

Briefing Paper

Economic and Fiscal Impacts of Dallas Area Rapid Transit Operations and Capital Expenditures

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The following summarizes the findings of our analysis of the economic and fiscal impacts of Dallas Area Rapid Transit operations and capital spending. Our analysis specifically examines the impacts of spending associated with the development of the light rail system, projections of total capital spending for all transit modes over the next twenty years, and transit system operations for fiscal years 2007 and 2014. In Section 1 we examine the impacts of transit-related spending on the economy of the Dallas Fort Worth Metroplex. Section 2 examines the impacts on the state economy. Please note that state and local impacts are not additive.

All components of our analysis are based on:

- Spending estimates provided by DART.
- Data provided by DART are inflation adjusted.
- Economic impact assessments based on the IMPLAN input-output model developed by the Minnesota IMPLAN Group.
- Economic impacts include direct, indirect, and induced effects. Direct effects are direct expenditures by construction contractors and similar firms. Indirect effects capture spending by vendors and suppliers for contractors and others. Indirect effects are created by employees of the contractors and vendors spending a portion of their earnings in the local economy for goods and services. All spending estimates are adjusted to only include local spending.

Section 1: Impacts on the Dallas Fort Worth Metropolitan Area

- The study area for this section is the Dallas-Fort Worth Metropolitan Area, which includes Collin, Dallas, Denton, Hunt, Ellis, Delta, Johnson, Kaufman, Parker, Rockwall and Tarrant counties.

Part 1: Economic and Fiscal Impacts from Buildout of the DART Light Rail System

- Impact estimates are provided for:
 - DART Rail Starter System
 - North Central corridor (Park Lane Station to Parker Road Station, Plano)
 - Northeast corridor (Mockingbird Station to Downtown Garland)

- Northwest corridor including the NW-1A segment (West End Station to Victory Station)
- Southeast corridor (Downtown Dallas to Pleasant Grove)
- Irving corridor (Bachman Station, Dallas to DFW Airport)
- Rowlett extension (Downtown Garland Station to Downtown Rowlett Station)
- Second line for the Dallas Central Business District.
- Expenditures include previous and future spending.
- Expenditures include the cost of construction, acquisition of land, capital equipment purchases, professional services for engineering, design, and environmental assessments, and other development costs.
- In assessing the economic impact of land acquisition, we have assumed that a small portion of the purchase price will remain in the regional economy as disposable household income and will thereby contribute to local economic activity. Our approach likely understates the total impact of this transfer of income.

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Starter System
Dallas-Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 854,000,000
Economic Activity	\$ 1,348,232,000
Labor Income	\$ 503,348,000
Employment*	10,643
Other Property Income**	\$ 144,384,000
Indirect Business Taxes***	\$ 33,526,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
North Central Corridor
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 631,382,000
Economic Activity	\$ 996,779,000
Labor Income	\$ 372,137,000
Employment*	7,868
Other Property Income**	\$ 106,746,000
Indirect Business Taxes***	\$ 24,787,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Northeast Corridor
Dallas-Fort Metropolitan Area**

Description	Impact
Total Expenditures	\$ 287,856,000
Economic Activity	\$ 454,466,000
Labor Income	\$ 169,671,000
Employment*	3,587
Other Property Income**	\$ 48,671,000
Indirect Business Taxes***	\$ 11,302,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Northwest Corridor (including the NW-1A Segment)
Dallas-Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 1,247,818,000
Economic Activity	\$ 1,970,054,000
Labor Income	\$ 735,501,000
Employment*	15,553
Other Property Income**	\$ 210,981,000
Indirect Business Taxes***	\$ 48,994,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Southeast Corridor
Dallas-Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 506,176,000
Economic Activity	\$ 799,113,000
Labor Income	\$ 298,340,000
Employment*	6,308
Other Property Income**	\$ 85,578,000
Indirect Business Taxes***	\$ 19,871,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Irving Corridor
Anticipated Construction 2009-2013
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 820,356,000
Economic Activity	\$ 1,295,117,000
Labor Income	\$ 483,518,000
Employment*	10,223
Other Property Income**	\$ 138,696,000
Indirect Business Taxes***	\$ 32,205,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Rowlett Extension
Anticipated Construction 2009-2012
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 168,025,000
Economic Activity	\$ 265,265,000
Labor Income	\$ 99,034,000
Employment*	2,093
Other Property Income**	\$ 28,408,000
Indirect Business Taxes***	\$ 6,596,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Second Dallas Central Business District Line
Anticipated Construction 2009-2014
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 353,253,000
Economic Activity	\$ 557,690,000
Labor Income	\$ 208,207,000
Employment*	4,402
Other Property Income**	\$ 59,724,000
Indirect Business Taxes***	\$ 13,868,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
All Corridors
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 4,868,866,000
Economic Activity	\$ 7,686,716,000
Labor Income	\$ 2,869,756,000
Employment*	60,678
Other Property Income**	\$ 823,187,000
Indirect Business Taxes***	\$ 191,149,000

* 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

Part 2: Impacts of Future Dallas Area Rapid Transit Capital Spending

- Estimates based on FY 2007 through FY 2026 spending projections for construction, capital equipment and related purchases for all transit modes including buses, light rail transit, commuter rail/railroad management, paratransit, High Occupancy Vehicle (HOV) transitways, capital planning and development, non-operating start up expenses, road improvements, intelligent traffic systems, and other spending.
- Spending includes projected expenditures for parts of the Northwest and Southeast LRT corridors as well as other light rail corridors. Therefore, the impacts presented in Part 1 and Part 2 of this briefing paper are not additive.
- We have assumed that only a small portion of the costs of land acquisition will contribute to local economic activity. Some landowners will spend their gains,

others will use the proceeds from their property sales to acquire new property, still others will save or invest their proceeds, or some combination of these three actions. We have only considered the impacts of those households that choose to spend some or all of their proceeds. Our approach likely understates the total impact of this transfer of income.

**Economic and Fiscal Impacts of All Projected Capital Spending
Dallas Area Rapid Transit
(2007 through 2026)
Dallas Fort Worth Metropolitan Area**

Description	Impact
Total Expenditures	\$ 5,324,570,000
Economic Activity	\$ 7,898,418,000
Labor Income	\$ 2,454,245,000
Employment*	52,266
Other Property Income**	\$ 736,131,000
Indirect Business Taxes***	\$ 169,656,000

* 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

Part 3: Economic and Fiscal Impacts of Dallas Area Rapid Transit Operations

- Estimates based on current year operating budget and projections for 2014. Includes all transit operations.

**Economic and Fiscal Impacts of Operations
Dallas Area Rapid Transit
Dallas Fort Worth Metropolitan Area**

Description	2007	2014
Total Operating Expenditures	\$ 342,114,000	\$ 491,922,000
Economic Activity	\$ 494,377,000	\$ 651,090,000
Labor Income	\$ 102,807,000	\$ 135,396,000
Employment*	3,314	5,165
Other Property Income**	\$ 45,101,000	\$ 59,398,000
Indirect Business Taxes***	\$ 10,259,000	\$ 13,511,000

* 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

Section 2: Impacts on the Texas Economy

- There are two substantive differences in addressing the impacts of DART’s capital and operating spending on the state economy versus the Dallas Fort Worth region. First, additional secondary spending is captured accounting for vendors and related employment that are located in Texas, but not the DFW Metroplex. Second, we have estimated an increase in the proportion of funds used to purchase land for DART right of way that we treat as income available for spending in the modeled economy to allow for individuals that own land in the DART service area but reside elsewhere in Texas.

Part 1: Economic and Fiscal Impacts from Buildout of the DART LRT System

- Impact estimates are provided for:
 - DART Rail Starter System
 - North Central corridor (Park Lane Station to Parker Road Station, Plano)
 - Northeast corridor (Mockingbird Station to Downtown Garland)
 - Northwest corridor including the NW-1A segment (West End Station to Victory Station)
 - Southeast corridor (Downtown Dallas to Pleasant Grove)
 - Irving corridor (Bachman Station, Dallas to DFW Airport)
 - Rowlett extension (Downtown Garland Station to Downtown Rowlett Station)
 - Second line for the Dallas Central Business District.
- Expenditures include previous and future spending.
- Expenditures include the cost of construction, acquisition of land, capital equipment purchases, professional services for engineering, design, and environmental assessments, and other development costs.

Economic and Fiscal Impacts from Buildout of the DART LRT System Starter System State of Texas

Description	Impact
Total Expenditures	\$ 854,000,000
Economic Activity	\$ 1,431,287,000
Labor Income	\$ 534,074,000
Employment*	11,304
Other Property Income**	\$ 153,365,000
Indirect Business Taxes***	\$ 35,625,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
North Central Corridor
State of Texas**

Description	Impact
Total Expenditures	\$ 631,382,000
Economic Activity	\$ 1,058,184,000
Labor Income	\$ 394,853,000
Employment*	8,357
Other Property Income**	\$ 113,386,000
Indirect Business Taxes***	\$ 26,339,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Northeast Corridor
State of Texas**

Description	Impact
Total Expenditures	\$ 287,856,000
Economic Activity	\$ 482,462,000
Labor Income	\$ 180,028,000
Employment*	3,810
Other Property Income**	\$ 51,699,000
Indirect Business Taxes***	\$ 12,010,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Northwest Corridor (including Segment NW-1A)
State of Texas**

Description	Impact
Total Expenditures	\$ 1,247,818,000
Economic Activity	\$ 2,091,415,000
Labor Income	\$ 780,399,000
Employment*	16,519
Other Property Income**	\$ 224,104,000
Indirect Business Taxes***	\$ 52,061,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Southeast Corridor
State of Texas**

Description	Impact
Total Expenditures	\$ 506,176,000
Economic Activity	\$ 848,341,000
Labor Income	\$ 316,552,000
Employment*	6,700
Other Property Income**	\$ 90,901,000
Indirect Business Taxes***	\$ 21,116,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Irving Corridor
Anticipated Construction 2009-2013
State of Texas**

Description	Impact
Total Expenditures	\$ 820,356,000
Economic Activity	\$ 1,374,900,000
Labor Income	\$ 513,034,000
Employment*	10,858
Other Property Income**	\$ 147,323,000
Indirect Business Taxes***	\$ 34,222,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Rowlett Extension
Anticipated Construction 2009-2012
State of Texas**

Description	Impact
Total Expenditures	\$ 168,025,000
Economic Activity	\$ 281,607,000
Labor Income	\$ 105,079,000
Employment*	2,223
Other Property Income**	\$ 30,175,000
Indirect Business Taxes***	\$ 7,009,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
Second Dallas Central Business District Line
Anticipated Construction 2009-2014
State of Texas**

Description	Impact
Total Expenditures	\$ 353,253,000
Economic Activity	\$ 592,045,000
Labor Income	\$ 220,917,000
Employment*	4,676
Other Property Income**	\$ 63,439,000
Indirect Business Taxes***	\$ 14,736,000

* 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

**Economic and Fiscal Impacts from Buildout of the DART LRT System
All Corridors
State of Texas**

Description	Impact
Total Expenditures	\$ 4,868,866,000
Economic Activity	\$ 8,160,241,000
Labor Income	\$ 3,044,937,000
Employment*	64,447
Other Property Income**	\$ 874,392,000
Indirect Business Taxes***	\$ 203,118,000

* 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

Part 2: Impacts of Future Dallas Area Rapid Transit Capital Spending

- As a reminder, estimates in this Part are based on FY 2007 through FY 2026 spending projections for construction, capital equipment and related purchases for all transit modes including buses, light rail transit, commuter rail/railroad management, paratransit, High Occupancy Vehicle (HOV) transitways, capital planning and development, non-operating start up expenses, road improvements, intelligent traffic systems, and other spending.
- The impacts presented in Part 1 and Part 2 of this analysis are not additive.

**Economic and Fiscal Impacts of All Projected Capital Spending
Dallas Area Rapid Transit
(2007 through 2026)
State of Texas**

Description	Impact
Total Expenditures	\$ 5,324,570,000
Economic Activity	\$ 8,380,822,000
Labor Income	\$ 2,603,567,000
Employment*	55,490
Other Property Income**	\$ 781,551,000
Indirect Business Taxes***	\$ 180,180,000

Estimates are not additive with estimates of transit rail corridor construction noted above. * 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

Part 3: Economic and Fiscal Impacts of Dallas Area Rapid Transit Operations

- Estimates based on current year operating budget and projections for 2014. Includes all transit operations.

**Economic and Fiscal Impacts of Operations
Dallas Area Rapid Transit
State of Texas**

Description	2007	2014
Total Operating Expenditures	\$ 342,114,000	\$ 491,922,000
Economic Activity	\$ 537,872,000	\$ 651,090,000
Labor Income	\$ 119,425,000	\$ 135,396,000
Employment*	3,977	7,398
Other Property Income**	\$ 53,378,000	\$ 70,299,000
Indirect Business Taxes***	\$ 12,519,000	\$ 16,135,000

* 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