



# **Denver Performing Arts Complex Economic Impact Analysis**

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Final Report

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# Denver Performing Arts Complex Economic Impact Analysis

**Prepared for**



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## Denver Performing Arts Complex—Economic Impact

Arts & Venues, an agency of the City and County of Denver, retained BBC Research & Consulting (BBC) to estimate the annual economic impact of the Denver Performing Arts Complex (DPAC) on the City and County of Denver (Denver).

This report presents a summary of BBC's analysis of the total economic impact on the City and County of Denver from events and operations at DPAC. The goal of this report is to help interested parties understand the nature and magnitude of this impact on the local economy.

DPAC, one of the largest performing arts centers in the United States, is comprised of 10 performance spaces on its 12-acre site in downtown Denver. The performance spaces include:

- Boettcher Concert Hall;
- Temple Hoyne Buell Theatre;
- Ellie Caulkins Opera House;
- Helen Bonfils Theatre Complex (comprised of four theatres);
- Studio Loft; and
- The Garner Galleria Theatre.

The complex also includes a sculpture park, ballroom and retail space. In addition to hosting Broadway touring productions, education programs and a variety of other productions, DPAC is home to four resident performing companies:

- Colorado Ballet;
- Colorado Symphony Orchestra;
- Denver Center for the Performing Arts; and
- Opera Colorado.

In 2013, over 781,000 patrons attended performances and events held at DPAC. An estimated 77 percent of these visits came from patrons who live outside of the City and County of Denver, and nearly one-quarter of visits originated outside of the Denver metropolitan area.

DPAC operations and estimated spending by visitors to DPAC who come from outside Denver total to about \$86.5 million of annual direct spending, as shown in Figure 1 below.

**Figure 1.**  
**Direct Spending in the City of Denver**

Category	Total Direct Spending
Lodging	\$1,331,500
Transportation	3,167,300
Food and beverage	4,820,100
Activities	2,834,400
Shopping	4,121,600
Parking	2,901,800
<b>Visitor Spending Subtotal</b>	<b>\$19,176,700</b>
DPAC operations (revenues)	\$10,398,200
Performing company operations	56,969,300
<b>Total Direct Spending</b>	<b>\$86,544,200</b>

Note: Numbers may not add due to rounding.

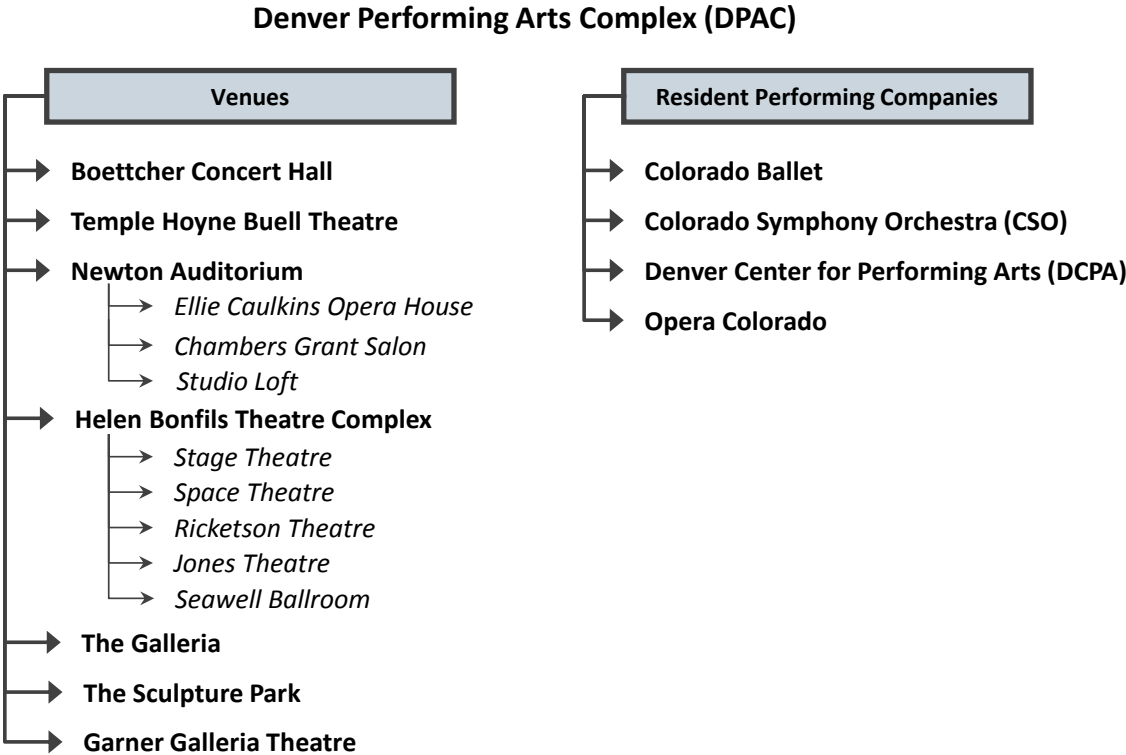
Source: BBC Research & Consulting.

The direct spending associated with DPAC only represents a portion of the overall economic impact. Spending from visitors, operations, and the performing companies circulates through the local economy and creates a “secondary impact.” The total economic impact associated with events and operations at DPAC, including direct and secondary impacts, is over \$141 million annually. This economic activity corresponds to approximately 2,500 jobs in Denver.

## Overview of the Denver Performing Arts Complex

DPAC is owned and operated by the City and County of Denver. Arts & Venues, an agency within the city, operates and manages the complex. The complex sits on a four-block site in downtown Denver and is one of the largest of its kind in the country. As shown in Figure 2, DPAC is home to four resident companies and provides a variety of venues for a wide array of performances.

Figure 2.  
DPAC Overview



Note: DCPA operates and maintains the Helen Bonfils Theatre Complex and the Garner Galleria Theatre. All other venues are operated and maintained by Arts & Venues.

Source: Denver Performing Arts Complex, <http://www.artscomplex.com/>.

## Methodology and Data

The total annual economic impact that DPAC has on Denver includes all revenues generated by Arts & Venues and performing companies operations; all spending by patrons visiting from outside Denver; the secondary impact generated by operations and spending; and the associated tax revenue generated by DPAC. The most critical factors influencing the economic impact are performing companies operations, revenues from ticket sales; annual number of DPAC visitors; and visitor spending on lodging, transportation, food and beverage, shopping, and other recreational activities.

Performing company operations include local operational expenditures from the four resident organizations: Colorado Ballet, Colorado Symphony Orchestra (CSO), and Denver Center for the Performing Arts (DCPA), and Opera Colorado. Per Diem expenditures from touring companies are also included in this category.

Visitor spending related to DPAC performances and events was counted for those visitors coming into Denver from outside the city. Spending by visitors coming from outside the city introduces “new” money into the local economy.<sup>1</sup>

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<sup>1</sup> Expenditures by local residents are typically excluded from economic impact calculations. Spending by local residents does not represent additional economic activity, rather a shift from spending in one sector of the economy to another. For example, a Denver resident spending money for a performance at DPAC might, in the absence of the event at DPAC, purchase tickets to a concert in another venue in Denver or pay for a different type of entertainment within the city.

Attendance data and operational revenues used in the study were collected from a variety of sources including Arts & Venues, information from the performing companies, and publicly available data regarding resident companies. Data on the residential location of visitors, provided by DCPA,<sup>2</sup> were used to estimate the proportion of visitors who live within the City and County of Denver, within the Denver metro area, and outside the Denver metro area.

Spending by DPAC visitors was estimated based on data collected by the Colorado Business Committee for the Arts (CBCA).<sup>3</sup> CBCA reported spending data associated with arts patrons in the Denver metro area, which BBC used to estimate spending per DPAC visit.

BBC utilized data collected by Longwoods International regarding the type of spending by overnight and day visitors in Colorado to estimate a spending profile for visitors to DPAC.<sup>4</sup> The spending profile estimates the distribution of dollars to lodging, transportation, restaurants and bars, shopping, and other recreational activities.

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<sup>2</sup> DCPA manages and books performances and events held at DPAC venues. Visitor residence data collected by DCPA reflect a majority of the visitors to DPAC and serve as a reliable proxy for the origin of DPAC visitors.

<sup>3</sup> 2010 Economic Activity Study of Metro Denver Culture: The Business of Culture. Colorado Business Committee for the Arts.

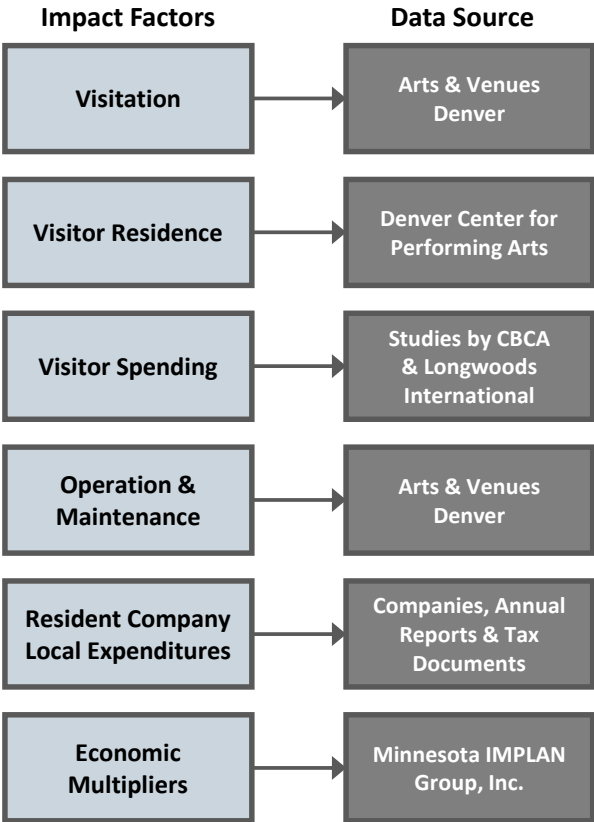
<sup>4</sup> Colorado Travel Year 2012. Longwoods International.

To calculate total economic benefits, BBC modeled the impact of direct spending associated with DPAC using IMPLAN multipliers to calculate the secondary (induced and indirect) economic benefits.<sup>5</sup> Economic benefits are expressed in the economic and employment output supported by activities at DPAC.

BBC calculated fiscal benefits in the form of state and local tax revenues by applying appropriate sales and use tax rates to participant-related local spending.

An overview of the data sources used is provided in Figure 3.

**Figure 3.**  
**Data Sources**



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<sup>5</sup> IMPLAN is an economic impact assessment system developed and maintained by the Minnesota IMPLAN Group (MIG). It allows the user to develop local-level input-output models that calculate the direct and secondary impacts of economic activity by sector through the use of industry-specific multipliers and other factors. The IMPLAN system closely follows the accounting conventions used by the Bureau of Economic Analysis.



## Report Organization

The remainder of this report presents results for:

- **Visitation.** Documents the number of patrons visiting DPAC, including their origin of travel.
- **Direct Spending.** Provides a description of the direct economic impact associated DPAC visitor spending as well as annual operational revenues.
- **Total Economic Impact.** Documents total economic impact (direct and secondary impacts) resulting from DPAC activities.
- **Fiscal Impact.** Provides fiscal impact (local tax revenues) associated with DPAC activities.
- **Other Impacts.** Documents non-quantifiable economic and community benefits associated with DPAC activities.

Arts & Venues collects data regarding visitation to its performances and events held at its venues. In 2013, over 781,000 patrons visited DPAC’s venues.

DCPA provided BBC with the county of residence for visitors to its events and performances in 2012. This distribution is displayed in Figure 4 below.

To capture the “new” money introduced into the Denver economy, BBC included from spending by the 77 percent of DPAC visitors who came from outside Denver (604,000 visits) in its economic impact model. This includes spending by patrons visiting from within the Denver metro area but outside the City and County of Denver.

**Figure 4.**  
**Residential Location of DCPA Patrons**

Location	Percentage
Adams County	6 %
Arapahoe County	17
Boulder County	6
Broomfield County	2
Denver County	23
Douglas County	9
Jefferson County	15
Colorado, outside metro area	13
U.S., outside Colorado	7
Outside U.S.	2
<b>Total</b>	<b>100 %</b>

Note: Numbers may not add due to rounding.

Source: DCPA; BBC Research & Consulting.

# Direct Spending

BBC identified expenditures that were associated with DPAC activities. The model includes conservative estimates of spending associated with DPAC visitation, as to not over-state the direct spending in Denver.

DPAC visitor spending is estimated at \$27 per person per visit, not including ticket purchase or parking.<sup>6</sup> Applying this amount to the approximately 604,000 visits from outside of Denver brings total annual DPAC visitor spending to about \$16.4 million. Figure 5 on the following page displays the categorized distribution of visitor spending, not including ticket purchase or parking.<sup>7</sup>

**Figure 5. Distribution of Visitor Spending**

Category	Proportion	Amount
Lodging	8 %	\$1,331,500
Transportation	19	3,167,300
Restaurants and bars	30	4,820,100
Activities	17	2,834,400
Shopping	25	4,121,600
<b>Total</b>	<b>100 %</b>	<b>\$16,274,900</b>

Note: Does not include ticket purchase or parking expenditures. Numbers may not add due to rounding.

Source: CBCA; DCPA; and BBC Research & Consulting.

<sup>6</sup> CBCA reports total visitor spending of \$301.6 million related to arts patronage in the Denver metro area in 2009 and total visitation of 11.2 million in the same year. 2010 Economic Activity Study of Metro Denver Culture: The Business of Culture.

<sup>7</sup> Spending distribution is based on data collected in the following study: Colorado Travel Year 2012. Longwoods International.

Figure 6 below adds annual parking expenditures (\$2.9 million) and DPAC and performing company annual operational revenues (\$10.4 million and \$57 million respectively) to the categorized spending shown in Figure 5. Total annual direct spending associated with DPAC is approximately \$86.5 million.

**Figure 6. Categorized Direct Spending**

Category	Total Direct Spending
Lodging	\$1,331,500
Transportation	3,167,300
Food and beverage	4,820,100
Activities	2,834,400
Shopping	4,121,600
Parking	2,901,800
<b>Visitor Spending Subtotal</b>	<b>\$19,176,700</b>
DPAC operations (revenues)	\$10,398,200
Performing company operations	56,969,300
<b>Total Direct Spending</b>	<b>\$86,544,200</b>

Note: Numbers may not add due to rounding.

Source: BBC Research & Consulting.

**Lodging and hotel expenses.** Figure 6 shows that visitors spend about \$1.3 million annually on lodging on trips to visit DPAC.

**Transportation.** Visitors spend about \$3.1 million annually on transportation to visit DPAC. Gasoline for automobile travel accounts for most of this spending, so much of this money leaks out of the local economy.

# Direct Spending

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**Food and beverage.** Restaurants and bars receive the largest portion of DPAC visitors' spending, totaling about \$4.8 million annually. This reflects restaurants and bars outside of DPAC only, not food and beverage purchases made within DPAC, which are counted in DPAC operational revenue.

**Activities.** Visitors spend about \$2.8 million annually on activities in Denver during their visit. This may include attending sporting events, watching a movie, or visiting other cultural institutions.

**Shopping.** Visitors spend about \$4.1 million shopping during their trips to DPAC. This includes all retail spending other than spending at restaurants and bars. Like transportation spending, much of this expenditure leaks out of the local economy, as most merchandise sold in the city is produced outside of the city.

**Parking.** DPAC operates its own parking garage on the premises and collects data regarding its operation. The parking garage alone brings in revenue of about \$2.9 million annually. This does not include money injected into the economy by DPAC visitors who pay to park elsewhere.

**DPAC operations.** BBC obtained budget information from Arts & Venues detailing annual revenues and expenditures. BBC included all annual operational revenues associated with DPAC, including ticket sales, concession sales, facility and equipment rental, and miscellaneous revenue. Total annual operational revenue is approximately \$10.4 million.

**Performing companies operations.** DPAC reported the annual operational spending for the resident performing companies: Colorado Ballet, Colorado Symphony Orchestra, and Denver Center for the Performing Arts (DCPA), and Opera Colorado. Only operational spending related to performances at DPAC are included. Payments from the resident performing companies to Arts & Venues were excluded from the estimates of company revenues to avoid double counting. BBC also worked with DCPA, one of the resident companies, to exclude operational spending related to non-local touring companies. DCPA staff also provided an estimate of per diem expenditures associated with touring company performers. Combined, the total annual operational spending from regular local performing companies is approximately \$57 million.

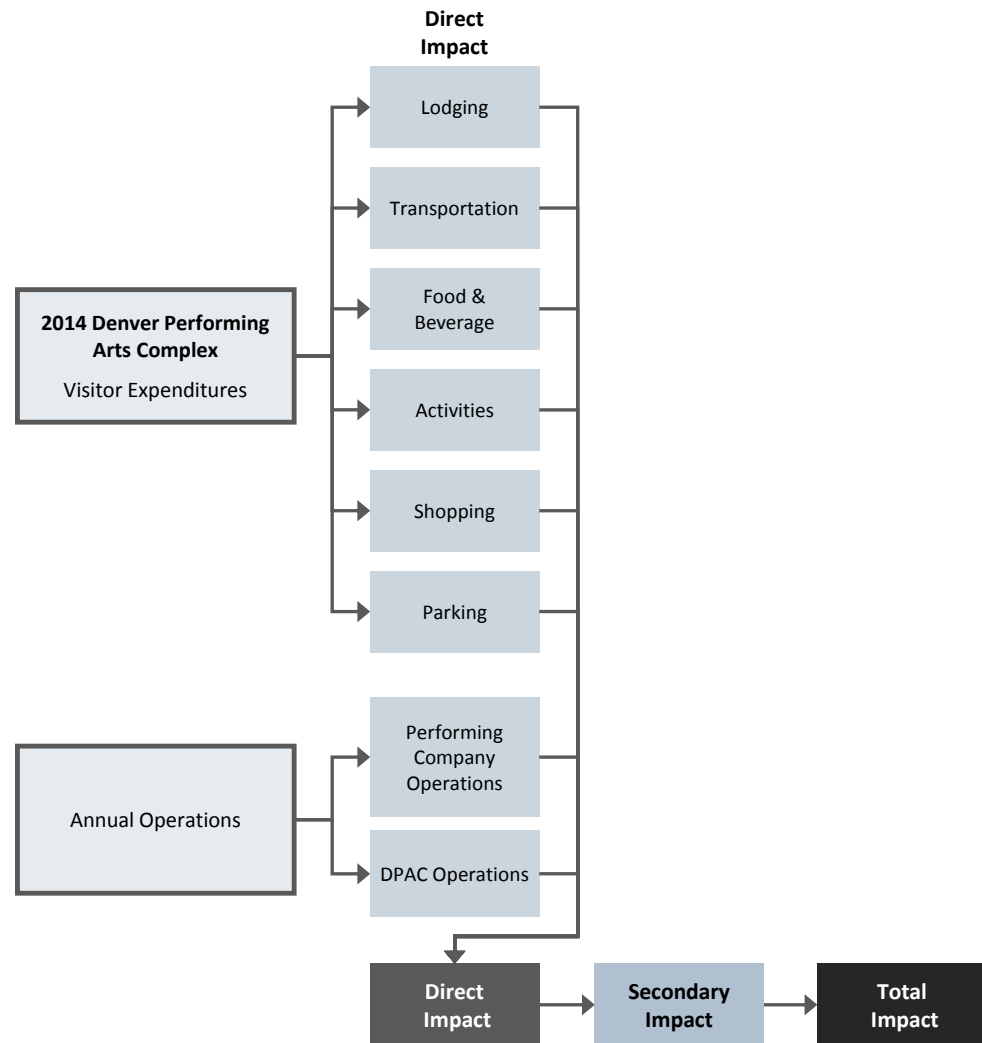
## Total Economic Impact

The direct spending, discussed in the previous section of this report, only represents a portion of the total impact of DPAC on the City and County of Denver. Spending generated by DPAC visitors and annual operations circulates in the local economy. Businesses where visitors spend their money purchase goods and services from other businesses, and workers spend a portion of their earnings on local goods and services. This recirculation of money in the economy is termed a “secondary impact.”

For the purposes of this analysis, the local economy is defined as the City and County of Denver. This study area was chosen because it is a functioning “economic unit” and will capture most project-related impacts. As previously discussed, this impact analysis only includes operational revenues and spending by visitors from outside of Denver, so that it only captures new spending in the local economy. Spending by Denver residents is excluded from the study.

To determine the total economic impact of DPAC activities (the direct plus the secondary impacts), the study team developed a spending flow model — shown in Figure 7— to trace the flow of dollars generated by the Festival through the local economy.

**Figure 7.**  
**Spending Flow Model, Denver Performing Arts Complex**

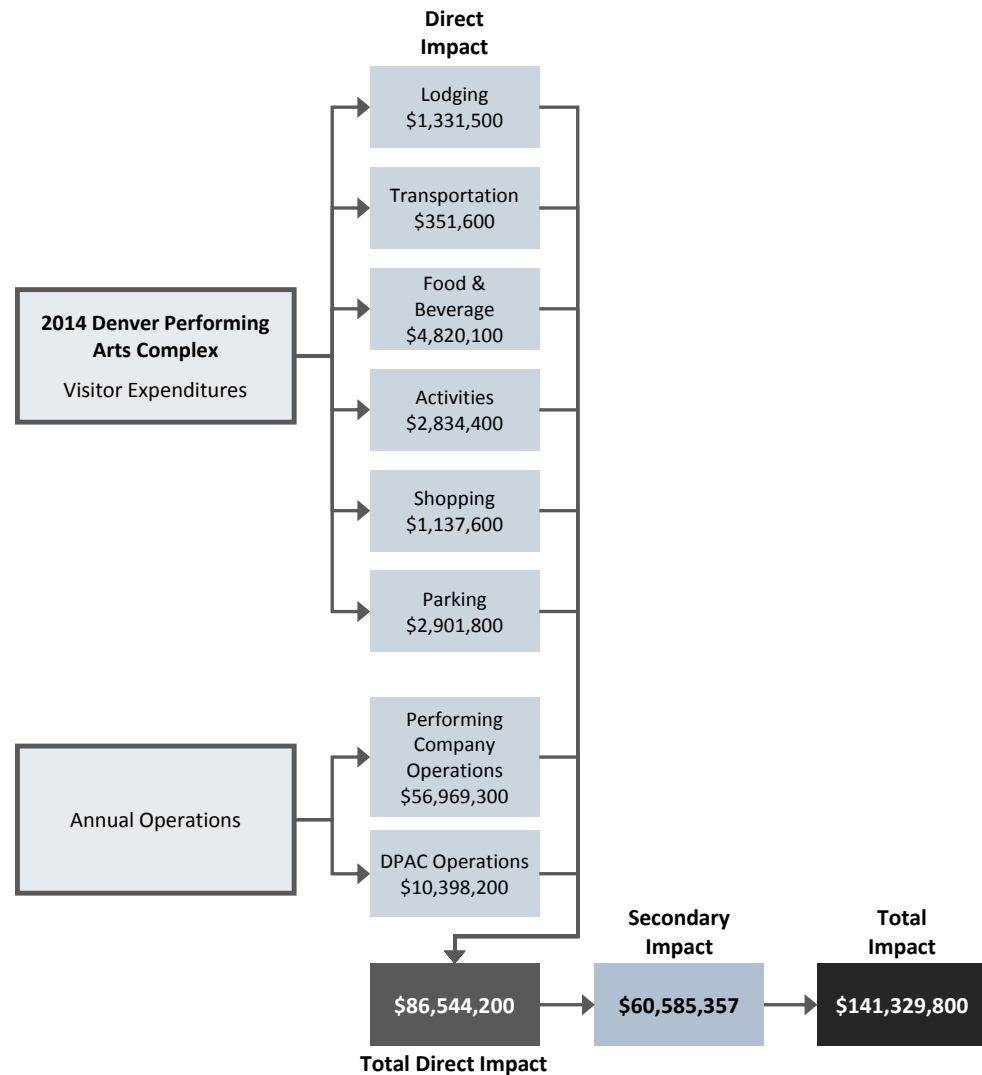


Source: BBC Research & Consulting.

## Total Economic Impact

Figure 8 shows the direct impacts, secondary impact, and total economic impact associated with DPAC activities. Adding the direct and the secondary impacts, DPAC has a total economic impact of approximately \$141 million on the local economy. This figure includes economic activity generated by annual DPAC operational revenues generated by annual DPAC operational revenues visitor spending.

**Figure 8.**  
**Total Economic Impact, Denver Performing Arts Complex**



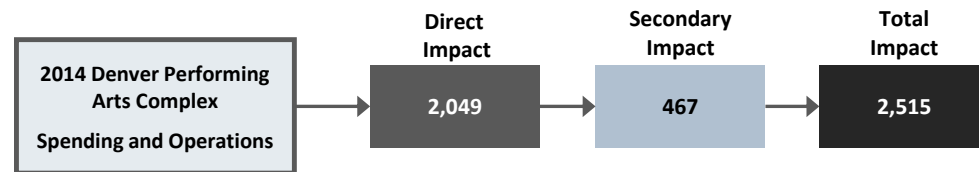
Note: Direct Expenditures reported net of taxes (sales, lodging and excise). Numbers may not add due to rounding. The direct impact used to estimate total economic impact is lower than the direct spending presented in Figures 1 and 4 because the economic impact model accounts for leakage from the local economy in retail sectors. Goods in these sectors are not likely to have been produced locally, so only a margin of the direct impact remains local, while the producer price leaks out of the region.

Source: BBC Research & Consulting, based on IMPLAN impact analysis for planning data and software.

## Current Impact on Employment

Economic activity generated by DPAC activities also has substantial impact on employment in the local economy. Figure 9 shows the full-time equivalent (FTE) jobs created by DPAC activities. DPAC activities generate approximately 2,515 jobs in the local economy. This includes over 2,000 jobs resulting from direct economic activity at DPAC (visitor spending and operations) and over 400 jobs resulting from the circulation of the direct spending through the Denver economy.

**Figure 9.**  
**Total Employment Impact, Denver Performing Arts Complex**



Note: Job numbers reported as full-time equivalent (FTE).

Source: BBC Research & Consulting, based on IMPLAN impact analysis for planning data and software.

## Sales and Lodging Tax Revenue

Direct spending associated with DPAC activities generates substantial tax revenue for the local and state governments. Since DPAC and associated performing companies are nonprofit organizations, operation spending is not included in the fiscal analysis. However, since visitors spend money on taxable goods and services, DPAC still has a notable fiscal impact. Figure 10 shows estimated tax revenue collected as a result of taxable expenditures related to DPAC activities.

In total, spending and operations associated with DPAC generates about \$1.3 million in annual tax revenue for the City and County of Denver and the State of Colorado.

## Facilities Development Admissions (FDA) Tax

The City and County of Denver collects a 10 percent tax on admission to any event held at a City facility. These funds are used to pay down debt incurred on City facilities and assigned for capital investment according to the City's capital funding plan. FDA revenues from events at DPAC in 2013 were over \$3.5 million. Revenues in 2011 and 2012 exceeded \$4 million.

**Figure 10.**  
**Tax Revenue Generated**

Category	Total Direct Spending	Local Tax Rate	State Tax Rate	Local Tax Revenues	State Tax Revenues
Lodging	\$1,331,500	11.9%	2.9%	\$157,800	\$38,600
Transportation	\$3,167,300	-	\$0.22 cpg	\$0	\$219,100
Food and beverage	\$4,820,100	4.0%	2.9%	\$192,800	\$139,800
Activities	\$2,834,400	4.7%	2.9%	\$133,800	\$82,200
Shopping	\$4,121,600	4.7%	2.9%	\$194,500	\$119,500
<b>Total</b>	<b>\$16,274,900</b>			<b>\$678,900</b>	<b>\$599,200</b>

Note: Transportation tax rate based on \$3.18 per gallon of gas (week of 10/13/14).

Source: BBC Research & Consulting based on Denver Combined Tax Rates, 2014.



DPAC provides additional, non-quantifiable benefits to the Denver economy which are not captured in the impact model. Most of these additional impacts come in the form of synergies with other aspects of downtown Denver.

DPAC is home to four performing resident companies: the Colorado Ballet, Colorado Symphony Orchestra; Opera Colorado, and the Denver Center for the Performing Arts. DPAC provides these organizations a home in downtown Denver, which may contribute to their prominence and success.

The 14<sup>th</sup> Street Corridor in downtown Denver represents a thriving portion of the local economy, and DPAC is a major contributor to the economic success of this corridor. The attraction of the area's hotels, restaurants, residences, and other businesses is enhanced by DPAC's presence.

Not only does DPAC attract visitor spending to area business, as is captured in the direct spending model, but the decision of such businesses to local in the area can be partially attributed to DPAC's presence. Economically, some portion of the capital investment made to build hotels and open restaurants near DPAC could be accredited to DPAC itself. Accordingly, DPAC likely creates some additional indirect fiscal impact beyond what is quantified in this study.

The community benefit DPAC provides is less quantifiable, but no less valuable. Its presence as a cultural destination is one of many factors which add to the general appeal of the City and County of Denver in general, and the downtown area specifically.