The impacts resulting from the RMPIF grants are greater than the impacts resulting from the MAERDAF grants simply because the total awarded and matched funds associated with RMPIF grants were much larger.

The grant's economic impacts have generated both state and county tax revenues. From 2018 to 2021:

- The MAERDAF grants have generated state and county tax revenues amounting to approximately \$759,886; and
- The RMPIF grants have generated state and county tax revenues amounting to approximately \$8.2 million.

In addition to conducting an economic and fiscal impact analysis, RESI has agreed to provide RMC with a rural Maryland profile. This profile will provide key socioeconomic statistics that characterize Maryland's six rural regions and compare them amongst themselves and to the state as a whole.

Using data pulled from various economic databases on Maryland counties and information gathered from publications and other secondary sources, RESI created the rural Maryland profile. The following are key findings from the profile:

- On average, the rural regions of Maryland have significantly lower population per sq. mile and population overall when compared to the state as a whole and the Urban region.
- Compared to the state as a whole and the Urban region, Maryland's rural regions have a less diverse population in terms of both race and Hispanic origin, being majority White and non-Hispanic or Latino.
- On average, Maryland's rural regions have a slightly older median age and a smaller proportion of working-age adults to seniors when compared to the Urban region.
- The average unemployment rate of rural regions is typically higher than both the Urban region and the state overall. However, the converse has been true since the pandemic began in late 2019 for all rural regions except the Lower Shore.
- Employees in rural regions have lower wages on average when compared to the Urban region, but the cost of living is also typically lower in rural regions.
- The rural regions, on average, have a larger percentage of their total employment in the agriculture, forestry, fishing and hunting, and mining, construction, manufacturing, and transportation and warehousing, and utilities industries.

## 2.0 Introduction

The Rural Maryland Council (RMC) is a state agency whose mission is to “bring together citizens, community-based organizations, federal, state, county and municipal government officials as well as representatives of the for-profit and nonprofit sectors to collectively address the needs of rural Maryland.”<sup>3</sup> RMC is an independent state agency within the Maryland Department of Agriculture, highlighting the predominate role that agriculture industries have in rural Maryland.<sup>4</sup>

RMC administers two grant programs that aim to benefit the six rural jurisdictions in Maryland. The Rural Maryland Prosperity Investment Fund (RMPPIF) provides funding intended to improve residents’ standard of living, while the Maryland Agricultural Education and Rural Development Assistance Fund (MAERDAF) focuses on economic and community development, regional planning, and agricultural education.<sup>5, 6</sup>

While the RMC and grant awardees understand the benefits of these grant programs in the communities they serve, the RMC was interested in their impacts in terms of employment, output, employee compensation, and tax revenues. In addition, the RMC also sought to understand how rural Maryland compares to the state as a whole across a number of socioeconomic metrics that reflect residents’ standard of living. For these reasons, RMC tasked Towson University’s Regional Economic Studies Institute (RESI) with producing an economic impact analysis along with a rural Maryland profile.

The economic impact analysis was conducted using the IMPLAN model, an industry recognized tool for economic impact analyses. The modeling process consisted of the RMC providing grant funding data to RESI, RESI using these data to develop inputs to the IMPLAN model, running the IMPLAN model, and then tabulating the impacts. IMPLAN calculated both economic (employment, output, employee compensation) and fiscal (state and county tax revenue) impacts. To provide context to the findings from the economic impact analysis, RESI also created the rural Maryland profile. The rural Maryland profile presents several socioeconomic metrics over time, with data obtained from publicly available sources, such as the Bureau of Labor Statistics, the U.S. Census, and the Maryland Department of Labor. The findings from both of these analyses are detailed in this report.

The report continues as follows:

- Section 3.0 provides the methodology used to complete the analyses;
- Section 4.0 presents the results of the economic impact analysis;

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<sup>3</sup> Rural Maryland Council, “Annual Report FY2020,” 2, December 29, 2020, accessed October 4, 2021, <https://rural.maryland.gov/wp-content/uploads/sites/4/2020/10/FY2020-RMC-Annual-Report.pdf>.

<sup>4</sup> Ibid, 2.

<sup>5</sup> Rural Maryland Council, “Maryland Agricultural Education and Rural Development Assistance Fund Background,” 1.

<sup>6</sup> Rural Maryland Council, “Rural Maryland Prosperity Investment Fund Background,” 1.

- Section 5.0 details the rural Maryland profile developed by RESI; and
- Section 6.0 concludes the report.

In addition, the report contains one appendix that presents more detailed results from the economic and fiscal impact analysis.

### 3.0 Methodology

The RMC awards grant funding to entities that support the needs of Maryland's rural regions, and in turn, spur economic activity in their localities. This activity supports additional businesses throughout Maryland's economy. Thus, the total influence of Maryland's rural regions extends beyond regional borders. This total activity can be quantified using economic impact models. This section will provide more context on the economic model used in the analysis, as well as RESI's modeling process.

#### 3.1 Model Background

The economic models for the current study are based on multipliers for a certain geographic region's economy—for this analysis that is the rural regions of Maryland. Based on the activity under consideration, the model can estimate the economic activity associated with suppliers/inputs as well as any additional activity that occurs because employees who carry out the activity or suppliers use their earnings to support their households. In economic terms, the direct effect is the activity under consideration, the indirect effects are associated with suppliers, and the induced effects are associated with increased household spending. In addition, all of these effects generate tax revenues for state and county jurisdictions.

Consider the following hypothetical example for an organization in rural Maryland: the direct effect is the grant awarded to that organization by RMC (RMPIF or MAERDAF). The indirect effect would be spending on supplies or services by that organization (utilities, payroll, materials, etc.). The induced effect would be spending by the employees of the organization or any of the suppliers (buying groceries, going to a movie, paying rent, etc.).

Direct, indirect, and induced effects can be presented in a variety of ways—in terms of employee counts, economic output or state GDP, or employee compensation. Since these metrics represent different ways of measuring the same effect, they are not additive.

For the economic and fiscal analysis of the grants awarded by RMC, RESI created models in IMPLAN for each rural region in Maryland by combining the counties that comprise them, and then represented the results in 2021 dollars.

### 4.0 Economic and Fiscal Impact Analysis

RMC administers two grant programs that work to benefit the six rural jurisdictions in Maryland. The Rural Maryland Prosperity Investment Fund (RMPIF) provides funding intended to improve residents' standard of living, while the Maryland Agricultural Education and Rural

Development Assistance Fund (MAERDAF) focuses on economic and community development, regional planning, and agricultural education.<sup>7, 8</sup>

RMC awarded 146 MAERDAF grants that amounted to approximately \$3.8 million in the period between 2018 and 2021. Additionally, approximately \$3.8 million in matching funds was secured. RMPIF grants, however, were of larger amounts and higher frequency compared to MAERDAF grants. Over the same time period between 2018 and 2021, RMC awarded 151 RMPIF grants that totaled approximately \$15.8 million with an additional \$64.1 million in matching funds. While the RMC and grant awardees understand the benefits of these programs in the communities they serve, the RMC was interested in the impacts that these grants have on the economy.

This section will detail the results of the economic and fiscal impact analyses RESI conducted to estimate the grants' economic impacts on rural Maryland as well as on each of Maryland's rural regions in terms of output, employment, and employee compensation and its fiscal impacts in terms of combined county and state taxes. Calculations are based on the 2019 IMPLAN Model for the state of Maryland. For more detailed results, please see Appendix A.

#### 4.1 Overall MAERDAF and RMPIF Economic Impacts on Rural Maryland

This subsection provides the annual results of the overall estimated economic impacts associated with the MAERDAF and RMPIF grants between 2018 and 2021. These impacts are displayed in terms of output, employment, and employee compensation. The total annual economic impact of the MAERDAF grant is shown below in Figure 5.

**Figure 5: MAERDAF Total Annual Economic Impact in Rural Maryland, 2018 to 2021**

<b>Economic Impact</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
Output	\$1,121,900	\$1,808,657	\$4,095,633	\$5,110,073	<b>\$12,136,263</b>
Employment	11	18	37	48	<b>114</b>
Employee Compensation	\$418,951	\$662,888	\$1,528,046	\$1,826,970	<b>\$4,436,854</b>

Sources: RMC, RESI, IMPLAN

As seen above, from 2018 to 2021, the MAERDAF grants generated output amounting to approximately \$12.1 million, around 114 new jobs, and slightly over \$4.4 million in employee compensation in Maryland. Of particular importance are grants awarded in 2020 and 2021, accounting together for approximately 75 percent of the four-year total impact.

<sup>7</sup> Rural Maryland Council, "Maryland Agricultural Education and Rural Development Assistance Fund Background," 1, 2020, accessed October 14, 2021, [https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/MAERDAF\\_Background.pdf](https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/MAERDAF_Background.pdf).

<sup>8</sup> Rural Maryland Council, "Rural Maryland Prosperity Investment Fund Background," 1, 2020, accessed October 14, 2021, [https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/RMPIF\\_Background.pdf](https://rural.maryland.gov/wp-content/uploads/sites/4/2020/04/RMPIF_Background.pdf).

Figure 6 below displays the total annual economic impact results of the RMPIF grants.

**Figure 6: RMPIF Total Annual Economic Impact in Rural Maryland, 2018 to 2021**

<b>Economic Impact</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
Output	\$4,218,516	\$7,471,421	\$27,688,100	\$85,448,901	<b>\$124,826,939</b>
Employment	38	65	221	822	<b>1,147</b>
Employee Compensation	\$1,463,691	\$2,623,914	\$8,718,304	\$28,152,811	<b>\$40,958,719</b>

Sources: RMC, RESI, IMPLAN

As shown above, the greater size of the RMPIF grant resulted in more substantial impacts on Maryland’s economy. From 2018 to 2021, the grants generated \$124.8 million in output, approximately 1,150 new jobs, and nearly \$50 million in employee compensation. The 2021 grants make up the greatest share of total output, employment and employee compensation impacts, amounting to 69, 72 and 69 percent of the total four-year impacts, respectively.

#### **4.2 Overall MAERDAF and RMPIF Fiscal Impacts on Rural Maryland**

This subsection provides an estimation of the fiscal impacts by tax type associated with the MAERDAF and RMPIF grants from 2018 to 2021. These overall impacts show the combined value of county and state tax revenues. The definitions of all of IMPLAN’S different tax categories are defined in Figure 7 below.

**Figure 7: IMPLAN Tax Category Descriptions**

<b>Tax Category</b>	<b>Type of Tax</b>	<b>Specific Taxes Included</b>	<b>Where Levied</b>
Property	TOPI: Property Tax	Boats, business personal property, intangible property, machinery and equipment, property, real estate, school	State, County, Sub County General, Sub County Special
Income	Personal Tax: Income Tax	Alternative Minimum, capital gain, dividend, income, individual income, interest income, Kiddie Tax (Tax on a Child's Investment and Other Unearned Income), personal income, rental income, wage income, withholding	Federal, State, County, Sub County General, Sub County Special
Sales	TOPI: Sales Tax	Alcohol, amusement, bed, cigarettes, consumption, cosmetic medical procedures, fuel, gallonage, gasoline, general sales, gross receipts, hotel, insurance premium, internet, local general, lodging, liquor, luxury, meals, occupancy, other selective, parimutuels, plastic surgery, public utilities, recycling, sin tax, state general, sewer, ticket, tobacco, transfer, occupancy, resort, sin, turnover, use, utilities, waste management, value added (VAT), vanity tax, water	State, County, Sub County General, Sub County Special
Payroll	Social Insurance Tax-Employee Contribution	Disability, Children's Health Insurance Program (CHIP), estimated payments, Federal Insurance Contributions Act (FICA), IRA rollover, Medicare, Medicaid, non-qualified health savings account distributions, Old Age Survivors and Disability Insurance (OASDI), pay-as-you earn (PAYE), pay-as-you-go (PAYG), penalty for underpayment of estimated tax, retirement early withdrawal penalty, surtax, Social Security, survivors, State Government Retirement	Federal, State, County
	Social Insurance Tax-Employer Contribution	Disability, hospital, Children's Health Insurance Program (CHIP), Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act (FUTA), Medicaid, Medicare, Military medical, Old Age, Survivors and Disability Insurance (OASDI), payroll, pension, Social Security, State Government Retirement, Federal Insurance Contributions Act (FICA), State Unemployment Tax Act (SUTA), survivors, retirement, Unemployment, Workers' Compensation	Federal, State, County

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Other	TOPI: Motor Vehicle License	License fees - business, license plates, operators license - business, registration fees - business, vehicle license - business	State, County, Sub County General, Sub County Special
	TOPI: Other Taxes	Alcoholic beverage license, amusements license, business license, business registration renewal, concession license, corporation license, documentary fee, documentary and stock transfer, fishing license, franchise tax, food and beverage license fees, hunting license, gun license, mortgage recording, Nonemployee Compensation (NEC), occupation and business license, other license, permit, public utility license, tourism license, stamp tax	State, Sub County General, Sub County Special
	Corporate Profits Tax	Corporate profits tax, corporate income tax, private enterprise tax, profits tax	Federal, State, County, Sub County General
	Personal Tax: Motor Vehicle License	Cars - personal, motor vehicle - personal	State, County, Sub County General, Sub County Special
	Personal Tax: Other Tax (Fish/Hunt)	Dog license, fishing license, hunting license, other personal license, pet license	State

Source: IMPLAN

As shown above taxes are split into five main categories by IMPLAN: Property, income, sales, payroll, and other. These categories are the aggregation of many different individual taxes and are levied at different levels of government. IMPLAN uses the collected and reported taxes within Maryland for the given data year to estimate the fiscal impact. The fiscal impacts detailed in the following subsection cannot be added to the previously reported impacts as they are included in the output results.<sup>9</sup>

<sup>9</sup> Candy Clouse, "Taxes: Where's the Tax?" *IMPLAN*, 2021, accessed March 23, 2022, <https://support.implan.com/hc/en-us/articles/360041584233-Taxes-Where-s-the-Tax->.

The total annual fiscal impact of the MAERDAF grant is shown below in Figure 8.

**Figure 8: MAERDAF Annual Fiscal Impact in Rural Maryland, by year and revenue stream**

Year	Property	Income	Sales	Payroll	Other	Total
2018	\$23,029	\$12,772	\$24,711	\$189	\$5,113	<b>\$65,815</b>
2019	\$32,741	\$22,678	\$48,489	\$374	\$8,226	<b>\$112,506</b>
2020	\$69,661	\$52,591	\$99,090	\$838	\$17,911	<b>\$240,092</b>
2021	\$105,021	\$66,228	\$143,417	\$1,050	\$25,756	<b>\$341,472</b>

Sources: RMC, RESI, IMPLAN

As estimated in the figure above, state and county governments received over \$0.7 million in tax revenue associated with the MAERDAF grant. Total tax revenues were the highest in 2020 and 2021, accounting for about 77 percent of the total four-year tax revenue. Property and sales tax impacts represented the greatest portions, accounting together for roughly 72 percent of total tax revenue. Figure 9 below shows the total annual fiscal impacts of the RMPiF grants over the same period.

**Figure 9: RMPiF Annual Fiscal Impact in Rural Maryland, by year and revenue stream**

Year	Property	Income	Sales	Payroll	Other	Total
2018	\$80,395	\$49,893	\$106,976	\$821	\$19,156	<b>\$257,241</b>
2019	\$140,404	\$88,702	\$196,693	\$1,471	\$33,370	<b>\$460,640</b>
2020	\$511,252	\$297,853	\$616,432	\$4,692	\$125,459	<b>\$1,555,689</b>
2021	\$1,736,651	\$1,047,554	\$2,619,731	\$16,796	\$482,873	<b>\$5,903,606</b>

Sources: RMC, RESI, IMPLAN

RMPiF grants resulted in a total of nearly \$8.2 million in county and state tax revenues. The largest amount of tax revenue, which accounted for around 72 percent of the four-year total impact, accrued in 2021. As with the MAERDAF grant fiscal impacts, property and sales tax from RMPiF grants comprised most of the fiscal impacts, accounting for 73.5 percent of the total tax revenue over the four-year period.

#### **4.3 MAERDAF Detailed Economic and Fiscal Impact Analysis in Rural Maryland**

This subsection provides a detailed analysis of the direct, indirect, and induced effects of the MAERDAF grant over time. It also shows output, employment, and employee compensation impact distribution among the different regions in Maryland.

Figure 10 below displays the detailed economic analysis associated with the MAERDAF grant over time.

**Figure 10: MAERDAF Economic Impact Summary, by year**

<b>Economic Impact Type</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>2018</b>				
Output	\$712,704	\$182,342	\$226,854	<b>\$1,121,900</b>
Employment	9	1	2	<b>11</b>
Employee Compensation	\$321,352	\$38,129	\$59,470	<b>\$418,951</b>
<b>2019</b>				
Output	\$1,152,793	\$287,660	\$368,204	<b>\$1,808,657</b>
Employment	14	2	2	<b>18</b>
Employee Compensation	\$505,791	\$60,234	\$96,862	<b>\$662,888</b>
<b>2020</b>				
Output	\$2,575,076	\$658,550	\$862,007	<b>\$4,095,633</b>
Employment	28	4	6	<b>37</b>
Employee Compensation	\$1,165,782	\$141,033	\$221,232	<b>\$1,528,046</b>
<b>2021</b>				
Output	\$3,168,822	\$832,809	\$1,108,441	<b>\$5,110,073</b>
Employment	36	4	7	<b>48</b>
Employee Compensation	\$1,341,474	\$188,217	\$297,279	<b>\$1,826,970</b>

Sources: RMC, RESI, IMPLAN

Between 2018 and 2021, the MAERDAF grant directly created more than \$7.6 million in state GDP or output, which accounts for 63 percent of the total output footprint. When accounting for indirect economic activity associated with suppliers to these direct activities, approximately \$2.0 million in additional output was created. Additional induced impacts of \$2.6 million from employee spending resulted in the total state GDP footprint reaching approximately \$12.1 million for all four years. The total number of created jobs was estimated to be 114 jobs, 76 percent of which were directly created, 9 percent were indirectly created, and 15 percent were induced. Similar to the portion of direct employment impacts, directly generated employee compensation accounted for 75 percent of the four-year total employee compensation, which is estimated to be nearly \$4.5 million.

To better illustrate the distribution of the economic impacts across Maryland, Figure 11 shows the regional distribution of each impact component for every year between 2018 and 2021.

**Figure 11: MAERDAF Economic Impact Summary, by region**

<b>Region</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
<i>Western</i>					
Output	\$259,869	\$441,638	\$123,813	\$384,029	<b>\$1,209,350</b>
Employment	3	5	1	4	<b>13</b>
Employee Compensation	\$100,052	\$168,374	\$46,949	\$145,689	<b>\$461,065</b>
<i>North Central</i>					
Output	\$49,422	\$118,742	\$189,200	\$1,064,709	<b>\$1,422,073</b>
Employment	0	1	2	10	<b>14</b>
Employee Compensation	\$18,002	\$43,252	\$68,914	\$387,814	<b>\$517,982</b>
<i>Southern</i>					
Output	\$144,516	\$124,223	\$549,822	\$331,580	<b>\$1,150,141</b>
Employment	2	1	5	4	<b>11</b>
Employee Compensation	\$50,229	\$45,795	\$216,082	\$116,446	<b>\$428,553</b>
<i>Upper Shore</i>					
Output	\$110,897	\$158,414	\$250,844	\$61,121	<b>\$581,276</b>
Employment	1	2	3	1	<b>6</b>
Employee Compensation	\$41,851	\$61,641	\$80,835	\$22,247	<b>\$206,574</b>
<i>Middle Shore</i>					
Output	\$228,168	\$415,892	\$898,244	\$696,415	<b>\$2,238,719</b>
Employment	2	4	8	7	<b>21</b>
Employee Compensation	\$81,190	\$137,313	\$307,040	\$239,268	<b>\$764,811</b>
<i>Lower Shore</i>					
Output	\$127,700	\$257,326	\$1,498,274	\$991,331	<b>\$2,874,631</b>
Employment	1	2	13	9	<b>26</b>
Employee Compensation	\$47,401	\$87,039	\$563,315	\$312,716	<b>\$1,010,471</b>
<i>Statewide</i>					
Output	\$201,327	\$292,422	\$585,437	\$1,580,888	<b>\$2,660,073</b>
Employment	2	3	5	14	<b>23</b>
Employee Compensation	\$80,226	\$119,473	\$244,912	\$602,789	<b>\$1,047,400</b>

Sources: RMC, RESI, IMPLAN

As shown in the figure above, the economic impacts were highest in the Middle and Lower Shore regions, accounting for a combined 42 percent of the total output impact, and around 41 percent of total employment and employee compensation impacts. Statewide impacts were also high, accounting for 22 percent of output, 20 percent of employment, and 24 percent of employee compensation impacts. The Upper Shore region was the least economically affected by the grant, where only 5 percent of the economic impacts were realized.

Figure 12 below shows the combined state and county tax impacts and their distribution among rural regions in Maryland for each year between 2018 and 2021.

**Figure 12: MAERDAF Fiscal Impacts, by Region**

Region	2018	2019	2020	2021	4-Year Total
Western	\$14,267	\$24,555	\$8,185	\$23,615	<b>\$70,621</b>
North Central	\$3,498	\$8,105	\$13,393	\$74,430	<b>\$99,426</b>
Southern	\$11,044	\$8,948	\$31,574	\$27,360	<b>\$78,926</b>
Upper Shore	\$6,567	\$8,807	\$18,503	\$3,979	<b>\$37,856</b>
Middle Shore	\$14,085	\$29,405	\$55,749	\$44,268	<b>\$143,506</b>
Lower Shore	\$6,868	\$16,893	\$80,651	\$73,213	<b>\$177,626</b>
Statewide	\$9,486	\$15,794	\$32,038	\$94,606	<b>\$151,924</b>

Sources: RMC, RESI, IMPLAN

Similar to economic impacts, grants to the Lower and Middle Shore regions generated the most in county and tax revenues, accounting for 42 percent of total fiscal impacts, as is shown in Figure 9. Statewide grants also generated high fiscal impacts with a total of \$0.15 million in county and state tax revenues. Given that grants to the Upper Shore were the smallest in amount, it is not unexpected that this region had the lowest fiscal impacts of \$37,856, which comprised only 5 percent of total fiscal impacts.

#### **4.4 RMPF Detailed Economic and Fiscal Impact Analysis in Rural Maryland**

This section provides a detailed analysis of the direct, indirect, and induced effects of the RMPF grant over time. It also shows output, employment, and employee compensation impact distribution among the different regions in Maryland.

Figure 13 below displays the detailed economic analysis associated with the RMPF grant over time.

**Figure 13: RMPIF Economic Impact Summary, by year**

<b>Economic Impact Type</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>2018</i>				
Output	\$2,745,247	\$718,699	\$754,570	<b>\$4,218,516</b>
Employment	28	4	5	<b>38</b>
Employee Compensation	\$1,125,140	\$151,826	\$186,724	<b>\$1,463,691</b>
<i>2019</i>				
Output	\$4,813,796	\$1,284,356	\$1,373,269	<b>\$7,471,421</b>
Employment	48	7	10	<b>65</b>
Employee Compensation	\$2,003,770	\$274,365	\$345,779	<b>\$2,623,914</b>
<i>2020</i>				
Output	\$17,718,906	\$5,637,361	\$4,331,832	<b>\$27,688,100</b>
Employment	158	33	30	<b>221</b>
Employee Compensation	\$6,506,647	\$1,142,477	\$1,069,180	<b>\$8,718,304</b>
<i>2021</i>				
Output	\$55,058,285	\$13,936,834	\$16,453,782	<b>\$85,448,901</b>
Employment	621	85	117	<b>822</b>
Employee Compensation	\$21,183,994	\$2,843,087	\$4,125,730	<b>\$28,152,811</b>

Sources: RMC, RESI, IMPLAN

As shown above, direct impacts constitute the largest portion of impacts, accounting for 64 percent of total output, 75 percent of employment and employee compensation impacts. Induced impacts show slightly higher figures than indirect impact figures, accounting for 18 percent of total output, 14 percent of employment as well as of employee compensation impacts.

In Figure 14, the regional distribution of RMPIF's economic impacts over time is further explored.

**Rural Maryland Council Economic Impact Analysis and Rural Maryland Profile**  
RESI of Towson University

**Figure 14: RMPIF Economic Impact Summary, by region**

<b>Economic Impact Type</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
<i>Western</i>					
Output	\$540,460	\$1,056,601	\$1,014,561	\$1,593,323	<b>\$4,204,944</b>
Employment	4	5	6	7	<b>22</b>
Employee Compensation	\$218,084	\$401,956	\$393,776	\$620,873	<b>\$1,748,548</b>
<i>North Central</i>					
Output	\$149,411	\$858,055	\$1,086,042	\$3,982,745	<b>\$6,076,254</b>
Employment	1	5	10	31	<b>47</b>
Employee Compensation	\$57,906	\$321,580	\$401,938	\$1,556,509	<b>\$2,337,933</b>
<i>Southern</i>					
Output	\$907,248	\$952,608	\$6,809,009	\$3,239,538	<b>\$11,908,402</b>
Employment	8	10	61	33	<b>60</b>
Employee Compensation	\$331,944	\$333,908	\$2,378,367	\$1,133,816	<b>\$4,178,035</b>
<i>Upper Shore</i>					
Output	\$738,293	\$981,727	\$8,835,643	\$1,010,666	<b>\$11,566,329</b>
Employment	8	11	63	11	<b>92</b>
Employee Compensation	\$239,486	\$319,377	\$1,981,787	\$323,187	<b>\$2,863,837</b>
<i>Middle Shore</i>					
Output	\$1,161,999	\$1,996,814	\$6,869,761	\$72,751,490	<b>\$82,780,065</b>
Employment	10	18	66	713	<b>807</b>
Employee Compensation	\$374,275	\$683,097	\$2,275,510	\$23,523,365	<b>\$3,656,070</b>
<i>Lower Shore</i>					
Output	\$721,106	\$1,568,297	\$1,429,588	\$2,812,612	<b>\$6,531,603</b>
Employment	6	13	7	23	<b>50</b>
Employee Compensation	\$241,996	\$539,776	\$592,481	\$970,330	<b>\$2,344,583</b>
<i>Statewide</i>					
Output	\$0	\$57,320	\$1,643,495	\$58,527	<b>\$1,759,342</b>
Employment	0	0	8	0	<b>8</b>
Employee Compensation	\$0	\$24,220	\$694,444	\$24,730	<b>\$743,395</b>

Sources: RMC, RESI, IMPLAN

The Middle Shore and Southern regions were the most economically impacted by the RMPIF grants. Economic impacts in the Middle Shore region accounted for 66 percent of total output as well as employee compensation, and 71 percent of total employment impacts. Each economic impact on the Southern region accounted for 10 percent of total impacts. The least-affected regions by the grant were the Western, North Central and the Lower Shore regions, where the combined impacts for the three regions only accounted for 13 percent of total output impacts, 10 percent of employment, and 16 percent of employee compensation impacts.

Similarly, the regional distribution of fiscal impacts over time is shown in Figure 15.

**Figure 15: RMPFI Fiscal Impacts, by region**

<b>Region</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>4-Year Total</b>
Western	\$21,350	\$59,388	\$39,762	\$73,244	<b>\$193,744</b>
North Central	\$5,884	\$36,326	\$68,017	\$156,969	<b>\$267,196</b>
Southern	\$61,101	\$77,556	\$501,164	\$258,357	<b>\$898,179</b>
Upper Shore	\$53,512	\$70,598	\$359,789	\$70,457	<b>\$554,355</b>
Middle Shore	\$67,366	\$114,528	\$461,629	\$5,163,749	<b>\$5,807,272</b>
Lower Shore	\$48,027	\$99,873	\$57,336	\$178,409	<b>\$383,646</b>
Statewide	\$0	\$2,371	\$67,992	\$2,421	<b>\$72,784</b>

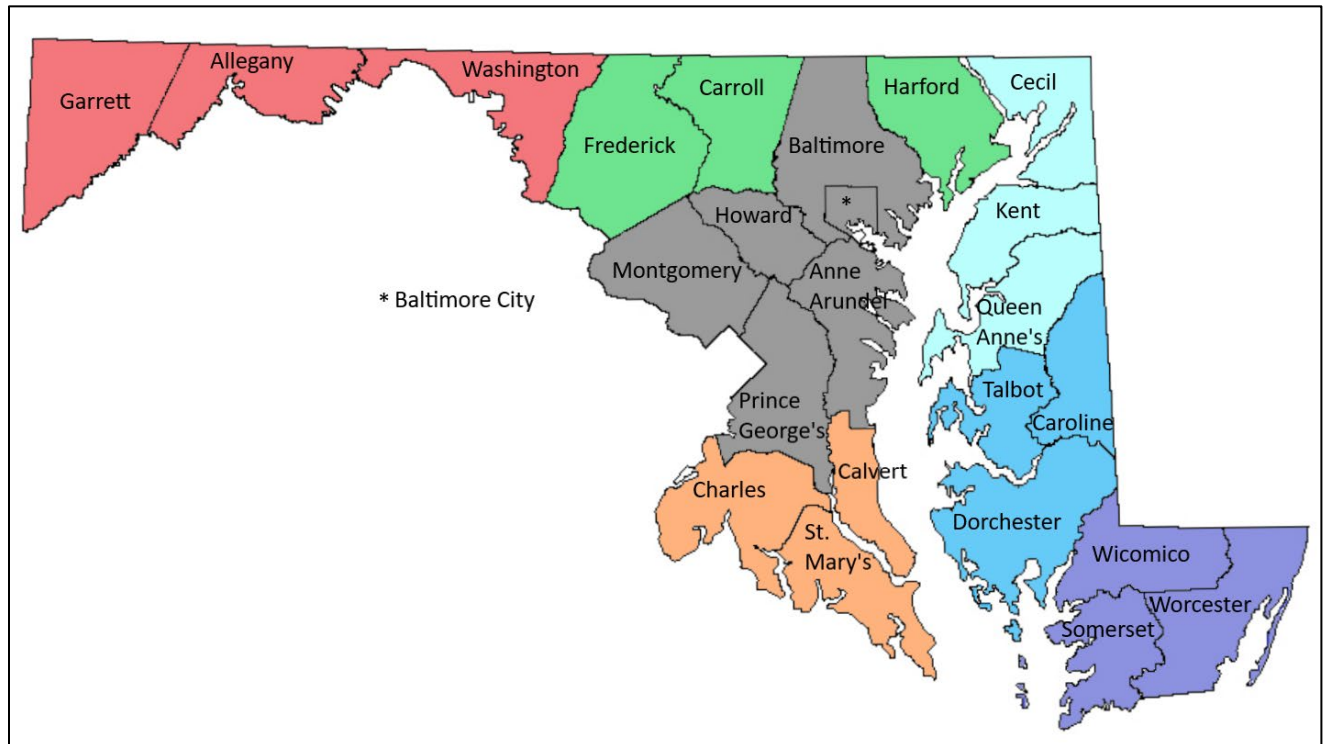
Sources: RMC, RESI, IMPLAN

Shown above, tax revenues received by the state and county governments were remarkably high for the Middle Shore region, where over \$5.8 million were generated in a four-year period, with 2021 tax revenue alone estimated at over \$5.1 million. Followed by the Middle Shore, the Southern region received the second highest four-year total revenue amounting to nearly \$0.9 million. The Western Shore region generated the lowest amount of tax revenue, accounting for less than 2 percent of total fiscal impacts.

## 5.0 Rural Maryland Profile

Rural areas are often characterized by open land, few homes and other buildings, low population density, and agricultural industries.<sup>10</sup> The majority of counties in the U.S. are rural, but the population that resides in rural counties is shrinking each year. Figure 16 below is a map of RMC's six designated rural regions in Maryland and the counties that comprise them.

Figure 16: Map of the Six Rural Maryland Regions



Sources: RESI, RMC, Yellow Maps

As depicted above, RMC defines rural Maryland in six geographical regions:

- Western (red): Garrett, Allegany, and Washington counties;
- North Central (green): Frederick, Carroll, and Harford counties;
- Upper Shore (light blue): Cecil, Kent, and Queen Anne's counties;
- Middle Shore (dark blue): Talbot, Caroline, and Dorchester counties;
- Lower Shore (purple): Wicomico, Worcester, and Somerset counties;
- Southern (orange): Charles, Calvert, and St. Mary's counties; and
- Urban (grey): Baltimore, Howard, Anne Arundel, Montgomery, and Prince George's counties as well as Baltimore City.

<sup>10</sup> National Geographic, "Rural area," accessed December 16, 2021, <https://www.nationalgeographic.org/encyclopedia/rural-area/>.

Each of the six rural regions include three counties while the Urban region includes five counties and an independent city.

The subsections that follow will explore various characteristics and trends that define Maryland’s rural regions.

### 5.1 Rural Region Demographic Profile

Urban areas are commonly dense in population, while rural regions remain comparatively sparse. Maryland regions do not differ from that typical characteristic, as shown in Figure 17 below.<sup>11</sup>

**Figure 17: Population by Region, 2020**

Region	Total Population	Population Per Square Mile	Percent of MD Population	Percent Population Growth (2014 to 2020)
Western	251,532	165	4.1%	-0.7%
North Central	683,684	443	11.2%	3.3%
Southern	370,703	361	6.1%	3.8%
Upper Shore	172,651	174	2.8%	1.3%
Middle Shore	102,570	91	1.7%	-0.7%
Lower Shore	181,751	157	2.9%	1.3%
Urban	4,345,083	1,874	71.1%	2.2%
<b>Maryland</b>	<b>6,107,974</b>	<b>629</b>	<b>100.0%</b>	<b>2.2%</b>

Sources: Maryland Association of Counties, RESI

Maryland’s Urban region holds 71 percent of the state’s total population and is approximately three times as dense as the state’s average population per square mile. The most populated and dense rural region in Maryland, North Central, is not even a quarter of the size of the Urban region (comprising approximately 11 percent of the state’s population) and holding 443 residents per square mile. The least populated and most sparse rural region is the Middle Shore, with just over 100,000 residents (just under 2 percent of the state’s population) and only 91 residents per square mile.

<sup>11</sup> Kim Parker et al., “1. Demographic and Economic Trends in Urban, Suburban and Rural Communities,” Pew Research, May 22, 2018, accessed December 16, 2021, <https://www.pewresearch.org/social-trends/2018/05/22/demographic-and-economic-trends-in-urban-suburban-and-rural-communities/>.

Another common difference between rural and urban areas is in their population growth trends. Historically, the nation’s population has been slowly but steadily moving out of rural areas and into suburban and urban areas.<sup>12</sup> This trend is shared by Maryland regions. From 2014 to 2020, both the state of Maryland and the Urban region each grew in population by 2.2 percent. However, the rural region’s growth was less uniform, while some shrank (Western and Middle Shore regions), others grew more than the national average (North Central and Southern) and others grew at a lower rate but did not decline in overall population (Upper and Lower Shore).

Along with their growing dense populations, urban areas in the U.S. tend to be more racially diverse when compared to rural areas, as seen below in Figure 18.<sup>13</sup>

**Figure 18: Percent Population Race by Region, 2020**

Region	White alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some Other Race alone	Two or more races
Western	80.8%	9.3%	0.3%	1.6%	0.1%	2.1%	5.9%
North Central	74.9%	10.2%	0.3%	3.6%	0.1%	3.3%	7.7%
Southern	56.4%	29.6%	0.5%	2.9%	0.1%	2.4%	8.1%
Upper Shore	81.9%	7.8%	0.3%	1.2%	0.0%	2.2%	6.5%
Middle Shore	70.7%	17.3%	0.4%	1.2%	0.0%	4.4%	6.0%
Lower Shore	64.4%	24.2%	0.4%	2.3%	0.0%	2.9%	5.8%
Urban	39.5%	35.1%	0.6%	8.5%	0.1%	8.2%	8.1%
<b>Maryland</b>	<b>48.7%</b>	<b>29.5%</b>	<b>0.5%</b>	<b>6.8%</b>	<b>0.1%</b>	<b>6.7%</b>	<b>7.8%</b>

Sources: RESI, U.S. Census Bureau

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

Maryland’s population is nearly half White, 29 percent Black or African American, and the remaining 22 percent is mainly Asian or some other race(s). Compared to the state, Maryland’s rural regions are all Whiter, have a smaller proportion of Asian residents, and, with the exception of the Southern region and Somerset and Dorchester Counties in the Lower Shore<sup>14</sup>, are less Black or African American. The Urban region is more diverse compared to the state overall with an almost equal proportion of White and Black or African American residents.

This trend continues in the next table, Figure 19, which looks at the Hispanic and Latino population.

**Figure 19: Percent Population Hispanic or Latino by Region, 2020**

Region	Percent Population Hispanic or Latino
Western	4.7%
North Central	7.6%
Southern	6.0%
Upper Shore	5.2%
Middle Shore	7.7%
Lower Shore	5.7%
Urban	14.0%
<b>Maryland</b>	<b>11.8%</b>

Sources: RESI, U.S. Census Bureau

While the U.S. is becoming more racially and ethnically diverse each year, this change has been slower in rural areas.<sup>15</sup> This trend is supported by RESI’s findings on the distribution of the Hispanic or Latino population in Maryland. While the Hispanic or Latino population represents nearly 12 percent of residents across the state and 14 percent in the Urban region, rural regions range from approximately 5 to 8 percent.

The final demographic characteristic included in this subsection covers statistics on age distribution among the state’s regions. Historic data shows that the nation’s population is getting older, however this trend is more pronounced in suburban and rural areas. In addition to an increase in the older population, rural areas are seeing a decline in the younger population. Summary statistics on age distribution among Maryland regions are displayed in Figure 20 below.

<sup>14</sup> According to the U.S. Census Bureau, Somerset and Dorchester County’s populations were approximately 39 and 29 percent Black or African American alone, respectively.

<sup>15</sup> Ibid.

**Figure 20: Population Age Summary Statistics, 2019**

Region	Median Age	Old-Age Dependency Ratio	Child Dependency Ratio
Western	41.5	29.8	33.1
North Central	40.6	24.7	36.5
Southern	38.5	20.4	38.0
Upper Shore	42.7	28.7	35.5
Middle Shore	45.2	39.5	36.9
Lower Shore	40.2	31.7	32.7
Urban	38.1	23.0	35.5
<b>Maryland</b>	<b>38.9</b>	<b>24.0</b>	<b>35.6</b>

Sources: RESI, U.S. Census Bureau

Shown above are three metrics that are commonly used to describe the age structure of a given population. These three metrics are defined as follows:

- **Median age** is the midpoint age of the population. This is calculated by finding the age at which half of the population is older and half are younger.
- **Old-age dependency ratio** expresses the population’s proportion of seniors to adults. A higher number indicates that there are more seniors compared to working-age adults. This is derived by “dividing the population 65 and over by the 18-to-64 population and multiplying by 100.”<sup>16</sup>
- **Child dependency ratio** expresses the population’s proportion of children to adults. The higher this number is, the more children there are compared to working-age adults. This is derived by “dividing the population under 18 by the 18-to-64 population and multiplying by 100.”<sup>17</sup>

The age distribution data in Figure 6 above largely aligns with national historic trends. On average, Maryland’s rural regions have a slightly older median age and a higher old-age dependency ratio compared to the state overall. While there is variation from region to region, rural Maryland’s average child dependency ratio is roughly equal to urban Maryland’s, showing a deviation from national historic trends.

When looking at the individual rural regions, there are distinct trends and differences. Most notably, the Southern region’s population is younger overall, having a lower median age and old-age dependency ratio compared to the state as a whole. Additionally, the Southern region has the highest child dependency ratio of any region evaluated. Conversely, the Middle Shore region’s population has the oldest median age, highest old-age dependency ratio, and a

<sup>16</sup> U.S. Census Bureau, “American Community Survey and Puerto Rico Community Survey 2019 Subject Definitions,” 51, 2019, accessed December 20, 2021, [https://www2.census.gov/programs-surveys/acs/tech\\_docs/subject\\_definitions/2019\\_ACSsubjectDefinitions.pdf](https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2019_ACSsubjectDefinitions.pdf).

<sup>17</sup> Ibid, 51.

relatively high child dependency ratio. In context, the Middle Shore’s population has a high ratio of seniors and children compared to working-age adults.

The demographic profile of rural Maryland provides important context to the next subsection that explores labor force characteristics and trends in Maryland’s rural regions.

## 5.2 Rural Region Labor Force and Industry Profile

This subsection will explore multiple labor force metrics within Maryland, focusing on the prominent trends within rural and urban regions and how they differ from one another.

Figure 21 below contains each region’s unemployment rate from 2015 to 2020. Since this is historic data, it partially captures the impact that the pandemic has on unemployment rates among the regions.

**Figure 21: Annual Unemployment Rate by Region, 2015 to 2020**

Region	2015	2016	2017	2018	2019	2020
Western	5.9%	5.3%	4.9%	4.6%	4.2%	7.0%
North Central	4.5%	3.8%	3.6%	3.4%	3.1%	5.7%
Southern	4.8%	4.0%	3.8%	3.6%	3.3%	5.8%
Upper Shore	5.4%	4.6%	4.3%	4.0%	3.6%	5.9%
Middle Shore	5.7%	4.8%	4.5%	4.1%	3.8%	6.1%
Lower Shore	7.9%	7.0%	6.6%	6.1%	5.5%	8.7%
Urban	4.9%	4.2%	4.0%	3.8%	3.4%	7.0%
<b>Maryland</b>	<b>5.0%</b>	<b>4.3%</b>	<b>4.1%</b>	<b>3.8%</b>	<b>3.5%</b>	<b>6.8%</b>

Sources: RESI, U.S. Bureau of Labor Statistics

The average unemployment rate of rural regions has typically been higher than both the Urban region and the state overall. However, since the pandemic began in late 2019, rural regions have been less impacted (on average) compared to the Urban region and the state as a whole. One outlier, the Lower Shore, consistently had the highest unemployment rate of any region, and exceeded both the state average and Urban area in 2020 as well. As shown above, the Urban region’s unemployment rate tracks closely with that of the state, showing only minor deviations.

Another crucial metric examined when evaluating the impact that the pandemic has had on local economies is the labor force participation rate (LFPR). LFPR is the percentage of individuals that are age 16 or older and are able to work who are actively seeking employment or are currently employed. Since unemployment rates do not include individuals that are not actively looking for work in the labor force it can oftentimes be misleading. Examining LFPRs alongside unemployment rates provides a more complete picture of an economy’s condition. The LFPRs of each region in Maryland over time is detailed in Figure 22 below. Unfortunately, county-level annual data on LFPR for 2020 is not yet available.

**Figure 22: Annual Labor Force Participation Rate by Region, 2015 to 2019**

Region	2015	2016	2017	2018	2019
Western	59.1%	58.2%	57.6%	57.3%	57.1%
North Central	69.9%	69.7%	69.4%	68.8%	68.6%
Southern	69.4%	68.7%	68.4%	68.0%	67.7%
Upper Shore	65.6%	65.6%	65.5%	64.9%	64.9%
Middle Shore	63.2%	62.6%	62.4%	62.4%	61.7%
Lower Shore	59.3%	59.9%	60.5%	59.8%	59.5%
Urban	69.3%	69.1%	69.0%	68.9%	68.8%
<b>Maryland</b>	<b>68.4%</b>	<b>68.2%</b>	<b>68.1%</b>	<b>67.8%</b>	<b>67.7%</b>

Sources: RESI, U.S. Census Bureau

While the impact of the pandemic cannot be seen by 2019 in the figure above, the typical trends of the regions can be. Similar to Figure 6 on unemployment rates, the Urban region follows closely to the state’s average LFPR, hovering at around 68 percent. The Lower Shore and Western region’s LFPRs indicate that a smaller proportion of their working age population is actively looking for work or employed. While the Lower Shore region fluctuates, the Western region displays a downward trend, slowly declining by 2 percentage points over the five years.

Taking a closer look at the region’s workforces and what characterizes them, Figure 23 below shows average wage per employee by region for the first quarter of 2021.

**Figure 23: Employment Wage Statistics by Region, 2021 Q1**

Region	Number of Employees	Weighted Average Hourly Wage	Weighted Average Weekly Wage	Weighted Average Annual Wage
Western	98,090	\$22	\$871	\$45,306
North Central	240,008	\$27	\$1,069	\$55,583
Southern	104,577	\$30	\$1,194	\$62,072
Upper Shore	58,368	\$22	\$889	\$46,231
Middle Shore	36,789	\$22	\$868	\$45,123
Lower Shore	69,004	\$21	\$852	\$44,280
Urban	1,820,308	\$37	\$1,479	\$76,903
<b>Maryland</b>	<b>2,427,144</b>	<b>\$34</b>	<b>\$1,360</b>	<b>\$70,732</b>

Sources: RESI, U.S. Bureau of Labor Statistics

The findings above are weighted by the number of employees in each region to account for the population differences between them. Employees in the Urban region, on average, make about \$3 more an hour than the average Maryland employee. Employees in the rural regions make, on average, at least \$4 less an hour less than the average Maryland employee. Employees in the Lower Shore region make the least at an average of \$21 dollars an hour, \$13 less than the state average and \$16 less than the Urban region average. Despite this apparent wage gap, residents

of rural areas might not have to spend as much on every-day expenses when compared to residents of urban areas. Many studies show that most rural areas have a lower cost of living compared to urban areas.<sup>18, 19, 20</sup>

This apparent wage gap might also be caused by the different industries that are prevalent in each region. Figure 24 below shows the employment by industry for each of the regions.

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<sup>18</sup> While these studies all show that most rural areas have a lower cost of living compared to urban areas they all also agree that outlier rural regions do exist where the cost of living is equal to or greater than urban regions nearby.

<sup>19</sup> James A. Kurre, "Is the Cost of Living Less in Rural Areas?," *International Regional Science Review* 26, no. 1 (2003): 109, accessed December 21, 2021, <http://proxy-tu.researchport.umd.edu/login?ins=tu&url=https://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=0635454&site=eds-live&scope=site>.

<sup>20</sup> William Hawk, "Expenditures of Urban and Rural Households in 2011," *Beyond the Numbers* 2, no. 5 (U.S. Bureau of Labor Statistics, February 2013), accessed December 21, 2021, <https://www.bls.gov/opub/btn/volume-2/expenditures-of-urban-and-rural-households-in-2011.htm>.

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**Figure 24: Percent Annual Average Employment by Industry and Region, 2019**

Region	Western	North Central	Southern	Upper Shore	Middle Shore	Lower Shore	Urban	Maryland
Agriculture, forestry, fishing and hunting, and mining	1.3%	0.7%	0.5%	2.3%	3.0%	1.8%	0.2%	0.5%
Construction	8.0%	8.2%	9.7%	8.7%	8.8%	7.4%	6.2%	6.9%
Manufacturing	8.0%	6.1%	3.7%	8.6%	7.5%	6.9%	3.7%	4.4%
Wholesale trade	2.1%	2.2%	1.3%	2.3%	2.4%	1.9%	1.6%	1.7%
Retail trade	11.4%	10.6%	9.3%	10.8%	11.2%	12.0%	8.9%	9.4%
Transportation and warehousing, and utilities	7.2%	3.9%	5.5%	5.2%	4.4%	4.3%	4.7%	4.8%
Information	1.8%	2.0%	1.5%	1.4%	1.8%	1.6%	2.1%	2.0%
Finance and insurance, and real estate and rental and leasing	5.6%	6.9%	4.1%	6.6%	5.0%	4.9%	6.1%	6.0%
Professional, scientific, and management, and administrative and waste management services	10.1%	14.8%	14.6%	10.9%	11.3%	8.1%	16.8%	15.7%
Educational services, and health care and social assistance	22.9%	22.9%	19.8%	21.8%	23.6%	26.3%	24.2%	23.7%
Arts, entertainment, and recreation, and accommodation and food services	9.0%	7.1%	7.0%	8.5%	8.8%	13.8%	8.6%	8.5%
Other services, except public administration	5.1%	5.1%	4.6%	4.6%	5.9%	4.6%	5.8%	5.6%
Public administration	7.6%	9.5%	18.4%	8.2%	6.4%	6.3%	11.0%	10.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Sources: RESI, U.S. Census Bureau

The figure above breaks down employment in each region by industry. As seen above, the Upper, Middle, and Lower Shore regions have the largest shares of their employment in the agriculture, forestry, fishing and hunting, and mining industry. They also have the lowest weighted annual wages as seen in Figure 22 previously. The Urban region still closely follows, or rather has the largest influence in population, on the prevalent industries in the state as a whole. A few industries are notably more prevalent in the rural regions, including: construction, manufacturing, and transportation and warehousing, and utilities. Conversely, two industries are notably more prevalent in the Urban region, those are: professional, scientific, and management, and administrative and waste management services, and public administration. The largest industry in all of the regions is the educational services, and health care and social assistance industry, holding around 20 percent of employment in every region.

## **6.0 Conclusion**

As has been seen in the above sections, rural Maryland differs from urban Maryland in demographics, labor force, and prominent industries. For this reason, the services and support that the regions need differ as well. Through their grant programs, RMPIF and MAERDAF, RMC provides significant support to Maryland's rural regions. The support they provide goes well beyond the initial dollar value of the grant as that money moves and multiplies in local economies.

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## Appendix A—Detailed IMPLAN Results

Appendix A presents detailed economic impacts at the regional level.

### A.1 2018 MAERDAF Tables

This subsection contains detailed economic impact results from MAERDAF grants in 2018.

Figure 25: MAERDAF Output, 2018

Region	Direct	Indirect	Induced	Total
Western	\$168,784	\$43,103	\$47,982	\$259,869
North Central	\$32,164	\$8,142	\$9,116	\$49,422
Southern	\$96,986	\$23,207	\$24,322	\$144,516
Upper Shore	\$76,862	\$16,677	\$17,358	\$110,897
Middle Shore	\$145,476	\$37,091	\$45,600	\$228,168
Lower Shore	\$79,413	\$20,398	\$27,889	\$127,700
Statewide	\$113,018	\$33,724	\$54,585	\$201,327
<b>Maryland Total</b>	<b>\$712,704</b>	<b>\$182,342</b>	<b>\$226,854</b>	<b>\$1,121,900</b>

Sources: RMC, RESI, IMPLAN

Figure 26: MAERDAF Employment, 2018

Region	Direct	Indirect	Induced	Total
Western	2	0	0	3
North Central	0	0	0	0
Southern	1	0	0	2
Upper Shore	1	0	0	1
Middle Shore	2	0	0	2
Lower Shore	1	0	0	1
Statewide	1	0	0	2
<b>Maryland Total</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>11</b>

Sources: RMC, RESI, IMPLAN

Figure 27: MAERDAF Employee Compensation, 2018

Region	Direct	Indirect	Induced	Total
Western	\$77,566	\$9,173	\$13,313	\$100,052
North Central	\$13,745	\$1,841	\$2,416	\$18,002
Southern	\$40,792	\$3,822	\$5,616	\$50,229
Upper Shore	\$35,146	\$2,757	\$3,948	\$41,851
Middle Shore	\$62,153	\$7,621	\$11,416	\$81,190
Lower Shore	\$35,712	\$4,618	\$7,072	\$47,401
Statewide	\$56,239	\$8,297	\$15,690	\$80,226
<b>Maryland Total</b>	<b>\$321,352</b>	<b>\$38,129</b>	<b>\$59,470</b>	<b>\$418,951</b>

Sources: RMC, RESI, IMPLAN

**Figure 28: MAERDAF State and County Tax Revenue, 2018**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$3,505	\$2,949	\$6,974	\$55	\$785	\$14,267
North Central	\$1,199	\$619	\$1,399	\$11	\$271	\$3,498
Southern	\$4,191	\$1,853	\$4,075	\$28	\$898	\$11,044
Upper Shore	\$2,276	\$1,302	\$2,493	\$24	\$472	\$6,567
Middle Shore	\$3,915	\$2,905	\$6,057	\$46	\$1,160	\$14,085
Lower Shore	\$1,742	\$1,119	\$3,092	\$26	\$889	\$6,868
Statewide	\$6,202	\$2,025	\$621	\$0	\$638	\$9,486
<b>Maryland Total</b>	<b>\$23,029</b>	<b>\$12,772</b>	<b>\$24,711</b>	<b>\$189</b>	<b>\$5,113</b>	<b>\$65,815</b>

Sources: RMC, RESI, IMPLAN

## A.2 2018 RMPIF Tables

This subsection contains detailed economic impact results from RMPIF grants in 2018.

**Figure 29: RMPIF Output, 2018**

Region	Direct	Indirect	Induced	Total
Western	\$356,798	\$88,629	\$95,032	\$540,460
North Central	\$96,647	\$28,601	\$24,163	\$149,411
Southern	\$607,760	\$142,429	\$157,058	\$907,248
Upper Shore	\$502,008	\$124,167	\$112,117	\$738,293
Middle Shore	\$726,057	\$226,712	\$209,230	\$1,161,999
Lower Shore	\$455,976	\$108,161	\$156,969	\$721,106
Statewide	\$0	\$0	\$0	\$0
<b>Maryland Total</b>	<b>\$2,745,247</b>	<b>\$718,699</b>	<b>\$754,570</b>	<b>\$4,218,516</b>

Sources: RMC, RESI, IMPLAN

**Figure 30: RMPIF Employment, 2018**

Region	Direct	Indirect	Induced	Total
Western	3	1	1	4
North Central	1	0	0	1
Southern	6	1	1	8
Upper Shore	6	1	1	8
Middle Shore	7	1	1	10
Lower Shore	5	1	1	6
Statewide	0	0	0	0
<b>Maryland Total</b>	<b>28</b>	<b>4</b>	<b>5</b>	<b>38</b>

Sources: RMC, RESI, IMPLAN

**Figure 31: RMPIF Employee Compensation, 2018**

Region	Direct	Indirect	Induced	Total
Western	\$169,181	\$22,547	\$26,356	\$218,084
North Central	\$43,998	\$7,510	\$6,399	\$57,906
Southern	\$265,379	\$30,309	\$36,255	\$331,944
Upper Shore	\$192,730	\$21,232	\$25,524	\$239,486
Middle Shore	\$275,454	\$46,444	\$52,376	\$374,275
Lower Shore	\$178,399	\$23,783	\$39,814	\$241,996
Statewide	\$0	\$0	\$0	\$0
<b>Maryland Total</b>	<b>\$1,221,339</b>	<b>\$159,588</b>	<b>\$196,623</b>	<b>\$1,577,550</b>

Sources: RMC, RESI, IMPLAN

**Figure 32: RMPIF State and County Tax Revenue, 2018**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$4,630	\$6,002	\$9,211	\$111	\$1,396	\$21,350
North Central	\$1,667	\$1,722	\$1,946	\$30	\$520	\$5,884
Southern	\$22,340	\$11,990	\$21,720	\$179	\$4,873	\$61,101
Upper Shore	\$19,830	\$8,183	\$21,725	\$149	\$3,625	\$53,512
Middle Shore	\$18,876	\$13,383	\$29,202	\$211	\$5,694	\$67,366
Lower Shore	\$13,052	\$8,613	\$23,173	\$142	\$3,047	\$48,027
Statewide	\$0	\$0	\$0	\$0	\$0	\$0
<b>Maryland Total</b>	<b>\$80,395</b>	<b>\$49,893</b>	<b>\$106,976</b>	<b>\$821</b>	<b>\$19,156</b>	<b>\$257,241</b>

Sources: RMC, RESI, IMPLAN

### A.3 2019 MAERDAF Tables

This subsection contains detailed economic impact results from MAERDAF grants in 2019.

**Figure 33: MAERDAF Output, 2019**

Region	Direct	Indirect	Induced	Total
Western	\$287,799	\$71,882	\$81,958	\$441,638
North Central	\$77,424	\$19,904	\$21,414	\$118,742
Southern	\$83,959	\$18,073	\$22,191	\$124,223
Upper Shore	\$110,245	\$23,285	\$24,884	\$158,414
Middle Shore	\$267,082	\$66,926	\$81,885	\$415,892
Lower Shore	\$162,514	\$38,784	\$56,028	\$257,326
Statewide	\$163,770	\$48,806	\$79,845	\$292,422
<b>Maryland Total</b>	<b>\$1,152,793</b>	<b>\$287,660</b>	<b>\$368,204</b>	<b>\$1,808,657</b>

Sources: RMC, RESI, IMPLAN

**Figure 34: MAERDAF Employment, 2019**

Region	Direct	Indirect	Induced	Total
Western	4	0	1	5
North Central	1	0	0	1
Southern	1	0	0	1
Upper Shore	1	0	0	2
Middle Shore	3	0	1	4
Lower Shore	2	0	0	2
Statewide	2	0	0	3
<b>Maryland Total</b>	<b>14</b>	<b>2</b>	<b>2</b>	<b>18</b>

Sources: RMC, RESI, IMPLAN

**Figure 35: MAERDAF Employee Compensation, 2019**

Region	Direct	Indirect	Induced	Total
Western	\$131,225	\$14,409	\$22,740	\$168,374
North Central	\$33,218	\$4,358	\$5,676	\$43,252
Southern	\$37,037	\$3,635	\$5,124	\$45,795
Upper Shore	\$52,136	\$3,846	\$5,659	\$61,641
Middle Shore	\$103,469	\$13,337	\$20,507	\$137,313
Lower Shore	\$64,280	\$8,548	\$14,211	\$87,039
Statewide	\$84,426	\$12,100	\$22,947	\$119,473
<b>Maryland Total</b>	<b>\$505,791</b>	<b>\$60,234</b>	<b>\$96,862</b>	<b>\$662,888</b>

Sources: RMC, RESI, IMPLAN

**Figure 36: MAERDAF State and County Tax Revenue, 2019**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$6,048	\$5,016	\$12,033	\$93	\$1,365	\$24,555
North Central	\$2,760	\$1,461	\$3,222	\$25	\$637	\$8,105
Southern	\$3,310	\$1,689	\$3,218	\$25	\$706	\$8,948
Upper Shore	\$2,981	\$1,879	\$3,266	\$35	\$646	\$8,807
Middle Shore	\$8,528	\$5,175	\$13,193	\$83	\$2,427	\$29,405
Lower Shore	\$4,572	\$3,079	\$8,117	\$51	\$1,074	\$16,893
Statewide	\$4,542	\$4,379	\$5,440	\$63	\$1,371	\$15,794
<b>Maryland Total</b>	<b>\$32,741</b>	<b>\$22,678</b>	<b>\$48,489</b>	<b>\$374</b>	<b>\$8,226</b>	<b>\$112,506</b>

Sources: RMC, RESI, IMPLAN

#### A.4 2019 RMPIF Tables

This subsection contains detailed economic impact results from RMPIF grants in 2019.

**Figure 37: RMPIF Output, 2019**

Region	Direct	Indirect	Induced	Total
Western	\$680,086	\$188,511	\$188,004	\$1,056,601
North Central	\$542,051	\$185,335	\$130,669	\$858,055
Southern	\$642,260	\$141,619	\$168,728	\$952,608
Upper Shore	\$667,731	\$165,053	\$148,943	\$981,727
Middle Shore	\$1,262,892	\$353,243	\$380,679	\$1,996,814
Lower Shore	\$988,170	\$238,923	\$341,204	\$1,568,297
Statewide	\$30,605	\$11,672	\$15,042	\$57,320
<b>Maryland Total</b>	<b>\$4,813,796</b>	<b>\$1,284,356</b>	<b>\$1,373,269</b>	<b>\$7,471,421</b>

Sources: RMC, RESI, IMPLAN

**Figure 38: RMPIF Employment, 2019**

Region	Direct	Indirect	Induced	Total
Western	6	1	1	9
North Central	3	1	1	5
Southern	8	1	1	10
Upper Shore	9	1	1	11
Middle Shore	13	2	3	18
Lower Shore	9	1	2	13
Statewide	0	0	0	0
<b>Maryland Total</b>	<b>48</b>	<b>7</b>	<b>10</b>	<b>65</b>

Sources: RMC, RESI, IMPLAN

**Figure 39: RMPIF Employee Compensation, 2019**

Region	Direct	Indirect	Induced	Total
Western	\$309,787	\$40,013	\$52,156	\$401,956
North Central	\$238,063	\$48,921	\$34,596	\$321,580
Southern	\$267,112	\$27,826	\$38,970	\$333,908
Upper Shore	\$257,173	\$28,296	\$33,907	\$319,377
Middle Shore	\$514,125	\$73,679	\$95,293	\$683,097
Lower Shore	\$400,939	\$52,300	\$86,536	\$539,776
Statewide	\$16,570	\$3,330	\$4,320	\$24,220
<b>Maryland Total</b>	<b>\$2,003,770</b>	<b>\$274,365</b>	<b>\$345,779</b>	<b>\$2,623,914</b>

Sources: RMC, RESI, IMPLAN

**Figure 40: RMPIF State and County Tax Revenue, 2019**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$14,831	\$11,665	\$29,506	\$214	\$3,171	\$59,388
North Central	\$10,885	\$9,402	\$12,706	\$161	\$3,173	\$36,326
Southern	\$29,685	\$12,797	\$28,860	\$191	\$6,023	\$77,556
Upper Shore	\$26,117	\$10,880	\$28,613	\$198	\$4,789	\$70,598
Middle Shore	\$31,496	\$24,315	\$48,725	\$386	\$9,606	\$114,528
Lower Shore	\$26,793	\$18,811	\$47,567	\$309	\$6,394	\$99,873
Statewide	\$597	\$833	\$716	\$12	\$214	\$2,371
<b>Maryland Total</b>	<b>\$140,404</b>	<b>\$88,702</b>	<b>\$196,693</b>	<b>\$1,471</b>	<b>\$33,370</b>	<b>\$460,640</b>

Sources: RMC, RESI, IMPLAN

#### A.5 2020 MAERDAF Tables

This subsection contains detailed economic impact results from MAERDAF grants in 2020.

**Figure 41: MAERDAF Output, 2020**

Region	Direct	Indirect	Induced	Total
Western	\$78,594	\$21,739	\$23,480	\$123,813
North Central	\$123,131	\$31,170	\$34,898	\$189,200
Southern	\$371,805	\$79,636	\$98,381	\$549,822
Upper Shore	\$170,449	\$42,219	\$38,175	\$250,844
Middle Shore	\$573,628	\$148,924	\$175,692	\$898,244
Lower Shore	\$927,631	\$241,671	\$328,972	\$1,498,274
Statewide	\$329,837	\$93,192	\$162,408	\$585,437
<b>Maryland Total</b>	<b>\$2,575,076</b>	<b>\$658,550</b>	<b>\$862,007</b>	<b>\$4,095,633</b>

Sources: RMC, RESI, IMPLAN

**Figure 42: MAERDAF Employment, 2020**

Region	Direct	Indirect	Induced	Total
Western	1	0	0	1
North Central	1	0	0	2
Southern	4	0	1	5
Upper Shore	2	0	0	3
Middle Shore	6	1	1	8
Lower Shore	10	1	2	13
Statewide	4	0	1	5
<b>Maryland Total</b>	<b>28</b>	<b>4</b>	<b>6</b>	<b>37</b>

Sources: RMC, RESI, IMPLAN

**Figure 43: MAERDAF Employee Compensation, 2020**

Region	Direct	Indirect	Induced	Total
Western	\$35,868	\$4,565	\$6,516	\$46,949
North Central	\$52,617	\$7,046	\$9,251	\$68,914
Southern	\$176,502	\$16,878	\$22,703	\$216,082
Upper Shore	\$64,966	\$7,177	\$8,691	\$80,835
Middle Shore	\$232,234	\$30,818	\$43,988	\$307,040
Lower Shore	\$427,268	\$52,635	\$83,413	\$563,315
Statewide	\$176,327	\$21,913	\$46,671	\$244,912
<b>Maryland Total</b>	<b>\$1,165,782</b>	<b>\$141,033</b>	<b>\$221,232</b>	<b>\$1,528,046</b>

Sources: RMC, RESI, IMPLAN

**Figure 44: MAERDAF State and County Tax Revenue, 2020**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$2,119	\$1,427	\$4,216	\$26	\$397	\$8,185
North Central	\$4,589	\$2,369	\$5,357	\$41	\$1,036	\$13,393
Southern	\$10,824	\$7,536	\$10,523	\$113	\$2,579	\$31,574
Upper Shore	\$6,882	\$2,780	\$7,540	\$51	\$1,249	\$18,503
Middle Shore	\$15,610	\$11,170	\$24,149	\$178	\$4,643	\$55,749
Lower Shore	\$20,440	\$18,400	\$36,288	\$302	\$5,223	\$80,651
Statewide	\$9,197	\$8,911	\$11,018	\$128	\$2,785	\$32,038
<b>Maryland Total</b>	<b>\$69,661</b>	<b>\$52,591</b>	<b>\$99,090</b>	<b>\$838</b>	<b>\$17,911</b>	<b>\$240,092</b>

Sources: RMC, RESI, IMPLAN

## A.6 2020 RMPIF Tables

This subsection contains detailed economic impact results from RMPIF grants in 2020.

**Figure 45: RMPIF Output, 2020**

Region	Direct	Indirect	Induced	Total
Western	\$668,918	\$180,779	\$164,864	\$1,014,561
North Central	\$705,362	\$187,009	\$193,671	\$1,086,042
Southern	\$4,536,154	\$1,117,218	\$1,155,638	\$6,809,009
Upper Shore	\$5,652,259	\$2,446,965	\$736,419	\$8,835,643
Middle Shore	\$4,403,353	\$1,125,422	\$1,340,987	\$6,869,761
Lower Shore	\$875,332	\$245,300	\$308,956	\$1,429,588
Statewide	\$877,529	\$334,668	\$431,298	\$1,643,495
<b>Maryland Total</b>	<b>\$17,718,906</b>	<b>\$5,637,361</b>	<b>\$4,331,832</b>	<b>\$27,688,100</b>

Sources: RMC, RESI, IMPLAN

**Figure 46: RMPIF Employment, 2020**

Region	Direct	Indirect	Induced	Total
Western	4	1	1	6
North Central	7	1	1	10
Southern	48	6	8	61
Upper Shore	43	15	5	63
Middle Shore	50	7	10	66
Lower Shore	4	1	2	7
Statewide	4	2	3	8
<b>Maryland Total</b>	<b>119</b>	<b>28</b>	<b>23</b>	<b>170</b>

Sources: RMC, RESI, IMPLAN

**Figure 47: RMPIF Employee Compensation, 2020**

Region	Direct	Indirect	Induced	Total
Western	\$307,317	\$40,744	\$45,715	\$393,776
North Central	\$306,328	\$44,286	\$51,324	\$401,938
Southern	\$1,873,650	\$237,893	\$266,824	\$2,378,367
Upper Shore	\$1,369,716	\$444,725	\$167,346	\$1,981,787
Middle Shore	\$1,711,313	\$228,394	\$335,804	\$2,275,510
Lower Shore	\$463,234	\$50,944	\$78,303	\$592,481
Statewide	\$475,090	\$95,490	\$123,864	\$694,444
<b>Maryland Total</b>	<b>\$6,506,647</b>	<b>\$1,142,477</b>	<b>\$1,069,180</b>	<b>\$8,718,304</b>

Sources: RMC, RESI, IMPLAN

**Figure 48: RMPIF State and County Tax Revenue, 2020**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$8,799	\$10,593	\$17,506	\$194	\$2,668	\$39,762
North Central	\$22,654	\$13,301	\$26,445	\$230	\$5,386	\$68,017
Southern	\$188,792	\$88,021	\$183,546	\$1,309	\$39,497	\$501,164
Upper Shore	\$128,864	\$59,457	\$141,180	\$978	\$29,310	\$359,789
Middle Shore	\$132,326	\$84,906	\$204,709	\$1,353	\$38,335	\$461,629
Lower Shore	\$12,688	\$17,703	\$22,527	\$290	\$4,129	\$57,336
Statewide	\$17,129	\$23,872	\$20,519	\$338	\$6,134	\$67,992
<b>Maryland Total</b>	<b>\$507,698</b>	<b>\$275,560</b>	<b>\$555,902</b>	<b>\$4,316</b>	<b>\$123,420</b>	<b>\$1,466,896</b>

Sources: RMC, RESI, IMPLAN

### A.7 2021 MAERDAF Tables

This subsection contains detailed economic impact results from MAERDAF grants in 2021.

**Figure 49: MAERDAF Output, 2021**

Region	Direct	Indirect	Induced	Total
Western	\$246,873	\$64,963	\$72,193	\$384,029
North Central	\$693,373	\$176,471	\$194,865	\$1,064,709
Southern	\$224,024	\$48,393	\$59,163	\$331,580
Upper Shore	\$42,175	\$9,345	\$9,601	\$61,121
Middle Shore	\$444,999	\$114,208	\$137,208	\$696,415
Lower Shore	\$632,711	\$143,231	\$215,389	\$991,331
Statewide	\$884,668	\$276,198	\$420,023	\$1,580,888
<b>Maryland Total</b>	<b>\$3,168,822</b>	<b>\$832,809</b>	<b>\$1,108,441</b>	<b>\$5,110,073</b>

Sources: RMC, RESI, IMPLAN

**Figure 50: MAERDAF Employment, 2021**

Region	Direct	Indirect	Induced	Total
Western	3	0	1	4
North Central	8	1	1	10
Southern	3	0	0	4
Upper Shore	1	0	0	1
Middle Shore	5	1	1	7
Lower Shore	7	1	1	9
Statewide	10	1	3	14
<b>Maryland Total</b>	<b>36</b>	<b>4</b>	<b>7</b>	<b>48</b>

Sources: RMC, RESI, IMPLAN

**Figure 51: MAERDAF Employee Compensation, 2021**

Region	Direct	Indirect	Induced	Total
Western	\$112,440	\$13,217	\$20,032	\$145,689
North Central	\$296,709	\$39,454	\$51,651	\$387,814
Southern	\$93,420	\$9,361	\$13,665	\$116,446
Upper Shore	\$18,545	\$1,517	\$2,185	\$22,247
Middle Shore	\$181,485	\$23,430	\$34,353	\$239,268
Lower Shore	\$227,162	\$30,913	\$54,642	\$312,716
Statewide	\$411,713	\$70,325	\$120,751	\$602,789
<b>Maryland Total</b>	<b>\$1,341,474</b>	<b>\$188,217</b>	<b>\$297,279</b>	<b>\$1,826,970</b>

Sources: RMC, RESI, IMPLAN

**Figure 52: MAERDAF State and County Tax Revenue, 2021**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$5,994	\$4,398	\$11,926	\$81	\$1,216	\$23,615
North Central	\$25,450	\$13,250	\$29,709	\$230	\$5,792	\$74,430
Southern	\$10,490	\$4,484	\$10,198	\$67	\$2,121	\$27,360
Upper Shore	\$1,419	\$713	\$1,554	\$13	\$280	\$3,979
Middle Shore	\$12,462	\$8,719	\$19,279	\$139	\$3,669	\$44,268
Lower Shore	\$20,446	\$11,700	\$36,298	\$192	\$4,578	\$73,213
Statewide	\$28,760	\$22,965	\$34,453	\$328	\$8,100	\$94,606
<b>Maryland Total</b>	<b>\$105,021</b>	<b>\$66,228</b>	<b>\$143,417</b>	<b>\$1,050</b>	<b>\$25,756</b>	<b>\$341,472</b>

Sources: RMC, RESI, IMPLAN

#### A.8 2021 RMPIF Tables

This subsection contains detailed economic impact results from RMPIF grants in 2021.

**Figure 53: RMPIF Output, 2021**

Region	Direct	Indirect	Induced	Total
Western	\$1,041,106	\$277,329	\$274,888	\$1,593,323
North Central	\$2,595,352	\$728,948	\$658,445	\$3,982,745
Southern	\$2,178,113	\$493,192	\$568,233	\$3,239,538
Upper Shore	\$685,070	\$176,504	\$149,092	\$1,010,666
Middle Shore	\$46,755,670	\$11,819,827	\$14,175,993	\$72,751,490
Lower Shore	\$1,771,725	\$429,115	\$611,772	\$2,812,612
Statewide	\$31,250	\$11,918	\$15,359	\$58,527
<b>Maryland Total</b>	<b>\$55,058,285</b>	<b>\$13,936,834</b>	<b>\$16,453,782</b>	<b>\$85,448,901</b>

Sources: RMC, RESI, IMPLAN

**Figure 54: RMPPIF Employment, 2021**

Region	Direct	Indirect	Induced	Total
Western	8	2	2	12
North Central	22	4	5	31
Southern	26	3	4	33
Upper Shore	9	1	1	11
Middle Shore	539	72	101	713
Lower Shore	17	3	4	23
Statewide	0	0	0	0
<b>Maryland Total</b>	<b>621</b>	<b>85</b>	<b>117</b>	<b>822</b>

Sources: RMC, RESI, IMPLAN

**Figure 55: RMPPIF Employee Compensation, 2021**

Region	Direct	Indirect	Induced	Total
Western	\$481,339	\$63,292	\$76,242	\$620,873
North Central	\$1,191,818	\$190,319	\$174,372	\$1,556,509
Southern	\$903,705	\$98,879	\$131,233	\$1,133,816
Upper Shore	\$258,774	\$30,475	\$33,938	\$323,187
Middle Shore	\$17,609,994	\$2,362,994	\$3,550,376	\$23,523,365
Lower Shore	\$721,447	\$93,727	\$155,157	\$970,330
Statewide	\$16,919	\$3,401	\$4,411	\$24,730
<b>Maryland Total</b>	<b>\$3,832,773</b>	<b>\$510,568</b>	<b>\$609,292</b>	<b>\$4,952,633</b>

Sources: RMC, RESI, IMPLAN

**Figure 56: RMPPIF State and County Tax Revenue, 2021**

Region	Property	Income	Sales	Payroll	Other	Total
Western	\$17,126	\$17,326	\$34,073	\$319	\$4,401	\$73,244
North Central	\$44,124	\$46,707	\$51,508	\$806	\$13,824	\$156,969
Southern	\$98,598	\$43,135	\$95,858	\$643	\$20,123	\$258,357
Upper Shore	\$26,009	\$10,936	\$28,495	\$199	\$4,817	\$70,457
Middle Shore	\$1,502,379	\$894,856	\$2,324,197	\$14,263	\$428,055	\$5,163,749
Lower Shore	\$47,805	\$33,745	\$84,870	\$555	\$11,434	\$178,409
Statewide	\$610	\$850	\$731	\$12	\$218	\$2,421
<b>Maryland Total</b>	<b>\$1,736,651</b>	<b>\$1,047,554</b>	<b>\$2,619,731</b>	<b>\$16,796</b>	<b>\$482,873</b>	<b>\$5,903,606</b>

Sources: RMC, RESI, IMPLAN

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