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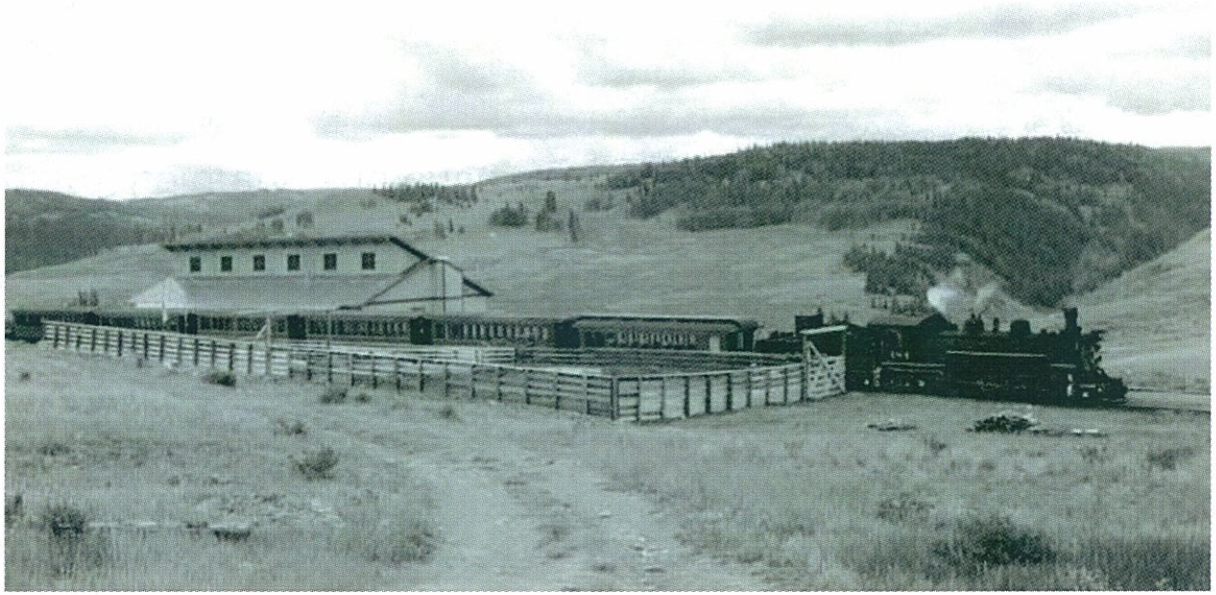
Economic Impacts of the Cumbres & Toltec Scenic Railroad

Antonito, Colorado and Chama, New Mexico



FINAL REPORT

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June 4, 2014

Economic Impacts of the Cumbres & Toltec Scenic Railroad

Antonito, Colorado and Chama, New Mexico

Prepared for

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Executive Summary

Spending associated with the Cumbres & Toltec Scenic Railroad (C&TS), located in Conejos County, Colorado and Rio Arriba County, New Mexico, provides benefit to the local economy and generates tax revenue for local governments. BBC Research & Consulting (BBC) calculated annual direct and secondary economic impacts of C&TS in Alamosa, Archuleta, and Conejos Counties, Colorado and Rio Arriba and Taos Counties, New Mexico.

The purpose of this report is to provide interested parties with information about current C&TS visitation characteristics and resulting economic benefits from its ongoing operations. Due to pressure on state and local government budgets and substantial competition for philanthropic funds, it has become increasingly important for C&TS to accurately quantify its cultural, historic, and economic contribution to Northern New Mexico and Southern Colorado.

C&TS is a National Historic Landmark and runs between the village of Chama, New Mexico and the town of Antonito, Colorado. Chama is located about 80 miles northwest of Española, New Mexico, and Antonito is approximately 30 miles southwest of Alamosa. The railroad covers a 64-mile stretch of the old Denver & Rio Grande's (D&RG) San Juan Extension and is the highest and longest steam-operated railroad in the United States. After the end of the silver mining era, the Interstate Commerce Commission granted the D&RG permission to abandon the line in 1969. This provided New Mexico and Colorado the opportunity to purchase the track and convert it into a living museum. The states jointly own the railroad and operate it through the Cumbres & Toltec Scenic Railroad Commission with support from an active independent nonprofit volunteer organization, the Friends of C&TS.

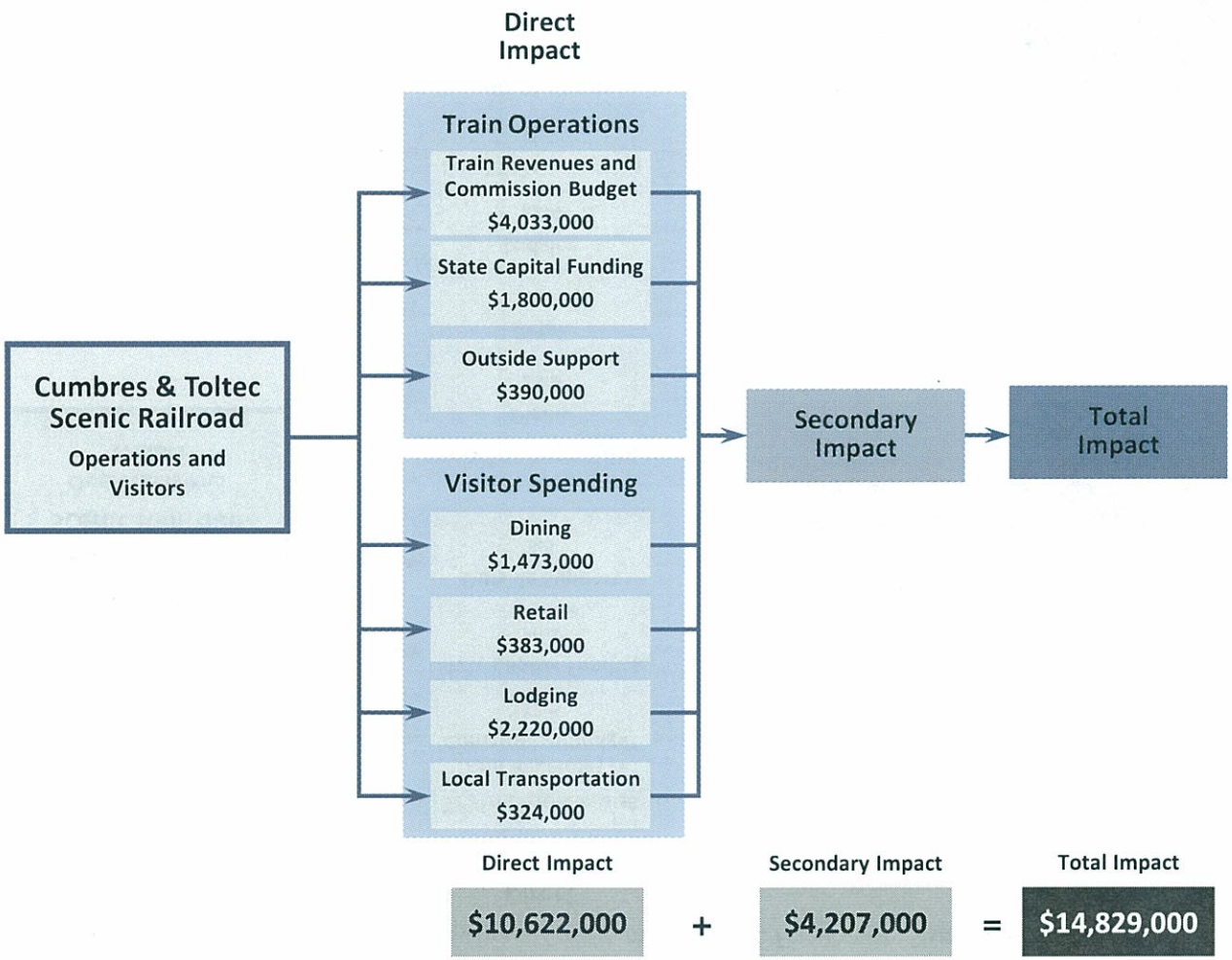
Operation of this historic railroad has significant effect on the local economy as it is the primary tourism attraction for both Chama and Antonito. In 2013, approximately 37,000 visitors rode the train. Resulting visitation and tourism expenditures are especially important in rural areas where people may be particularly reliant on income derived from tourism.

BBC estimated direct railroad-related spending in the local area and used widely accepted economic modeling techniques involving IMPLAN input-output multipliers to calculate secondary (induced and indirect) economic benefits. Secondary benefits capture spending that indirectly results from the direct spending on C&TS operations and visitation. Secondary economic activity includes railroad spending on supply industries and household spending by railroad employees. Economic benefits are expressed in employment and economic output supported by C&TS area operations and visitor spending.

As shown in Figure 1 on the following page, C&TS currently has a total annual economic impact of about $14.8 million per year within the study area, including direct and secondary impacts.

Figure 2 presents the employment impacts associated with the spending shown in Figure 1. Economic activity generated by current C&TS operations and visitation supports an estimated 147 jobs per year in Rio Arriba, Conejos, Alamosa, Archuleta, and Taos Counties.

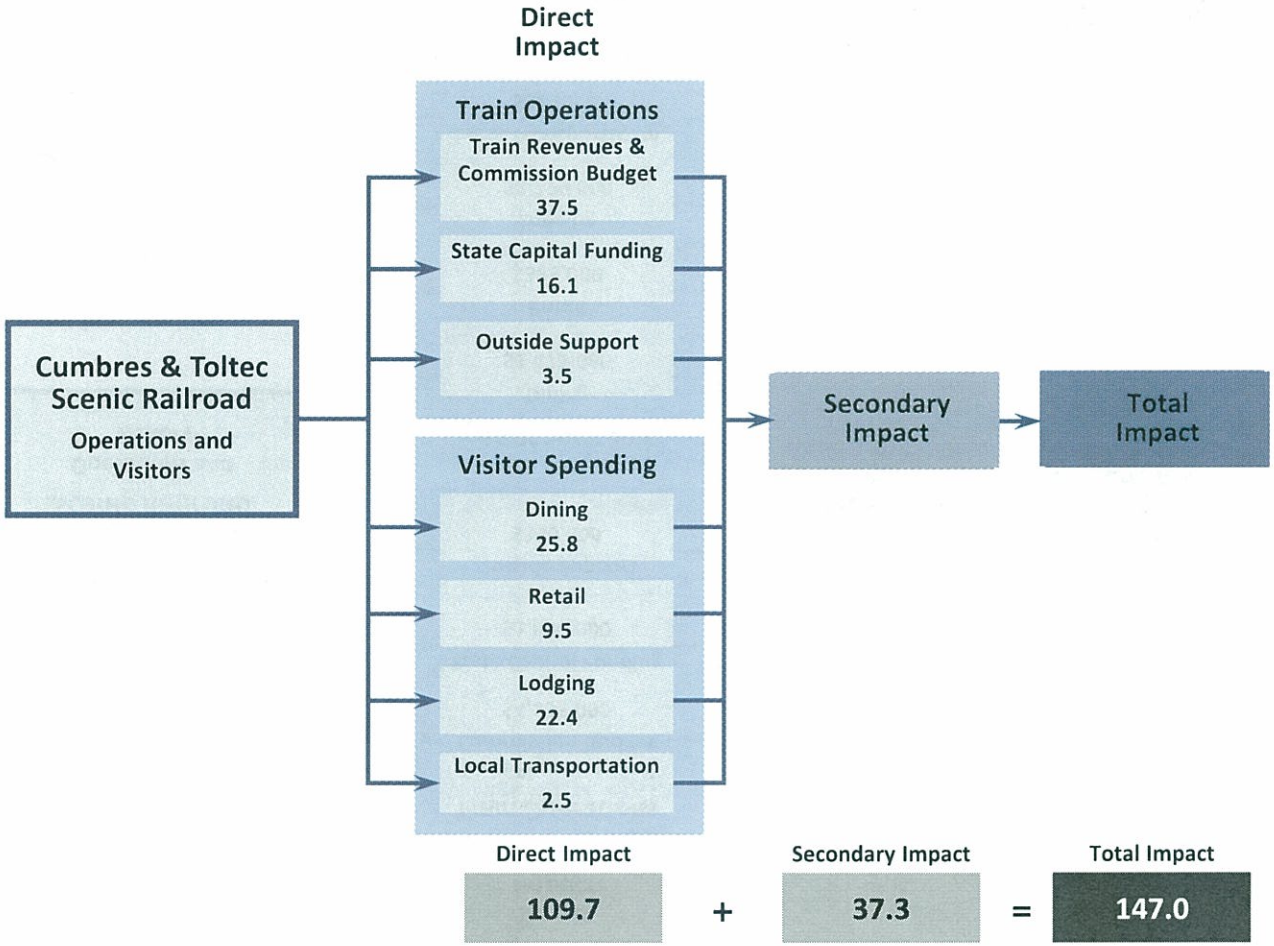
Figure 1.
Cumbres & Toltec Scenic Railroad, Current Total Annual Economic Impact, Five-County Study Area



Notes: (1) Direct Expenditures reported net of taxes (sales, lodging and excise).
(2) Outside Support includes donations and grant funding.
(3) Retail and transportation expenditures represent gross retail margin.

Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System

Figure 2.
Cumbres & Toltec Scenic Railroad, Total Annual Employment Impact, Five-County Study Area



Note: (1) Employment shown as annual full time equivalents.

(2) Employment estimates for C&TS are from the IMPLAN model, adjusted to reflect employment data from C&TS.

Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System

Background and Methodology

Background

The Cumbres & Toltec Scenic Railroad was originally constructed in 1880 as part of the D&RG's San Juan Extension. This three-foot, narrow gauge line was designed to serve the silver mining district in southwestern Colorado; however as the silver mining industry declined, the tracks were no longer economically viable and were never converted to the more common standard gauge. In 1969, D&RG was granted approval by the Interstate Commerce Commission to abandon the railroad.

While the majority of the D&RG abandoned track was dismantled, Colorado and New Mexico purchased 64 miles of track and associated structures between Antonito, Colorado, and Chama, New Mexico. This scenic portion of the railroad was immediately converted into a living museum, providing tourists with the unique opportunity to experience an authentic journey through the historic west.

Tours originate from either Antonito or Chama and pass through unique and diverse terrain, including Cumbres Pass, which is the highest mountain pass traversed by rail in the United States. Trips from either direction stop midway and include a catered lunch at the historic Osier Station. The train runs daily between Memorial Day and late October. Riders can either take the train to the opposite depot and return to their point of origin by bus, or can take the train halfway to the Osier station and return by train.

The railroad is owned by both Colorado and New Mexico, and is operated by the Cumbres and Toltec Scenic Railroad Commission (Commission).The Commission is an interstate agency authorized by Congress in 1974. It consists of four members—two gubernatorial appointees from each state. The Commission objective is to support the railroad and tourism related businesses.

By 1980, ten years into the railroad's scenic tourist operations, much of the property had fallen into decay. In order to restore and preserve the railroad, concerned citizens founded the nonprofit volunteer organization, Friends of the Cumbres & Toltec Scenic Railroad, Inc. (Friends of C&TS). This organization is now responsible for the care of all historic assets not used during daily operations. The group was also instrumental in getting C&TS designated as a National Historic Landmark in late 2012.

C&TS is the primary tourist attraction in both Chama and Antonito. During the summer season, train visitors fill local hotels and shop at local stores and restaurants. However, during the off-season many businesses close. Businesses that stay open often lay off employees and cater to a much smaller clientele of hunters and snowmobilers. C&TS is the cornerstone of the local economy and local residents depend on the business it brings into the community.

Methodology

The two main categories of direct spending related to C&TS are expenditures related to operating the railroad and spending in nearby communities by railroad passengers. These two spending categories are considered basic economic contributions and serve as the foundation for local economic and fiscal stimulation.

C&TS staff provided background information on the railroad, visitation statistics, and data from C&TS surveys on visitor characteristics. These data track ridership and ticket sales by trip type. Surveys conducted in 2012 and 2013 provide information on rider lodging patterns. BBC calculated economic and fiscal

benefits of C&TS based on visitation data and direct spending estimates. To calculate current economic impacts, BBC estimated direct spending associated with C&TS and utilized IMPLAN Regional Input-Output Modeling System software multipliers to calculate secondary (induced and indirect) economic impacts. Economic impacts are expressed in the employment and economic output supported by C&TS visitation and associated spending. BBC calculated current fiscal benefits, or local and state tax revenues, using IMPLAN to model taxes on sales and other economic activity generated by visitor-related local spending.

Report Organization

This report is organized into five sections focusing on the following topics:

- The study area used for the analysis;
- Annual C&TS visitation;
- Current spending patterns;
- The spending flow model used for the analysis; and
- The economic, employment, and fiscal impacts of C&TS.

Study Area

This study analyzes the impacts of C&TS on Alamosa, Archuleta, and Conejos Counties, Colorado and Rio Arriba and Taos Counties, New Mexico. It includes the two counties where train depots are located and three additional regional counties where related economic activity is likely to occur. The five-county study area captures the majority of railroad related spending.

Some related spending occurs outside of this region and is not included in the analysis. For example, C&TS purchases materials from all over the country, including coal from Hesperus, Colorado and steel from Farmington, New Mexico. Visitors also spend money in other communities, such as Durango or Santa Fe, on their way to or from C&TS. While this represents positive economic impacts of C&TS, it does not occur within the local economy and is considered as leakage out of the study area.

This study analyzes the impacts that occur within this five-county area as a whole and does not report the results for individual counties within the study area or for each state. Assigning impacts based on railroad operations and maintenance to small specific areas within the region is not appropriate given that activities may occur in Chama, Antonito or some other point along the route. Visitor spending, operating expenditure and associated indirect and induced impacts are particularly difficult to track in this sparsely populated area due to seasonal residence and commerce patterns. The location of economic activity ultimately depends on the type of economic activity, materials purchased or work conducted; the capital and operational needs of the railroad; and the direction of the Commission.

General population and economic conditions vary across the five-county study area. Figure 4 presents population, income, unemployment, and home value data by county within the study area.

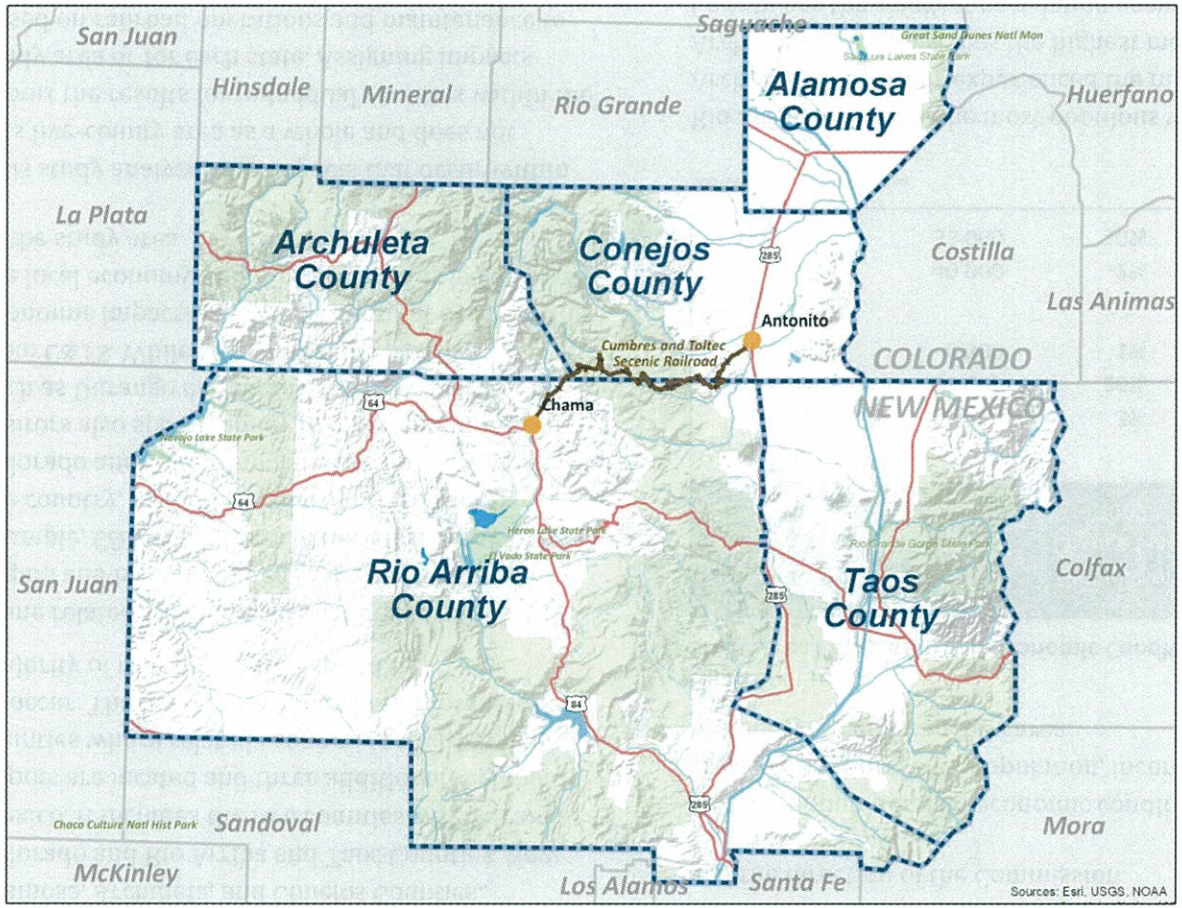
Figure 3.
Study Area Population and Economic Conditions

County	2010 Population	Population Change Since 2000	Median Household Income	Unemployment Rate	Median Home Value
Colorado					
Alamosa	15,500	3%	$38,000	6%	$133,200
Archuleta	12,000	20%	$54,000	7%	$291,000
Conejos	8,300	-1%	$33,000	5%	$106,300
New Mexico					
Rio Arriba	40,000	-2%	$41,000	8%	$126,000
Taos	33,000	10%	$34,000	9%	$203,800

Source: U.S. Census Bureau

Rio Arriba County is the most populous within the study area. However Archuleta County has experienced the most rapid during the last ten years. Archuleta County also has the highest median income and home values. Conejos County has the smallest population as well as the lowest median household income and home values.

Figure 4.
Study Area Map- Five-County Study Area



Source: BBC Research & Consulting, 2013.

Annual Visitation

Total Visitation

According to data provided by C&TS, 37,060 passengers rode C&TS in 2013. Roughly 87 percent were adults and 13 percent were children. C&TS offers a variety of different excursions designed for the whole family to enjoy.

Excursions vary in origin and duration. Passengers can begin their trips in Chama or Antonito and can either ride the train to the opposite depot and return to their point of origin by bus; or they can take the bus and return by train. A shorter trip is also available for passengers who would prefer to turn around midway at Osier station and return by train.

In addition to regular excursions, C&TS also offers the following unique experiences throughout the season:

- Fireman and Engineer School
- Cumbres Sunset Train
- Cider Bear Experience
- Geology Train

The majority of passengers, 71 percent, begin their excursions in Chama rather than Antonito. Figure 5 shows visitation by visitor type and trip origin, provided by C&TS.

Figure 5.
C&TS Visitation, 2013

	Antonito	Chama	Total
Adult	9,751	22,522	32,273
Child	1,015	3,772	4,787
Total	**10,766**	**26,294**	**37,060**

Note: Trip origin is determined by where the excursion begins, including motor coach departure.

Source: The Cumbres & Toltec Scenic Railroad.

In the last two years, visitors have come from 24 countries across six continents to visit C&TS. However according to ticket purchase data from C&TS, 44 percent of visitors come from New Mexico and Colorado. Of the out-of-state visitors, the majority come from the Southwest, specifically Texas and Arizona.

Direct Spending

Direct railroad expenditures can be divided into two categories—expenditures related to railroad operations; and purchases made by C&TS riders on other goods and services during their visit in the area.

Railroad Operations

C&TS's primary revenue source is from ticket purchases. In 2013, visitors purchased $3.2 million worth of tickets to ride C&TS, including season passes. Visitors also spend approximately $116,000 annually on the fireman and engineer school, and $165,000 on retail and snack purchases made on the train. C&TS also makes about $146,000 on special excursions and charter engagements with film crews. Combined, train revenues account for $3,633,000 in annual economic activity. Train revenues are assumed to support day-to-day operations of the railroad, with the exception of an additional $400,000 that supports the annual Commission budget.

Railroad capital spending is financed primarily through funding from outside sources. Together New Mexico and Colorado appropriate approximately $1.8 million per year for capital expenditures. C&TS also receives approximately $390,000 in annual outside support from three primary sources. The Candelaria Foundation has provided the most consistent and substantive support beyond the states with a $1 million offering over ten years for critical operational needs that cannot be otherwise funded. The nonprofit group, Friends of C&TS, also funds and completes special restoration projects every year. In 2013 donations totaled approximately $90,000. They also volunteer approximately 25,000 man-hours. Additionally, C&TS receives approximately $200,000 annually in grants from the State Historical Fund.

Visitor Spending

In order to capture the economic impact of C&TS visitor spending, BBC developed a customized spending model for the five-county study area. This model includes spending on lodging, restaurants, retail, and local transportation. BBC consulted with knowledgeable local business owners to verify visitor spending patterns.

For the past two years, C&TS surveyed visitors about the duration and location of their overnight lodging. The information provided from these surveys served as the basis for BBC's spending model because both lodging and restaurant expenditures within the study area are directly related to the number of visitors who spend the night.

According to the survey data, approximately 58 percent of railroad passengers stay at least one night in either Chama or Antonito. Of these passengers, 85 percent stay in Chama and 15 percent spend the night in Antonito. Approximately 34 percent of these visitors stay only one night, while 49 percent, stay two nights in the area. The remaining 17 percent stay more than two nights.

An analysis of the average lodging price in Chama and Antonito revealed differences between the two, with average prices per night at $110 and $90 in Chama and Antonito respectively. Both areas offer a wide range of potential lodging styles and prices. From RV hook ups to private cabins and honeymoon suites, visitors have a variety of options. Since data are not available on the type of lodging, the prices stated above take into account the distribution of existing establishments.

Direct Spending

Train passengers staying locally generally purchase breakfast and dinner at local restaurants. Lunch is served on the train and is included in the ticket price. Based on conversations with local restaurant owners, breakfast is estimated to be $7 and dinner is roughly $18 per person.

BBC estimates that retail spending in Chama and Antonito is approximately $19 per visitor. This estimate is supported by an analysis of gross receipts tax data from Chama and sales tax data from Antonito.

Direct spending on lodging, dining, and retail outside of Chama and Antonito was based on ticket purchase data showing visitor origin. BBC estimated that in addition to the 58 percent of visitors who stay locally, 32 percent of visitors spend the night elsewhere in the five-county study area. This includes places such as Pagosa Springs in Archuleta County, Alamosa in Alamosa County, and Taos in Taos County. The spending in these locations was based on visitor spending patterns reported by Pagosa Springs Town Tourism Committee.[1]

Spending on local transportation captures how much people spend in order to arrive in either Chama or Antonito. This includes both bus tickets and gas purchases made by those who drive independently.

Total Operational and Visitor Spending

Total railroad operations, combined with visitor spending yields total spending in the local economy. Figure 6 provides a summary of direct local spending by category.

Figure 6.
Total Train Revenues and Visitor Spending

Category	Amount
Train Operations	
Train Revenues and Commission Budget	$4,033,000
State Funding	$1,800,000
Outside Support	$390,000
Visitor Spending	
Lodging	$2,220,000
Dining	$1,473,000
Retail	$854,000
Local Transportation	$772,000
Total	**$11,542,000**

Source: BBC Research & Consulting, 2012

[1] Pagosa Springs, 2008 Conversion Study.

Spending Flow Model

Direct impacts, discussed above, only represent a portion of the total impact of C&TS on the local economy. Spending generated by C&TS visitors and other railroad expenditures circulate in the local economy. In order to support operations, C&TS needs to purchase goods and services from local business, as do businesses where visitors spend their money. Workers also spend a portion of their earnings on local goods and services. This recirculation of money in the economy is termed a "secondary impact." Direct and secondary economic impacts produced by C&TS visitor and operational spending also support certain levels of employment, described later in this analysis.

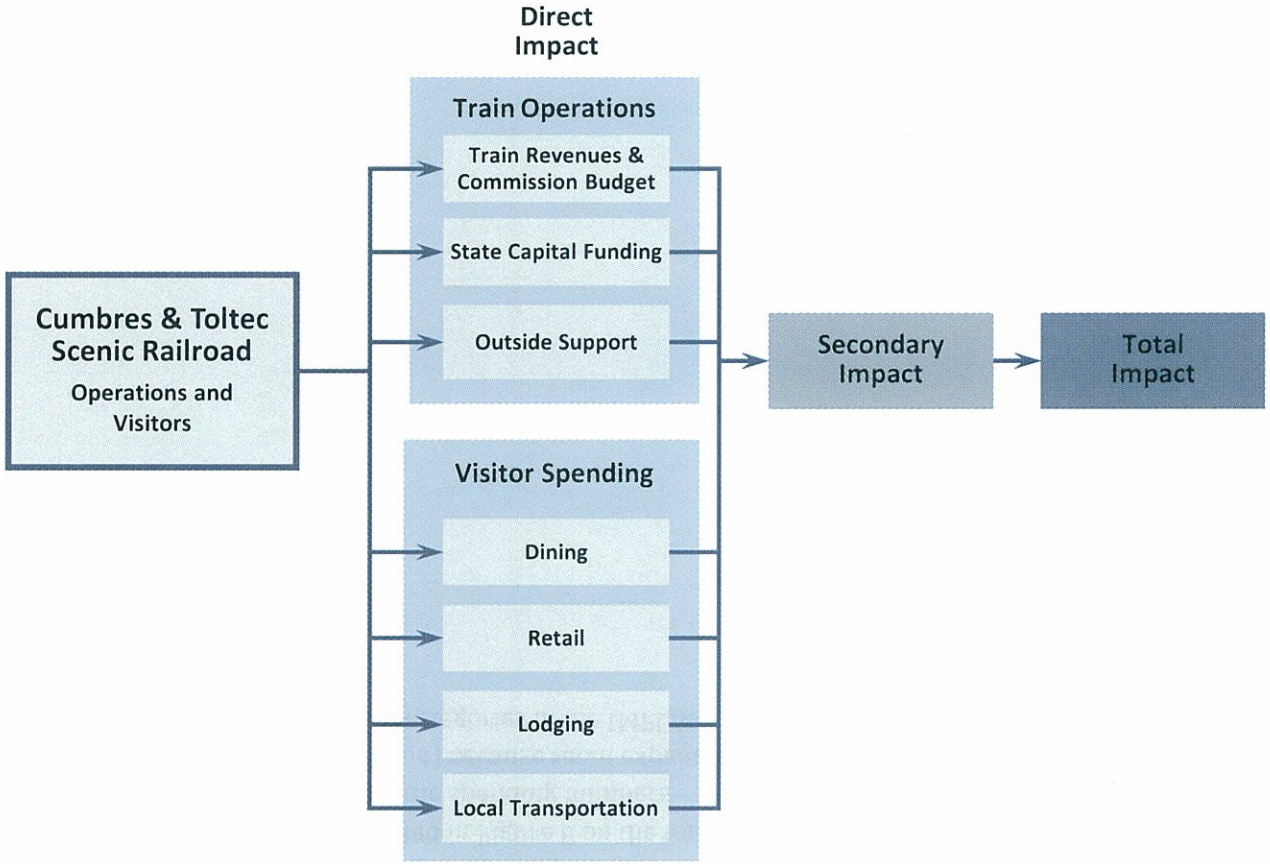
For the purposes of this analysis, BBC defines the local economy as Alamosa, Archuleta, and Conejos Counties, Colorado and Rio Arriba and Taos Counties, New Mexico.

To determine the total current economic impact of C&TS (the direct impact plus the secondary impacts), BBC developed a spending flow model — shown in Figure 7 — to trace the flow of dollars and associated employment generated by C&TS through the local economy.

This model is based on the IMPLAN Regional Input-Output Modeling System. A widely accepted economic modeling software, IMPLAN estimates secondary economic impacts based on user-supplied direct impacts. BBC used IMPLAN to estimate economic, employment, and state and local revenue impacts based on the spending data discussed in the preceding section.[2]

[2] For more information on IMPLAN, refer to <http://implan.com/>

Figure 7.
Spending Flow Model



Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System, 2012.

Total Economic Impacts — Annual Operations and Visitation

Total Economic Impacts

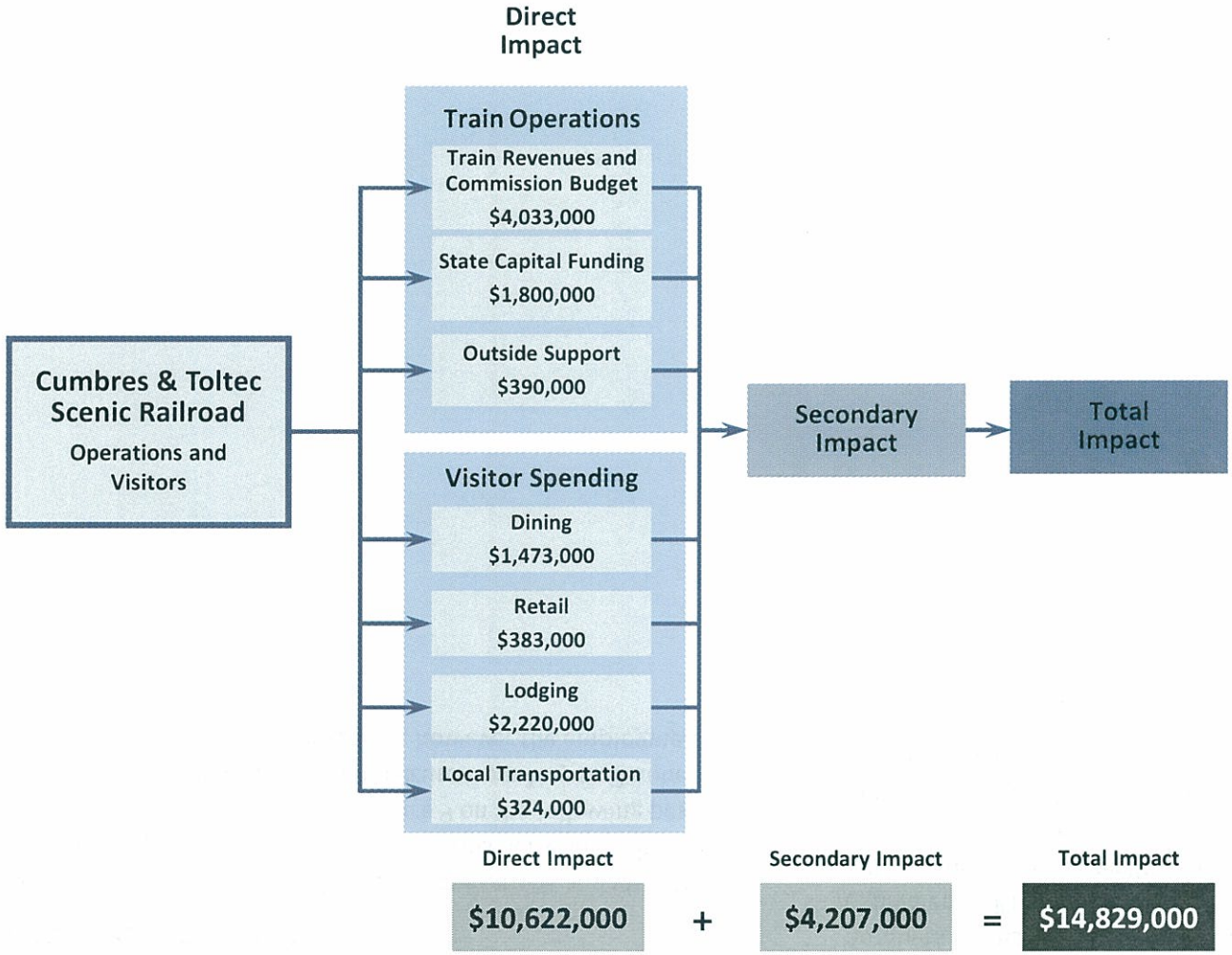
Including direct and secondary impacts, C&TS currently has a total estimated economic impact of about $14.8 million per year.

The direct impact number presented in Figure 8 on the following page ($10.6. million) differs from the spending numbers presented in Figure 6 ($11.5 million) because retail expenditures are treated differently than other categories in the IMPLAN model.

Most products purchased at retail establishments are manufactured outside of the study area. A retail price consists of manufacturing, processing, and transportation costs that largely occur outside of the study area. For this reason, the study team conservatively included only the retail margin (i.e. the retail price minus the wholesale cost of the item) in estimating the local secondary economic effects associated with retail purchases, including employment.

Total Economic Impacts — Annual Operations and Visitation

Figure 8.
Cumbres & Toltec Scenic Railroad, Total Annual Economic Impact, Five-County Study Area



Note: Direct Expenditures reported net of taxes (sales, lodging and excise).

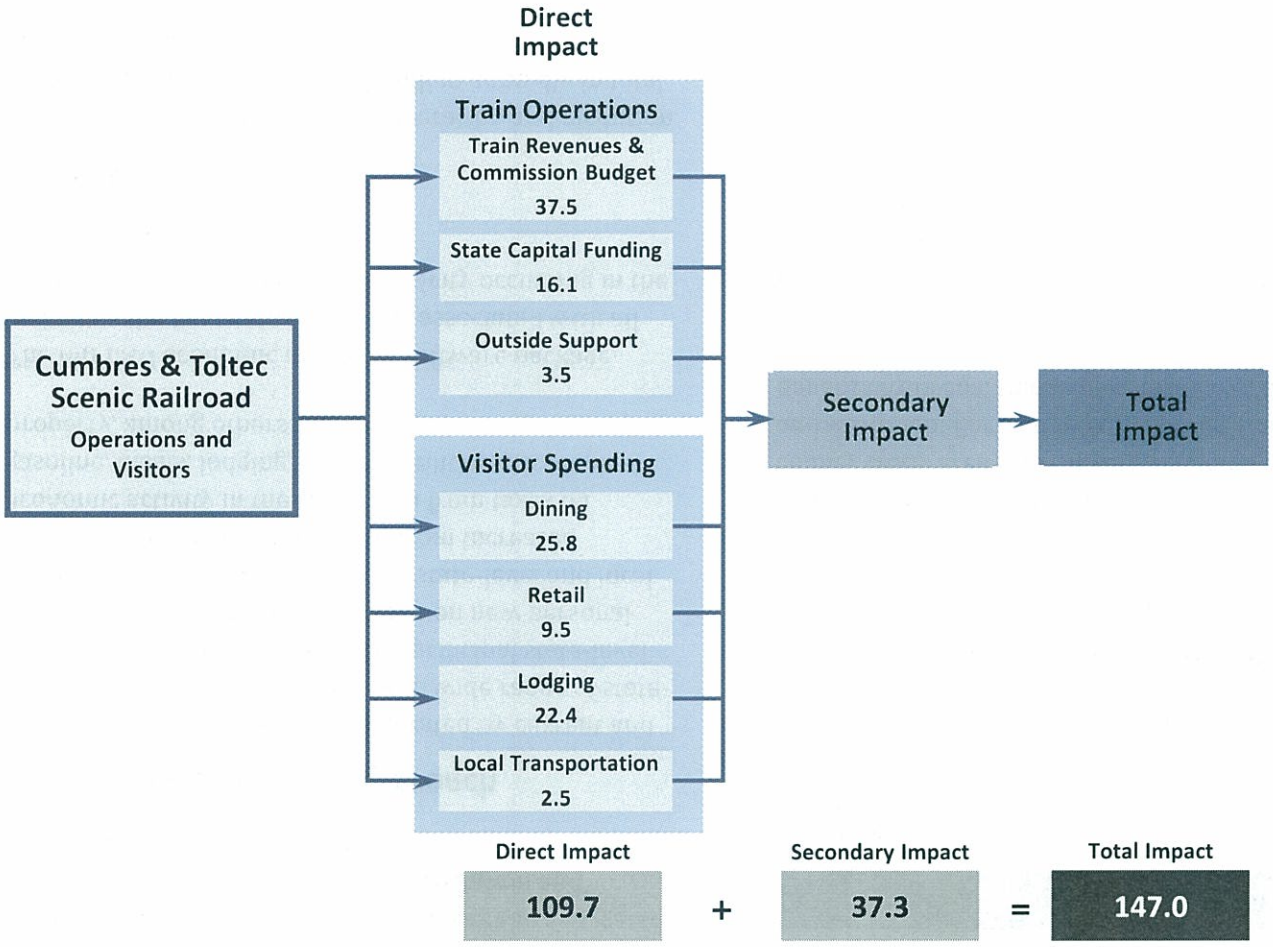
Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System.

Impact on Employment

Economic activity generated by C&TS operations and visitation currently supports approximately 147 jobs per year in the five-county study area, as shown in Figure 9 on the following page. The majority of this employment occurs from May to October during the train's operating season; however the employment numbers in this report are presented in annual full time equivalents (FTEs). FTEs represent the number of year-round, full time positions. In reality, employment includes a combination of full time, part time, and seasonal workers. The actual number of individuals employed in some capacity would likely be higher than 147 during peak season and lower in the winter.

Total Economic Impacts — Annual Operations and Visitation

Figure9.
Cumbres & Toltec Scenic Railroad, Total Annual Employment Impact, Five-County Study Area



Note: May not total due to rounding.

Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System

Total Economic Impacts — Fiscal Benefits and Opportunities

This section of the report details the current estimated fiscal impacts of C&TS on state and local governments. Fiscal impacts are defined as the tax revenue generated by spending associated with C&TS visitation and operations.

Fiscal Impact Analysis Approach

Direct and indirect spending generated by current and potential future C&TS visitors has a wide range of state- and local-level fiscal impacts. The principal state-level fiscal impacts will result from taxes on new personal income and retail spending. Other state-level and local taxes include revenues collected from increased economic activity in the study area from taxes on gasoline, meals, lodging, income, utilities, personal property, among others.

The IMPLAN economic modeling software package estimates the tax revenue impacts associated with all direct and secondary economic activity occurring in the study area.

Fiscal Benefits

Spending associated with C&TS operation and visitation currently generates about $1.3 million annually in total state and local tax revenue.

Figure 10 summarizes the total estimated state and local tax attributable to current railroad revenues and related spending in the five-county study area.

Figure 10.
Total Annual Fiscal Impacts

Category	Direct	Secondary	Total
State and Local Tax Revenues	$972,000	$323,000	**$1,295,000**

Note: There is no tax on tickets.

Source: IMPLAN Economic Model; BBC Research & Consulting

Other Economic Impacts and Opportunities

In addition to generating increased economic activity, C&TS has other, non-quantifiable benefits.

As mentioned elsewhere in this report, communities outside of the five-county study area also capture economic benefits from railroad operations and visitation. For example, Hesperus, Colorado, captures some economic benefits from coal that is purchased by C&TS.

Visitors travel long distances to ride the C&TS, and not all stay within the five-county study area. Some visitors may stay in Durango or Santa Fe and; therefore, the resulting direct and secondary economic activity would be captured by communities outside the study area.

Total Economic Impacts — Fiscal Benefits and Opportunities

The fact that much of the associated economic activity occurs beyond Chama and Antonito presents an opportunity for both local towns. C&TS is a wonderful tourist attraction that draws visitors into the area every summer, and Chama and Antonito have potential to capture more of this lodging, dining, and retail spending. Public and private actions could enable Chama and Antonito to be in a better position to capture these benefits in the future.

C&TS currently has plans to continue increasing annual visitation which would create additional economic impacts within the study area. Though difficult to quantify at this time, any increase in visitation would contribute to increase in train operations expenditures and visitor spending which would therefore continue to bolster the local economies.

C&TS's cultural, historic and natural assets provide an opportunity for current and future generations to enjoy Southern Colorado and Northern New Mexico's heritage and learn about the historic culture of the West. The continual operation of the Cumbres & Toltec Scenic Railroad protects cultural and historic resources, while stimulating the regional economy and bolstering the local employment base.