Chapter 6 – Financial Options

This chapter focuses on financing options for rail transportation potentially available to TxDOT. A combination of funding opportunities, such as federal, state, local, or private tools, constitute "building blocks" for the agency to implement viable programs to realize rail projects in Texas.

Recently, momentum for funding high-speed intercity passenger rail (HSIPR) projects at the federal level was created with new funds arising from the American Recovery and Reinvestment Act of 2009 (ARRA) and recent U.S. Department of Transportation (USDOT) appropriations in FY 2010.

Rail policy and mode prioritization are currently at a turning point. Establishment of clear roles and stable funding sources is a challenge still to be overcome at the federal and state levels. However, the next wave of federal authorizations related to surface transportation, job creation, and energy could significantly impact rail funding in the future.

6.1 – Summary

Table 6-1 summarizes the sources and programs available to fund rail in Texas, as well as recent outcomes regarding each program.

Table 6–1: Programs and Grants Available to Texas

	Program	Description	Funding	Texas-Allocated Funding (not necessarily for rail projects, unless specified)
FRA	Capital Assistance for IPR Service (Section 301 of PRIIA)	For projects included in state rail plan, grants used to finance capital costs for new/improved IPR service. 80/20 state grant program.	$1.9 billion authorized for 2009-2013; funded through ARRA and FY 2010 Appropriations	
	Congestion Grants (Section 302 of PRIIA)	Grants to states or Amtrak (working with states) for capital costs in high priority rail corridors that reduce congestion or increase ridership.	$325 million authorized for 2010-2013; funded through ARRA and FY 2010 Appropriations	
	HSR Corridor Program (Section 501 of PRIIA)	For projects included in state rail plan that result in significant improvements to IPR. Designated HSR corridors eligible. Grants used for capital projects.	$1.5 billion authorized for 2009-2013; funded through ARRA and FY 2010 Appropriations	

	Program	Description	Funding	Texas-Allocated Funding (not necessarily for rail projects, unless specified)
	Rail Planning Provisions	Prepare and maintain state rail plan. Will serve as basis for federal and state rail investments.	Funded through FY 2009 and FY 2010 appropriations	
	Additional HSR Projects (Section 502 of PRIIA)	Determines interest through RFEI process.	No funding authorized	
	ARRA - Amtrak Capital Grants	"Shovel-ready" capital improvements to Amtrak.	$1.3 billion	$2.7 million to Amtrak for station improvements in Texas
	ARRA - HSIPR Program	"Shovel-ready" capital construction and improvements for HSIPR.	$8 billion	$3.84 million granted to Texas for signal improvements
FRA	Swift Rail Development Act	70% corridor development, 30% new technology development, including grade crossing studies and improvements in designated HSR corridors. (Modified in 2008 by PRIIA)	$100 million per year (FY 2006 through FY 2013)	$553,860 (2007)
	FY 2008 DOT Appropriations	Capital Grants to States for IPR	$30 million (10% allowed for planning)	Application submitted; not selected for funding
	FY 2009 DOT Appropriations	Capital Grants to States for IPR	$90 million (10% allowed for planning)	$7 million (2010) for TRE/Amtrak improvements
	FY 2010 DOT Appropriations	Continue development of HSIPR corridors, planning for corridors, corridor construction	$50 million (planning); $2.125 billion (Service Development Programs); $245 million (Individual Projects)	$5.6 million for Oklahoma City to South Texas passenger rail study; Call for individual project applications closed August 6, 2010
	Rail Line Relocation and Improvement Capital Grants	Local rail line relocation and improvements that mitigate adverse effects of rail, with eligible entities paying 10% of project costs.	$1.4 billion authorized for FY 2006-2009 authorized; FY 2009 awards $14.3 million: FY 2010 $24.519 million to specific projects	$4 million for Brownsville Rail Relocation (FY 2009); $400k for North Rail Relocation Project, Cameron County (FY 2010)
	Credit Assistance Program: Rail Rehabilitation and Improvement Financing	Provides loan and loan guarantees for projects than enhance service and capacity in the national transportation system. Applicable to a wide variety of projects and borrowers.	$35 billion authorized in 2006	$50 million loan granted to Tex-Mex Railroad in 2005 (now KCS)

	Program	Description	Funding	Texas-Allocated Funding (not necessarily for rail projects, unless specified)
FHWA	National Highway System Funds	Used to improve highway network link on NHS. Selected rail projects eligible for funding.	$7.6 billion apportioned in FY 2009	$771 million total for Texas in FY 2009
	Surface Transportation Program	Flexible funding for highway improvements that accommodate rail lines eligible. Federal share is 80%.	$8.1 billion apportioned in FY 2009	$818 million total for Texas in FY 2009
	Transportation Enhancement Program	Designated for projects that strengthen various aspects of national intermodal system.	$833 million required all states in FY 2009	$80 million required for Texas in FY 2009
	Railway-Highway Crossings Program	Funding for projects that improve safety of at-grade crossings. Federal share is 90%.	$220 million apportioned in FY 2009	$17 million for Texas in FY 2009
	ARRA	State allocation was flexible for rail project improvements.	$27.5 billion	$2.25 billion to Texas; $15.25 million for rail
	CMAQ Improvements	Funds available for projects that reduce congestion and/or improve air quality in non-attainment areas. Limited to rail projects linked with highway congestion reduction purposes.	$2.1 billion apportioned in FY 2009	$154 million for Texas in FY 2009
FTA	FTA New Starts/Small Starts	Program includes guideway capital investments for major transit projects, based on livability, economic development, environmental benefits, cost, and time saved.	$8 billion	$343.7 million
Office of Secretary of Transportation	Credit Assistance Program: Transportation Infrastructure Finance and Innovation Act	Allows federal government to make loans and loan guarantees for major transportation investments, including intermodal facilities.	$6 billion in funding allocated since 1999	$2.9 billion to projects in Texas
	Transportation Investment Generating Economic Recovery (TIGER) Grants	Discretionary grants awarded on competitive basis for capital investments in surface transportation projects of national significance.	$1.5 billion through 9/2011	$20 million for SH161 in Dallas; $23 million for Dallas Downtown Streetcar
	TIGER II Discretionary Grants	Discretionary grants awarded based on long-term economic improvements, energy efficiency, GHG reductions, quality of life, and increased connections.	$600 million through 8/2010	$34 million for Tower 55
	Build America Bonds	Created by ARRA, provides states and municipalities with bonds to finance projects with interest subsidies from federal government. Broad investor appeal intended.	$4.6 billion in federal subsidies; $97 billion in total BAB debt issued as of May 2010	As of May 2010, 49 BAB issues in Texas, $8.2 billion total debt

	Program	Description	Funding	Texas-Allocated Funding (not necessarily for rail projects, unless specified)
USDC	Economic Development Administration Funds	Grants in distressed industrial sites that promote job creation/retention. Rail spurs and sidings eligible for funds, provided evidence of economic distress relief from project. Covers 50% of project cost, up to 80% in severely depressed areas.	$138 million allocated to 90 projects nationwide in FY 2009	$17 million for 12 projects in Texas in FY 2009.
USDA	Community Facility Program	Three mechanisms funding construction and/or improvement of facilities in communities of 20,000 or less. Covers 75% of project cost, including infrastructure for industrial parks.	$877 million in FY 2009 for nationwide investments in all community facility programs	$25 million in FY 2009 for Texas community facility projects
EPA	Brownfield Revitalization Program	Funds for Brownfield site cleanup and redevelopment. 20% match required, although hardship waivers exist	$200,000 per site	
State Programs	Rail Relocation and Improvement Fund	Enables TxDOT to tackle relocation and improvement projects if a revenue stream is implemented.	$182 million (FY 2010 and FY 2011); appropriated but requires certification by comptroller	
	State Infrastructure Bank	Used to accelerate mobility improvements through financial assistance options. Loans used to leverage projects in the state.	$375 million in loans granted, leveraging $3.4 billion in total project costs (none for railroads)	
	Texas Emissions Reduction Program	Available for projects that reduce air pollution and engine idling through congestion relief at rail intersections in non-attainment or near non-attainment areas. Studies relocation of hazmat freight trains.	From FY 2001 to FY 2008, TCEQ funded 4,844 projects, totaling $712 million	
	Texas Economic Development Bank	Funds can be utilized for rural rail development projects.	$4.2 million appropriated from the Economic Development Bank account in FY 2009	
	Transportation Reinvestment Zones	Allow metropolitan areas operating rail facilities to diversify funding options through commitment of incremental tax revenues to a revenue stream for transportation.	3 TRZs created	

6.2 – Federal Programs (by Organization)

The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) is a transportation authorization act that ensures the continuity of some of the described programs (on the following page) arising from the Intermodal Surface Transportation Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21). The current Transportation Authorization Act expired on October

1, 2009; however, SAFETEA-LU and its federal-aid programs have been continued through a series of extensions.

The current extension was included in Hiring Incentives to Restore Employment Act (HIRE Act), which was signed into law by President Obama on March 18, 2010. The latter continues SAFETEA-LU's programs through December 31, 2010 and requires that in FY 2010 the funds apportioned to each state be determined by the amount the state received or was authorized to receive in FY 2009.

SAFETEA-LU and its reauthorizations include an array of programs that may have an impact on Texas passenger and freight rail projects. Nevertheless, the reauthorization's inherent flexibility and the current climate of uncertainty regarding the programs that are being funded make planning a difficult task.

Thus, projections of future federal funding levels for rail transportation are difficult to predict. There is currently no source of dedicated funding for rail projects, such as a "rail trust fund" similar to the highway trust fund. However, the American Association of State Highway and Transportation Officials (AASHTO) and other transportation stakeholders have recommended establishing such a fund.[1] Currently, federal tools for rail projects are available through a combination of:

- apportionments (i.e., funding programs via formula or through Congressional mandate);
- allocations (i.e., discretionary funds, earmarks); and
- financing sources (i.e., loans, credit enhancement).

Almost all federal funding for transportation projects is distributed through the U.S. Department of Transportation (USDOT). Within this agency, several different administrations, such as the Federal Railroad Administration (FRA), the Federal Transit Administration (FTA), and the Federal Highway Administration (FHWA), have the potential to fund rail projects through various programs.

Federal Railroad Administration

HSIPR Grants

After a seven-year effort, the Passenger Rail Improvement and Investment Act of 2008 (PRIIA) was enacted, initially authorizing $1.9 billion in grants for states to fund HSIPR over a five-year period. PRIIA comprises two divisions:

- Division A, focusing in the FRA's reauthorization and rail safety (Rail Safety Improvement Act of 2008); and
- Division B, reauthorizing the National Passenger Railroad Corporation (Amtrak) and serving other purposes.

PRIIA's Original HSIPR Non-Amtrak Programs (Division B):

- *IPR Service Capital Assistance Program (Section 301):* Establishes that projects must be included in a state rail plan and include a state match of at least 20%. USDOT is authorized to use appropriated funds to make grants to assist in financing the capital costs of facilities, infrastructure, and equipment necessary to provide or improve IPR transportation. This program is modeled on the capital assistance to states for an IPR service program that was implemented by the FRA in FY 2008.
- *Congestion Reduction Grants (Section 302):* Authorizes the appropriation of funds to USDOT to make grants to states or to Amtrak (in cooperation with states) for financing the capital costs of facilities, infrastructure, and equipment for high-priority rail corridor projects necessary to reduce congestion or facilitate ridership growth in IPR transportation.
- *HSR Corridor Program (Section 501):* Identifies a number of grant selection evaluation criteria, including that the project be part of a state rail plan, that the applicant have the ability to carry out the project, and that the project result in significant improvements to IPR service (i.e., ARRA waived the state rail plan and the match requirements). Eligible corridors include the 10 high-speed rail corridors previously designated by the Secretary of Transportation. Grants could be used for capital projects, which broadly include typical activities in support of acquiring, constructing, or improving rail structures and equipment.
- *Rail Planning Provisions (Section 303):* Requires states to prepare and maintain a state rail plan to set policy involving freight and passenger rail transportation within their boundaries by establishing priorities and implementation strategies to enhance rail service in the public interest. The latter will serve as the basis for federal and state rail investments in the state.
- *Other High Speed Rail Projects (Section 502):* Relates to a "Notice Requesting Expressions of Interest in Implementing a High-Speed Intercity Passenger Rail Corridor" published by the FRA on December 2008 in the *Federal Register.* The latter applied to potential projects for financing, designing, constructing, operating, and maintaining an improved high-speed intercity passenger system in the Northeast Corridor or in one of ten federally-designated corridors. This initial letter was to help the FRA determine the level of interest in the Request for Expressions of Interest (RFEI) process and facilitates future communication with applicants.

  The FRA envisions this as the first phase of a qualification process. Congress may follow through with more specific actions regarding particular proposals in one or more corridors. It was made clear to respondents to the notice that the likelihood of future funding and implementation of the projects covered by this

notice is unknown. Also, the federal government will not be liable for any costs incurred in the preparation of responses to this notice.

As a guide to HSIPR implementation, President Obama presented the "Vision for High Speed Rail in America: High Speed Rail Strategic Plan" (April 2009) related to improved HSIPR federal funding. There were two major types of rail grant programs under ARRA (see Figure 6-1):

- $1.3 billion for capital grants to Amtrak; and
- $8 billion for capital grants for HSR corridors and IPR service.

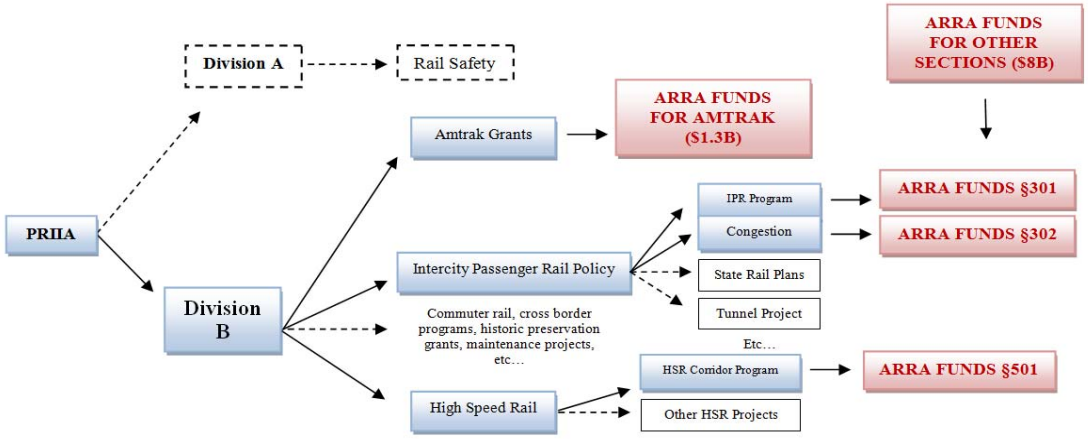

Figure 6-1: PRIIA's Sections Funded by ARRA
Source: created with information from FRA and PRIIA

Rules of procedure and implementation were subsequently put in place by the FRA, establishing a four-track approach and application procedure for the grants. Tracks 1 and 2 were framed under PRIIA's legislation and tracks 3 and 4 under the Appropriations Act legislation as shown in Figure 6-2:

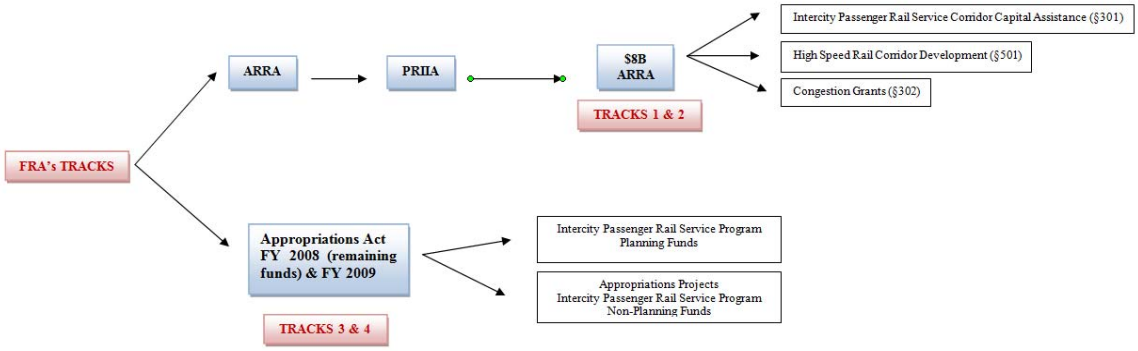

Figure 6–2: FRA Tracks for ARRA Funds Distribution
Source: created with information from FRA and PRIIA

The deadlines for pre-applications were August 2009; final applications were due in October 2009. ARRA funds were awarded in January 2010. Texas was awarded $3.84 million to implement the final design and construction of signal timing improvements at grade crossings between Ft. Worth and Gainesville, thus increasing the operating speed of Amtrak's Heartland Flyer.

FY 2009: Appropriations Success – TRE

For FY 2009, the Trinity Railway Express (TRE) received nearly $7.2 million in federal funds to help complete the construction of a five-mile section of double-track rail line between West Irving and CentrePort/Dallas Ft. Worth (DFW) Airport stations. The funds were made available through the FRA's 2009 appropriation for passenger rail service.[2]

FRA's interim and procedural rules to distribute ARRA funds clarified and added details, but in some cases were excepted from some of PRIIA's requirements, most notably the requirement to have a state rail plan to be eligible to receive funding. In terms of future rounds of FRA funding in FY 2011 and other appropriated funds, it is uncertain how FRA's rules will conform to PRIIA. Within its rules, the FRA established a three-prong approach for ARRA grant distribution; these standards may apply in the future:

- *Projects* supporting final design, construction, or development of the final environmental clearance (i.e., "Track 1 and 4" standard). These near-term project applications required extensive information on capital projects and performance measurements that represented the related public benefits.
- *Programs* focused on longer-term commitments to an overall agenda to implement passenger rail improvements in a corridor (i.e., "Tracks 2" standard). An overall environmental assessment and a Service Development Plan need to be completed to apply.

- *Planning* funds would be available only to develop plans or environmental clearance documentation to bring corridors up to speed to apply for the former two categories (i.e., "Track 3" standard). Funds for this category were made available only through Appropriations funds from FY 2009 and some remainders of FY 2008.

High Speed Rail Corridor Development

SAFETEA-LU reauthorized the Swift Rail Development Act (Swift Act) expanding the eligible expenses from planning to development. This act provided $100 million per year from FY 2006 to FY 2013 (70% to be applied to corridor development and 30% to be applied to new technology development). In addition, under Section 1103 (f), funds were available for grade crossing studies and improvements in federally designated high-speed rail corridors. In 2007, TxDOT received $553,860 in 1103 (f) funds for the elimination of highway-rail grade crossing hazards on high-speed rail corridors in Texas.

PRIIA modified the Swift Act to pertain to planning activities only and reduced funding to $30 million. PRIIA then recreated the High Speed Rail Corridor Development Program in a new section as an 80%/20% state grant program funded at $1.5 billion over five years.[3]

The State of Texas has benefitted from this program for both its South Central and Gulf Coast corridors during the last fiscal years. Tables 6-2 and 6-3 list all awards received from 2006 to 2008 for this program.

Table 6-2: High Speed Rail Corridor Development Program Awarded to Texas' Portion of the South Central Corridor

COUNTY / CITY	CROSSING & DESCRIPTION OF WORK	RAILROAD	YEAR	CURRENT STATUS
Tarrant / Ft. Worth	Biddison / Safety Improvements	BNSF	2006	N/A
Tarrant / Ft. Worth	Butler / Safety Improvements	BNSF	2006	N/A
Tarrant / Ft. Worth	Gambrell / Safety Improvements	BNSF	2006	N/A
Tarrant / Ft. Worth	Seminary / Safety Improvements	BNSF	2006	N/A
Kaufman / Terrell	Hattie Street / Crossing closure	UP	2007	Closed crossing
Williamson / Round Rock	Quick Hill Rd. / Upgrade crossing with 4 quadrant gates	UP	2008	N/A
Williamson / Round Rock	St. Williams St. / Upgrade crossing with 4 quadrant gates	UP	2008	N/A

Table 6-3: High Speed Rail Corridor Development Program Awarded to Texas' Portion of the Gulf Coast Corridor

COUNTY / CITY	CROSSING & DESCRIPTION OF WORK	RAILROAD	YEAR	CURRENT STATUS
Harris / Houston	Bringhurst St. / Funding to assist local government to completely close crossing; crossing closure/consolidation with adjacent projects; construction of pedestrian bridge and fencing	UP	2007	TIGER grant submitted for additional funds for the construction of pedestrian bridge
Harris / Houston	Hailey St. / Funding to assist local government to completely close crossing; crossing closure/consolidation with adjacent projects	UP	2007	
Harris / Houston	Gregg St. / Upgrade crossing with 4-quadrant gates near Fire Station; installation of hardware at high vehicle/train traffic crossing	UP	2007	

Appropriations Act for FY 2010

The FRA announced funding availability of $2.1 billion in grants to continue the development of high-speed intercity passenger rail corridors (Track 2). In addition, the FRA made another $245 million available for individual construction projects with independent utilities not within a corridor (Track 1). Funds for both come from the FY 2010 USDOT Appropriations Act. Applications and proposals for these latest funds were due to the FRA by August 6, 2010. Grant awards, including the $2.1 billion and $245 million from the FY 2010 USDOT Appropriations Act, were announced in October 2010.[6] Texas submitted two grants, both for new stations, including a station for the Heartland Flyer in the area of Krum/Denton and a new intermodal facility that could provide better connectivity with Amtrak, but neither received funding.

Texas Awarded $5.6 Million For High-Speed Rail Study

On October 28, 2010, USDOT announced Texas will receive $5.6 million for planning high-speed intercity passenger rail service from Oklahoma City to Dallas-Fort Worth, with a possible extension to Austin and San Antonio.

These funds will come to TxDOT to pay for feasibility and ridership studies, as well as environmental studies. The study development of the entire corridor will cost $14 million, and the $5.6 million award is a significant contribution toward the total cost.[4]

These studies will help TxDOT review passenger rail options, including improving existing Amtrak service, creating new service on existing rail lines or constructing new rail lines.[5]

Additionally, in spring of 2010, the FRA made $50 million in planning funds available (Track 3) under the FY 2010 DOT Appropriations Act and approximately $65 million in construction funds appropriated under the FY 2009 DOT Appropriations Act.[7]

Planning grants were submitted on May 19, 2010, including the following from Texas, described in more detail in Chapter 4: Passenger Rail.

- Austin–Houston service development and environmental planning: $2.8 million federal funds requested;
- Dallas/Ft. Worth–Houston service development and environmental planning: $3.6 million federal funds requested; and
- Oklahoma City–South Texas service development and environmental planning: $11.2 million federal funds requested.

Capital Grants for Rail Line Relocation Projects

This section establishes a grant program to provide financial assistance for local rail line relocation and improvement projects. For a state to be eligible for these funds, an improvement construction project must either:

- Mitigate the adverse effects of rail traffic on:
  - Safety;
  - Motor vehicle flow;
  - Community quality of life, including noise mitigation or economic development; and
  - Freight and passenger rail operations; or
- Involve the lateral or vertical relocation of any portion of the rail line.

FY 2010: Appropriations Success – SORR

TxDOT received a $1 million appropriation in the federal 2010 Consolidated Appropriations Act from the FRA's Rail Line Relocation and Improvement Program. The earmark was directed to the "South Orient Rail Line Rehabilitation in San Angelo, Texas." TxDOT will combine these funds with a local contribution from the city of San Angelo and state funds to rehabilitate 39 roadway-rail grade crossings in the city of San Angelo. The necessary documents and agreements were presented to FRA, and the grant was awarded on August 13, 2010.

Also, TxDOT received an additional $1 million appropriation under this program directed by a west-Texas legislator to the "South Orient Rail Line Rehabilitation." TxDOT intends to combine these funds with other available funding and develop a project for rail improvements between San Angelo and Ft. Stockton. The grant will not be awarded until the final scope of work is developed and all the necessary documentation and agreements between TxDOT and the FRA are finalized.

The fund authorizes (but does not appropriate) $350 million per year for FY 2006 through FY 2009. Eligible entities are required to pay at least 10% of the project costs, which can come in the form of real property, in-kind services, or previous money spent on the project before the application was filed. States may seek financial contributions from private entities that would benefit from the projects.

The use of federal funds may also require the project to be in the State Transportation Improvement Plan. The FRA published proposed rules for implementing the legislation in 2007.

Credit Assistance Program: Rail Rehabilitation and Improvement Financing (RRIF)

This program provides loans and loan guarantees for projects such as rail relocations, acquisition, development, improvement, or rehabilitation of intermodal and rail equipment or facilities, or projects that will enhance service and capacity in the national transportation system.

The RRIF program offers opportunities for implementing a wide variety of railroad projects and meeting some of the critical capital investment needs of the rail industry. Under the RRIF program, the FRA may provide direct loans and loan guarantees. The funding may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, bridges, yards, buildings, and shops;
- Refinance outstanding debt incurred for the purposes listed above; and
- Develop or establish new intermodal or railroad facilities.

Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, and joint ventures that include at least one railroad.

Federal Highway Administration

National Highway System (NHS) Funds

These funds can be used to improve almost any highway network link on the designated NHS to accommodate intermodal connectors and terminals. Selected rail projects that are part of highway construction plans may be eligible for NHS funding.

Surface Transportation Program (STP)

This program allows flexible funding for projects related to highway improvements required to accommodate a rail line, including increasing bridge clearances, upgrading crossing signals, and improving highway-rail crossing surfaces. Also, an eligible freight project might include the preservation of an abandoned rail corridor. The federal share of STP funding is generally 80%.

Lone Star Rail District

In 2008, the Capital Area Metropolitan Planning Organization (CAMPO) awarded $10 million to this district for FY 2009 and FY 2010. The CAMPO award partially matches the $20 million award (mobility funds) from the San Antonio-Bexar County MPO for FY 2011 and FY 2012.[8]

Transportation Enhancement Program

These funds are designated for projects that are designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal system.

TxDOT administers the federally-funded program, which provides opportunities for non-traditional transportation related activities. Projects should go above and beyond standard transportation activities and be integrated into the surrounding environment in a sensitive and creative manner that contributes to the livelihood of the communities, promotes the quality of the environment, and enhances the aesthetics of Texas' roadways. Projects undertaken with enhancement funds are eligible for reimbursement of up to 80% of allowable costs.[9]

Transportation Enhancement Program Project Categories

- Bike & Pedestrian Facilities
- Safety/Education for Pedestrian & Bicyclist
- Acquisition of Scenic or Historic Properties Transportation Museums
- Scenic & Historic Highway Programs
- Landscaping & Beautification
- Historic Preservation
- Historic Transportation Facilities
- Preservation of Abandoned RR Corridors
- Control & Removal of Outdoor Advertising
- Archaeological Planning/Research
- Environmental Mitigation
- Transportation Museums

On July 29, 2010, the Texas Transportation Commission (TTC) approved $76 million in funding for 54 transportation-related enhancement projects. Amongst these projects,[10] the following were funded:

- Denton A-train community enhancements and projects in Lewisville received $602,186; and
- Longview Train Station and Multimodal Center project received $2,169,461.

In the past, other rail projects have benefitted from this program under diverse categories as shown in Table 6-4.

El Chihuahuita – ARRA Success

In January 2010, $731,421.85 in ARRA funding was provided to rehabilitate a little-used track south of the Chihuahuita neighborhood in El Paso. A turnout was also constructed to connect this track to the international rail bridge crossing located near Chihuahuita. This enabled the re-routing of southbound trains to the rehabilitated track which reduced the amount of time that the road crossing at the entrance to Chihuahuita was blocked and improved access for citizens and emergency responders. This work was completed in the fall of 2010.

Table 6-4: Selected Rail Projects Funded by the Enhancement Program

CATEGORY	PROJECT DESCRIPTION	DISTRICT	STATUS
Rehabilitation and Operation of Historic Transportation Buildings, Structures, or Facilities, including Historic Railroad Facilities and Canals	**Texas State Railroad Renovation Phase 1 and 2** The circa 1893 Texas State Railroad was owned by the State of Texas while operated and maintained by the Texas Parks and Wildlife Department (TPWD). The Texas State Railroad serves as a state historical park providing the public with interpretation and education about the operation of a historic railroad. Visitors to the park have an opportunity to ride a steam train, visit with the engineer, and tour the depot.	Tyler (Palestine and Rusk)	The line runs from Rusk to Palestine in East Texas's pinewoods. The railroad has been selected for enhancement funding twice. Due to budget cuts by the state, on September 1, 2007, the Texas Legislature transferred the ownership of the Texas State Railroad to the Texas State Railroad Operating Authority, which will oversee operations by the American Heritage Railroad Company, a private company.
	Rehabilitation of Historic Santa Fe Railroad Temple Depot and Grounds Completed in 1914, this depot served as the Southern Division Headquarters for the Santa Fe Railroad. The depot's exterior and interior were restored for reuse to house Amtrak, Temple's transit system, ride-to-work program and a railroad museum. Additionally, funding was approved for the city to restore the historic depot grounds to provide landscaping with native plants, pedestrian trails with amenities, lighting, fountain restoration, railroad exhibits, and informational kiosks. Facilities will be ADA accommodating.	Waco (Temple)	The depot sits on the original depot grounds covering more than eight acres, including the historic gardens.
Acquisition of Scenic Easements and Scenic or Historic Properties	**Relevant Rails to Trails Projects:** Caprock Canyons State Park Trailway Mineral Wells - Weatherford Rails to Trails KATY Trail	Various	N/A

Source: TxDOT, 2010[11]

Railway-Highway Crossings Program

Formerly a set-aside of the STP program, this program provides funding for projects that improve safety at public highway-rail at-grade crossings through the elimination of hazards and/or the installation/upgrade of protective devices at crossings.

SAFETEA-LU requires that states set aside at least 50% of the funding allocation for the installation of protective devices at rail-highway crossings. If all needs for installation of protective devices have been met, then the funds available can be used for other at-grade crossing projects eligible under this program. The federal share is 90%.[12]

Congestion Mitigation and Air Quality (CMAQ) Improvement

These funds are available for projects that reduce congestion and/or improve air quality. These funds are available only in those metropolitan planning areas that have been designated as federal air quality "non-attainment" areas. Metropolitan planning organizations (MPOs) around the U.S. have used these funds to upgrade rail yards, construct intermodal transfer facilities, rehabilitate branch-lines, add sidings and spur tracks, and improve bridge clearances to allow double-stack container service. However, the funds are limited to rail projects linked with highway congestion reduction purposes (and not rail improvements solely).

National Corridor Planning and Development Program

This program provides funds for planning, project development, and construction of high priority corridors throughout the U.S., but all funds are supplied through congressional appropriations. This program has not been funded since FY 2004.[13]

Corridors and Borders Program (CORBOR)

This program was established to support studies and infrastructure development at national border crossings and along major freight corridors. This program has not been funded since FY 2004.[14]

Federal Transit Administration

FTA's New and Small Starts Program

SAFETEA-LU provided the FTA with $8 billion to fund this program, including guideway capital investments and commuter rail. In January 2010, Secretary LaHood proposed that new FTA funding guidelines for major transit projects be based on livability issues, such as economic development opportunities and environmental benefits (in addition to cost and time saved, which were primary criteria since 2005).

In making funding decisions, the FTA will now start to evaluate the environmental, community, and economic development benefits provided by transit projects, as well as the congestion relief benefits from such projects.

In addition to the New Starts Program, one of the main sources for funding passenger rail transportation up to FY 2009 continued to be the FTA. Table 6.5 provides a brief summary of the major funding categories Texas received.

Table 6-5: 2009 FTA Selected Funding Categories for Texas

FTA Funding Category	2009
(*) METROPOLITAN PLANNING ACTIVITIES – 5303	$6,857,562
STATE PLANNING ACTIVITIES 5304	$1,407,388
URBANIZED AREAS – 5307 & 5340	$249,536,803
NEW FREEDOM	$6,746,650
(*) ELDERLY/DISABLED – 5310	$8,422,652
RURAL/NON-URBANIZED – 5311 & 5340	$33,686,531
RTAP 5311	$373,454
FIXED GUIDEWAY MODERNIZATION	$21,736,981
FORMULA JOB ACCESS REVERSE COMMUTE	$14,959,249
TOTAL FTA Funds	$343,727,270

(*) Definition revised in 2007

Source: FTA – USDOT, 2009[15]

In the near term, the New and Small Starts evaluation and rating process, including the calculation of cost-effectiveness, will remain the same. However, the FTA will soon issue a rulemaking for public comment that will propose ideas for better measuring and quantifying the benefits provided by transit projects, including environmental, economic development, congestion relief, and other social benefits.[16]

The FTA also received $750 million in ARRA funding for this program. The FTA made ARRA 2009 Capital Investment Program allocations through its New Starts program to 11 projects nationwide. Texas received $78.39 million for the Dallas–Northwest/Southeast Light Rail Transit Minimum Operable Segment.

Office of the Secretary of Transportation

Credit Assistance Program: Transportation Infrastructure Finance and Innovation Act (TIFIA)

This act allows the federal government to make loans and loan guarantees available for major transportation investments of national significance, including intermodal facilities. Examples of how this funding source has been used include construction of an intermodal transfer center, construction of an international airport, and expansion and refurbishment of a train station for intermodal use.

Transportation Investment Generating Economic Recovery (TIGER) Grants

TIGER Discretionary Grants

ARRA appropriated $1.5 billion—available through September 30, 2011—for TIGER discretionary grants towards the creation of a National Surface Transportation System. These grants were awarded on a competitive basis for capital investments in surface transportation projects having a significant impact on the nation, a metropolitan area, or a region.

The grants were awarded in February 2010 and rail-related projects received a total of $789 million. Texas was awarded $23 million for the Downtown Dallas Streetcar project.

TIGER II Discretionary Grants

Following the success of the first round of TIGER Grants, another $600 million was made available through this program for capital investment in surface transportation projects. TIGER II Discretionary Grants were also awarded on a competitive basis to projects with a significant impact on the nation, region, or metropolitan area and which can create jobs. The TIGER II solicitation provided clear criteria for USDOT to make merit-based decisions on the new discretionary program.[17]

Primary selection criteria included contributing to the long-term economic competitiveness of the nation, improving the condition of existing transportation facilities and systems, improving energy efficiency and reducing greenhouse gas emissions, improving the safety of U.S. transportation facilities, and improving the quality of living and working environments of communities through increased transportation choices and connections. Pre-applications for this program were due July 16, 2010; final applications had to be submitted no later than August 23, 2010; and selected projects were announced on October 20, 2010.

Tower 55 Success

On October 20, 2010, Secretary LaHood announced the grant recipients for the TIGER II Program. Within the projects funded, Tower 55, a major rail and traffic bottleneck in downtown Ft. Worth, was awarded $34 million.[18] The total project cost amounts to $91.2 million of which BNSF and UP committed $51.2 million.

Among other benefits, the project will:

- Enhance safety by eliminating several pedestrian and bicyclists at grade crossings through the provision of underpasses;
- Provide 20 years of additional capacity; and
- Allow 40% more trains through the intersection.

Build America Bonds

This bond program created by ARRA was extended through H.R. 4849, which provided $4.6 billion in additional federal subsidies for Build America Bonds. The bonds allow states and municipalities to finance infrastructure projects with an interest subsidy from the federal government. The bonds are designed to appeal to a broader set of investors than the tax-exempt bonds traditionally used by state and local governments.[20]

Build America Bonds for DART

DART sold $829.6 million in Build America Bonds as part of a $1 billion bond sale to help fund construction of 48 new miles of light rail. The use of Build America Bonds by DART will save taxpayers $220 million. Between 2007 and 2014, the DART Rail expansion is estimated to yield a $5.6 billion economic impact and create 47,760 jobs.[19]

Potential Non-USDOT Federal Funding Freight Programs

U.S. Department of Commerce – Economic Development Administration (EDA) Funds

EDA provides grants for projects in economically distressed industrial sites that promote job creation and/or retention. Eligible projects must be located within an EDA-designated redevelopment area or economic development center. Eligible freight-related projects include railroad spurs and sidings.

Grantees must provide evidence of economic distress that the project is intended to alleviate. Grant assistance is available up to 50% of the project, although the EDA could provide up to 80% for projects in severely depressed areas.[23]

EDA funds in the Ports of Beaumont and Orange

In 1999, the Port of Orange was awarded a $1 million grant from the EDA to provide access and basic utilities to port-owned property on the east bank of the Neches River. Construction of the roadway and railroad bed was finished early in the year 2000.[21]

Recently, in 2009, the EDA awarded $8 million to both ports ($4 million each) under the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act. The Port of Orange is using its allocation to create intermodal cargo transportation facilities for handling petrochemicals. The Port of Beaumont is applying the funds to create new rail connections to the 240 acres it owns in Orange County.[22]

U.S. Department of Agriculture (USDA) – Community Facility Program

The USDA Rural Housing Service's Community Facility Program provides three funding mechanisms to fund construction, enlargement, extension, or improvement of community facilities, providing essential services in rural areas and towns with a population of 20,000 or less. The three programs are:

- Direct Community Facilities Loans;
- Community Facility Loan Guarantees; and
- Community Facility Grant Program.

Grant assistance is available up to 75% of the project cost. Eligible transportation-related community facilities include transportation infrastructure for industrial parks and railroads.[24]

U.S. Environmental Protection Agency (EPA) Brownfield Revitalization Program

Through the EPA's Brownfield Revitalization Program, the federal government provides grants and loans for Brownfield site clean-up. Brownfield sites could be redeveloped for commercial, residential, and/or industrial uses, including intermodal facilities (e.g., rail-truck transfer facilities). Site clean-up grants provide up to $200,000 per site to fund clean-up conducted by cities, development agencies, nonprofit groups, and similar entities at sites they own. A 20% match (of funds or in-kind services) is required, although this can be waived in the case of hardship.[25]

U.S. Department of Energy

The transportation sector produces approximately one-third of carbon-dioxide emissions in the U.S. and is also responsible for approximately 70% of U.S. oil consumption.[28] Currently, Congress is examining a series of amendments to the current Clean Air Act that would significantly impact the transportation sector. A new climate bill is likely to create new funding streams for transportation projects.

HSIPR as a Green Jobs Creator

The shift away from rail has been a matter of policy choice, and a turnaround is possible. New HSIPR initiatives could entail substantial job opportunities. Even though the U.S. has long neglected passenger rail systems, according to the Apollo Alliance, an extreme scenario of a 10-year federal investment program of $25 billion in new HSIPR systems, as well as $8 billion in rail maintenance could create approximately 240,000 jobs.[26]

For a more practical example, the project's impact study of the nine-state Midwestern project surrounding a Chicago hub (which includes 3,000 miles of upgraded track) predicts 2,000 permanent and 4,000 construction jobs, as well as the potential for economic development along the rail corridor.[27]

6.3 - State Sources

Current Programs

Historically, TxDOT has been limited in its ability to expend funds on rail projects without specific legislative appropriations. Texas Legislatures 78 through 81 passed laws that enhance TxDOT's ability to improve transportation safety and infrastructure in Texas. The most current rider that authorizes expenditures for rail projects is Rider 64 of the House Appropriations Bill. Through Article VII, the latter authorizes $8.7 million for the environmental review and other preliminary planning activities for the Austin-San Antonio passenger rail project, and $3 million for rail improvements for rehabilitation and track improvements for the SORR and the Austin-San Antonio Corridor.[33]

Railroad Relocation and Improvement Fund

Texas voters approved a constitutional amendment to create this fund in November 2005. The establishment and administration of a railroad relocation and improvement fund enables TxDOT to plan, design, and implement passenger and freight rail relocation and improvement projects that support the objectives and supporting actions of the Texas Rail System Plan if some method of establishing a revenue stream for the fund is implemented.

The South-Orient Railroad (SORR)

The SORR, originally constructed in the early 1900s, extends approximately 391 miles from the San Angelo Junction through San Angelo, ending in Presidio at the Texas/Mexico border.

In 1991, the State of Texas partnered with private investors to purchase the line for $5.5 million and prevent the abandonment of the line. This led to the formation of the South Orient Railroad Company (SORC), which began operating the line.

SORC did not realize adequate revenues to invest in rehabilitating the line, and in 1998, SORC filed an abandonment application. In 1999, the Texas Legislature appropriated an additional $6 million to TxDOT toward the purchase price of $9.5 million for SORC's interest in the line.

On February 2, 2001, TxDOT and Texas Pacifico Transportation, Ltd. (TXPF) completed the purchase of the SORR. Under the agreement, TxDOT became the railroad's owner and Texas Pacifico obtained a 40-year operating lease with five, 10-year renewal options. TXPF has invested approximately $8 million to rehabilitate the infrastructure.[29]

The TTC recently approved the SORR as a recipient of stimulus funding, and the project received $14.9 million in ARRA funds. TxDOT is in the process of rehabilitating the SORR between San Angelo Junction (near Coleman) and San Angelo through several projects. When completed (2011), that segment of the line will be operable at 25 mph speeds.[30]

Estimates indicate that:

- Through November 2009, the projects funded through ARRA currently under construction have generated 50 direct construction jobs; and[31]
- Between 2001 and 2008, transporting freight across the SORR has saved approximately $43,257,369 in pavement maintenance costs for parallel roads.[32]

In addition, the TTC would administer this revolving fund to finance the relocation, construction, reconstruction, acquisition, improvement, and expansion of rail facilities. This legislation enables the TTC to issue bonds, which could finance projects for state-owned rail facilities or to partially fund projects for privately owned rail facilities.[34]

The 81st Legislature dedicated a total of $182 million to fund RRIF through FY 2010 and FY 2011 Appropriations Act. However, the Comptroller requested clarification from the state's Attorney General regarding the Legislature's instructions applicable to the RRIF appropriation. The latter, through Opinion No. GA-0777, reaches inconclusive recommendations; thus, RRIF funding will occur at the comptroller's sole discretion.[35] As of November 2010, State Comptroller Susan Combs was reviewing the attorney general's opinion; however, she does not have a timetable to start funding the RRIF.[36]

State Infrastructure Bank

State Infrastructure Banks (SIB) were authorized in 1995 as a part of the National Highway Designation Act (NHDA) to accelerate needed mobility improvements through a variety of financial assistance options made to local entities through state transportation departments. Because Texas was chosen as one of the 10 states to test the pilot program, the Texas Legislature authorized TxDOT to administer the SIB program in 1997. The TTC, TxDOT's governing body, has approved 90 loans totaling more than $382 million from the SIB program. The loans helped leverage more than $3.5 billion in transportation projects in Texas. Also, highway and transit projects eligible under Title 23 federal programs can be funded through the SIB.

Texas Emissions Reduction Program

The Texas Emissions Reduction Program (TERP) was created by the Texas Legislature to create monetary incentives for projects to improve air quality in the state's nonattainment areas. Counties near nonattainment are also eligible for incentives under TERP. TERP is funded through revenue deposited into the Texas Emission Reduction Plan Fund from fees and surcharges established by the Texas Legislature. The amount of funding available for grants varies depending on the cash flow into the program.

Activities eligible for reimbursement of rail relocation costs

- The cost of design and engineering work directly necessary for completing the improvements
- Permitting and governmental fees needed to complete any site improvements or construction
- Costs for new construction or reengineering costs for modifications of an existing site
- Invoice costs of equipment or other infrastructure, including sales tax and delivery charges
- The cost of associated supplies directly related to the installation of the equipment or infrastructure
- Installation costs
- Other costs directly related to the projects

Activities eligible for TERP funding are programs intended to reduce emissions of nitrogen oxides (NOx). To be eligible for funding, these activities must reduce NOx emissions by at least 25%. This reduction needs to be certified and verified by the EPA. Activities required by state or federal law, rule, regulation, memorandum of agreement, or other legally binding document are not eligible for funding.

TERP funding is also available for rail relocation and improvements. An eligible activity would be the relocation of rail lines to reduce the number of grade crossings, improvements at rail intersections, and other improvements that directly result in the reduction of locomotive engine idling at rail intersections and other locations. Applicants for this funding must show that the relocation project is viable and can achieve significant reductions in NOx emissions. As with locomotive replacement, any activity required by any state or federal law, rule, regulation, memorandum of agreement, or other legally binding document is not eligible for funding.

The legislation also directs TxDOT to conduct a study to determine the economic feasibility of relocating freight trains that carry hazardous materials away from residential areas of the state in municipalities of more than 1.2 million. The study found that it is possible to relocate some, but not all, freight trains carrying hazardous materials from these municipalities. Additional information on this subject can be found in Chapter 5 – Rail Safety and Security.

Texas Economic Development Bank

Funds from the Texas Economic Development Bank can be utilized for rural rail development projects. Legislation enables the bank to provide grants or financing to TxDOT for the implementation of TxDOT's powers and duties relating to rural rail development and states that the bank "may allocate its resources as necessary to efficiently meet the level of demand experienced by TxDOT."

Transportation Reinvestment Zones

Legislation allows, within a transportation reinvestment zone (TRZ) for rail facilities, metropolitan areas that already operate a freight or passenger rail facility to diversify funding options and ensure the success of rail systems. Municipalities may operate a TRZ. These zones commit incremental tax revenues beyond a base year to create a revenue stream used for transportation purposes. TRZs can be created for roadway purposes at the county and municipal levels for use on state highway facilities.

Transportation Reinvestment Zones

Transportation reinvestment zones (TRZs) are a relatively new method of funding transportation projects by capturing a part of the property tax revenue from increased property values resulting from the creation of a new road. To date, the cities of El Paso and Forney and Hidalgo County have created transportation projects using this funding method.[37]

Potential State Programs

Local Funding for Transportation

Legislation in Texas provides many ways to finance needed public improvements. Traditionally, Texas communities use their existing tax base, either ad valorem taxes or sales taxes, as collateral for municipal bonds sold in the open market to generate capital for improvement projects.

Funding Proposal: The Local Option

On February 2009, Senator Carona filed S.B. 855 and S.J.R. 24, the Local Option Transportation Act. The latter provided for amendments to the Local Government Code to add temporary provisions set to expire January 1, 2019, by creating county option funding through a county's motor fuel tax for the DFW region aimed at rail and other mobility projects. S.B. 855 allowed the county to impose and collect a tax at a rate of 10 cents per gallon on the sale of gasoline and diesel fuel sold in the county. The bill was approved by the House but not the Senate.

Additionally, local taxes that constitute an option towards funding rail projects are:[38]

- New resident impact fee imposed on vehicles previously registered out-of-state;
- Vehicle registration fees;
- Driver's license issuance and renewal fees;
- Safety inspection fees;
- Congestion charges designed to reduce congestion in peak periods in certain areas;
- County or regional property taxes;
- Distance-based road user fee charging drivers for vehicle miles traveled;
- Motor vehicle sales tax within a county or a region;
- Property sales fee added to the sales price of residential and commercial properties;
- A motor fuels excise tax; and
- Vehicle purchase fee added to the sales price of motor vehicles.

However, there are several solutions available through public development financing that can generate the necessary capital for needed public infrastructure improvements. For example, rarely-used public development financing mechanisms are Public Improvement Districts (PIDs). PIDs offer cities and counties an alternative means for undertaking public improvement projects needed for economic growth. The Public Improvement District Assessment Act allows any city to levy and collect special assessments on property in a designated PID created within the city limits or within the city's extraterritorial jurisdiction. The statute authorizing the creation of PIDs is found in Chapter 372, Local Government Code. Public improvement districts may be formed to accomplish mass transit improvements (acquisition, construction, improvement, or

rerouting of mass transportation facilities), among others. However, "similar improvements" may also be considered.

Value Capture

Large public investments in transportation infrastructure can increase the value of adjacent private land—sometimes substantially. For example, transportation networks and urban land value are closely linked. A transportation improvement typically increases accessibility to desirable destinations, such as jobs or schools.[41]

Locations with higher accessibility tend to have higher land prices. Landowners and developers benefit from this increased value and a mechanism can be applied to capture a part of this created value. The revenue can help finance the transportation improvement, or it can go toward further transportation investments, spurring additional increased accessibility and land value.

Proximity to DART Station

A first DART study found that light rail stations recorded valuation increases about 25% greater than those in a control group of neighborhoods not served by DART rail between 1994 and 1998.[39]

In a second study that examines the 1997 to 2001 time period, findings show that proximity to a DART station continued to exert a positive influence on residential and office property valuations.[40] Median values of residential properties increased 32.1 percent near the DART rail stations compared to 19.5 percent in other group areas. Thus, residential properties near light rail stations on average increased in value 39 percent more than comparable properties not served by rail. For office buildings, the increase was 24.7 percent for the DART properties versus 11.5 percent for the non-DART properties, so that office buildings near DART light rail system increased in value 53 percent more than comparable properties not near rail.

Value capture mechanisms thus specifically target those that benefit from the transportation investment: landowners and developers who benefit from the increased land value that follows a transportation improvement.

Different ways to measure the value gains give rise to a range of different instruments of value capture.[43]

Mockingbird Station

Mockingbird Station is a DART light-rail station located four miles north of downtown Dallas. Mockingbird Station is a mixed-use, urban village linked directly to the DART light rail system via a pedestrian bridge. The assemblage of offices, shops, restaurants, and lofts near the station cost around $145 million to build. In 2003, residential rents at the Mockingbird station were going for $1.60 per square foot per month; other comparable nearby properties not served by transit were getting $1.30, or 20% less.[42]

Table 6.6 presents the various benefit measurements and associated financing instruments that have been used to share in the increased land values from transportation infrastructure investments. Each of these financing instruments is discussed in more detail below.

Table 6-6: Value Capture Beneficiaries, Benefits, and Finance Instruments

Beneficiaries	Measurement of Benefit	Finance Instrument
Landowners	Land value growth	Land value taxes
	Property tax growth	Tax increment financing
	Assessed special benefits	Special assessments
	Transportation utility	Transportation utility fees
Developers	Off-site development opportunities	Development impact fees
	Off-site access benefits	Negotiated exactions
	Development privileges	Joint development
	On-site development opportunities	Air rights

Source: Center for Transportation Studies, 2009[44]

Land Value Tax

The land value tax captures the general increase in the price of land due to improved accessibility from transportation networks—not only from a specific project. A "pure" land value tax is rarely levied. The most common land value tax—i.e., the split-rate property tax—taxes land at a higher rate than buildings.[45] By comparison, conventional property taxes apply the same tax rate to land and buildings. Higher tax rates on buildings create disincentives for development; however, because the supply of land is fixed, taxing land at a higher rate results in little economic distortion. Use of the land value tax has been limited in the U.S.[46]

Tax Increment Financing

Tax increment financing (TIF) generates revenues based on increases in property values realized past a base threshold over a period of time. Tax revenues are then used to finance development-related costs, including infrastructure improvements.[48] Like assessment districts, TIF districts can be planned to include only those properties benefiting from a local improvement, such as a transit station. The mechanism is often used by local governments to promote housing, economic development, and redevelopment in established neighborhoods. TIF has, however, rarely been used for transportation improvements, with the exception of small-scale investments in urban rail transit networks.[49]

Tax Increment Financing (Dallas, Texas)

The City of Dallas recently established a transit-oriented development tax increment financing district that includes seven station areas along DART's light rail system. According to DART, funds generated by this tax increment financing district can be used to help pay for basic infrastructure improvements—such as streets, water and sewer systems, and a portion of structured parking garages—at the transit-oriented developments.[47]

TIF captures growth in property values for the entire district, and it greatly increases the tax receipts if new development occurs.[50] Issues may result when TIF is administered

by jurisdictions with goals for TIF revenues other than transit improvements. Transit agencies typically cannot administer TIF districts and thus must work with other jurisdictions to promote transit improvements. Additionally, if a TIF district overlaps with a school district tax jurisdiction, it can impose a significant burden on certain households.[51] Finally, TIF may also subtract from other general revenue for the city, county, or other regional jurisdiction in which it is established. This makes it difficult to implement over a large area.[52]

Texas jurisdictions have used TIF in many different situations to foster economic development. Under Texas law, for TIF to be administered, a Tax Increment Reinvestment Zone (TIRZ)[53] must be created.

Special Assessments[54]

An assessment district, also known as a special assessment district (SAD), benefit assessment district (BAD), or local improvement district (LID), is an area within which properties are taxed on the assumption that they will benefit from a public improvement. The assessment is thus levied only against those parcels that receive a direct benefit from the public investment.[55] The benefits must be clearly identified and measured. Assessment districts are most common with sewer systems or water utilities but have also been used to fund fire and police forces, as well as transit projects. If a special assessment is implemented, benefits to property owners must be clear and measureable.[56]

Most noteworthy about SADs is that typically, the assessment must be approved by a majority of voters—in some cases even by two-thirds of voters. One barrier that exists, albeit at different levels, is the degree of opposition to any sort of imposed fee or tax. Depending on the visibility of the fee to individuals, opposition may be minor or quite vocal. Special assessments must address this frequently, as individual homeowners generally oppose these assessments.[57] The visibility of special assessments is also quite high, leading to a significant amount of legal procedure before the assessment is realized.[58]

In Texas, there are no significant examples of designated SADs to develop transit. Instead, these districts—frequently referred to as *"special tax districts"*—have mostly benefited schools.[59] Across the U.S., however, this mechanism has typically been used for local infrastructure improvement projects.[60]

Transportation Utility Fees

Transportation utility fees (TUF) consider transportation networks to be utilities similar to other local services, such as water and wastewater treatment, that are financed primarily from user charges. TUF rates can be set considering a number of factors that are more closely related to transportation demand, such as housing units, number of parking spaces, square footage or gross floor area, and the trip generation rate for a given

property type. This mechanism has encountered legal challenges in the U.S., most often on the grounds that it resembles a tax, thus requiring a referendum in some local jurisdictions.[61]

Development Impact Fees

Development impact fees (DIF) are "one-time" charges levied on new developments. These fees are similar to negotiated exactions (see subsection below) in that they are primarily levied on new developments to help recover growth-related public service costs. However, they differ from negotiated exactions in that DIF can be levied to provide off-site services, such as local roads, schools, or parks. DIF are also typically determined from formal calculations of the public service costs of new developments as opposed to the less-formal negotiation process typically used with negotiated exactions, and are directly passed on to the developer. Although DIF are widely used throughout the U.S., revenues are rarely used for transit improvements.[62] The fees marked for transportation purposes are typically used for roads rather than transit.

The premise of development fees is that developers should pay the increased costs of providing services to their developments. It is thus not directly tied to property values or the income of the development's residents. Fees are generally collected only once. There are no known examples of development fees used to benefit transit in Texas, but the City of Ft. Worth did implement a transportation development fee in 2008 to *"recover the costs incurred for the expansion of the transportation network necessary to serve demands generated by new development."*[63] Under this plan, a flat fee is charged for every single-family residential unit and all non-residential units developed in the city. Additionally, there is a schedule of fees established for various types of commercial businesses. The fees vary depending on the area of the city, reliance on transportation (for example, drive-through restaurants are typically charged a much higher fee), and the size of the units.

In general, for development fees to be successful, the goals and ideals of regional leaders, developers, and residents must align. For example, in the case of transportation impact fees, all parties should agree that the fees are necessary to improve the infrastructure. The real estate market must be strong, as impact fees would not be generated if the potential for property development does not exist.

Negotiated Exactions

Negotiated exactions are similar to DIF with the exception that they are typically determined through a less formal negotiation process and are typically not applied to off-site infrastructure provision. As a condition of development approval, negotiated exactions can take the form of in-kind contributions for the development of local roads, parks, or other public goods or can be requested in the form of in-lieu fees.[64]

Joint Development

Joint development (JD) refers to the simultaneous development of a transportation facility and adjacent private real estate. There are two types of JD: revenue-sharing arrangements and cost-sharing arrangements.[65] In the former, the infrastructure provider—typically a public entity—retains a share of the generated revenues from new development near the improved facility. Revenue sharing can include ground rights, air rights, or even direct participation through development rent revenues. In the latter, the private sector directly shares in the costs of providing or maintaining the transportation facility. Under a cost-sharing agreement, a private developer will pay for the provision and/or maintenance of the infrastructure facility. Under a cost-sharing agreement, the transportation improvement (e.g., transit) is likely to be well-integrated into the surrounding development, increasing potential for ridership and increased land values.[66]

JD is the most commonly used value capture mechanism in the U.S.[67] For transit, JD is very feasible in the case of redevelopments or new developments occurring simultaneously with transit investments. In this case, the city can often issue one request for proposals (RFP) for multiple sites along a transit route. This can be helpful in attracting larger, more experienced developers and can streamline the approval process. Furthermore, developers can construct transit-oriented developments (TODs) in phases based on market demand.

The City of Dallas has implemented this approach along existing DART corridors, pairing development opportunities along the route. In other words, to develop in highly-desired areas, developers also had to invest in other less desirable areas[68] or invest in affordable housing or greater density. The strength of the real estate market is, however, also a major factor in the potential success of these types of JD agreements. As noted in the Dallas area, any decline in the regional economy can seriously impact large developers.

Additionally, JD requires significant administrative resources to oversee the relationship and exchange between the different partners and stakeholders in a given agreement. The complexity of these agreements may deter smaller agencies and smaller developers from entering into JDs.

Air Rights

Air right agreements establish development rights above (or below) a transportation facility in exchange for a financial contribution or future additional property and/or income taxes. Facilities that are depressed during construction, including transit or highway entrance points, can generate large increases in land values that may encourage development at a much higher density than prior to the transportation improvement. Certain types of facilities (e.g., subways) increase these land values near access points that may induce developers to build at much higher densities. The public sector can sell or lease air rights above these facilities. This mechanism has been widely used in the

U.S., with particular success near heavy-rail subway systems in eastern U.S. cities, and development near underground freeways in multiple cities across the country.[69]

In terms of equity, air rights development is generally neutral when measured against ability-to-pay and may benefit many neighborhoods by providing a link over a rail line or a freeway. Revenues from these developments may also substitute more regressive sales tax revenues. The political feasibility of air rights developments is also quite high, as the number of properties affected is usually relatively low. However, dense air rights developments often require adjacent densities, which may raise concerns from nearby property owners if densities and land uses are incompatible. Also, air rights development requires a specific skill set—i.e., legal and marketing skills—that not all agencies have in house.[70]

Tax Incentives

A number of states offer property tax or income tax benefits for railroads or shippers making rail investments to bring new rail service to existing businesses or to serve new businesses. At the federal level, this potential source is currently awaiting approval by Congress.

The proposed federal legislation (Short Line Rehabilitation Tax Credit Bill - H.R. 1132/S. 461) would extend Section 45G of the Internal Revenue Code of 1986 to create an incentive for short line railroads to invest in track rehabilitation by providing a tax credit of 50 cents for every dollar a railroad spends on track improvements.[74] The credit is capped based on a mileage formula (per mile credit; limitation from $3,500 to $4,500 to account for increased construction costs since 2004 and to bring the credit closer to its original goal of $10,000/mi.).

Timber Rock Railroad

The Timber Rock Railroad provides a crucial connection to the BNSF and KCS railroads necessary to deliver needed aggregate of diverse companies, such as East Texas Asphalt Company, into east Texas.[71] The company carries more than 26,000 carloads annually, with forest products and rock making up the majority of the loads.[72] The Timber Rock utilized the Section 45G tax credit to make needed bridge improvements to handle long heavy trains of rock cars and deliver them safely and economically to Deep East Texas.[73]

H.R. 1132/S. 461 proposes to extend Section 45G for three additional years. Section 45G expired on December 31, 2009. Additionally, it proposes to limit eligibility to new short line railroads created after January 1, 2005 and before January 1, 2009, mostly because the latter have not benefited from the program because of Congress' previous cut-off date of January 1, 2005.[75] However, the regulation extending the short-line tax credit still had not been secured in the Senate before the August 2010 recess.[76]

State Loan/Freight Programs

States like Minnesota and Iowa have retained their former Local Rail Freight Assistance (LRFA)-funded revolving funds for railroad development, particularly for short line railroads. Iowa and Kansas continue to apply state funds to recapitalize the funds. Oklahoma levies a railcar tax to fund its short line railroad development program. Oregon used lottery revenues to fund a multimodal freight transportation program that awards grants and loans on a competitive basis to freight projects. Oregon also offers state financial assistance to in-state applicants for FRA RRIF loans, paying for credit risk premiums or loan preparation costs.

Public–Private Partnerships

TxDOT may also enter into Comprehensive Development Agreements (CDAs) to provide for the financing, design, acquisition, construction, maintenance, or operation of a rail facility or system. However, the 80th Texas Legislature passed S.B. 792, which established a moratorium for these agreements. Nevertheless, the moratorium did not affect existing CDAs or those for which a Request for Qualifications was already published.

Texas' limited CDA statutory authority could be expanded to offer delivery and operation of high-speed rail services through public-private partnerships (PPPs). Both California and Florida are considering PPP approaches to deliver HSIPR services funded by recent federal grants. PPPs for freight projects on private railroads will require careful assessment of the relative benefits by public and private parties so that costs can be allocated appropriately.

Public Private Partnerships

Public-private partnerships (PPPs) among multiple national, regional, and state jurisdictions provide the potential for long-term funding and support for major freight and passenger rail investments. Such partnerships – e.g., Chicago Region Environmental and Transportation Efficiency Program (CREATE) and the Crescent Corridor - have proven to be highly successful in securing federal funding.

Basic models for financing large freight, HSIPR transportation projects are public, private, and a combination of public and private funding (PPPs or P3). HSIPR projects are inherent candidates for receiving public funding due to the high upfront costs and considerable risk involved. Table 6.7 illustrates various PPP scenarios in terms of responsibility for the development and operation of HSIPR services. However, these scenarios may also apply to fund freight rail projects.

Table 6-7: Models for Developing and Operating HSIPR

Model Type	Models for Development and Operation				
	Full Concession	Construction Finance	Infrastructure PFI/PPP	Operating Concession	Infrastructure PPP/Hybrid
Civil Infrastructure	Design-build-fund-operate/ maintain	Design-build-transfer	Traditional procurement by government	Traditional procurement by government	Design-build/supply-maintain
Systems			Design-build-maintain		
Rolling Stock		Design-build/supply operate/maintain	Design build/ supply operate/maintain	Design-build/supply operate/maintain	
Operations					Operation by government

Source: Halcrow, undated[77]

The following subsections discuss four potential structures for the financing and implementation of HSIPR networks; the latter have been applied successfully in the United Kingdom. Other considerations would be necessary for their implementation in the U.S. or for freight rail projects.

Design and Build with Separation of Operations (DB&O)

The DB&O model (Figure 6.3) represents a traditional structure for the procurement of infrastructure projects with separate contracts for the construction and operations of the HSIPR project. Construction risk could be transferred to the private sector under the design and build contract, which could be paid on a milestone basis; however, as payments are made during construction, the rail authority will retain an element of construction risk.[78]

The operations component of the project is typically provided by an operator responsible for maintaining the infrastructure in addition to the procurement of rolling stock, operation, and maintenance of rolling stock; and the collection and retention of fare box revenue.[79] The rail authority remains responsible for providing the contractual/ regulatory framework among the design and build contractor, the maintenance contractor, and the operator.

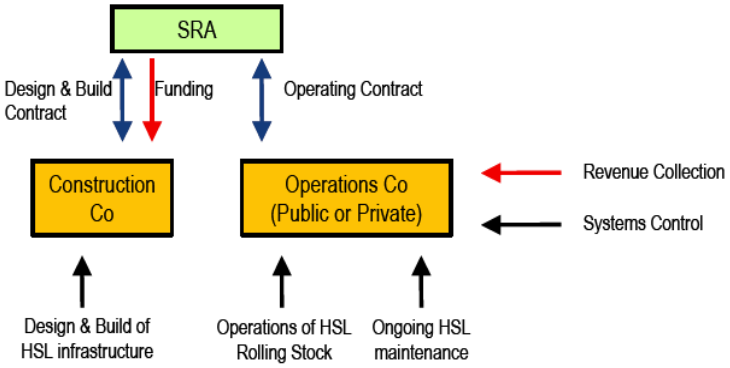

Figure 6-3: DB&O Model[80]
Source: Ernst & Young, 2003[81]

Design, Build, Finance & Operate (DBFO)

The DBFO structure (Figure 6.4) involves a single contract with the private sector to provide the financing for the project in addition to designing, building, and maintaining the infrastructure asset, as well as operating the service. The private sector would typically incur the majority of risks associated with the project, including revenue risk. Project financing is normally provided by third-party debt providers on a limited recourse basis over the construction phase, with additional risk or equity capital provided by main contractors.[82]

Although full revenue risk may be transferred, it is unlikely that fare box revenues generated from the project would be sufficient to meet the debt service obligations of the Special Purpose Vehicle (SPV). A fixed fee would therefore be paid by the rail authority to the private sector during the operational phase to cover the funding deficit.[83] This fixed fee could be based on performance to provide the private sector operator with an incentive to provide the desired levels of service.

DBFO is not the most efficient structure if the rail network is to be implemented in phases and if it is desired to have a single operator for the whole network.[84] The latter would require the termination of the DBFO concession, which could involve significant compensation costs to the existing concession company if the contract is breached.

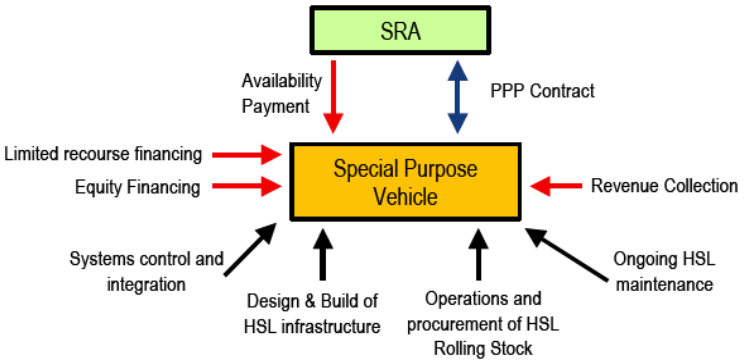

Figure 6-4: DBFO Model
Source: Ernst & Young, 2003[85]

Design, Build, Finance & Maintain with Separation of Operations (DBFM&O)

The DBFM&O structure (Figure 6.5) differs from DBFO in that the operations of the service are contracted separately from the contract for the provision and maintenance of the infrastructure. The infrastructure component can be delivered through a separate SPV, where the contractor is paid a fixed fee for the availability of the asset. Additionally, performance is ensured by making abatements to the fee for poor performance. The operational component of the project, including the operation and procurement of the rolling stock and the collection of the revenues, may be contracted to the private sector through a separate SPV.[86]

Assuming a phased development of the HSIPR service, this structure is attractive in that phases of the infrastructure can be let as separate DBFM concessions, while the existing operator would be allowed to provide services over the extended network.

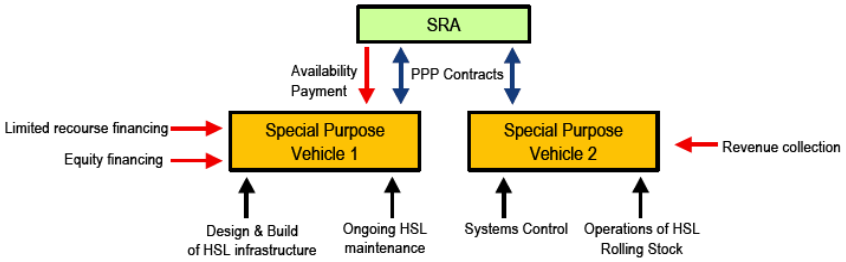

Figure 6-5: DBFM&O Model
Source: Ernst & Young, 2003[87]

Design, Build, Finance & Transfer with Separation of Operations (DBFT&O)

Under a DBFT&O structure (Figure 6.6), an SPV would develop the project, procure financing, and construct the HSIPR infrastructure. Upon completion of the capital works, a rail infrastructure owner and operator, such as Network Rail in the U.K. (or another party) is obligated to purchase the asset from the SPV for a predetermined price subject to assets meeting certain technical and safety criteria.[88]

Funding for purchasing the HSR infrastructure is secured through long-term track access charges levied by the infrastructure owner to the HSR operating companies; however, an additional guarantee from the rail authority may be required. Responsibility for rail operations and infrastructure maintenance remain separate.[89]

DBFT&O could facilitate a phased development of an HSR network as infrastructure is transferred to a "rail infrastructure owner and operator" upon satisfactory completion and commissioning of the asset. A separate operation contract could be entered into with a private sector operator of the HSIPR service. The operator would be charged an access fee for use of the asset. The operating company would collect the fare box revenues, but it is anticipated that an operating subsidy would be required from the rail authority.[90]

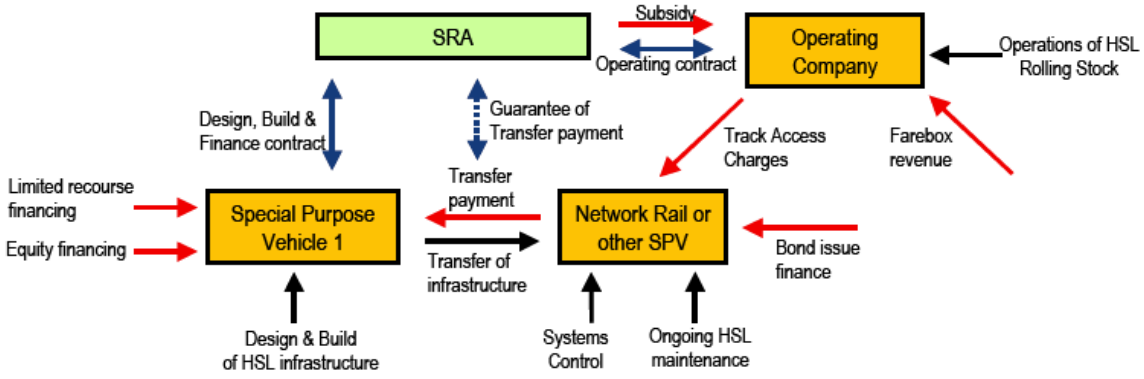

Figure 6-6: DBFT&O Model
Source: Ernst & Young, 2003[91]

6.4 – Financial Strategy

Funding sources available to support both freight and passenger rail projects in Texas are limited mainly to federal sources for the near-term. The private nature of most of the existing rail system has restricted the role the state can play in improving rail transportation options, although increasing interest in PPPs for the development and improvement of rail systems is rapidly advancing. The new transportation financing tools

provided by the Texas Legislature should help address rail infrastructure needs and constraints in the state. While these new rules and procedures are developed, TxDOT can implement the following:

- Careful planning: Allocating public and private cost share for freight rail projects and identifying HSIPR corridors and service designs require deliberate, transparent planning by TxDOT. Such planning is required by many federal grant programs.
- Accessing federal programs: TxDOT will take steps necessary to compete for and seek funding from HSIPR rail programs, credit enhancements, and flexible multimodal programs for passenger and freight rail projects. The creation of a distinct Rail Division (RRD) within TxDOT is an important step to develop the program and project management expertise to manage a growing portfolio of rail projects.
- State and local funding flexibility: Additional funding mechanisms for local/regional governments to improve freight service and expand passenger rail services, including transit connectivity and station development, is needed. Flexible state funding programs such as the Rail Relocation and Improvement Fund, the State Infrastructure Bank, and other appropriated funds can leverage federal and private capital for infrastructure and provide support for freight and HSIPR projects.
- Public-Private Partnerships: Mutually beneficial agreements between TxDOT and private railroads are critical to achieve the freight and passenger visions of the Texas Rail Plan. PPP legislation can be tailored to help deliver rail investments in the future.

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