Economic Impact of Pathfinder Event Center

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1 Introduction

This report will detail the economic impact for Fremont County of the Pathfinder Event Center. Section 1 provides background on the Pathfinder Event Center, briefly describes the methodology used, and summarizes results. Section 2 elaborates on the methodology used for estimating economic impact. Section 3 reviews the primary results. Section 4 concludes.

Opened in 2022, Pathfinder Event Center is an event venue located in Florence, CO. It serves Fremont County as well as the surrounding area. The venue features an outdoor arena, covered arena, auditorium, commercial kitchen, small pavilion, meeting room, and classroom. Common events held at the Center include weddings, rodeos, 4-H events, Colorado Outdoorsmen Days, craft fairs and funerals. Additionally, Pathfinder hosts the Colorado State University Extension Office for Fremont County.

The features offered by Pathfinder attract visitors from within as well as from outside Fremont County. As a form of input-output (I-O) modeling, this analysis by parts (ABP) study estimates the economic impact in Fremont County of external visitors to Pathfinder. External visitors are defined as people visiting Pathfinder who reside outside of Fremont County. The economic impact of Pathfinder occurs through two channels; i) from revenue earned by the Center and ii) from other expenditure by external visitors within Fremont. In terms of composition, the total economic impact consists of i) direct, ii) indirect, and iii) induced effects. In terms of metrics, we estimate impact for four categories: i) total output, ii) value added, iii) labor income, and iv) jobs. These concepts are described further in Section 2.

As our baseline estimate, we find that external visitors to the Pathfinder Event Center had the following economic impact:

- **Total Output**: $711,591
- **Value Added**: $212,025
- **Labor Income**: $114,829
- **Jobs**: 3.9

For perspective, on the one hand, the ratios of total output and value added, to total Fremont County GDP for 2023 are 0.04% and 0.01%, respectively—expressed as a percentage. On the other hand, ratios of total output and value added to total Pathfinder expenses in 2023 are 3.22 and 0.96.

In other words, the economic impact of the Pathfinder Event Center measured by total output significantly exceeds its total expenses, while the impact from value added nearly covers expenses.

2 Methodology

Input-output (I-O) modeling is a widely used methodology for economic impact analysis. Input-output models are used by private and public entities, at the local, regional, national, and international levels (Miller & Blair, 2022). Together with assumptions about production processes, input-output tables provide the foundation for I-O models. Data for I-O tables is collected by governmental statistical agencies, such as U.S. Department of Agriculture Economic Research Service and the U.S Department of Labor Bureau of Economic Analysis. Private entities, such as IMPLAN, index their I-O tables against government agency figures.

A crucial attribute of I-O tables is their depiction of economies as composed of interconnected sectors (also termed industries), where output from each sector is used as an input for others (Miller & Blair, 2022). Thus, if output from one sector is increased—"shocked" by the researcher—then all other sectors will be impacted.

As a form of I-O modeling, **analysis by parts (ABP)** enables us to estimate the impact of the Pathfinder Event Center without having to define the full sectoral detail for the Center in an I-O table (USDA, 2016). That is, we do not explicitly define all inputs used by the Center in terms of other sectors. Instead, based on the economic activity generated by Pathfinder from external visitors, we estimate the expenditure associated with each model sector, shocking the model by this amount to measure the economic impact.

First, using IMPLAN, we generated an I-O table for Fremont County. The I-O table includes input and output totals for 2023 for i) 85 unique sectors, ii) the components of value added, iii) household expenditure by income group, and iv) state and federal expenditure. Next, we configured the I-O model matrix components in Excel, following standard methods outlined by Miller and Blair (2022) as well as by Colorado State University Extension researchers.

With a model configured and populated with IMPLAN data, we shock the model with expenditure totals associated with Pathfinder. This expenditure is conceptualized as a change to total output for key sectors that would not otherwise occur but for the Event Center. The sectors of interest are defined as:

- Gasoline Stations;
- Amusement, Gambling, and Recreation Industries;
- Accommodation; and
- Food Services and Drinking Places.

These sectors comprise the bulk of tourist spending[1]. Since we do not estimate expenditures for all sectors, our economic impact estimates are conservative, potentially underestimating the full impact (benefits). Expenditure shocks come from i) revenue directly earned by the Center and from ii) other

[1]The choice of sectors is detailed further in Appendix B.

expenditure by visitors within Fremont. Crucially, we consider only revenue and other expenditure attributable to external visitors, to obtain the true impact. This is because we assume that internal visitors could have spent money elsewhere in Fremont County if Pathfinder did not exist, whereas external visitors would not. Pathfinder revenue is attributed to the category "Amusement, Gambling, and Recreation Industries" while visitor expenditure is split among "Accommodation", "Food Services and Drinking Places", and "Gasoline Stations".

The revenue data is provided by Pathfinder. The visitor expenditure data was created i) using estimates made by Pathfinder staff, ii) using estimates based in tourist spending research, and iii) with some simple assumptions. As an example, Pathfinder estimates that 200 visitors attend their weddings on average. Together with data showing that an average meal in Colorado is $17 and assuming (conservatively) that visitors will eat out only one meal per day, we estimate a food expenditure that contributes to the "Food Services and Drinking Places" category. That is, for external visitors to Pathfinder attending weddings, we compute their daily food expenditure for money spent anywhere within Fremont County. Likewise for other events and expense categories.

The **direct impact** of Pathfinder Event Center is the impact directly attributable to external visitors to the Center (USDA, 2016). For total output[2], direct impact is computed as the sum of i) all revenue earned directly by Pathfinder and ii) the total expenditure in Fremont County by their external visitors. In addition, I-O modeling captures indirect and induced impacts. The **indirect impact** results from input purchases by shocked sectors (USDA, 2016). As an example, the restaurant at which an external visitor eats must purchase inputs from other sectors. We model the additional input purchases (economic activity) that occur as a result of the direct impact. Lastly, the direct and indirect impacts generate labor income which leads to additional expenditure, termed the **induced impact** (USDA, 2016).

The total impact of the Event Center is the sum of direct, indirect, and induced impacts. This total impact is measured in terms of employment, labor income, value added, and total output (Miller & Blair, 2022; USDA, 2016):

- **Total Output**: The total sales revenue or value, aggregating across all sectors.
- **Value Added**: The sum of labor income, taxes, and ownership income (ex. profit, rent, dividends, interest).
- **Labor Income**: All income from employment, including wages, salary, benefits, and proprietor income.
- **Employment**: The annual average of monthly jobs, including both part- and full-time jobs.

Note, that the I-O table details each of these four metrics at the sectoral level as well as the aggregate totals for Fremont County as a whole. In the aggregate, value added is also the total Fremont

[2]Other metrics are computed in an analogous way. For example, value added represents a subset of total output. For this subset, the direct, indirect and induced effects follow the same concept. Appendix C shows the direct impact computed for output.

County GDP. Our analysis shows the impact to each metric specifically from Pathfinder Event Center. Thus, the value added impact can be interpreted as the marginal increase in Fremont County GDP from Pathfinder. Likewise, we show the impact of Pathfinder on employment, labor income, and total output. The employment estimate uses an additional output from IMPLAN, the total employment by sector. These total impacts are detailed in the next section.

3 Results

We compute baseline economic impact estimates for employment, labor income, value added, and total output, shown below in Figure 1. Additionally, we compute low- and high-range estimates for the same metrics, detailed in Appendix A

In summary, we find that the Pathfinder Event Center has the following impacts in Fremont County:

- **Total Output**: $711,591
- **Value Added**: $212,025
- **Labor Income**: $114,829
- **Employment**: 3.9

As noted in the introduction, the impact of Pathfinder on total output, value added, or labor income constitutes a small fraction of the total Fremont County GDP, as expected. Our key finding is that: i) the impact on total output exceeds Pathfinder total expenses for 2023 and ii) the impact on value added nearly covers Pathfinder's expenses. For value added, this means that the additional GDP generated by Pathfinder nearly covers Pathfinder expenses. For total output, this means that the total sales activity (summing across all sectors) generated by Pathfinder exceeds Pathfinder expenses. For total output, this holds for baseline, low-, and high-range estimates. Value added only exceeds expenses in the high-range estimate.

We also performed a "what-if" analysis. If we assume Pathfinder Event Center eliminates fee-for-use, thereby generating an increase in visitors, then we find an increase in economic activity across all four metrics (see Appendix D). At first this might seem counterintuitive: eliminating fees charged increases economic activity. However, the bulk of economic activity attributable to Pathfinder is not due to the revenue directly generated by the Center. Rather, most economic activity is associated with the additional expenditure from external visitors that Pathfinder draws into Fremont County. Likewise, raising fees is associated with lower economic activity, due to fewer visitors and lower associated expenditure. (see Appendix D).

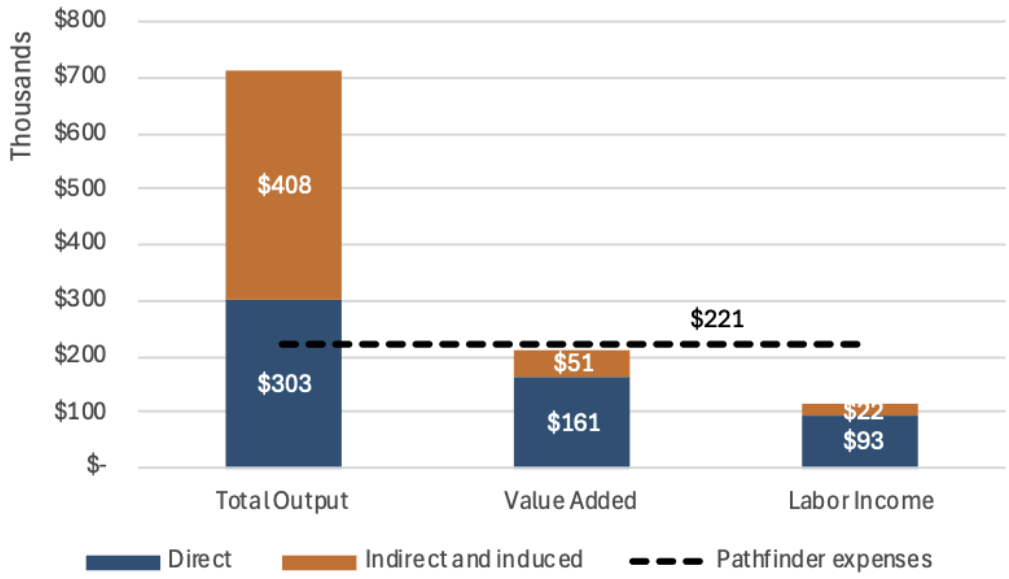

Figure 1: Economic Impacts

4 Conclusion

In this report, we detail the findings on an economic impact analysis for the Pathfinder Event Center. We showed the impact of Pathfinder in Fremont County on total output, labor income, value added, and jobs.

As a baseline estimate, we concluded that the economic impact of Pathfinder was $711,591 in total output, $114,829 in labor income, $212,025 in value added, and 3.9 in jobs. The impact on total output exceeds Pathfinder expenses in 2023, $221 thousand, for the baseline, low-, and high-range estimates. The value added impact exceeds Pathfinder expenses only for the high-range estimate, while nearly equaling the deficit under the baseline (see Appendix A).

Using conservative assumptions and noting that all visitor expenditure is not captured, we suggest our economic impact estimates are potentially an underestimate. Additionally, our I-O model approach does not capture in-kind benefits. For example, the benefit to Fremont County residents from renting Pathfinder as a wedding venue at a rate below the market price. Such benefits could be large, suggesting an additional positive impact not measured here.

5 References

BEA. (2024). U.S. Travel and Tourism Satellite Account for 2018â2022. Retrieved August 18, 2024, from https://apps.bea.gov/scb/issues/2024/04-april/0424-travel-tourism-satellite-account.htm

Miller, R., & Blair, P. (2022). *Input-Output Analysis: Foundations and Extensions* (3rd).

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6 Appendix A: Extended Results

Section 3 shows the baseline results for total output, value added, labor income, and jobs. The below figures show the low- and high-range estimates for these metrics.

The low-range estimate assumes the total impact is only 75% of that computed for baseline, while the high-range estimate assumes an impact 125% of baseline.

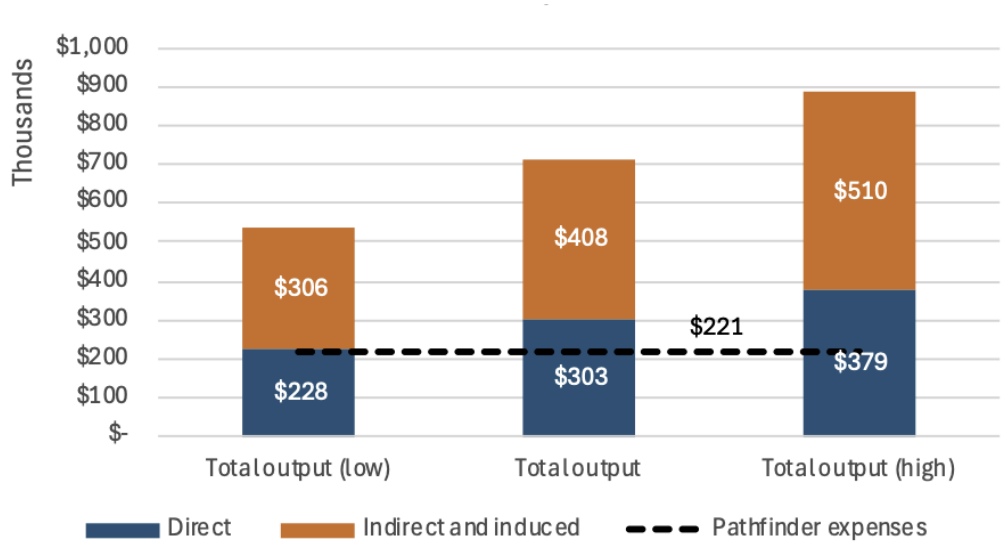

Figure 2: Total Output Range

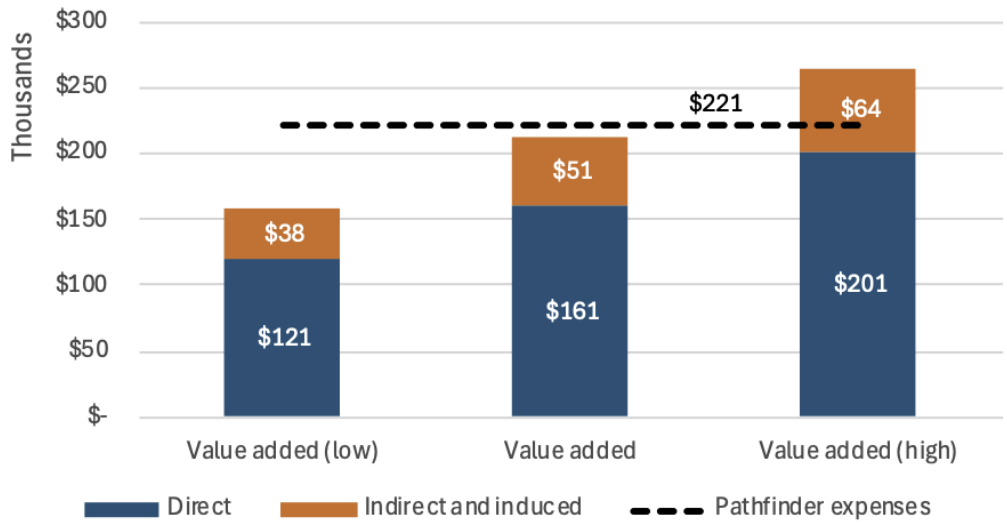

Figure 3: Valued Added Range

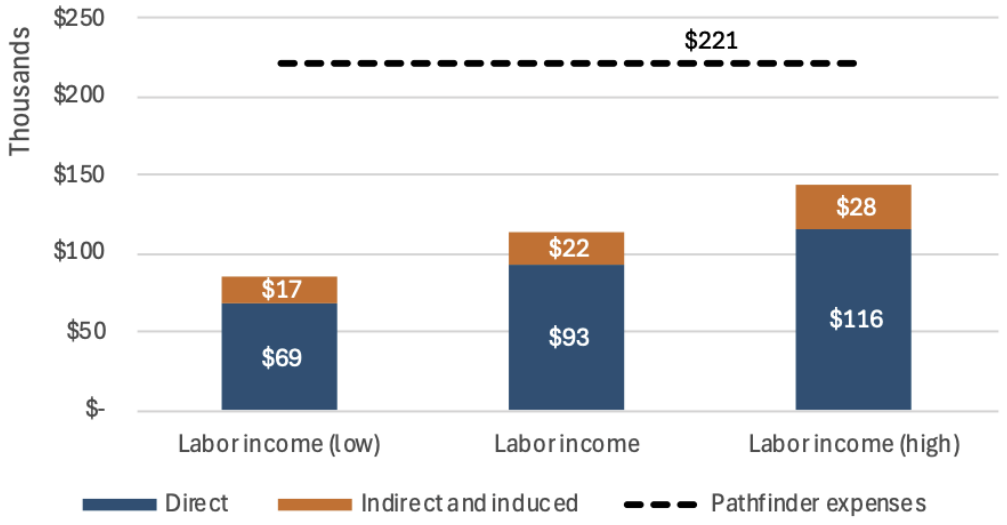

Figure 4: Labor Income Range

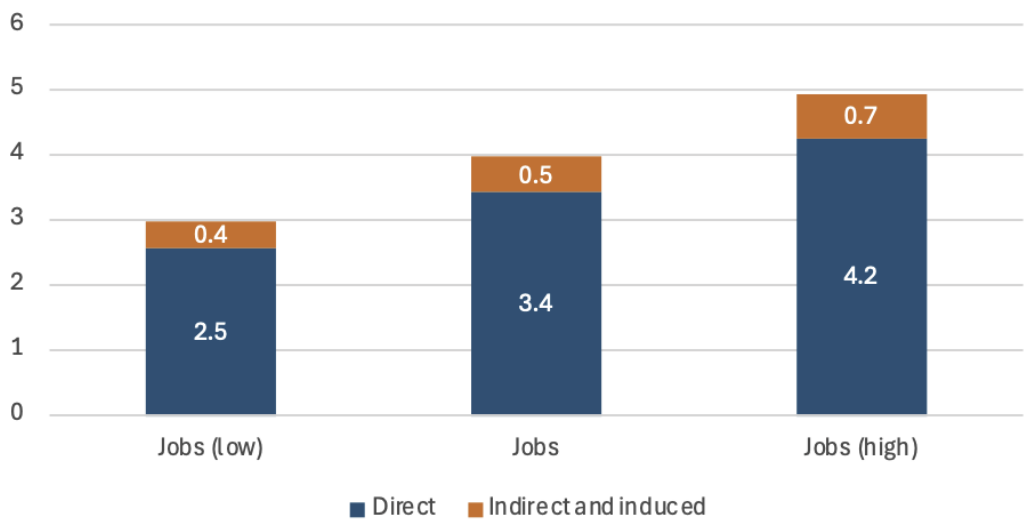

Figure 5: Jobs Range

7 Appendix B: Choice of Sectors

We estimate external visitor expenditure for three sectors:

- Gasoline Stations;
- Accommodation;
- Food Services and Drinking Places;

Of course, visitors may have other expenditure categories that are not captured here. For example, grocery store spending. We have chosen those categories accounting for the highest expenditure, on average, as reported in the U.S. Travel and Tourism Satellite Account for 2018-2022 from the U.S. Bureau of Economics Analysis (BEA, 2024).

According to BEA (2024), the following five categories account for 80% of all tourist expenditure: 1) Traveler accommodations, 2) Food and beverage services, 3) Domestic passenger air transportation services, 4) Gasoline, and 5) Recreation, entertainment, and shopping. Excluding domestic air travel, which would not be an expense benefiting Fremont County, the other four categories account for 64% of tourist spending. This study includes spending shocks to these four categories. Thus, we capture a significant portion, although not all potential tourist expenditure. However, if any expenditure is excluded, then our impact will be under-estimated.

8 Appendix C: Output direct impact

The below table shows the direct impacts to output computed for four IMPLAN sectors.

Category	Amount
Gasoline Stations	$5,498
Amusement, Gambling, and Recreation Industries	$12,365
Accommodation	$97,650
Food Services and Drinking Places	$187,837

The sector "Amusement, Gambling, and Recreation Industries" captures revenue directly earned by Pathfinder. The other three sectors capture expenditure by visitors to Pathfinder within Fremont County.

9 Appendix D: 'What-if' analysis

We perform a "what-if" analysis for two scenarios:

1. Pathfinder raises fees by 10%, which reduces visitors by 10%
2. Pathfinder eliminates all fees, which increases visitors by 25%

Scenario one is referred to as "high revenue" while scenario two is "zero revenue". Note that many event types are alreadu free and thus no impact on visitors occurs.

As elsewhere, we provide conservative estimates in terms of visitor increase, 25%, associated with an elimination of fee-for-use. If visitors increased more, then the economic impact would be larger, increasing expenditure within Fremont County. We assume a 1% fee increase is associated with a 1% fee decrease—"unitary elasticity". See figure below.

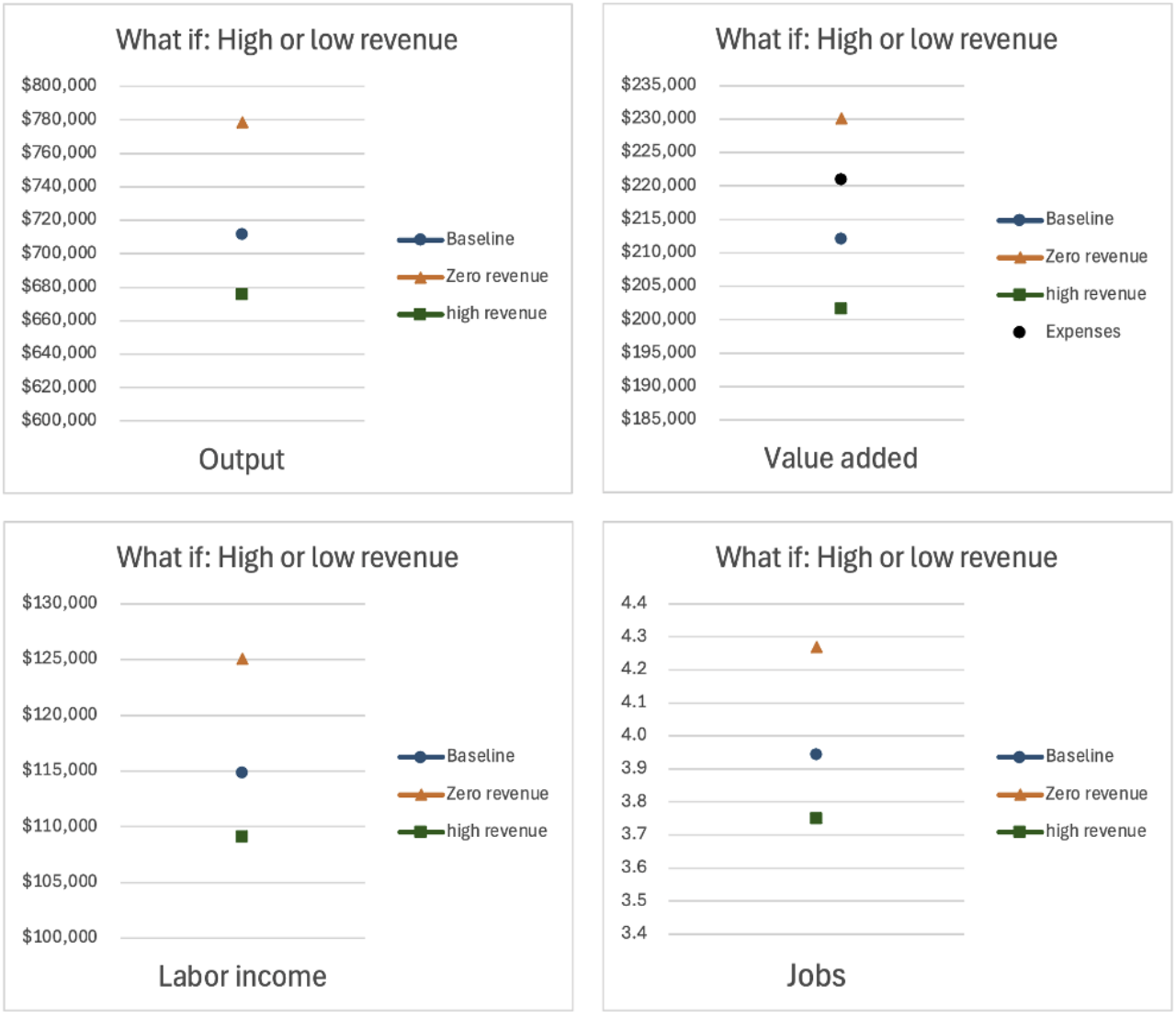

Figure 6: ”What-if” analysis