



# **Economic and Fiscal Impacts of Dallas Area Rapid Transit Light Rail System Buildout and System Operations**



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## **Introduction**

The following report updates our previous analyses of the economic and fiscal impacts associated with the buildout of the Dallas Area Rapid Transit (DART) Light Rail System. Our analysis also includes an assessment of the impact of the transit agency's operations spending for specified fiscal years.

Dallas Area Rapid Transit's light rail operations continue to be one of the best examples of the growing importance of transit, in all modes, to sustainable economic and community development. In previous research we have documented the impact of light rail stations on transit-oriented development and the resulting benefits realized by local taxing jurisdictions. In addition, we have shown how DART's capital investments and operating spending contribute greatly to local economic activity and support thousands of local jobs.

Using the latest financial projections from DART, we examine the regional economic and fiscal impacts of completing current DART light rail capital projects including remaining construction for the Orange Line, Blue Line, and Green Line. We then compare the impacts of operating expenditures for all transit operations for Fiscal Year 2009 to Fiscal Year 2014, when the above mentioned lines are operational.

Our impact estimates are based the IMPLAN economic input/output model developed by the Minnesota IMPLAN Group. Input-output models track how spending flows through a regional, state, or national economy. The estimates include direct, indirect, and induced impacts. Direct impacts are the result of the agency procuring goods and services in the local community, such as DART purchasing office supplies from local vendors. These vendors, in turn, purchase goods and services to support their

local operations. For example, the firm providing office supplies hires employees, purchases shopping bags, utilizes inventory-counting services, and engages other professional service providers such as accountants, which is captured as indirect impacts. Induced impacts track the economic and fiscal effects of employees of DART and its vendors spending a portion of their earnings in the local economy for goods and services.

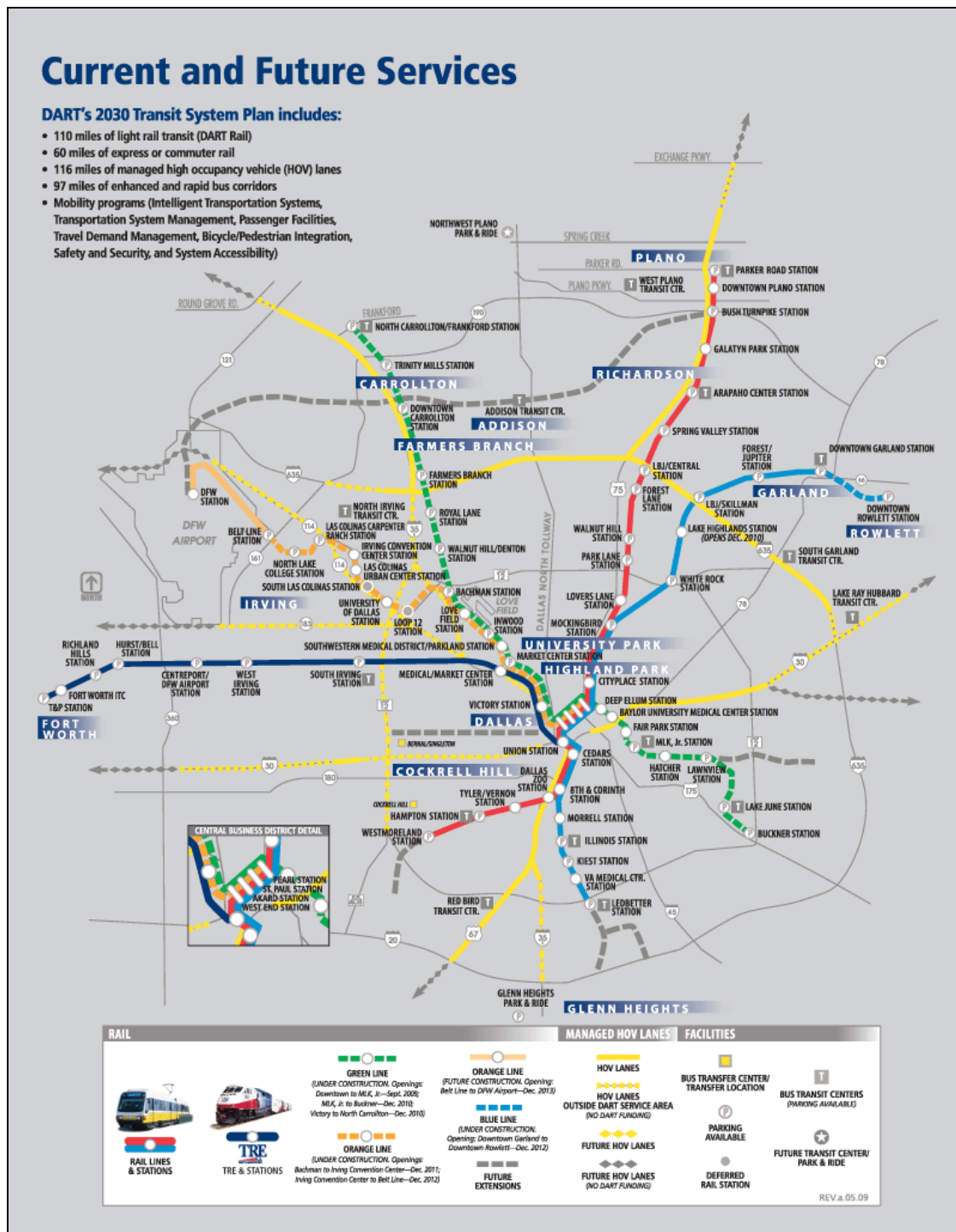
Each of the impact estimates is adjusted to account only for purchases from local entities. For example, DART's capital spending for the light rail system includes design costs, construction costs, and purchases of rail cars. There are no manufacturers of light rail cars in the Dallas-Fort Worth Region, so these purchases have little impact on the local economy. When added together, the sum of all the activity from direct, indirect, and induced impacts is greater than the local proportion of DART's spending, which is the "multiplier effect."

The fiscal impacts estimated in this analysis include indirect business taxes such as state and local sales and use taxes, property taxes, and government revenue from permit fees and licenses. These estimates recognize that DART is a public agency and has a tax-exempt status.

### **Impacts of Light Rail System Buildout**

In this component of our analysis, we examine the economic and fiscal impacts of capital spending related to the buildout of DART's light rail system. These expenditures are expected to take place over the next four to five years. Impacts are assessed by "line" including the Green Line, Orange Line, and Blue Line extension. Figure 1 shows the DART system with color codes identifying specific lines.

## Figure 1



Source: DART

The Green Line, also called the Northwest-Southeast Corridor Line, is scheduled for completion in December 2010. Capital expenditures for this line will be about \$868

million (see Table 1). This spending will support \$1.5 billion in regional economic activity, and support almost 12,000 person-years of employment. (Since this is a multi-year project, employment estimates are presented as person-years, equivalent to one job lasting one year.) Labor income in the form of wages, salaries, and benefits will increase more than one-half billion dollars. Property income from rents, royalties, dividends, and corporate profits will rise by \$160 million and state and local taxing jurisdictions will see over \$37 million in tax revenues. The tax revenues include sales and use taxes, property taxes, and license and permit fees.

**Table 1**  
**Economic and Fiscal Impacts from Buildout of the DART LRT System**  
**Green Line**

Description	Impact
Total Expenditures	\$ 868,000,000
Economic Activity	\$ 1,507,829,000
Labor Income	\$ 564,611,000
Employment*	11,921
Other Property Income**	\$ 160,504,000
Indirect Business Taxes***	\$ 37,136,000

\* Person years of employment. Actual employment levels will vary from year to year. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, authors' estimates

The Orange Line, which runs from downtown Dallas, through Irving, to DFW Airport, will be completed in segments over the next three to four years with total expenditures approaching \$1.2 billion (see Table 2). Capital outlays to complete the Orange Line will spark \$2 billion in local economic activity and over 16,000 person-years of employment paying about \$768 million in earnings. Property income will be boosted by over \$218 million. Finally, state and local taxing jurisdictions will receive \$50.5 million in indirect business taxes.

**Table 2**  
**Economic and Fiscal Impacts from Buildout of the DART LRT System**  
**Orange Line**

Description	Impact
Total Expenditures	\$ 1,180,000,000
Economic Activity	\$ 2,049,813,000
Labor Income	\$ 767,558,000
Employment*	16,205
Other Property Income**	\$ 218,197,000
Indirect Business Taxes***	\$ 50,485,000

\* Person years of employment. Actual employment levels will vary from year to year. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, authors' estimates

The Blue Line is largely complete with portions in Rowlett and South Oak Cliff (SOC) yet to be opened. Completing the segments in Rowlett and early charges for the SOC portion will cost about \$289 million dollars<sup>1</sup>, which will boost area economic activity by \$502 million over the next four years (see Table 3). This increased business activity will boost employment by almost 4,000 person-years, increase labor income by \$188 million, and create \$53 million in property income. This activity will also generate \$12.4 million in state and local tax revenues.

**Table 3**  
**Economic and Fiscal Impacts from Buildout of the DART LRT System**  
**Blue Line**

Description	Impact
Total Expenditures	\$ 289,000,000
Economic Activity	\$ 502,030,000
Labor Income	\$ 187,987,000
Employment*	3,969
Other Property Income**	\$ 53,439,000
Indirect Business Taxes***	\$ 12,365,000

\* Person years of employment. Actual employment levels will vary from year to year. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, authors' estimates

<sup>1</sup> The segment from Garland to Rowlett will open in December 2012. The SOC extension from Ledbetter Station to UNT Dallas is scheduled for a 2018 opening. Preliminary charges for the SOC portion of the Blue line will begin in 2012 and are included in this analysis. However, heavy construction on the SOC portion of the Blue Line is not expected to start until 2016 and is not included in this analysis.

In total, the buildout of the DART rail system will require \$2.3 billion in capital spending over the next five years. Though the impacts of this spending are temporary, they are nonetheless important leading to \$4 billion in new regional economic activity, creating over 32,000 person-years of direct, indirect, and induced employment, boosting labor income by \$1.5 billion, and supporting \$432 million in property income (see Table 4). State and local taxing jurisdictions will see revenues rise by almost \$100 million over the construction period.

**Table 4**  
**Economic and Fiscal Impacts from Buildout of the DART LRT System**  
**All Lines**

Description	Impact
Total Expenditures	\$ 2,337,000,000
Economic Activity	\$ 4,059,672,000
Labor Income	\$ 1,520,157,000
Employment*	32,095
Other Property Income**	\$ 432,140,000
Indirect Business Taxes***	\$ 99,986,000

\* Person years of employment. Actual employment levels will vary from year to year. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, IMPLAN, authors' estimates

### **Impacts of DART Operations**

On-going operations by Dallas Area Rapid Transit have recurring impacts on the regional economy. Operating expenditures supporting direct, indirect, and induced jobs translate into increased economic activity and higher labor and property income. Even though DART is a public entity and not subject to taxation, vendor and employee spending for inventory, housing, and goods and services creates new revenue for local taxing jurisdictions.

In FY2009, DART will spend a total of \$411 million for employees, goods, and services to support the transit agency's operations, including recurring costs for capital planning and development and start-up expenditures. (This includes all transit modes.) This spending creates \$544 million in regional economic activity and supports almost 5,000 direct, indirect, and induced jobs paying in excess of \$325 million in salaries, wages, and benefits (see Table 5). Property income from rents, royalties, dividends, and corporate profits are increased by \$49.6 million. Indirect business taxes paid to state and local jurisdictions will exceed \$11 million this fiscal year.

Due primarily to the increase in the scope of the DART light rail system, inflation adjusted spending for DART will increase to \$501 million by Fiscal Year 2014. This level of spending will generate \$663 million in annual economic activity. Labor income will rise by \$412 million due to the more than 5,300 jobs that DART will support directly or indirectly. In addition, property incomes will increase by \$60.5 million and state and local tax jurisdictions will get a \$13.8 million annual boost.

**Table 5**  
**Economic and Fiscal Impacts of Operations**  
**Dallas Area Rapid Transit**

Description	2009	2014
Total Operating Expenditures	\$ 411,000,000	\$ 501,000,000
Economic Activity	\$ 543,984,000	\$ 663,106,000
Labor Income	\$ 325,921,000	\$ 412,013,000
Employment*	4,955	5,357
Other Property Income**	\$ 49,626,000	\$ 60,494,000
Indirect Business Taxes***	\$ 11,289,000	\$ 13,760,000

\* Number of jobs. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, IMPLAN, authors' estimates

## **Conclusions**

Investments in capital equipment and construction to support the development of the DART light rail system has been a major generator of regional economic activity over the past 15 years. Completing construction of the initial system will result in \$4 billion in regional economic activity over the next five years (see Table 6). Importantly, DART's construction activities have continued even with the downturn in the local economy, increasing the relative importance of the jobs associated with this construction. Of course, these impacts pale in comparison to the value of property development that has occurred around or near DART transit rail stations as described in previous analyses.

Impacts associated with Dallas Area Rapid Transit's operating and recurring capital planning and development expenditures also provide an important boost to the local economy. This fiscal year, the gain in regional economic activity is estimated to be over one-half billion dollars. As the expanded rail operations come online, operating impacts will increase to an inflation-adjusted \$663 million by FY2014, which will support over 5,300 permanent jobs for local residents.

**Table 6****Economic and Fiscal Impacts from Buildout of the DART LRT System and System Operations**

<b>Description</b>	<b>Construction Impacts</b>				<b>On-Going Impacts Operations<sup>#</sup></b>
	<b>Green Line</b>	<b>Orange Line</b>	<b>Blue Line</b>	<b>Total</b>	
Total Expenditures	\$ 868,000,000	\$ 1,180,000,000	\$ 289,000,000	\$ 2,337,000,000	\$ 501,000,000
Economic Activity	\$ 1,507,829,000	\$ 2,049,813,000	\$ 502,030,000	\$ 4,059,672,000	\$ 663,106,000
Labor Income	\$ 564,611,000	\$ 767,558,000	\$ 187,987,000	\$ 1,520,157,000	\$ 412,013,000
Employment <sup>*</sup>	11,921	16,205	3,969	32,095	5,357
Other Property Income <sup>**</sup>	\$ 160,504,000	\$ 218,197,000	\$ 53,439,000	\$ 432,140,000	\$ 60,494,000
Indirect Business Taxes <sup>***</sup>	\$ 37,136,000	\$ 50,485,000	\$ 12,365,000	\$ 99,986,000	\$ 13,760,000

\* Number of jobs as person-years. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. # Fiscal Year 2014. Source: DART, IMPLAN, authors' estimates

## **Addendum**

### **Economic and Fiscal Impacts of Completing the DART LRT Green Line: A Comparison of 2007 and 2009 Spending Estimates**

More than \$868 million will be spent over the next 18 months completing DART's LRT Green Line. As noted previously, this spending will generate over \$1.5 billion in regional economic activity (see Table A-1). However, this estimate substantially understates the total impact of construction-related spending for the Green Line. To fully appreciate the level of spending committed to developing the Green Line, we look again at the findings of a previous analysis. In our 2007 report, we noted that expenditures for building the rail transit corridors that make up the Green Line would be more than \$1.6 billion. The difference in the 2007 and 2009 expenditure dollars is the amount of investment that DART has made in the Green Line over the past two years. It is easy to see that DART's capital spending is currently supporting businesses, jobs, and personal income growth across the region.

**Table A-1**

#### **Economic and Fiscal Impacts of Completing the DART LRT Green Line**

<b>Description</b>	<b>2007</b>	<b>2009</b>
Total Capital Expenditures	\$ 1,672,294,000	\$ 868,000,000
Economic Activity	\$ 3,095,427,000	\$ 1,507,829,000
Labor Income	\$ 1,237,854,000	\$ 564,611,000
Employment*	27,586	11,921
Other Property Income**	\$ 376,975,000	\$ 160,504,000
Indirect Business Taxes***	\$ 84,003,000	\$ 37,136,000

\* Person years of employment. Actual employment levels will vary from year to year. \*\* Includes royalties, rents, dividends, and corporate profits. \*\*\* Includes state and local sales and use taxes, property taxes, license and permit fees. Source: DART, IMPLAN, authors' estimates