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Public Transportation Capital Investment Grant (New Starts) Program: Background and Issues for Congress

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Summary

The Capital Investment Grant (CIG) program, often called New Starts, is a discretionary funding program for the construction of new fixed-guideway public transportation systems and the expansion of existing systems. Eligible projects include transit rail, including subway/elevated rail (heavy rail), light rail, and commuter rail, as well as bus rapid transit (BRT) and ferries.

The CIG program is one element of the federal public transportation program that is administered by the Federal Transit Administration (FTA) within the Department of Transportation (DOT). In December 2015, the CIG program was reauthorized from FY2016 through FY2020 as part of the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94). Funding is authorized at $2.3 billion per year, or about 19% of the overall federal public transportation program budget. Unlike FTA's other major programs, funding for the CIG program comes from the general fund of the U.S. Treasury, not the mass transit account of the Highway Trust Fund. CIG funding, therefore, is subject to appropriation each year. The CIG program allocates discretionary grants, whereas the other major programs apportion funds by formula.

There are four types of CIG projects:

- **New Starts**, an operable segment of a new fixed-guideway system or an extension of an existing system that costs $300 million or more and receives $100 million or more in CIG funding.
- **Small Starts**, a new fixed-guideway project or a corridor-based BRT that costs less than $300 million and receives less than $100 million of CIG funding.
- **Core Capacity**, expansion of an existing fixed-guideway corridor to increase capacity by 10% or more.
- **Program of Interrelated Projects**, the simultaneous development of two or more New Starts, Small Starts, or Core Capacity projects, or a combination thereof.

The five key policy issues with the CIG program are the federal role in funding major transit projects, program funding, the types of projects supported, project delivery speed, and private involvement in project delivery. Although disagreements exist about federal involvement in major public transportation capital projects through the CIG program, and the appropriate level of CIG funding, no comprehensive benefit-cost studies are available on completed CIG projects to evaluate the relative success of the CIG program as federal policy.

Legislative and regulatory changes to the CIG program over the past decade have led to federal support of more BRT and streetcar projects. Critics have questioned whether some of these projects, particularly streetcars, provide enough transportation benefits to justify the costs. Legislative changes have also sought to reduce the time it takes for projects to be developed and constructed. Little is known about whether these changes have been effective. Private involvement in CIG projects through public-private partnerships (P3s) has been encouraged in federal law for many years, including changes introduced in the FAST Act. To date, however, only a few public transportation P3s involving private-sector funding have been formed.

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Introduction

The Capital Investment Grant (CIG) program, often referred to as New Starts, provides federal funds to public transportation agencies on a competitive basis for the construction of new fixed-guideway transit systems and the expansion of existing systems (49 U.S.C. §5309). In federal law, "fixed guideway" is defined as "a public transportation facility: using and occupying a separate right-of-way for the exclusive use of public transportation; using rail; using a fixed catenary system;[1] for a passenger ferry system; or for a bus rapid transit system" (49 U.S.C. §5302(7)). Public transportation, as defined in federal law, does not include transportation by school bus, intercity bus, or intercity passenger rail (Amtrak).

Most CIG funding has gone for subway/elevated rail (heavy rail), light rail, or commuter rail projects. With federal support, a number of cities, such as Charlotte, Denver, Minneapolis, and Salt Lake City, have opened entirely new rail systems, and many other cities have added to existing systems. Rail transit route-mileage more than doubled between 1985 and 2012, with light rail mileage quadrupling, commuter rail mileage doubling, and subway mileage growing by 25%. Rail systems now provide about 45% of public transit trips, up from 31% in 1985.[2]

CIG has also been the main source of federal funding for bus rapid transit (BRT), which provides high-frequency service at widely spaced stops and may include such elements as transit stations, level-platform boarding, separate right-of-way, traffic signal priority, and special branding.[3] Congress has authorized a category of less costly CIG projects known as Small Starts, which cost $300 million or less to build and require $100 million or less of CIG funding. Many bus rapid transit projects are inexpensive enough to qualify as Small Starts projects.

A third type of CIG project, eligible for funding since FY2013, involves expanding an existing fixed-guideway corridor to increase capacity by 10% or more. This might entail major improvements to a subway or light rail line. These are termed Core Capacity projects.

The CIG program is administered by the Federal Transit Administration (FTA) within the Department of Transportation (DOT). In December 2015, the program was reauthorized from FY2016 through FY2020 in the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94). This report explains how the CIG program is structured under the FAST Act, including program funding and procedures for project selection. It then discusses key policy issues. The **Appendix** provides a brief legislative history.

Program Funding

The CIG program is one of six major funding programs administered by FTA, accounting for about 19% of FTA's budget (**Figure 1**).[4] The FAST Act authorized $2.3 billion per year from FY2016 through FY2020 for CIG. Unlike FTA's other major programs, funding for CIG comes

[1] A catenary system involves overhead wires that supply electrical power to transit vehicles.

[2] U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, *National Transportation Statistics*, table 1-1, http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/index.html; American Public Transportation Association, *2015 Public Transportation Fact Book: Appendix A*, table 1, http://www.apta.com/resources/statistics/Pages/transitstats.aspx.

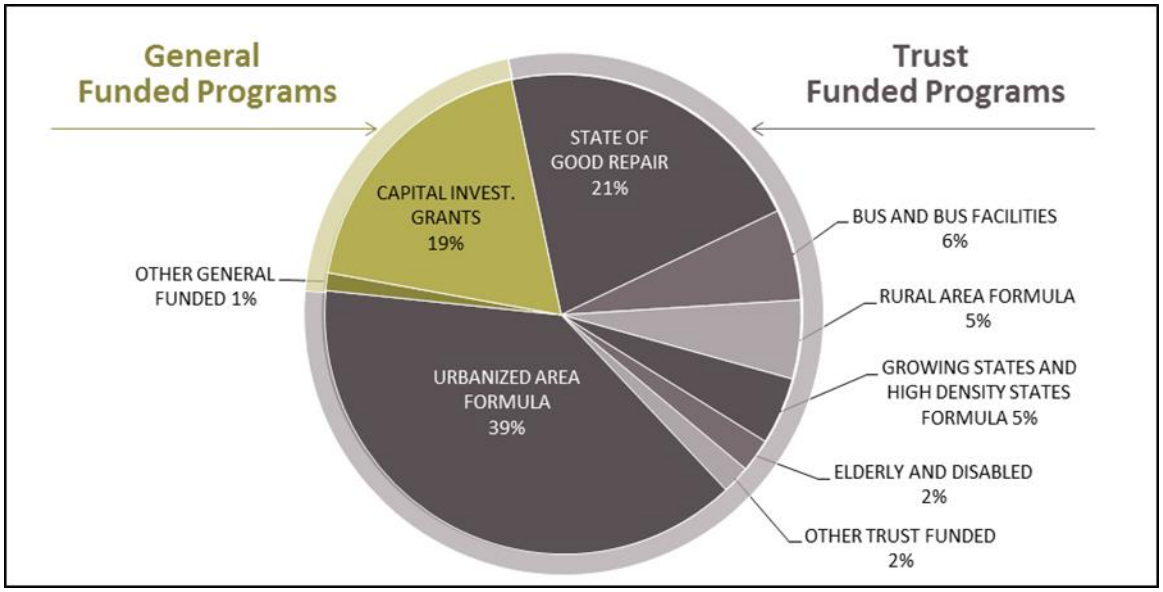
[3] According to data from the Bus Rapid Transit Institute, as of December 2015, 34 transit agencies operated 63 BRT routes. See Bus Rapid Transit Institute, "Summary Tables," http://db.nbrti.org/.

[4] For a discussion of all FTA programs, see CRS Report R42706, *Federal Public Transportation Program: In Brief*, by William J. Mallett.

from the general fund of the U.S. Treasury, not the mass transit account of the Highway Trust Fund. For this reason, CIG funding is subject to appropriation each year. Moreover, the CIG program allocates discretionary grants to local transit agencies, whereas the other major programs apportion funding by formula.[5]

Figure 1. Federal Public Transportation Program Funding Shares

Funding Authorized, FY2016-FY2020



Source: Federal Transit Administration.

CIG funding was fairly steady from FY2005 to FY2011, except that in FY2009 the regular appropriation was supplemented with $750 million from the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5). For FY2012, Congress decided to fund BRT projects recommended by FTA for CIG funding from the Bus and Bus Facilities discretionary grant program instead. Funding levels have been rising, both in nominal and inflation-adjusted terms, since FY2014 (**Figure 2**).

Many CIG projects also are supported by other federal programs, such as FTA's Urbanized Area Formula program and the Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality Improvement (CMAQ) program. Funding transferred from FHWA is known as "flex" funding. Funding amounts from these other programs tend to be relatively small. In an analysis of CIG projects from October 2004 through June 2012, the Government Accountability Office (GAO) found that almost 92% of federal funding for CIG projects came from the CIG program, 5% from FHWA flex funds, 1% from other FTA programs, and 2% from other federal sources. In Small Starts projects, 80% came from the CIG program, 14% from FHWA flex funds, and 7% from other FTA programs.[6]

Whatever the funding sources, the maximum federal share of a CIG project is 80%. However, a New Starts project may not receive more than 60% of its total cost from the CIG program. Core

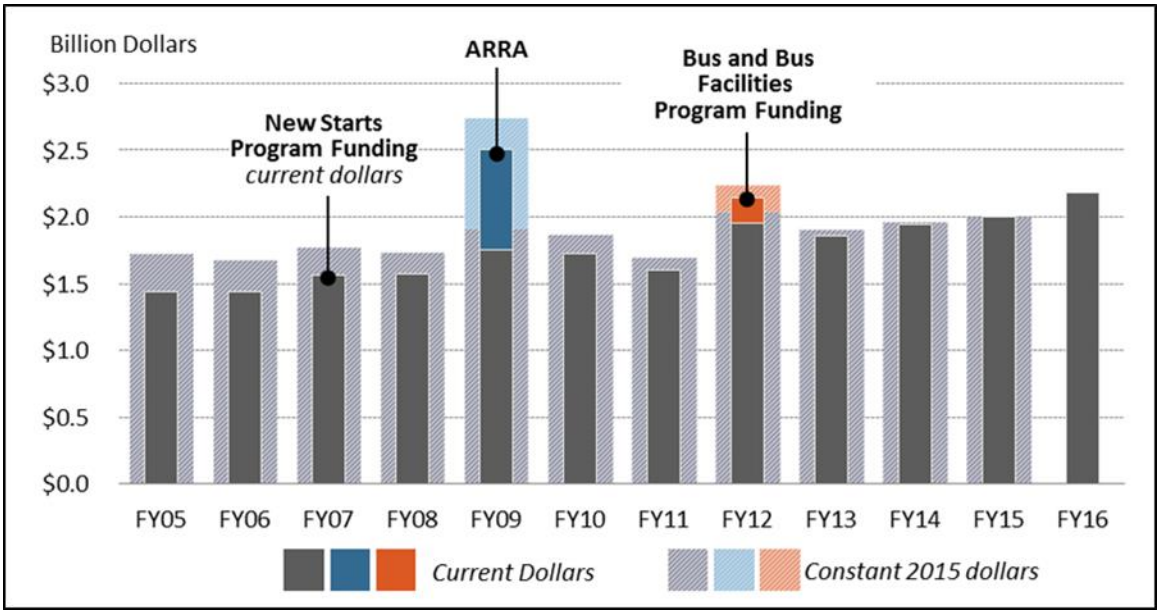
[5] Formula funds are distributed to transit agencies, local governments, and state governments based on a variety of factors including population, population density, and bus and fixed-guideway route miles and vehicle miles.

[6] U.S. Government Accountability Office, *Public Transit: Funding for New Starts and Small Starts Projects, October 2004 through June 2012*, GAO-13-40, November 2012, http://www.gao.gov/assets/660/650030.pdf.

Capacity and Small Starts projects may receive up to 80% of total cost from the CIG program (49 U.S.C. §5309(l)). Limits on the federal share also are enacted in annual appropriations bills. For example, the Consolidated Appropriations Act, 2016 (P.L. 114-113), included a provision that "none of the funds made available in this Act shall be used to enter into a full funding grant agreement for a project with a New Starts share greater than 60 percent."[7]

Figure 2. Capital Investment Grant Program Funding

FY2005-FY2016



Source: Senate appropriations reports.

Notes: Includes rescissions of budget authority in FY2009 ($58.5 million), FY2010 ($280 million), and FY2015 ($121.5 million). Data for FY2016 are unadjusted for inflation.

Projects approved for CIG funding typically have had less than a 60% federal share, often much less.[8] GAO found that the federal government paid 45% of the cost of New Starts projects, on average, with local sources paying 48% and state sources 7%. The average federal share in Small Starts projects, by contrast, was 67%, with 24% from local sources and 9% from state sources. The vast majority of state and local contributions came from public funds raised by taxes, bonds, and tolls. Only about 3% of the local funding of New Starts projects came from private investment or public-private partnerships (P3s), according to GAO.[9]

[7] In addition to the limits in law, the appropriations committees have sometimes directed FTA to fund only projects that seek a certain level of CIG funding for a project. For example, the House Committee on Appropriations directed FTA for FY2015 that it "only further projects to a full funding grant agreement if the project requires a less than 50 percent new starts share and rates medium high or high in the categories related to finance and reducing congestion." U.S. Congress, House Committee on Appropriations, Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, *Departments of Transportation, and Housing and Urban Development, and Related Agencies Appropriations Bill, 2015*, 113th Cong., 2nd sess., May 27, 2014, 113-464, p. 55.

[8] See, for example, Federal Transit Administration, *Annual Report on Funding Recommendations Fiscal Year 2017: Capital Investment Grant Program*, pp. 4-5, http://www.fta.dot.gov/documents/FY17_Annual_Report.pdf.

[9] U.S. Government Accountability Office, *Public Transit: Funding for New Starts and Small Starts Projects, October 2004 through June 2012*, pp. 9, 14-15.

Program Characteristics

Types of Eligible Projects

Four types of projects are eligible for CIG funding:

- **New Starts projects**, involving construction of an operable segment of a new fixed-guideway system or an extension of an existing system that costs $300 million or more and receives $100 million or more in CIG funding. New Starts include BRT projects in which the majority of the project operates in a separated right-of-way dedicated to public transportation during peak periods.
- **Small Starts projects**, defined as a new fixed guideway project or a corridor-based BRT project that costs less than $300 million and receives less than $100 million of CIG funding. A corridor-based BRT service is required to emulate rail service, but the buses do not need to run most of the way in a separated right-of-way dedicated to public transportation use.
- **Core Capacity projects**, involving expansion of an existing fixed-guideway corridor to increase capacity by 10% or more. These types of projects, aimed at eliminating what are sometimes called core capacity constraints, might include expanding stations to handle more cars, upgrading electrical systems to allow longer trains, and upgrading signaling systems to allow more trains per hour.[10]
- **Program of Interrelated projects**, the simultaneous development of two or more New Starts, Small Starts, or Core Capacity projects, or a combination thereof.

New Starts and Core Capacity Planning and Approval Process

Federal funding for New Starts and Core Capacity projects is typically committed in a Full Funding Grant Agreement (FFGA), usually a multi-year agreement between the federal government and a transit agency. An FFGA establishes the terms and conditions for federal financial participation, including the maximum amount of federal funding being committed.[11] To obtain an FFGA, a project must pass through an approval process specified in law (**Figure 3**).

The three major project phases for New Starts and Core Capacity projects are project development, engineering, and construction.[12] To enter the project development phase, a transit agency or other applicant must apply to FTA and initiate the review process required by the National Environmental Policy Act of 1969 (NEPA; P.L. 91-190). Along with the NEPA work during project development, the project sponsor must develop the information needed by FTA to review the project's justification and local financial commitment. Generally, the applicant has two years to complete project development, although an extension can be granted in certain

[10] Cambridge Systematics, "Implications of Investments Targeted at Reducing Transit Passenger Bottlenecks," National Surface Transportation Policy and Revenue Study Commission, Briefing Paper 4L-04, March 3, 2007, http://transportationfortomorrow.com/final_report/pdf/volume_3/technical_issue_papers/paper4l_04.pdf.

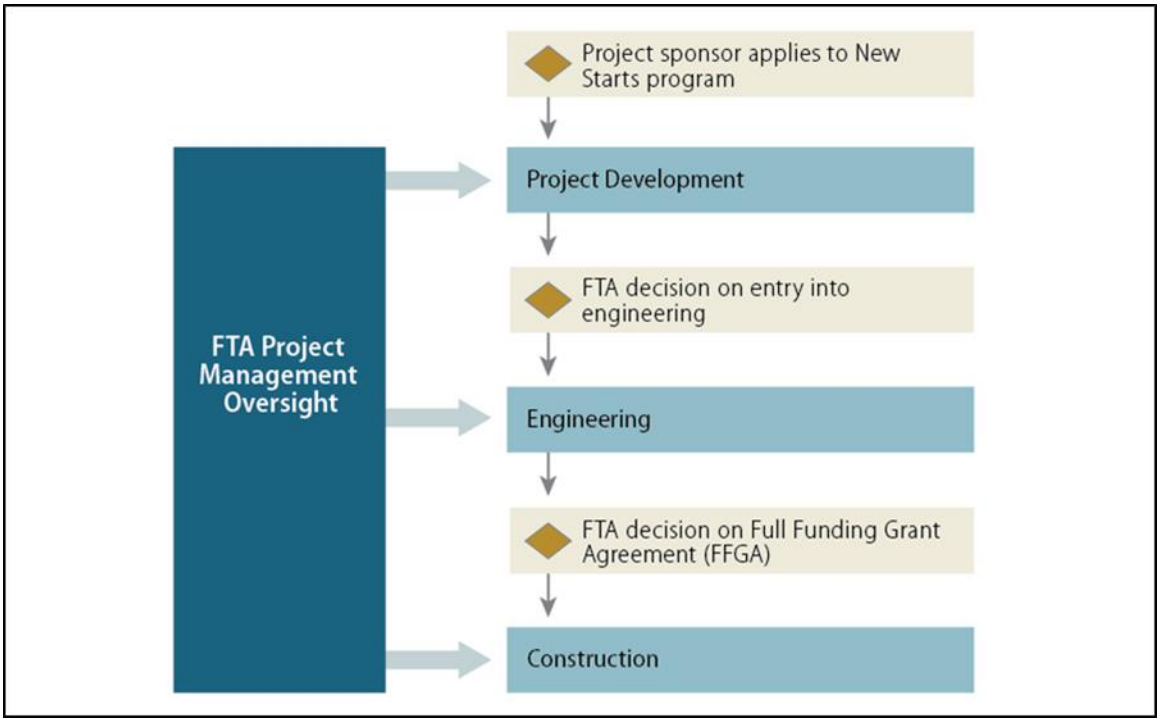
[11] U.S. Government Accountability Office, *Public Transportation: Improvements Are Needed to More Fully Assess Predicted Impacts of New Starts Projects*, GAO-08-844, Washington, DC, July 2008, http://www.gao.gov/new.items/d08844.pdf.

[12] Prior to the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141), the New Starts process involved four major phases: planning and alternatives analysis, preliminary engineering, final design, and construction.

circumstances. FTA is required to use an expedited process to review a sponsor's technical capacity if the sponsor has successfully completed a New Starts or Core Capacity project in the recent past. FTA may also advance projects more quickly using special warrants for projects of which the federal share is $100 million or less, or 50% or less of the total project cost. According to FTA, special warrants are "ways in which projects may qualify for automatic ratings on the project justification criteria,"[13] thus not requiring further detailed analysis. In a rulemaking, FTA provided this cost-effectiveness example:

> if there is a certain level of transit ridership in the corridor today, and the proposed project falls within total cost and cost per mile parameters defined by FTA, then it would be ''warranted'' by FTA as cost-effective, it would receive an automatic medium rating on the cost-effectiveness criterion, and the project sponsor would not need to undertake or submit the results of certain analyses.[14]

Figure 3. New Starts and Core Capacity Planning and Approval Process



Source: Congressional Research Service; Federal Transit Administration, *Capital Investment Program Listening Session*, Presentation at APTA Annual Meeting, October 3, 2012, https://www.transit.dot.gov/regulations-and-guidance/legislation/map-21/capital-investment-program-map-21-overview.

According to the statute, a project can enter into the engineering phase once the NEPA process is concluded, the project is selected as the locally preferred alternative, the project is adopted into the metropolitan plan, and the project is justified on its merits, including an acceptable degree of local financial commitment (49 U.S.C. §5309(d)(2)). If the project is a Core Capacity project, it also has to be in a transit corridor that is over capacity or is projected to be at or over capacity within the next five years (49 U.S.C. §5309(e)(2)). Additional requirements for interrelated

[13] Federal Transit Administration, *Fact Sheet: Fixed Guideway Capital Investment Grants ("New Starts"), Section 5309*, http://www.fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Fixed_Guideway_Capital_Investment_Grants.pdf.

[14] Department of Transportation, Federal Transit Administration, "Major Capital Investment Projects," 78 *Federal Register* 1992-2037, January 9, 2013, p. 2026, http://www.gpo.gov/fdsys/pkg/FR-2013-01-09/pdf/2012-31540.pdf.

projects include the following: the projects must be logically connected; when evaluated as a whole, they must meet the requirements of the CIG program; and there must be a project implementation plan showing that construction of each project will start in a reasonable timeframe (49 U.S.C. §5309(i)(2)).

The amount of CIG funding requested by the project sponsor, not the share, is fixed when the project is approved for entry into engineering.[15] This means that if a project's cost increases after entry into engineering, the extra cost must be borne by the project sponsor from non-CIG funding sources. GAO found that several project sponsors believe this is too early in the process to set the federal funding commitment, and could slow a project's entry into engineering or funding shortfalls later on. Prior to the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141), enacted in 2012, a project's costs were fixed later in the process, just before the project was recommended for a grant agreement.[16]

After engineering work is completed, FTA determines whether to sign an FFGA allowing the project to enter construction. FTA retains some oversight of a project as it is constructed to ensure compliance with the terms of the FFGA. Moreover, FTA must request the funding that is to be provided under the terms of the FFGA for each approved project from Congress each fiscal year.[17] In some cases, FTA may assure a project sponsor of its intention to obligate funds for a project through what is known as a Letter of Intent (49 U.S.C. §5309(k)(1)). FTA may also obligate some of the funding expected to be provided in an FFGA through an Early Systems Work Agreement (49 U.S.C. §5309(k)(3)). Although not a guarantee of full funding, an Early Systems Work Agreement provides funding so that work can begin before an FFGA is awarded.

In guidance, FTA notes that although the statutory requirements for New Starts and Core Capacity projects are very similar, it treats Core Capacity projects "a bit differently because they are located in established, proven successful transit corridors." FTA may use more often "simple eligibility parameters, simplified evaluation measures, and expanded 'warrants' based on readily available, easily verifiable information whenever possible to make the process less burdensome for both FTA and Core Capacity project sponsors."[18]

Small Starts Approval Process

For Small Starts projects, those requesting less than $100 million in federal assistance and costing less than $300 million in total, just two phases exist, project development and construction. As with New Starts projects, entry into project development only requires the project sponsor to apply to FTA and initiate the NEPA process. Consequently, for Small Starts only one formal decision is made by FTA, and that is whether to award funding and, hence, move the project into construction. Funding for a successful Small Starts project is provided in a Small Starts

[15] Federal Transit Administration, "Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program," June 2016, Chapter I, p. 6, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June%20_2016.pdf.

[16] Moving Ahead for Progress in the 21st Century Act (P.L. 112-141); Government Accountability Office, *Public Transit: Observations on Recent Changes to the Capital Investment Grant Program*, GAO-16-495, April 2016, pp. 21-22, http://www.gao.gov/assets/680/676880.pdf.

[17] See, for example, Federal Transit Administration, *Annual Report on Funding Recommendations Fiscal Year 2017: Capital Investment Grant Program*, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FY17_Annual_Report.pdf.

[18] Federal Transit Administration, "Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program," June 2016, Chapter III, p.2, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FAST_Updated_Interim_Policy_Guidance_June%20_2016.pdf.

Construction Grant Agreement, typically fulfilling the federal government's funding commitment in a single year.

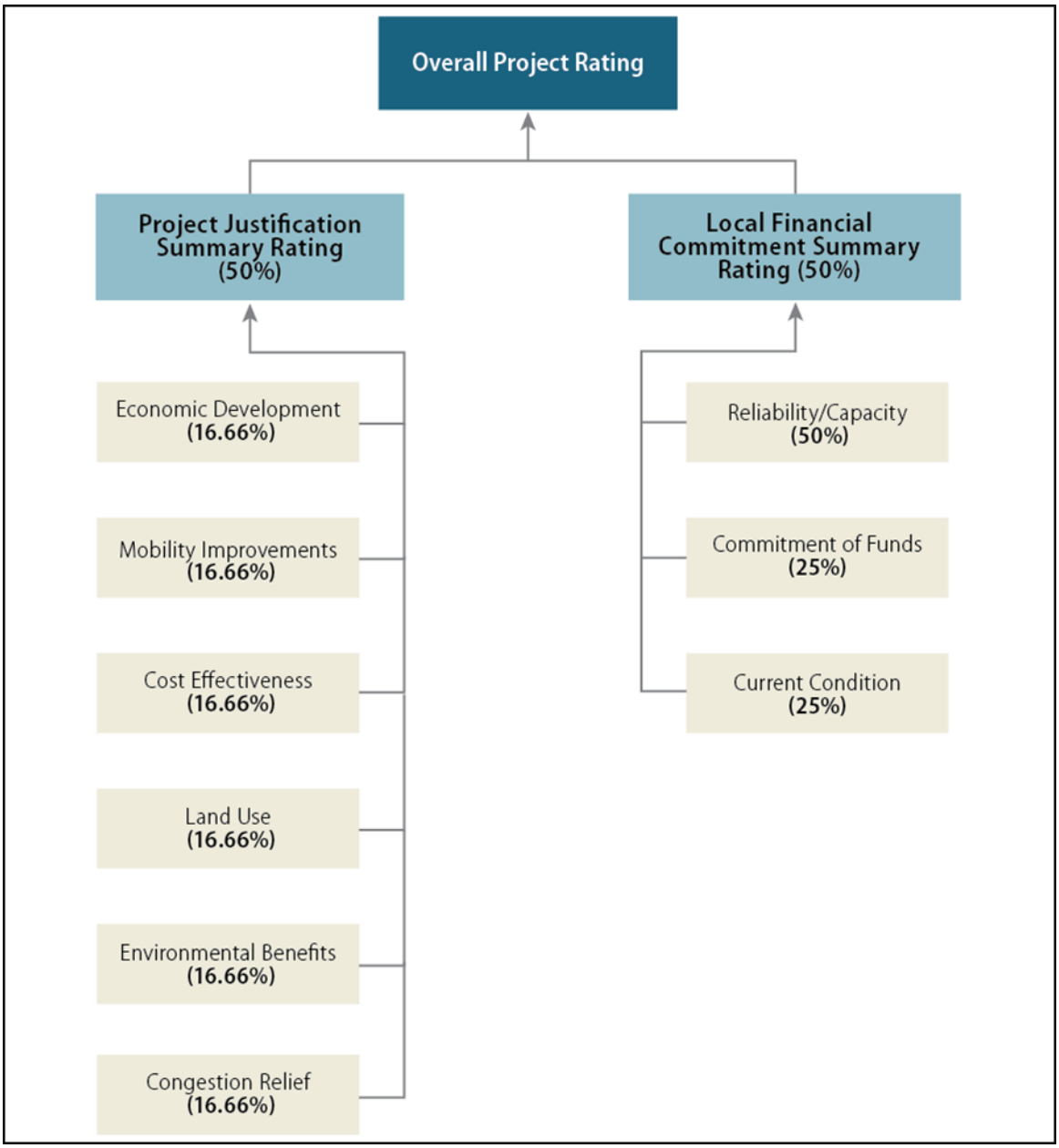
Project Rating

In determining whether to approve a project's move from one step to the next in the New Starts and Core Capacity approval process, FTA computes an overall project rating by averaging the summary ratings of the project justification criteria and local financial commitment criteria (**Figure 4**). In order to advance from project development to engineering and from engineering to construction, a New Starts or Core Capacity project must achieve an overall rating of at least medium on a five-point scale (low, medium-low, medium, medium-high, high) on each of the project justification and local financial commitment summary ratings. Small Starts projects are similarly rated, but do not need to achieve a minimum rating to be eligible for a grant.

The justification criteria are the following:

- **Mobility improvements**, measured by the number of trips on the project, with trips by the transit-dependent population counting double. A high rating for both New Starts and Small Starts projects is awarded to those that generate 30 million linked trips or more annually.
- **Environmental benefits**, measured by the monetized value of benefits in air quality, greenhouse gas emissions, energy use, and safety in relation to the cost of the project. Benefits are calculated based on the estimated reduction in vehicle miles traveled resulting from the project.
- **Congestion relief**, measured by the number of new weekday linked transit trips resulting from implementation of the new project. This is calculated by comparing total weekday linked transit trips for the no-build alternative with total weekday linked transit trips with the new project in place. A high rating is awarded to New Starts and Small Starts projects that generate 18,000 new weekday trips.
- **Economic development effects**, measured by the likely effects of the project on development in the nearby area. The rating is based on FTA's qualitative analysis of supportive plans and policies.
- **Land use (or capacity needs of the corridor for Core Capacity projects**), based on station area population density, employment served, affordable housing in the corridor, and the amount and cost of downtown parking. The extent and quality of pedestrian infrastructure near stations also is used in the evaluation. For light rail and heavy rail Core Capacity projects, FTA uses the existing space per passenger during the peak hour in the corridor, which is a function of existing ridership and the number and size of trains in the peak period and direction. For commuter rail projects, the number of seats rather than the amount of space is used.
- **Cost effectiveness**, measured by the annual capital amortized over asset lifetimes and operating cost per trip. A high rating is awarded for projects where the cost per trip is less than $4 for a New Starts project and less than $1 for a Small Starts project.

Figure 4. New Starts and Small Starts Project Evaluation and Rating



Source: Federal Transit Administration, *Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program*, June 2016.

Note: The rating for Core Capacity projects is the same, except the capacity needs of the corridor are evaluated instead of land use.

To be approved for federal funding, a CIG project must have an acceptable degree of local financial commitment. This includes financing that is stable, reliable, and timely; sufficient resources to maintain and operate both the existing public transportation system and the new addition; and contingency money to support cost overruns or funding shortfalls (49 U.S.C. §5309(f)(1)). The measures FTA uses for the evaluation of local financial commitment for New Starts projects are the following:

- **Reliability/financial capacity**, measured by the reasonableness of the capital and operating cost estimates and planning assumptions; and capital funding capacity to cover cost increases or funding shortfalls through debt issuance, cash reserves, or other committed funds.
- **Current capital and operating condition**, measured by the average age of the vehicle fleet, bond rating issued within the previous two years, current ratio of assets to liabilities, and recent service history.
- **Commitment of funds**, measured by the share of funds committed or budgeted versus planned. Significant private contributions may increase the commitment-of-funds rating by one level.

The summary rating of local financial commitment may be raised one level if the project is rated at least medium on local financial commitment and the CIG program funding share is less than 50%.

The project justification and the local financial commitment are weighted equally in the overall project rating. Project justification is calculated based on an equal weighting of the six factors. Half of the local financial commitment is based on financial capacity and the reasonableness of the financial assumptions. The other half is based equally on current capital and operating condition of the project sponsor; and the commitment of funds.

Once a New Starts or Core Capacity project has been rated at least medium on project justification and local financial commitment at the end of the engineering phase, and has complied with other federal requirements, it is typically recommended for funding. However, in any given year, FTA first funds commitments made in existing grant agreements. After that, within the context of the available funds, FTA considers project readiness in signing new agreements and allocating funds.[19]

Key Policy Issues

Federal Role in Funding Major Capital Projects

The CIG program has not been without controversy. FTA contends the program "is needed because it allows transit agencies to undertake major capital projects that would otherwise be infeasible for local governments and transit agencies to finance alone."[20] Supporters insist that growing demand for CIG funds is evidence of its success.[21] Critics, however, have contended that CIG funding encourages communities to build expensive fixed-guideway infrastructure rather than invest lesser sums in improving bus service.[22] New rail service can be detrimental to an existing bus network as service overall is realigned and resources are shifted toward operating

[19] Federal Transit Administration, *Annual Report on Funding Recommendations Fiscal Year 2017: Capital Investment Grant Program*, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FY17_Annual_Report.pdf.

[20] Federal Transit Administration, *Budget Estimates FY2017*, CIG-10, https://www.transportation.gov/sites/dot.gov/files/docs/FTA-FY-2017-CJ.pdf.

[21] American Public Transportation Association, *APTA Recommendations on Federal Public Transportation Authorizing Law*, December 2013, http://www.apta.com/gap/legissues/authorization/Documents/APTA%20Authorizing%20Law%20Recommendations_FINAL_adopted%206Dec2013.pdf.

[22] Nathaniel Baum-Snow and Matthew E. Kahn, "Effects of Urban Rail Transit Expansions: Evidence from Sixteen Cities, 1970–2000," *Brookings-Wharton Papers on Urban Affairs*, Brookings Institution Press, 2005, pp. 147-197, https://muse.jhu.edu/article/192572/pdf.

and maintaining the new rail lines.[23] Critics have also called for more flexibility in the use of federal transit funds for operations, as currently a large proportion of these funds, including CIG funds, may be used only for capital investment.

No comprehensive benefit-cost studies of completed CIG projects have been conducted to evaluate the relative success of the CIG program as federal policy. Since 2005, federal law has required the completion of a "before and after" study of each funded CIG project to examine some of the expected versus actual costs and benefits. Some of the benefits that must be detailed include service provided and ridership.[24] These studies do not provide enough evidence to determine the program's effectiveness and to evaluate the federal government's role in a broader context.

In summarizing studies of rail transit systems in general, not CIG projects, one researcher has commented that "the dominant view of economists has been that rail transit investments generally have been ineffective and expensive, and the benefits do not justify the costs."[25] However, some studies show significant differences in benefit/cost ratios among projects. According to one study, two of the systems with the largest net benefits include the subway systems in San Francisco and New York City, while the rail system in Buffalo and those operated by New Jersey Transit in Newark, Jersey City, and Trenton have some of the largest net losses.[26]

Program Funding

FTA, among others, has recommended significant increases in CIG funding to accommodate demand by project sponsors, especially because a new category of projects, Core Capacity projects, was made eligible for funding beginning in FY2013. FTA notes in its FY2017 budget submission that the number of projects in the CIG "pipeline" has grown from 37 in FY2012 to 63 in FY2016, with more Small Starts (from 9 to 32) and Core Capacity projects (from 0 to 7), and fewer New Starts projects (from 28 to 24).[27] According to GAO, program stakeholders believe the increase is partly due to the fact that projects no longer have to be rated before entering project development (as they were prior to MAP-21, enacted in 2012), and also to greater participation by less experienced project sponsors seeking Small Starts grants. These trends have placed extra demands on FTA for technical assistance and evaluation.[28]

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[23] Laura J. Nelson and Dan Weikel, "Billions Spent, But Fewer People Are Using Public Transportation in Southern California," *Los Angeles Times*, March 1, 2016; Hilary Nixon, et al., "Changes in Transit Use and Service and Associated Changes in Driving Near a New Light Rail Transit Line," Mineta Transportation Institute, Report 12-44, 2015.

[24] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA; P.L. 109-59); Federal Transit Administration, *Before and After Studies of New Starts Projects, Report to Congress*, February 2016, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Report%20to%20Congress%20on%20Before%20and%20After%20Studies%202016.pdf.

[25] Richard Voith, "Comment," *Brookings-Wharton Papers on Urban Affairs*, Brookings Institution Press, 2005, pp. 198-206 https://muse.jhu.edu/article/192582/pdf.

[26] Robert Cervero and Erick Guerra, "To T or Not to T: A Ballpark Assessment of the Costs and Benefits of Urban Rail Transportation," *Public Works Management & Policy*, 16, 2, pp. 111-128. For a more critical assessment, see Peter Gordon and Paige Elise Kolesar, "A Note on Rail Transit Cost—Benefit Analysis: Do Nonuser Benefits Make a Difference?" *Public Works Management & Policy*, 16, 2, pp. 100-110; and Lisa Schweitzer, "Benefit-Cost Analysis of Rail Projects: A Commentary," *Public Works Management & Policy*, 16, 2, pp. 129-131.

[27] Federal Transit Administration, *Budget Estimates FY2017*, AE-18, https://www.transportation.gov/sites/dot.gov/files/docs/FTA-FY-2017-CJ.pdf.

[28] Government Accountability Office, *Public Transit: Observations on Recent Changes to the Capital Investment Grant Program*, GAO-16-495, April 2016, p. 24, http://www.gao.gov/assets/680/676880.pdf.

In addition, FTA has asked for an increase in funds to accelerate projects to "not only potentially lower financing costs incurred on these projects, but also allow FTA to better manage the overall program given the ever growing demand for funds."[29] For FY2017, FTA's recommendation to Congress for CIG funding was $3.5 billion, well above the average of $2 billion per year appropriated from FY2012 through FY2016 and the $2.3 billion per year authorized by the FAST Act for FY2016 through FY2020.

FTA proposes to increase CIG funding as part of a much larger budget for federal public transportation programs overall. It also proposed to shift the funding source of the CIG program from the general fund to the mass transit account of the Highway Trust Fund. Without any other changes, such as new revenue sources or changes in other public transportation programs, funding the CIG program in this way would exhaust funds in the mass transit account much sooner than currently forecast. The balance of the account is expected to approach zero in FY2021. An additional $2 billion to $3 billion in outlays per year for the CIG program beginning in FY2017 would accelerate the exhaustion of funds to FY2019, based on data from the Congressional Budget Office.[30]

Project Type

One major criticism of the CIG program has been that it encourages large, costly rail projects over smaller, cheaper rail and BRT projects. Changes to the program over the past 20 years, such as the introduction of Small Starts projects, have shifted federal funding toward lower-cost projects, including streetcars. (See **Appendix** for more details of the legislative and regulatory changes in the CIG program.) FTA's FY2017 recommendations include funding for 6 BRT projects and 5 streetcar projects out of 31 projects. A decade earlier, FTA's recommendations included 1 BRT project and no streetcar projects out of 28 projects. Most projects in that year were light rail (16 projects), heavy rail (7), and commuter rail (4). With the addition of Core Capacity projects in MAP-21, another shift could occur, this time in favor of projects in established fixed-guideway corridors.

At a 2013 hearing, the chair of the House Highways and Transit Subcommittee expressed concern that funding for Core Capacity projects "could come at the expense of funding opportunities for new public transit systems in the rest of the country."[31] The Administrator of FTA at the time, Peter Rogoff, responded that many opportunities existed for new projects, large and small, in many different urban areas to receive Core Capacity funding, and that Core Capacity projects may provide some of the best chances for the CIG program to support increased ridership. Rogoff said Core Capacity projects would not crowd out other types of projects.

Evidence on the effects of Core Capacity projects on the CIG programs is mixed. To date, four Core Capacity projects have entered into project development: a commuter rail project in San Francisco ($447 million requested in CIG funds), a heavy rail project in Chicago ($957 million), a heavy rail project in New York ($100 million), and a light rail project in Dallas ($59 million). None had a funding agreement with FTA as of March 31, 2016. Of these projects, three are

[29] Federal Transit Administration, *Annual Report on Funding Recommendations Fiscal Year 2017: Capital Investment Grant Program*, p. 6, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FY17_Annual_Report.pdf.

[30] Congressional Budget Office, "Projections of Highway Trust Fund Accounts—CBO's March 2016 Baseline," https://www.cbo.gov/sites/default/files/51300-2016-03-HighwayTrustFund.pdf.

[31] U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit, *Examining the Current and Future Demands on the Federal Transit Administration's Capital Investment Grants*, 113th Cong., 1st sess., December 11, 2013.

projects from legacy systems.[32] These three systems account for almost all of the Core Capacity projects funding requests, but a relatively small fraction of CIG funding available since FY2013.

Within the overall evaluation framework set out in federal law, FTA has considerable discretion in determining how the evaluation factors are measured and weighted. These decisions can have significant influence on the types of projects that are evaluated favorably and recommended for funding. For that reason, there have been policy debates surrounding the evaluation methodology. For example, regulations formerly measured the cost effectiveness of projects by considering the project cost relative to users' time savings. In MAP-21, enacted in 2012, the criterion was changed to consider the annualized capital and operating and maintenance cost per trip. This change improved the ratings of projects that generally provide relatively short trips, such as streetcars, over those that provide relatively long trips, such as commuter rail. Because researchers have found that the primary objective of streetcar projects has been urban revitalization rather than transportation, and that the service they provide can compare unfavorably with bus service, critics have argued that the changes made in MAP-21 elevated projects that provide fewer transportation benefits.[33]

Research on the factors that contribute to the award of CIG funding has found that local financial capacity largely determines FTA's decisions. Project justification scores were important to meet the minimum threshold for funding consideration, but once the threshold was met the ability of local project sponsors to provide funding at the local level was the most important factor.[34]

Speed and Cost of Project Delivery

A major concern with the CIG program over the years has been the complexity, length, and expense of the federal funding approval process. This requires the development of extensive data and the preparation of a large number of detailed reports and other documents, all of which are reviewed in depth by FTA in making project approval determinations. GAO has suggested that the evaluation process might be used as a model for other federal programs to ensure the effective use of federal funding.[35] Nevertheless, concern has been raised that the requirements are overly time-consuming and costly.[36] One transit agency estimated in 2007 that federal involvement

[32] An accepted definition of legacy systems does not exist, but the term typically includes the rail transit systems serving the urban regions of New York, Chicago, Philadelphia, San Francisco, Boston, and Washington, DC. Other rail transit systems in service in 1975 were in Baltimore, Cleveland, New Orleans, and Pittsburgh. See Department of Transportation, *Changing Face of Transportation*, 2000, Figure 2-11, http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/the_changing_face_of_transportation/pdf/entire.pdf.

[33] Robert Poole, "Insights on the Federal Transit Administration's New Starts, Small Starts Program," March 20, 2012, http://reason.org/news/show/1012725.html. Jeffrey Brown, Hilary Nixon, and Enrique Ramos, "The Purpose, Function, and Performance of Streetcar Transit in the Modern U.S. City: A Multiple-Case-Study Investigation," February 2015, Mineta Transportation Institute, http://transweb.sjsu.edu/PDFs/research/1201-streetcar-transit-in-modern-US-cities.pdf.

[34] Kate Lowe, "Funding Rail: Federal Decisions and Local Financing," *Public Works Management & Policy*, 2013, 18(2), pp. 127-144.

[35] See, for example, Government Accountability Office, *Surface Transportation: Restructured Federal Approach Needed for More Focused, Performance-Based, and Sustainable Programs*, GAO-08-400, Washington, DC, March 2008, http://www.gao.gov/new.items/d08400.pdf; see also Donald J. Emerson and Jeffrey D. Ensor, *New Starts: Lessons Learned for Discretionary Federal Transportation Funding Programs*, Bipartisan Policy Center, January 25, 2010, http://www.bipartisanpolicy.org/sites/default/files/New%20Starts%20Paper%20Jan%202010.pdf.

[36] See, for example, Department of Transportation, Federal Transit Administration, *New Starts Program Assessment Final Report*, Report Prepared by Deloitte, February 12, 2007, http://transportationfortomorrow.com/final_report/pdf/volume_3/background_material/15_new_starts_program_assessment_final_report.pdf.

through the CIG program added an extra one to two years to a project and 10% to 15% extra in project costs.[37]

Legislative changes in MAP-21 and the FAST Act have sought to speed the development of CIG projects. For example, MAP-21 simplified the project development process by reducing the number of steps for the more expensive projects from four to three, and for less expensive projects from three to two. Moreover, MAP-21 authorized the use of project justification warrants in certain cases "that allow a proposed project to automatically receive a satisfactory rating on a given criterion based on the project's characteristics or the characteristics of the project corridor."[38] For example, for an eligible project that costs between $50 million and $100 million in a corridor that currently has 6,000 or more weekday transit trips, FTA will automatically give the project a medium rating for mobility, cost effectiveness, and congestion relief. The FAST Act created an Expedited Project Delivery for Capital Investment Grants Pilot Program to more quickly review up to eight projects involving P3s in which the federal grant is 25% or less of the project cost.

No comprehensive evaluations have been conducted on whether the various changes in laws and regulations have resulted in projects progressing more quickly through the CIG pipeline. GAO reported in 2016 that it found limited data to assess the speed of project approvals.[39] It should be noted that assessing the time it takes to complete projects can be very difficult.[40] A 2009 GAO study of delivery times of projects supported by the CIG program also pointed to data problems even without trying to assess the length of the initial planning process.[41]

Public-Private Partnerships (P3s)

Federal law promotes the use of P3s in the construction of major capital transit projects, like those supported by the CIG program, in several ways. DOT is required to provide to transit agencies education on related laws and regulations and technical assistance on "practices and methods to best utilize private providers of public transportation" (49 U.S.C. §5315). As part of that mandate, in July 2014, DOT created the Build America Transportation Investment Center (BATIC), which has as part of its mission to "cultivate" P3s. DOT also offers several types of financing that support P3s, including loans and other types of credit assistance through the TIFIA (Transportation Infrastructure Finance and Innovation Act) program and the issuance of private activity bonds. The FAST Act, as noted above, created the Expedited Project Delivery for Capital Investment Grants Pilot Program for P3 projects. CIG project sponsors have suggested that FTA

[37] Testimony of R. Snoble, Chief Executive Officer, Los Angeles County Metropolitan Transportation Authority, in U.S. Congress, House Subcommittee on Highways and Transit, May 10, 2007, http://transportation.house.gov/Media/File/Highways/20070510/Roger%20Snoble%20Testimony.pdf.

[38] Federal Transit Administration, "Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program," June 2016, Chapter I, p. 30.

[39] Government Accountability Office, *Public Transit: Observations on Recent Changes to the Capital Investment Grant Program*, GAO-16-495, April 2016, p. 25, http://www.gao.gov/assets/680/676880.pdf.

[40] CRS Report R41947, *Accelerating Highway and Transit Project Delivery: Issues and Options for Congress*, by William J. Mallett and Linda Luther.

[41] Government Accountability Office, Public Transportation: Better Data Needed to Assess Length of New Starts Process, and Options Exist to Expedite Project Development, Washington, DC, August 2009, GAO-09-784, p. 14, http://www.gao.gov/new.items/d09784.pdf.

could help by providing more technical assistance for P3 projects in the form of project development checklists and training opportunities.[42]

Some of the main benefits of P3s are said to be private project financing, cost savings, quicker project completion, infrastructure and service quality improvements, and a transfer of some risks from the public to the private sector.[43] For example, the risks being transferred to the private sector in the development of the Purple Line light rail project in Maryland by a P3 include design errors, problems with utility relocations, commodity and labor inflation during project construction, contractor-caused cost overruns and schedule delays, and performance of the system and vehicles. Risks being retained by the public sector include right-of-way acquisition and fare revenue and ridership. Some risks, such as geotechnical risks and inflation during the operating period, are being shared between the public and private sectors.[44]

Congress has previously sought to involve the private sector in CIG projects by creating the Public-Private Partnership Pilot Program (Penta-P) and simplifying the CIG project development process. To date, the major success of these efforts has been to involve the private sector in the designing and building of projects through design-build contracts, and also the operation and maintenance of constructed projects through design-build-operate-maintain contracts.[45] One public transportation P3, the Eagle Project in Denver, has involved long-term private financing. Maryland's Purple Line also will include private financing when it goes to financial close, which is planned for mid-June 2016. In both cases, the public sector has agreed to make regular payments to the private partner so long as the rail project achieves availability and performance goals. A third transit project, the Las Vegas Monorail, was constructed as an almost purely private venture. The private sponsors assumed the risk that too few passengers would pay to ride the service. Due primarily to poor ridership, the Las Vegas Monorail Company was restructured in bankruptcy in 2010, although its service continued to operate. The reorganized company is now proposing to extend its 3.9-mile line.

[42] Ibid., p. 23.

[43] CRS Report R43410, *Highway and Public Transportation Infrastructure Provision Using Public-Private Partnerships (P3s)*, by William J. Mallett.

[44] Maryland Transit Administration, "Purple Line P3 Agreement Risk/Responsibility Allocation," March 2, 2016, http://www.purplelinemd.com/images/p3/contract/MTA%20-%20Purple%20Line%20-%20Appendix%201%20-%20Risk%20Allocation.pdf.

[45] U.S. Government Accountability Office, GAO-10-19, October 2009.

Appendix. Capital Investment Grant Program Legislative History

The CIG program evolved from Section 3 of the Urban Mass Transportation Act of 1964 (P.L. 88-365). In 1994, Section 3 became Section 5309 in a revision without substantive change to Title 49 of the *United States Code*.[46] Beginning in the 1970s, as the commitment of, and demand for, federal funding began to grow, DOT issued a series of policy statements on the principles by which it would distribute discretionary money to so-called "new starts." These statements, issued in 1976, 1978, 1980, and 1984, introduced a series of principles that were later written into federal law, including long-range planning, alternatives analysis incorporating a baseline alternative, cost effectiveness, local financial commitment, multi-year contracts specifying the limits of federal participation, supportive local land use planning, and a ratings system.[47]

Congress inserted many of these principles into law in the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA; P.L. 100-17). STURAA established the criteria by which CIG projects would be judged in order to be eligible for federal funding, and also required DOT's recommendations for funding in the subsequent fiscal year to be detailed in an annual report to Congress. The criteria enacted in STURAA required a CIG project to be based on an alternatives analysis and preliminary engineering, to be cost-effective, and to be supported by an acceptable amount of local financial commitment that is stable and dependable.

In the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA; P.L. 102-240), Congress added to the cost-effectiveness criterion the *justifications* of mobility improvements, environmental benefits, and operating efficiencies. ISTEA also added a list of lesser *considerations* such as congestion relief, energy consumption, transit supportive land use policies and future patterns, and economic development. A CIG project would still need to be based on alternatives analysis and preliminary engineering, and to have an acceptable amount of local financial commitment.[48]

The Transportation Equity Act for the 21st Century (TEA-21; P.L. 105-178) left the existing law mostly unchanged, but added a few additional considerations such as the costs of sprawl and the technical capacity of a grantee (usually a transit agency) to undertake a project. TEA-21 required FTA to rate projects overall as "highly recommended," "recommended," or "not recommended." TEA-21 also made it a requirement that FTA formally approve a project to move from preliminary engineering into final design. FTA published its Final Rule in response to TEA-21 in 2000,[49] and subsequently published several program guidance documents.[50]

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[46] Revision of Title 49, Transportation, *United States Code* (P.L. 103-272).

[47] Federal Transit Administration, "Major Capital Investment Projects; Final Rule," 65 *Federal Register* 76863-76884, December 7, 2000, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2000_register&docid=00-30921-filed.pdf. See also Daniel Duff, Edward J. Gill, Jr., and G. Kent Woodman, *Legal Handbook for the New Starts Process*, Legal Research Digest 30, Transit Cooperative Research Program, February 2010.

[48] FTA issued a Notice in 1996 explaining the way in which it would evaluate New Starts projects, and amended that Notice in 1997. See Federal Transit Administration, "Section 5309 (Section 3(j)) FTA New Starts Criteria," 61 *Federal Register* 67093-67107, December 19, 1996; Federal Transit Administration, "Section 5309 (Section 3(j)) FTA New Starts Criteria," 62 *Federal Register* 60756-60758, November 12, 1997.

[49] Federal Transit Administration, "Major Capital Investment Projects; Final Rule," 65 *Federal Register* 76864-76884, December 7, 2000.

[50] These were Advancing Major Transit Investments Through Planning and Project Development (2003), Additional Guidance on Local Initiation of Alternatives Analysis Planning Studies, and New Starts Baseline Alternative Review

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA; P.L. 109-59) changed the three-point scale, introduced in TEA-21, to a five-point scale of high, medium-high, medium, medium-low, and low. It also elevated two factors—economic development effects and public transportation supportive land use policies and future patterns—from considerations to project justifications. SAFETEA also created the Small Starts program to allow smaller projects to pass through a simpler approval process. In SAFETEA, Small Starts were defined as projects costing less than $250 million and seeking $75 million or less in CIG funding. Beginning in FY2007, SAFETEA reserved $200 million per year of the overall CIG program authorization for Small Starts.

Prior to the enactment of SAFETEA, FTA issued a "Dear Colleague" letter announcing that it would target funding to those projects that received a medium or better rating for cost effectiveness.[51] According to FTA, this was in response to concerns expressed by Congress, GAO, and DOT's Inspector General about recommending funding for projects that received a medium-low on cost effectiveness.[52] Following the passage of SAFETEA, in a Notice of Proposed Rulemaking (NPRM) on August 3, 2007, FTA proposed that a medium rating be required for FTA to recommend a project for funding, and for cost effectiveness to be weighted as 50% of the project justification measure. The other 50% would consist of land use and economic development combined into one criterion at a weight of 20%, mobility benefits (20%), environmental benefits (5%), and benefits to transit-dependent riders (5%).[53]

This proposal was not well received by the House Transportation and Infrastructure Committee,[54] or by those responding to the notice.[55] Some of the concerns were that, contravening the intent of SAFETEA, the rule would place too much emphasis on cost effectiveness and would not sufficiently weight the economic development effects of transit projects. This, critics contended, would favor projects designed for suburban commuters, such as commuter rail and BRT projects, over more centrally located transit projects such as streetcars.[56] Because of these concerns, Congress included language in the Consolidated Appropriations Act, 2008 (P.L. 110-161) preventing FTA from implementing a final rule. In the SAFETEA-LU Technical Corrections Act of 2008 (P.L. 110-244), Congress amended 49 U.S.C. §5309 to require that FTA "give comparable, but not necessarily equal, numerical weight to each project justification criteria in calculating the overall project rating." This was carried forward in MAP-21 (49 U.S.C. §5309(g)(2)(B)(ii) and 49 U.S.C. §5309(h)(6)).

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and Approval Procedures.

[51] Jennifer L. Dorn, Administrator, Federal Transit Administration, "New Starts Rating and Evaluation," Dear Colleague Letter, C-03-05, March, 9, 2005, http://www.fta.dot.gov/newsroom_297.html.

[52] U.S. Government Accountability Office, *Public Transportation: Opportunities Exist to Improve the Communication and Transparency of Changes to the New Starts Program*, GAO-05-674, Washington, DC, 2005, p. 23, http://www.gao.gov/assets/250/246862.pdf.

[53] Federal Transit Administration, "Major Capital Investment Projects," 72 *Federal Register* 43328-43377, August 3, 2007.

[54] U.S. Congress, House Committee on Transportation and Infrastructure, *Hearing on the Federal Transit Administration's Proposed Rule on the New Starts and Small Starts Programs*, "Summary of Subject Matter," 110th Cong., 1st sess., September 26, 2007, H.Hrg. 110-72 (Washington: GPO, 2007).

[55] Federal Transit Administration, "Major Capital Investment Projects," 74 *Federal Register* 7388, February 17, 2009, http://www.gpo.gov/fdsys/pkg/FR-2009-02-17/pdf/E9-3208.pdf.

[56] K. Siggerud, Director of Physical Infrastructure, U.S. Government Accountability Office, *Preliminary Analysis of Changes to and Trends in FTA's New Starts and Small Starts Programs*, Statement Before House Subcommittee on Highways and Transit, May 10, 2007, GAO-07-812T, http://www.gao.gov/new.items/d07812t.pdf; T. Herrick, "A Streetcar Named Aspire: Lines Aim to Revive Cities," *Wall Street Journal*, June 20, 2007, B1.

FTA withdrew the 2007 NPRM in February 2009, and then in July 2009 issued final guidance establishing cost effectiveness as 20% of the project justification rating. The other factors were economic development (20%), mobility improvements (20%), land use (20%), environmental benefits (10%), and operating efficiencies (10%). This was followed in January 2010 with an announcement that FTA was withdrawing the policy of recommending funding only for projects that received a medium cost-effectiveness rating or better in favor of recommending projects with an overall rating of medium or better (although projects must score a medium or better on both project justification and local financial commitment).[57] At the same time, FTA announced that it intended to issue a new NPRM for changes to the evaluation for New Starts and Small Starts projects. In this regard, FTA issued an Advance Notice of Proposed Rulemaking on June 3, 2010, requesting comments on how to improve measurement of cost effectiveness, environmental benefits, and economic development.[58] An NPRM was issued January 25, 2012, along with proposed New Starts/Small Starts policy guidance.[59] A final rule was published January 9, 2013, along with revised proposed policy guidance.[60]

Before the changes in the proposed rulemaking were finalized, MAP-21 was enacted, making substantial changes to the CIG program. Project eligibility was changed by authorizing funding for substantial investments in existing fixed-guideway lines that increase the capacity of a corridor by at least 10%. These are termed "Core Capacity improvement projects." MAP-21 also authorized the evaluation and funding of a program of interrelated projects.

As noted earlier, MAP-21 also simplified the New Starts process by reducing the number of major stages from four to three—termed project development, engineering, and construction. To enter the project development phase, the applicant now needed only to apply to FTA and initiate the review process required by the National Environmental Policy Act of 1969 (NEPA; P.L. 91-190). The act eliminated the duplicative alternatives analysis previously required to be conducted separately from the alternatives analysis required by NEPA. In general, alternatives analysis is an evaluation of different solutions to a transportation problem in a specific area or corridor and the choice of locally preferred alternative (49 C.F.R. §611.5; 40 C.F.R. §1502.14).

MAP-21 made some changes to the project justification criteria. The act eliminated operating efficiencies and added congestion relief. MAP-21 also changed the definition of cost effectiveness from incremental travel time saved to cost per rider. This was expected to improve the rating of projects that generally provide shorter trips, such as streetcars.

Some of the changes proposed by FTA in its January 2012 NPRM were incorporated into the law, such as a change in the way cost effectiveness is measured. Some other elements of the program subject to proposed new rules were changed by the law, and some changes in the law were not considered in the proposed new rules. For example, operating efficiencies was dropped from the list of project justifications and congestion relief added.

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[57] Ray LaHood, Secretary of Transportation, "Dear Colleague New Starts and Small Starts Project," January 13, 2010, http://www.fta.dot.gov/documents/Dear_Colleague_New_Starts_and_Small_Starts_Project.pdf.

[58] Department of Transportation, Federal Transit Administration, "Major Capital Investment Projects," 75 *Federal Register* 31385, June 3, 2010.

[59] Department of Transportation, Federal Transit Administration, "Major Capital Investment Projects," 77 *Federal Register* 3848-3909, January 25, 2012, http://www.gpo.gov/fdsys/pkg/FR-2012-01-25/pdf/2012-1198.pdf; Department of Transportation, Federal Transit Administration, "Proposed New Starts/Small Starts Policy Guidance," January 25, 2012, http://www.fta.dot.gov/12304_14971.html.

[60] Department of Transportation, Federal Transit Administration, "Major Capital Investment Projects," 78 *Federal Register* 1992-2037, January 9, 2013, p. 2026, http://www.gpo.gov/fdsys/pkg/FR-2013-01-09/pdf/2012-31540.pdf; Federal Transit Administration, "Proposed New Starts and Small Starts Policy Guidance," January 9, 2013, Washington, DC, http://www.fta.dot.gov/documents/NewStartsPolicyGuidance.pdf.

The rulemaking and revised proposed policy guidance establish some significant changes in the evaluation of New Starts/Small Starts projects. According to the rulemaking, FTA wrote that it has two broad goals: to measure a broader range of benefits and to simplify the evaluation process. To accomplish the first goal, FTA stated that, for example, it will evaluate environmental benefits by measuring anticipated changes in air quality criteria pollutants, energy use, greenhouse gas emissions, and safety. Environmental benefits in the previous evaluation scheme were based solely on an area's air quality designation. To accomplish the second goal, FTA stated it will take a number of steps including simplifying measures, eliminating the baseline alternative requirement, and improving the ways in which data are submitted to FTA and evaluated. One of the simplified measures is to evaluate mobility improvements as the estimated total number of trips generated by the project, with an extra weight for trips by transit-dependent people. Prior to the rulemaking, five measures were used to estimate mobility improvements, including incremental travel time saved per passenger mile over the baseline alternative. This change, along with changes to the cost effectiveness measure required by law, was expected to improve the rating of projects that generally provide shorter trips, such as streetcars.

On August 5, 2015, FTA announced the availability of final interim policy guidance on the CIG program.[61] FTA noted that this final policy guidance was characterized as ''interim'' because it was planning to initiate rulemaking to amend 49 C.F.R. Part 611 to fully carry out the authorizing statute for the CIG program, 49 U.S.C. §5309, as amended by MAP-21. The final interim policy guidance addressed four topics not previously addressed in the regulations or policy guidance:

> (1) the measures and breakpoints for the congestion relief criterion applicable to New Starts and Small Starts projects; (2) the evaluation and rating process for Core Capacity Improvement projects, including the measures and breakpoints for all the project justification and local financial commitment criteria applicable to those projects; (3) the prerequisites for entry into each phase of the CIG process for each type of project in the CIG program, and the requirements for completing each phase of that process; and (4) ways in which certain New Starts, Small Starts, and Core Capacity Improvement projects can qualify for ''warrants'' entitling them to automatic ratings on some of the evaluation criteria.[62]

The FAST Act, enacted in December 2015, made more changes to the CIG program. The law changed the definition of a Small Starts project to one that involves $100 million or less of CIG funding (up from $75 million) and costs less than $300 million (up from $250 million). Also for Small Starts, the FAST Act changed the definition of a corridor-based BRT service to eliminate the requirement for it to provide frequent, bi-directional service for a substantial part of *weekend* days. It must now provide such service only on weekdays.

The FAST Act added authority for the CIG program to fund projects that benefit both public transportation and intercity passenger rail (although the eligible costs must be attributable to the transit portions of the project). A New Starts project (costing $300 million or more and requesting $100 million or more) is now limited to a CIG program funding share of 60%. The law also created the Expedited Project Delivery for Capital Investment Grants Pilot Program.

[61] Federal Transit Administration, *Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program*, August 2015, http://www.fta.dot.gov/grants/13094_5221.html.

[62] Federal Transit Administration, "Notice of Availability of Final Interim Policy Guidance for the Capital Investment Grant Program," 80 *Federal Register* 46515, August 5, 2015.

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