

The Economic Contribution of the Des Moines Metro Opera to Polk, Dallas, and Warren Counties in Iowa During 2022

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Introduction

This report evaluates the economic contribution of the Des Moines Metro Opera to the three-county area including Dallas, Polk, and Warren Counties in Iowa during the calendar year 2022.

The evaluation is based on financial reports, ticket sales, and operations and visitor data provided by the Des Moines Metro Opera. Regional Strategic, Ltd. utilized input-output modeling software from IMPLAN to estimate the contributions presented here.

Initial Information from the Des Moines Metro Opera for 2022

The Des Moines Metro Opera expended \$7.6 million during 2022 activities. These activities included:

- The summer opera season in Indianola
- Other performances
- Educational activities
- Fundraising, marketing, and administration

The opera is a people-heavy operation. Nearly half of its 2022 budget consisted of opera personnel, production and performance artists, and artistic design services. 2022 performances and operations utilized the services of 425 people. All but 12 of these was in-residence in the area while being compensated. The great majority were seasonal employees or contractors.

The Des Moines Metro Opera is distinguishable from most other performing arts venues in the area for at least one of the following two reasons:

1. It produces its performances in-house rather than acting as a contract venue for touring attractions
2. It relies upon professional performance and production staff

For these reasons, this evaluation of the Des Moines Metro Opera was performed as a “Bill of Goods” analysis. It utilizes actual expenditure and visitor information from the opera to generate a picture specific to the Des Moines Metro Opera.

Table 1 provides basic operating financials for the Des Moines Metro Opera in 2022.

Table 1: Des Moines Metro Opera 2022 Financial Highlights	
Total Expenditures	\$7,600,593
Core Payroll	\$1,766,952
Performance, Artistic, & Design Contract Payroll	\$1,952,103
Other Expenditures	\$3,881,538

The values in **Table 1** are the basic foundation of this estimate of the Des Moines Metro Opera's economic contribution to the three-county area.

In addition to the contribution provided by opera expenditures there are also expenditures by opera attendees originating outside of the three-county area. **Table 2** shows the local or nonlocal origin of opera attendees.

Table 2: Opera Attendees by Origination	
Local	6,364
Nonlocal	4,397
Total	10,761

Nonlocal visitor expenditures related to Des Moines Metro Opera visits were calculated with information from the 2017 study, *Arts & Economic Prosperity 5: the economic impact of nonprofit arts & cultural organizations & their audiences in the Greater Des Moines Region*, produced by Americans for the Arts. Information from the Consumer Price Index was used to adjust reported numbers for inflation from 2017 to 2022.

These expenditures were also evaluated using input-output software from IMPLAN to give estimates of the total economic activity they generate within the study area.

Economic Impact (Input-Output) Models

An input-output model is a large matrix that calculates how money (in this case – expenditures) moves through and out of a system.

For example, if a person attends the Des Moines Metro Opera:

- That person provides the opera with money for a ticket
- The opera takes part of that money to pay staff and part to purchase props, etc.
- The employee might use their payment to buy groceries, dancing lessons, or a round of golf
- The prop merchant pays help and generates (buys or produces) more props
- And on and on and on

In the context of this analysis:

1. Funds the Des Moines Metro Opera expends that are received by any entity within the three-county region represents DIRECT OUTPUT
2. Inputs other entities in the three-county area supply to the opera or to its direct suppliers represent INDIRECT OUTPUT
3. Goods and services purchased by people with the income they earn from the opera or its suppliers represent INDUCED OUTPUT

As long as a dollar spent by the opera continues to circulate among entities within the three-county area, the input-output model continues to add the expenditures to one of the OUTPUTS. As soon as the opera, one of its suppliers, or one of the employees spends the dollar outside the three-county area, the process and the counting stops.

The same process occurs when a visitor to the opera spends money at another business within the three-county area while engaged in their opera visit.

The model provides further detail on the DIRECT, INDIRECT, and INDUCED impacts of opera expenditures:

- OUTPUT is the final value of goods or services sold at any level
- VALUE ADDED is the portion of OUTPUT value that is created within the area – VALUE ADDED plus the cost of inputs purchased from outside the area equals the value of OUTPUT
- A portion of VALUE ADDED pays production labor and is denoted as LABOR INCOME
- LABOR INCOME is allocated on an industry- and area-specific basis to JOBS

Jobs are calculated on the basis of the usual job within an industry within the area. JOBS numbers should not be interpreted as full-time positions. In industries where the majority of jobs are half-time, each half-time job would be a JOB. Care must be used in interpreting JOBS estimates. This is particularly true within the context of the Des Moines Metro Opera

due to the seasonal nature of its operations and the heavy proportion of partial-year employees and contractors required.

The Des Moines Metro Opera's Contribution to the Three-County Economy

Expenditures by the Des Moines Metro Opera were evaluated and assigned to thirty industrial categories within the IMPLAN input-output modeling software. The core payroll was treated as direct contributions to household incomes within the area. **Table 3** shows the estimated totals of local economic activity generated from these expenditures.

As a result of Des Moines Metro Opera expenditures of \$7.6 million, the local three-county area generates nearly \$11.5 million in total OUTPUT or value of sales. \$7.6 million of this OUTPUT is created by economic activity within the three-county area and is VALUE ADDED by the local economy. Nearly \$4.7 million of this VALUE ADDED is paid to employees as LABOR INCOME.

Table 3: Local Economic Activity Generated by Des Moines Metro Opera Expenditures

Impact	Jobs	Labor Inc. (\$)	Value Added (\$)	Output (\$)
Direct	71.5	3,013,127	4,708,014	6,433,747
Indirect	10.5	613,960	1,015,717	1,851,149
Induced	18.6	1,040,427	1,876,312	3,169,508
Totals	100.5	4,667,514	7,600,043	11,454,404

The model also estimates an area-wide employment effect of 100.5 jobs. This number, however, should be viewed cautiously given the high proportion of partial-year payrolls reflected as full-year positions by the model. The model associates the seasonal payrolls of the opera with the year-round work schedules that predominate in the local area.

Note that while the opera's total expenditures for 2022 were \$7.6 million, DIRECT OUTPUT is only \$6.4 million. The difference (\$1.2 million) did not disappear, but it immediately left the local area. The model reduces retail and wholesale expenditures by the cost of goods sold if goods originate outside of the area. Purchases from some industries are assumed to be from vendors outside the area depending upon industry presence in the area.

Also note that the "Bill of Goods" system of analyzing the economic activities of the Des Moines Metro Opera effectively moves the first line of suppliers to the DIRECT line of

impacts. This increases DIRECT impacts for VALUE ADDED, LABOR INCOME, and JOBS. It reduces the line of INDIRECT impacts for these items by identical amounts. The result has no effect on the INDUCED or TOTALS lines of the impact table. The table could be juggled to remove this effect, but the ultimate result would not be changed.

The TOTALS line in **Table 3** reflects the total economic footprint of the Des Moines Metropolitan Opera on the three-county economy. It is the Des Moines Metro Opera's "Contribution" to the local economy.

Visitors to the Des Moines Metro Opera

The performances of the Des Moines Metro Opera are expected to draw audiences. These audience members are either residents of the three-county area or they are not. If they are nonresidents, any expenditures they make within the area when they visit the programs of the Des Moines Metro Opera also generate economic activity. **Table 2** above summarizes the residence status of opera audiences.

These visitor numbers have been applied to expenditure estimates provided by a 2017 study, *Arts & Economic Prosperity 5: the economic impact of nonprofit arts & cultural organizations & their audiences in the Greater Des Moines Region*, produced by Americans for the Arts. The resulting nonlocal visitor expenditures totaled \$311,512.

These were entered into the IMPLAN input-output modeling software system to generate the visitor economic impacts shown in **Table 4**.

Table 4 shows that the local expenditures of nonlocal visitors to the Des Moines Metro Opera supports \$161,719 of LABOR INCOME in the three-county area. Total local OUTPUT associated with these expenditures is \$475,900 of which \$270,646 is value created within the three-county area or VALUE ADDED. This is in addition to the economic activity generated directly by the Des Moines Metro Opera's expenditures.

Table 4: The Local Economic Impact of Nonlocal Opera Attendees

Impact	Jobs	Labor Inc. (\$)	Value Added (\$)	Output (\$)
Direct	2.8	92,191	152,954	266,637
Indirect	0.6	39,166	62,444	115,674
Induced	0.5	30,362	55,248	93,589
Totals	3.9	161,719	270,646	475,900

Combined Economic Effects of Opera Expenditures and Nonlocal Attendee Expenditures

The economic effects of the Des Moines Metro Opera's expenditures and the expenditures of nonlocal opera attendees can be combined to give a picture of the total economic footprint of the opera within Dallas, Polk, and Warren Counties. **Table 5** provides this summation. The total OUTPUT or value of sales in the area due to the opera and its nonlocal visitors is nearly \$12 million. Of this, nearly \$7.9 million is generated by economic activity within the area, VALUE ADDED. Over sixty percent of this VALUE ADDED (\$4.8 million) is paid out as LABOR INCOME. Once again, the JOBS estimates calculated within the model must be considered with care due to the partial-year nature of nearly all the employment involved.

Table 5: Combined Effect of Expenditures by the Des Moines Metro Opera and Nonlocal Attendees

Impact	Jobs	Labor Inc. (\$)	Value Added (\$)	Output (\$)
Direct	74.3	3,105,318	4,860,969	6,700,384
Indirect	11.1	653,126	1,078,160	1,966,824
Induced	19.1	1,070,789	1,931,560	3,263,097
Totals	104.4	4,829,233	7,870,689	11,930,305

Economic Impact: The Proportion of Economic Effects Driven by Nonlocal Resources

The economic contribution of the Des Moines Metro Opera to the three-county area comprising Polk, Dallas, and Warren Counties includes all transactions driven by the opera or that result from opera-driven transactions. This contribution is presented in **Table 5** above.

Economic development analysts also frequently refer to "Economic Impact" as the portion of an activity's economic contribution that results from external resources entering the local area. This is generally in the form of revenues gained from exporting goods or services.

In the case of the Des Moines Metro Opera, one can think of exporting entertainment. The opera draws in patrons who buy tickets and contribute funds in order to enjoy operatic

performances. It is possible to identify the portion of Des Moines Metro Opera receipts that derives from non-local sources. This portion can then be applied to the opera's economic contribution to measure the opera's economic impact.

Externally driven economic impact from the Des Moines Metro Opera consists of two parts:

1. Non opera expenditures within the area by nonlocal opera guests
2. The portion of opera revenue (a proxy for the portion of expenditures) received from nonlocal sources

The first of these is presented as **Table 4** above.

The second is equal to 8.5% of **Table 3** above. The 8.5% represents the portion of Des Moines Metro Opera revenue that derives from nonlocal sources. This includes ticket sales, grants, and contributions derived from nonlocal individuals and institutions.

Because the impact model is linear, we can simply multiply all of the numbers in Table 3 by 0.085 to generate this portion of the impact. The result is shown in **Table 6**.

Table 6: Economic Impact Generated by Nonlocal Funding to the Des Moines Metro Opera

Impact	Jobs	Labor Inc. (\$)	Value Added (\$)	Output (\$)
Direct	6.1	256,116	400,181	546,868
Indirect	0.9	52,187	86,336	157,348
Induced	1.6	88,436	159,487	269,408
Totals	8.5	396,739	646,004	973,624

The sum of **Table 4** and **Table 6** represents the total externally generated economic impact of the Des Moines Metro Opera. This sum is shown in **Table 7** below. This is the portion of opera-induced economic activity which is generated with nonlocal funds.

Table 7: Total Externally-generated Economic Impact of the Des Moines Metro Opera – the Sum of Table 4 and Table 6

Impact	Jobs	Labor Inc. (\$)	Value Added (\$)	Output (\$)
Direct	8.8	348,307	553,136	813,506
Indirect	1.5	91,353	148,780	273,022
Induced	2.1	118,798	214,734	362,997
Totals	12.5	558,458	916,650	1,449,525

Table 8 shows the percentage of opera-induced economic activity that is generated through the opera’s attraction of nonlocal funds.

Table 8: Portion of Opera-induced Economic Activity Generated Through the Opera’s Attraction of Nonlocal Funds

Impact (%)	Jobs	Labor Inc.	Value Added	Output
Direct	11.9%	11.2%	11.4%	12.1%
Indirect	13.6%	14.0%	13.8%	13.9%
Induced	11.1%	11.1%	11.1%	11.1%
Totals	11.9%	11.6%	11.6%	12.1%

Conclusion

During 2022, the Des Moines Metro Opera drove nearly

- \$12 million in local sales or output
- \$8 million in direct economic activity or production
- \$5 million in labor income

in the three-county region including Polk, Warren, and Dallas Counties. Twelve percent of this (nearly one-eighth) was driven by funding coming into the area from nonlocal sources.

In addition to these impacts, however, are educational programs that are not considered in this analysis. The Des Moines Metro Opera maintains an educational program that provides programming throughout Iowa. In 2022, the Des Moines Metro Opera:

- Held 125 classroom workshops
- Visited 66 schools
- Benefitted 450 music teachers
- Impacted 21,620 students

throughout Iowa.

These activities and this presence extend far beyond Polk, Warren, and Dallas Counties and the analysis presented here.