

**Evaluation of the Federal Railroad Administration's
Railroad Rehabilitation and Improvement
Financing Program**

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1 Background

1.1 Program History and Objectives

The Railroad Rehabilitation and Improvement Financing (RRIF) program was implemented in July of 2000 to provide up to \$3.5 billion in loans and loan guarantees for railroad improvements at interest rates available to government. Of the \$3.5 billion, \$1.0 billion is reserved for non-Class I railroads. The special focus on these smaller railroads is due in part to the need that they be upgraded to handle safely the heavier (286,000 lbs) rail cars now permitted under FRA regulations.

1.2 Purpose of Report

In the 2.5 years since the RRIF program regulations were issued by FRA, few loans or loan guarantees have been approved, and little of the \$3.5 billion authorized has been used. The paucity of loans approved, both in number and principal amount of loans, in the face of documented need for billions of dollars in financing for shortline railroads that cannot get adequate funding through private capital markets strongly suggests that significant changes are needed in the RRIF program. Letters of complaint from the chairmen and ranking members of the House Transportation & Infrastructure Committee and its Subcommittee on Railroads, together with their comments during Congressional hearings and their action in introducing legislation that would change the program significantly, all point to an urgent need to improve the program and its administration. Thus, the FRA is interested in how the RRIF program can be improved so that more applications are received, processed, and that the resulting loans and loan guarantees are effectively administered, per the original goals of the program. To that end, FRA representatives asked the U.S. Department of Transportation's (DOT) Volpe National Transportation Systems Center (Volpe Center) to perform this program evaluation and provide recommendations based on the findings.

This report is based on the Volpe Center's interviews with FRA staff, other DOT staff, railroad industry financing specialists, industry association representatives, and railroad businessmen, as well as reviews of loan program documentation and previous studies on the short line and regional railroad industry and its financial matters.

2 Need for Railroad Rehabilitation and Improvement Financing

2.1 Industry Needs

U.S. Railroads were deregulated under the Staggers Rail Act of 1980. This permitted the larger Class I carriers to pare their systems of lines with low traffic densities to reduce their costs. Once spun off by the larger railroads, the lines are run by public or private entities. There are now about 550 of these smaller rail systems generally referred to as short-line or branch railroads, mostly with traffic densities less than five million gross

ton-miles per year. These Class II and III railroads account for approximately 8 percent of total railroad employment and nearly 25 percent of miles of road of the nation's 152,000-mile system as of a 1993 FRA Report to Congress.

These lines are important because they handle local traffic and provide access to Class I carriers. Without the short line railroads this traffic would be moved either by less energy efficient trucks over state and local roads, or would cease to move. When the latter happens, it can cause businesses to close or relocate. In addition, when lines are lost, they often have a negative impact on an area's ability to attract new businesses and industry. There is some anecdotal evidence that shippers especially value these short-lines because their smaller scale allows them to provide more personalized service.

Short-line railroads often have difficulty generating enough revenue for appropriate track maintenance and capital improvements that are long-lived (up to 30 years). Accumulated deferral of these expenditures leads to a gradual deterioration of the track, ties, bridges, and other track structure elements which in turn can lead to reduced train speeds and inefficient operations. Inefficient operations can result in grave financial consequences. The financial welfare of short lines is further of concern because of the growing industry trend of using 286,000 pound rail cars (esp. by Class I Railroads). Although there is no statutory limitation as to the lowest allowable rail weight, a weight of 119 lbs. per yard is quickly becoming the railroad industry's de facto minimum to accommodate these 286,000 pound cars. This fact is exemplified, according to one interviewee, by the fact that currently it is difficult to purchase lower weight rail even if one wanted to. The 286,000 pound cars can run on lower weight rail but may have to run at lower speeds and could have a greater risk of derailment.

It is well known that the majority of short line railroad trackage is below 119 lbs. In addition, previous studies and our interviews have shown that the poor condition of bridges is often an even more serious safety concern, as well as a financial burden. Finding financing for capital expenditures beyond the already taxing track maintenance is an industry priority. Small railroads need long-term financing for long-lived assets such as track materials, bridge enhancements, and equipment that can enjoy a lifespan of nearly 30 years.

The Class I railroads also are capital intensive businesses that provide a valuable part of the nation's transportation infrastructure. Improvements and expansions of their systems are financed from limited capital budgets, and the RRIF program also offers options to undertake additional projects that will improve the safety and capacity of the Class I rail network.

2.2 Inadequacy of Non-RRIF Funding Options

A gap exists between railroad capital and heavy maintenance spending needs and the non-RRIF funding options available from government and the private sector.

2.2.1 Private Bank Loans

In the FRA Report to Congress, "Small Railroad Investment Goals and Financial Options," of 1993, FRA states that the banking industry observed that a small railroad loan package takes "an inordinate amount of work...compared to a similar sized loan for

other businesses (like a warehouse or an office building).” When loans could be obtained, the terms, at most 8 years, were often too short to be viable for short line railroads.

Because the ICC no longer requires financial reports from Class II and Class III carriers, there is little public financial information available to bankers considering a loan to a small railroad. This makes any financial analysis of this industry and its individual members difficult. In addition, little public information is available on the performance of earlier loans.

There are a few banks that specialize in loans to small railroads, but even these are not always plausible options for short line railroads. These banks generally have a minimum loan amount of \$5 million, as this amount is considered necessary to cover the cost of making such a loan because of the substantial fixed cost for investigating risk for such loans beyond the usual credit checks and financial reviews and controls. Many short line railroads need loans smaller than \$5 million. One FRA survey showed that the normal loan size required by Class III railroads is \$2.6 million.

2.2.2 Transportation Infrastructure Finance and Innovation Act (TIFIA)

TIFIA is often considered a “sister program” to RRIF because it is operated out of the same agency (DOT) and is also geared towards infrastructure improvement loans under terms more favorable than available in the private sector. However, there are many differences between the two programs as well. Most notably, (a) TIFIA can only fund 33% of a project, whereas RRIF can fund 100%; and (b) TIFIA requires that an eligible project be at least \$100 million. Although the DOT is hoping to decrease the minimum loan amount to \$50 million with the reauthorization of the transportation bill SAFETEA, this change still does not address the smaller investment needs of the vast majority of short line railroads. (More details on TIFIA can be found in Appendix B.)

2.2.3 State Grants/Loans

Several railroad interviewees mentioned the use of state funding mechanisms. For example, Tennessee state infrastructure funds are ear-marked to assist loan repayment for the Nashville and Western RRIF application. However, in general, budget constraints in many States preclude having funds dedicated to railroad development.

A few states still have small sums of money available for rail infrastructure loans through revolving loan programs set up with money from the Federal Local Rail Freight Assistance (LRFA) program. Congress has not appropriated money to this program since 1995 and states that chose to grant the money rather than set up revolving loan funds no longer have access to LRFA. Therefore, this is a limited resource and is highly variable by state. If a statutory change were made to permit these funds to be used for such purpose, states could leverage this money to get greater sums through RRIF, specifically by funding the credit risk premium associated with the RRIF loan (discussed further in Section 3 and Appendix A).

3 Program Description

The RRIF Program provides direct loan and loan guarantees. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, and joint ventures that include at least one railroad. Of the total \$3.5 billion authorized, \$1 billion is reserved for non-Class I, i.e., short line and regional railroads.

3.1 Key Features

3.1.1 Direct Loan

Direct loans are given for the previously stated eligible purposes. Furthermore, DOT must find that the loan can be reasonably expected to be repaid. Thus far only direct loan applications have been submitted to FRA.

3.1.2 Loan Guarantee

A guarantee under this program constitutes an obligation supported by the full faith and credit of the United States and is incontestable except for some cases of fraud. The maximum percentage of the total obligation that the DOT will guarantee is 80 percent. The amount of guarantee allowed will depend on the total credit quality of the transaction and the level of risk believed to be assumed by the government. DOT may guarantee an Applicant's obligation to any Lender that can establish that it has the legal authority and sufficient expertise and financial strength to operate a successful lending program.

The Lender is permitted to sell all of the guaranteed portion of the loan on the secondary market, provided the loan is not in default, or retain the entire loan. Some stipulations to protect against fraud are given in the RRIF regulation.

3.1.3 Long Loan Term

The long loan term offered by RRIF is the greatest advantage of the Program. The maximum repayment period for direct loans and guaranteed loans is 25 years from the date of execution. The interest rate on direct loans is equal to the rate on Treasury securities of a similar term. In general, the financial assistance provided is required to be repaid prior to the end of the useful life of the project it is used to fund.

In comparison, the longest loan term offered to small railroads by commercial lenders is only eight years, with five to seven years being more typical.

3.1.4 Treasury Interest Rate

According to the administrative procedures paper from OST to FRA, the borrower's interest rate is set on the day the loan obligation occurs at the current rate on Treasury instruments of comparable maturity. For a transaction with a term where no Treasury rate is published, the rate used is interpolated from the two closest Treasury maturity rates available. The Treasury rate is lower than market rate, making this an attractive aspect of the RRIF Program. However, the CRP cost takes away at least some of that advantage.

3.1.5 Credit Risk Premium

The Federal Credit Reform Act of 1990 (FCRA), 2 U.S.C. 661, treats default losses as a subsidy cost of a Federal loan program and requires Federal agencies to explicitly estimate and budget the expected subsidy cost of new credit assistance. The subsidy cost is the estimated long-term default costs to the Government of the loan or loan guarantee. One of the most unique features of the RRIF Program is the payment of a Credit Risk Premium (CRP) in lieu of an appropriation to meet the FCRA subsidy cost requirements. The CRP may be paid by the borrower or any non-Federal infrastructure partners. The CRP must be paid prior to any loan disbursements.

The Credit Risk Premium necessary for each loan is determined by the FRA with concurrence by the Office of Management and Budget (OMB) as required by the FCRA. The RRIF program's estimation process for the CRP is discussed more fully in Appendix A.

3.1.6 Program Eligibility Requirements and Policy Goals

Financial assistance is available solely to:

- (1) Acquire, improve, or rehabilitate intermodal or rail freight or passenger equipment or facilities, including track, components of track, bridges, yards, buildings, and shops;
- (2) Refinance outstanding debt incurred for purposes described in paragraph (a)(1) of this section; or
- (3) Develop or establish new intermodal or railroad facilities.

The regulation explicitly states that financial assistance cannot be used for railroad operating expenses.

When evaluating applications, DOT is charged with giving priority consideration (but not necessarily in the following order) to projects that:

- Enhance public safety;
- Enhance the environment;
- Promote economic development;
- Enable United States companies to be more competitive in international markets;
- Are endorsed by the plans prepared under section 135 of title 23, United States Code, by the State or States in which they are located; or
- Preserve or enhance rail or intermodal service to small communities or rural areas.

3.1.7 Investigation Fee and Independent Financial Advisor Alternative

There is a provision in the RRIF regulation for applicants to pay an investigation charge of up to one-half of one percent of the principal amount of the direct loan or portion of the loan to be guaranteed. Whether or not to levy the fee is at the discretion of FRA. When an investigation charge is assessed, one-half of the investigation charge is to be paid by Applicant at the time a formal application is submitted to FRA. Within 60 days

after the date of filing of the application, the applicant would be required to pay the balance of the investigation charge.

Because the legislation is written such that the FRA is not able to spend the money collected, typically the FRA does not choose to enact this provision. Instead, FRA encourages the use of an independent third-party consultant approved by FRA to prepare a financial evaluation of the proposed project and the applicant. The RRIF regulation states that: *Providing such an evaluation would greatly assist FRA in the evaluation of the application and would significantly reduce the time necessary for FRA to process the application. We encourage the use of third party consultants.*

3.1.8 Collateral

Collateral is used by the lender to recover the cost of the loan in the event of default. High collateral value relative to the loan amount decreases the potential for Federal government losses, and therefore substantially lowers the CRP charged to the borrower. FRA requests the first lien position on collateral. FRA has chosen to conservatively estimate collateral value based on the appraised liquidation (“quick sale”) value.

3.1.9 Cohorts

A cohort is a group, or pool, of loans obligated during a given fiscal year. Reserves, currently made up of borrower funded CRPs, are set aside in interest-bearing “financing accounts” to support the expected subsidy cost of each loan cohort. According to RRIF administrative guidance, FRA tracks the performance of loans by loan cohort. The CRPs collected for all loans in a given cohort will be used to cover the credit losses in future years incurred by the cohort as a result of loan defaults. Guidance memorandums from OMB to OST and from OST to FRA state, “A cohort will be considered ‘closed’ after one year, or longer if necessary, so that no one loan will equal more than 10 percent of the dollar amount of the cohort.” Furthermore, direct loans and loan guarantees should be kept in separate cohorts.

If CRP reserves remain for a cohort after the last loan in a given cohort is paid off, these excess reserves will be rebated to borrowers and eligible third parties on a pro rata basis. However, if the original credit risk estimates are accurate, reserves will not remain when the cohort is closed out, and thus, no rebates will be made.

3.1.10 Commercial Bank Rejection Letter

Railroad applicants must submit a copy of an application for financing the project in the private sector, including terms requested, from at least one commercial lender, and a response from the lender refusing to provide such financing.

3.2 Process Overview and Schedule

3.2.1 RRIF Loan Process Has Many Steps Involving Several Government Offices and Agencies

The RRIF Program is administered by the Federal Railroad Administration (FRA) Office of Railroad Development (RDV), Freight Rail Programs Division, in concert with the Office of the Secretary of Transportation (OST) and the Office of Management and Budget (OMB).

The RRIF regulation issued in July 2000 details the application requirements. There are fifteen parts to the application with an additional six for companies without a credit rating from at least one of the nationally recognized rating agencies. Several key features of the application are discussed further in Section 4 of this report. The Final Rule is written with a measure of flexibility to make the program accessible even to smaller railroads that generally do not have audited financial statements.

The application does have some criteria unique to Government, namely:

- The loan proposal must support the policy goals listed in Section 3.1.6 above;
- Appropriate environmental/historic preservation documentation must be completed and approved, as mandated by a variety of environmental and historic preservation statutes, prior to a decision on the applicant's financial assistance request; and
- Materials and facilities financed by the RRIF loan must be maintained according to certain safety standards throughout the life of the loan.

3.2.2 Timeframe

The timeframe for the application process, from the initial inquiry into the RRIF Program to final DOT review, is highly variable. Though we did not see comprehensive timelines tracking major milestones and dates for all RRIF applications, we were given rough estimates of time elapsed through documentation and interview testimony.

Interviewees from FRA and OST stated that the application review time varies by the complexity of the loan proposal. One loan took around 2.5 years to go from original application submittal to signing of the loan agreement. On the other extreme, due to the threat of an Amtrak shutdown due to funding shortfall, a RRIF loan was processed in approximately 2 weeks. Thus far from 1.5 to 2 years has been a more typical time estimate for a RRIF loan to be processed. By comparison, simple loan applications at commercial banks, e.g., unsecured short lines of credit, are usually processed in one to two months. The RRIF involves secured loans and the application process has many complexities not encountered in the commercial environment. While the comparison to simple commercial loans is misleading if considered as a norm for the RRIF program, the longest RRIF processing times are also abnormal.

The evaluation by the applicant's IFA (Independent Financial Advisor) can take between 1 to 2 full-time months. FRA staff simultaneously review the application and can take around 1 month to complete an application approval recommendation package. OST

review can take up to 1.5 months. OMB's review of the CRP calculation can take another 1.5 months.

Possible explanations for the lengthy application processing time heard from interviewees include:

- RRIF Program staff do not directly contact applicants to gain clarification on reported information or request more information – letters are issued by FRA higher officials or communication is channeled through the IFA.
- Most smaller railroads do not have audited financial statements, so for many the RRIF loan application is the first time they have been asked to collect and report their financial data. In addition, railroads may not have the resources or inclination to dedicate staff or hire help to compiling the application full-time. Instead they opt to gather information gradually. This pattern could be the cause of lag times between when information or clarification is requested by FRA to when the request is filled.
- Others outside of Federal government believe that political influence plays a significant role in expediting application processing, citing the Amtrak case as a prime example.

Some stated that over time, as DOT staff and contractors have become more comfortable with the workings of the Program, the pace of review has quickened.

4 Administration of Program

4.1 Existing Application and Application Evaluation Processes

The loan guarantee provision has thus far not been used possibly because the direct loans are much more advantageous and less work to receive. Therefore, we have tailored this report description and recommendations to address primarily the direct loan aspects of the program.

The application process, as stated previously, has many stages and is somewhat iterative. Often negotiations between parties cause the process to even seem circular. From our interviews we learned that no two applicants followed the same process in being considered for a RRIF loan. Nevertheless, below is a diagram (Figure 1) and description of the major application stages, punctuated by their respective product milestones, simplified to aid the reader's understanding of the overall process.

Figure 1. Current RRIF Application Process

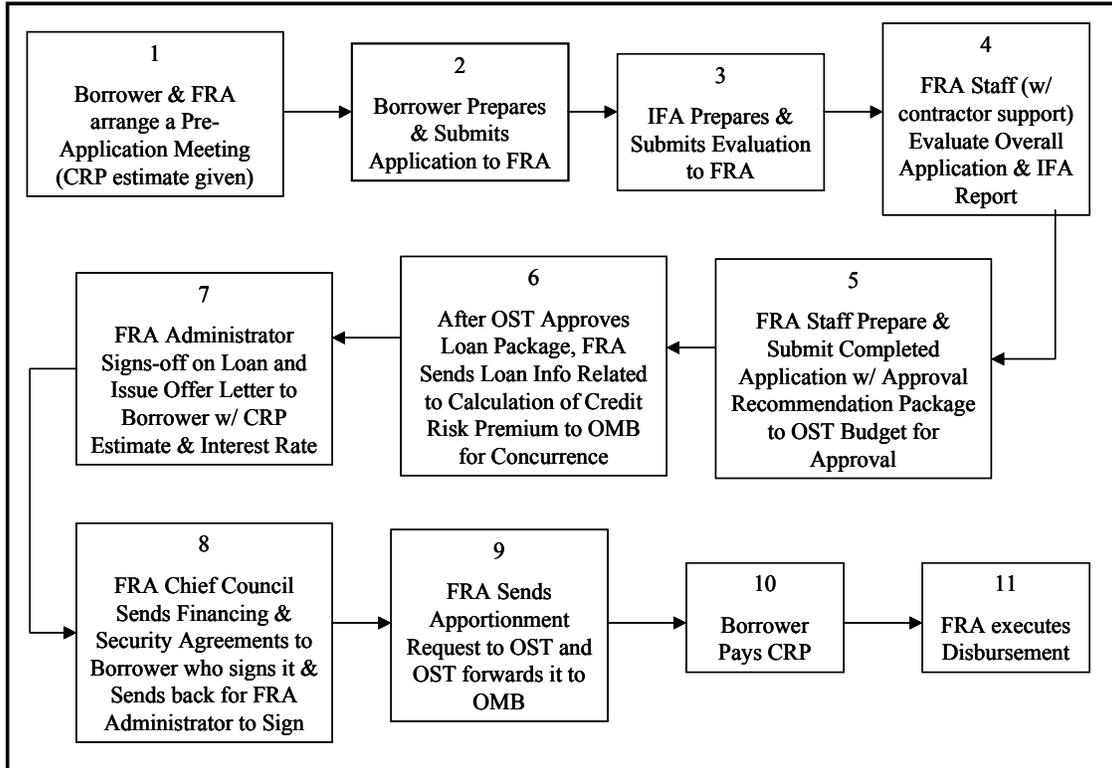
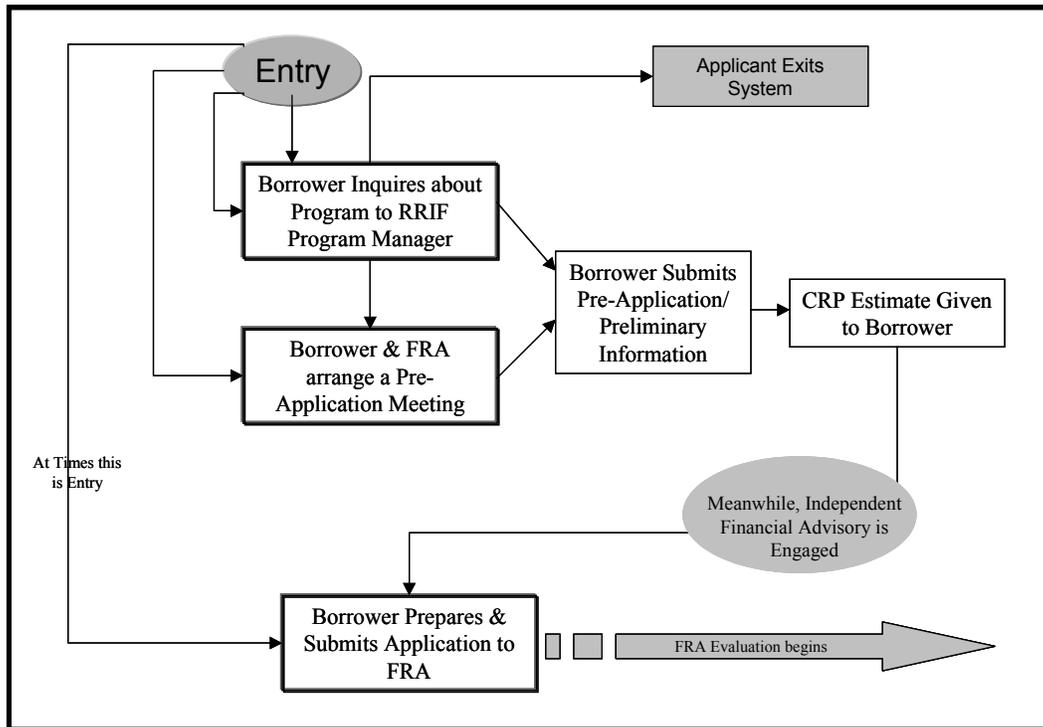


Figure 2. RRIF Application Initiation



There are many ways in which applicants begin the RRIF loan application process because there is no required initiation step other than submitting a formal application. Figure 2 and the following sub-section describe the variety of manners in which potential applicants are initiated into the RRIF Program.

4.1.1 Initiation and Pre-application (Optional)

Inquiries about the RRIF Program come to the RRIF Program Manager (PM) most often via phone, but sometimes in person. The nature of the inquiries vary from basic facts about RRIF to specifics about the pre-application or application. Generally follow-on actions resulting from the inquiry could involve the following:

- a) Sending the potential applicant the checklist of required information for pre-application meeting,
- b) Setting up an introductory conversation or meeting,
- c) Setting up a pre-application meeting to answer technical questions about the application, or
- d) Answering pointed questions over the phone.

The **pre-application meeting** is not a *required* part of the application process either by RRIF legislation or regulation. However, the RRIF regulation does provide a list of information requested of the potential applicant if the meeting is held. During a pre-application meeting, the prospective applicant explains the project and proposed sources of repayment and source for paying the Credit Risk Premium. FRA explains the RRIF statutory and regulatory requirements and advises the prospective applicant of appropriate ways of structuring the project. Federal environmental requirements are also discussed.

This process was designed to assist applicants in meeting the application requirements and to enable potential applicants to decide if they can afford to pay the CRP. If having a CRP estimate is important to the borrower, then he/she submits the financial data needed for FRA to calculate a preliminary estimate. The data necessary includes up to five years of balance sheets, income statements, and cash flows, and the value of collateral.

Some applicants do not require or opt not to have a pre-application meeting. Others interviewed were not aware of the FRA pre-application process at all, having learned about RRIF through industry contacts rather than FRA. This level of variation in how potential applicants are initiated into the RRIF application process can create wide disparity in their ability to satisfactorily meet application requirements. Moreover, this lack of standardization creates ambiguity and confusion in reporting the progress of the RRIF Program.

4.1.2 Borrower Prepares Application (Required)

A description of various elements of the RRIF loan application is given as part of the program description in Section 3. According to interviewees the financial data requirements for the application are extensive but no more than what is expected by commercial lenders. Other parts of the application process like environmental review, however, are beyond the scope of private lenders' information requirements. Borrowers frequently take many months to prepare the application and even then may submit the application with gaps. If there are deficiencies in the application or if additional information is required, FRA issues a letter to the applicant requesting the necessary information.

Interviewees from railroads expressed frustration with the RRIF application process possibly, in part, because of their inexperience in dealing with the Federal government. Interviewees commented that often there is a "language barrier" where terminology and standard practices vary dramatically between industry and government, which cause misunderstanding and delays. In addition, small businesses frequently lack the financial sophistication required to produce an application in-house and, further, may not be able to afford hiring financial experts to assist them.

Once the borrower's application is complete, it is passed along to an Independent Financial Advisor (IFA) and to RRIF Program staff to complete the credit-worthiness evaluation, described below.

4.1.3 FRA Evaluates Credit-worthiness of Applicant

In this stage FRA analyzes and evaluates the loan application to determine whether it meets the policy objectives set forth by Congress and the applicant is likely to be able to repay the loan.

This stage is a combination of five steps, each representing a distinct competency.

1. First, the **condition of the existing railroad** line must be assessed along with the **reasonableness of the proposed use of RRIF loan funds**. In order for the DOT to provide financial support to railroads, there must be a genuine need for

- rehabilitation and capital expenditure to support the Program policy objectives. These objectives include enhancing safety and efficiency of transportation systems while preserving the environment.
2. Second, the company's **customer base** must be reviewed along with other measures such as the carload rates charged to the shippers. Other measures that can be used to judge a railroad's financial viability are various operational efficiency indicators. The operating ratios for the industry are best broken down by categories of business size. For example, Class III railroads' performance significantly differs from that of Class II railroads and therefore they should not be exclusively compared to one another.
 3. Third, the **cost to improve or rehabilitate** the line as reported by the applicant should be verified. This step further confirms the reasonableness of the loan use to FRA.
 4. Fourth, the applicant's **financial reports** must be analyzed.
 5. Fifth, any **collateral** offered by the company must be **appraised** by an independent entity.

Finally, program administrative guidelines must be met. For example, memorandums by OST and OMB state that the maximum amount of a RRIF loan should not exceed 6% of the unused authorized amount. Therefore, as loans are made and the unused authorized amount decreases from its original limitation of \$3.5 billion, the maximum loan amount will decrease as well. Since few loans have been given out, this limitation has not yet been a problem for applicants or the FRA, although a higher maximum would be necessary for efficient operation of the program should the unused amount reach low levels.

Currently, steps 1 through 4 are carried out jointly by an IFA (under supervision of FRA) and the RRIF Program staff. FRA provides a list of tasks to be completed by IFAs including making judgments on the railroad's future revenue expectations (done in part by talking to shippers), and verifying historic financial data by checking accounting ledgers, bank statements, and contracts. Furthermore, many times the IFAs are asked to provide information in their evaluation report to fill in data gaps that exist in the original borrower's application. The resulting report required of the IFA by FRA is usually around 50 pages long, but varies depending on the level of detail the IFA chooses to convey.

Although the IFAs are given a task list by FRA and are under FRA supervision, each IFA takes a slightly different approach in analyzing and presenting borrower data. Some of these inconsistencies can be misleading. For example, one IFA said he simply accepts the appraiser's collateral estimates while another said he reviews the appraisal and revises it as he deems appropriate.

RRIF credit analysts perform their own credit-worthiness and ability-to-repay analysis concurrent with the IFA. Then, after the IFA report is submitted to FRA, RRIF credit analysts make sure all required information is present by referring to a checklist. If the IFA report does not address the assigned tasks, a letter stating the deficiencies sent to the

IFA. In the case that an IFA's report does not meet the needs of FRA, credit analysts and/or an FRA retained contractor could be requested to review the application and the IFA report and remedy any deficiencies. FRA contractors are asked on occasion to provide further assistance for complicated transactions as well.

Then the analyst will prepare a credit write-up based on the application and IFA evaluation. Finally, analysts create an updated project summary with the final CRP calculation. Assuming that the credit-worthiness evaluation is favorable, FRA proceeds to the next phase.

Once all of the application and evaluation items are complete, FRA prepares an Approval Recommendation Package, which includes the evaluation documentation, a recommendation memo, documentation of the CRP estimate, statutory findings certification, and a congressional information summary. This package is sent to OST through the FRA Administrator.

4.1.4 OST Reviews Approval Recommendation Package

After the Federal Credit Reform Act of 1990 went into effect, the Secretary of the DOT was given responsibility for overseeing all loan programs administered by the department. Thus, DOT's Office of Budget and Programs reviews and approves RRIF loan applications before any outside agency reviews them. Other DOT loan programs reviewed by this way include the Maritime Administration's Title XI Financing (loan guarantees) and the Office of Small and Disadvantaged Business Utilization's Short Term Lending and Bonding Assistance Programs.

4.1.5 OMB Reviews Proposed Loan and the Subsidy/CRP Calculation and Makes a Concurrence Determination

Once OST reviews and approves the loan package, it is sent to OMB for concurrence in the preliminary credit risk premium calculation. The following information is sent to OMB:

1. Statutory findings certification;
2. The applicant's letter to a private lender requesting credit and the private lender's letter of rejection;
3. The output from the CRP methodology and the cash flow data used in the OMB Credit Subsidy Calculator (in electronic format); and
4. A summary of the proposed project.

If OMB concurs, FRA sends an offer letter to the applicant indicating the CRP preliminary estimate and the current interest rate. If the applicant accepts the terms indicated, he/she countersigns the letter.

4.1.6 FRA Issues Legal Agreements and Loan Documentation

FRA Chief Council's Office (RCC) after analyzing the transaction and determining what documents will be needed to complete the transaction, drafts all such documents and provides copies to the applicant. Any changes requested by the applicant are negotiated. The borrower prepares a project description with subtasks, quantities of material to purchase, allowable costs, and a work schedule with the estimated timing of

expenditures. When sufficient progress has been made with the document negotiations, the final CRP amount is calculated using OMB specified discount rates and current Treasury interest rate. It is electronically forwarded to the FRA Office of Budget and Accounting staff. They prepare paperwork to request borrowing authority from OMB for the loan amount. FRA Budget and Accounting also prepare the apportionment request for the loan and send it to OST. OST forwards the electronic calculation and apportionment request to OMB which requires 10 days to approve it. Only after OMB signs the apportionment request does the borrower sign the Financing and Security Agreement. Once the borrower signs it, the FRA Administrator signs the agreement.

Next, a press release is issued and the Congressional Budget Office is notified of loan approval and the amount of the CRP approved by OMB.

4.1.7 Loan Disbursement

Before any money can be disbursed to the borrower, he/she must pay the CRP. Once CRP payment is confirmed with the U.S. Department of Treasury and the borrower completes a promissory note, supported by invoices, a repayment schedule is made by FRA credit analysts and provided to FRA Budget and Accounting staff. FRA Office of Budget and Accounting then borrows the money dictated by the schedule and sends it to the borrower.

4.2 Existing Post-Approval Administrative Process

Payments come into U.S. Treasury through the electronic debiting system referred to as, Cash-link. Those with access to Cash-link can view statements on-line. Access to Cash-link is limited to those with special direct link and special software. Until recently, only FRA Budget and Accounting had access to Cash-link, but soon RRIF staff will also have access.

Currently, credit analysts and the FRA Budget and Accounting office monitor loan payments and financial performance manually, in an ad hoc fashion. They have been able to function in this manner because there are few loans that have entered repayment at this point. Activities are underway to systematize execution of tracking repayment (i.e., Bank Lab contract) and financial performance through a Loan Management System (LMS). The LMS will become increasingly important as the number of loans increases.

The credit analyst who had primary responsibility for working with a particular applicant monitors the loan during the post-approval stage. Manual monitoring, as explained by one analyst, could consist of collecting annual financial statements and creating an approximated debt service plan; from the plan if the company looks as if its financial state is nearing inability to repay, then the analyst monitors payments more closely. The FRA Budget Office coordinates apportionment requests with OMB and then monitors loan disbursements and payments.

Credit analysts follow up with railroads quarterly. If there are late payments, they refer back to loan legal documents to find out how to respond. In such a case, usually credit analysts recalculate interest and payments manually.

The RRIF regulations call for borrowers to adhere to specific maintenance standards when the proceeds of a direct loan or loan guarantee are used to acquire, rehabilitate, improve or construct track, roadbed, and related structures (See Subparts 260.39(a) and 260.39(b)). Furthermore, according to Subpart 260.41 such equipment or facilities are subject to inspection to assure compliance with the standards set forth in §260.39. Also each borrower is expected to submit annually to the Administrator financial records and other documents detailing the maintenance and inspections performed which demonstrate that the Borrower has complied with the standards in §260.39.

In addition to the regulations stated above, it is standard practice for loan programs to routinely monitor the use of disbursed funds. Monitoring is used as a deterrent for borrowers to misuse or mismanage allocated money. Only one borrower has come to a stage where inspection or reporting would be necessary. As such, to our knowledge, there is no established methodology for monitoring the use of funds other than requiring purchase invoices to be submitted before authorizing disbursement and manual repayment tracking.

4.3 Application and Application Evaluation Processes -- Deficiencies and Options for Improvement

4.3.1 A Gap Exists Between the Technical Assistance Needs of (Potential) Applicants and Support Currently Available

Many interviewees spoke of railroad personnel's differing abilities for completing the complex application for a RRIF loan. The application paperwork can take several months of full-time dedicated staff labor to complete and requires proficiency in finance and accounting – the combination of which is often unavailable to short line railroad companies. Furthermore, many railroads may not be able to afford to pay for application preparation services which, according to interviewees, ranges from \$10,000 to over \$100,000 depending on the size and complexity of the loan. Although mid-sized companies can afford to hire expert application preparers, smaller Class III operators who may only have a few employees and small operating budgets find the application process arduous

Current application preparation assistance consists of a pre-application meeting that a potential borrower can request. The RRIF PM (Program Manager) at times depends on the IFA to supplement applications that have deficiencies. The PM is available to answer questions but has limited time to do much more. No other technical assistance is available.

4.3.2 Record-keeping and Application Status Tracking Are Inadequate

Good record-keeping techniques help create fluid communications within a Program and transparency to external stakeholders. The Program Manager shared with us what, to the best of our knowledge, is the only comprehensive record of applications or inquiries submitted to the FRA. This list shows the status of many applications, but is incomplete.

At least three completed applications, which interviewees stated they had submitted, were not on the list.

This calls into question whether the systems in place are adequate to maintain records and track the status of applications. In addition, the ambiguity of when an application is initiated (as discussed earlier) complicates status tracking.

4.3.3 Comparison to TIFIA

TIFIA is authorized to spend \$530 million over 5 years in subsidy costs and \$10.6 billion in credit assistance. TIFIA has to be reauthorized, while RRIF does not.

TIFIA has \$2 million authorized for administrative costs annually for 1998 through 2003 and uses it to hire consultants to help create its initial program documentation (e.g., “May 2001 TIFIA Program Guide,” and “TIFIA Credit Program: Recommended Capital Allocation Framework”), to develop its subsidy calculation model, and establish the final program rule.

TIFIA does not require applicant to pay the FCRA subsidy amount. Because the subsidy amount is not paid for by the applicant, there is less concern by applicants about the size of the CRP. According to a Memorandum of Understanding from May 2000, TIFIA uses the Treasury interest rate as of the day the loan is obligated both for creating the loan repayment schedule and the discounting calculations used in estimating the CRP.

TIFIA applicants pay fees to cover administrative expenses (i.e., legal council, application processing). This was the presumed goal of the investigation fee that RRIF currently is not allowed to utilize, given current statutory language. TIFIA charges a flat \$500,000 for submitting an application, and adds \$10,000 per year for managing the loan. While RRIF applicants do not pay application fees, they do have to pay for the CRP.

TIFIA has a small administrative office with 3 full-time staff and four consultants. Occasionally they utilize other DOT staff to help with application processing. The TIFIA team’s qualifications span from financial expertise to transportation infrastructure and industry knowledge, as well as program administration experience. The Program staff includes individuals with various backgrounds including a Chief Financial Officer (CFO) from a State DOT, investment bankers, Federal Highway Administration (FHWA) staff, and a former OST Budget officer.

TIFIA has a formal MOU with OMB detailing the assumptions used to calculate the credit subsidy amount (i.e., CRP), and establish the interest rate for the loan, and related Federal budgeting procedures.

4.3.4 Program Manager Assumes Duties Better Delegated to Staff

Currently, the RRIF program manager (PM) assumes responsibility for performing and executing many of the detailed duties and activities associated with processing of individual applications.

FRA staff members who have worked on the RRIF program described a work flow process in which they were restricted in their interactions with loan applicants or IFAs. This fact was confirmed through conversations with applicants, IFAs, and oversight agencies (OST), who were in some cases unaware of the makeup of RRIF staff. Lack of interaction between staff and applicants is not the norm, as those with experience in such matters state that communication between applicants and loan evaluators occurred as much and as often as necessary. If an application is deficient or a clarification is needed, currently, FRA credit analysts must alert the project manager through a memo or checklist so that a deficiency letter can be sent. This formal process adds time to processing applications and limits the time the PM can devote to other activities involved in administering the program.

4.3.5 RRIF Program Resources are Limited in Quantity and Quality

There are currently only 2 full-time staff members dedicated to the RRIF Program, the Program Manager and a Credit Analyst. FRA is actively managing this resource problem by hiring contractors.

Presently, RRIF legislation does not provide for FRA to levy an application processing fee. Furthermore, although the legislation allows FRA to collect an investigation fee, the statutory language used does not permit FRA to *spend* the money collected. This aspect of the statutory language, and the inability of the program to recuperate costs of processing applications through other types of fees means that the RRIF program must compete with other FRA programs for administrative funds to cover the costs associated with administering the program.

4.3.6 Current Approach to Funding IFAs Opens the Program to Criticism

The current process of encouraging applicants to directly hire an IFA who then is under FRA control is inherently awkward. Even though the FRA reviews the nomination of each IFA, taking care to investigate possible conflicts of interest, the perception of a conflict of interest in the evaluation process exists because the IFA is paid by the applicant and this opens the program to criticism. If IFAs were engaged directly by FRA or were FRA permanent staff, their independence and objectivity would be less of an issue and the quality of analysis and report presentation could be controlled better.

4.4 Post-Approval Administrative Process -- Deficiencies and Options for Improvement

While performing satisfactorily so far, FRA's manual and ad hoc post-approval process is not adequate for managing the expected growth in active loans. A defined and structured process has not been established to manage and execute loan repayment process, largely because of the small number of RRIF loans and their recent completion. The RRIF program is now actively planning for and making improvements in this area.

Currently RRIF credit analysts track payments manually by coordinating with FRA Office of Budget and Accounting staff using a simple worksheet. Whereas other lending

programs use more automated systems, FRA has been able to manage the post-approval process in this manner because so few loans have come to the repayment stage. As more loans are approved, a more systematic process will become necessary.

It is unclear if any monitoring/auditing of the use of loan funds stipulated in the program's Final Rule is performed satisfactorily. The only measure of assurance given to FRA that money is spent appropriately is that funds are not disbursed until FRA receives vendor invoices from the railroad showing that they have received certain goods and vendors are awaiting payment. A process for verifying a sample of these invoices has not been established.

Comparisons to Other Loan Management Systems

- Commercial Lenders – Commercial lenders track information such as the repayment history of a customer by loan number and payments of invoices made by the company. An office clerk is often assigned to review monthly payments, which are automatically printed out by accounting systems, and check to see that interest and principle are paid and accounted for appropriately. If there is a delay in repayment, the system generates overdue payment invoices automatically. Often a loan officer or relationship manager reviews the company's financial records to make sure certain pre-established performance measures, or covenants, are met. Performance measures are tailored for individual loans based on an analysis of historic financial performance. This risk management analysis identifies points where a company is likely to have difficulty. If a measure is not met, then the bank may choose to restructure the loan or review it further. In addition, commercial banks have risk management specialists do annual reviews of each loan. Fees are charged to the loan recipient for managing the loan.
- TIFIA – TIFIA uses an external commercial servicing agent who has been engaged to manage loan payments. TIFIA charges the borrower \$10,000 per year as fee for closing and managing the loan. The TIFIA staff develops a monitoring plan for the loan in which they generally piggyback on processes already in place (e.g., FTA Project Management Oversight (PMO) contractors, a scan by another large lender, or other reviews by oversight agencies during the construction phase).

5 Program Assessment

5.1 Recommendations for Legislative Changes

5.1.1 Add a Provision in the Reauthorizing Legislation Granting FRA the Authority to Spend the Investigation Fee on the RRIF Program

The legislation allows FRA to collect an investigation fee of not more than ½% but does not authorize FRA to spend the money.¹

This is a possible oversight in the statutory language. Because FRA is not able to utilize the money collected for administering the RRIF program, rather than charging applicants a fee, FRA encourages them to hire an Independent Financial Advisor (IFA). If the language were changed so that the fee could be levied and utilized to support program goals and streamline the application review process, it would eliminate the awkwardness of the current process and permit higher quality and more consistent independent financial reviews.

5.1.2 Request Legislation Authorizing Federal Payment of the Subsidy Cost

TIFIA does not require applicant to pay for the subsidy amount because the program is authorized to use \$530 million from the Highway Trust Fund over 5 years to cover the applicant subsidies and other administrative expenses. Authorizing the appropriation of funds (and subsequently making such appropriations) for the similar purposes of the RRIF Program (while also retaining the current provision for non-Federal funding of the subsidy cost through the payment of a CRP) would give FRA the flexibility to add impetus to high priority projects by funding some or all of the required loan subsidy. This provision would be subject to the limits of appropriated funds.

5.1.3 Investigate Whether Existing Legislation Permits the Use of a Single Interest Rate for Estimating the Federal Subsidy Cost of a RRIF Loan

OMB requires that all Federal loan programs use its “subsidy calculator” to determine the amount the borrower must pay to offset the government’s risk of lending. OMB’s subsidy calculator computes the subsidy based on discount rates fixed for the budget year. This can cause a problem for lending programs like RRIF that are legislatively authorized to use the Treasury interest rate on the day of loan closing to set the repayment

¹The controlling statutory language is: *TEA-21, Sec. 7203, Sec. 503, (k), Investigation Charge* -- The Secretary may charge and collect from each applicant a reasonable charge for appraisal of the value of the equipment or facilities for which the direct loan or loan guarantee is sought, and for making necessary determinations and findings. Such charge shall not aggregate more than one-half of 1 percent of the principal amount of the obligation.

schedule. Because Treasury interest rates change, different interest rates could be used for setting payment amounts and discounting in the computation of the CRP. When this happens the CRP will be different from the subsidy cost at the time of the loan and could even be negative. Further explanation and a numerical example illustrating this issue is provided in Appendix A. In preparing this report it was not determined whether a shift to the use of a single rate for both purposes could be made administratively or would require regulatory or statutory actions, so the matter needs further investigation.

A TIFIA document from May 2000 indicates that it uses the same treasury rate for both discounting and setting loan repayment terms and this is at least suggestive that an administrative action concurred with by OMB is a possibility for solving this problem.

5.1.4 Request Appropriation of Funds for RRIF Program Management and Loan Subsidy Payments

The RRIF program is legislatively mandated and it needs to be managed in an efficient and effective manner. Public confidence in government is enhanced when this occurs; when it does not occur, it becomes a source of skepticism about public institutions that weakens the fabric of society to everyone's detriment. Responsible staff and officials have fiduciary responsibilities because their activities under this program expose the Federal government to financial risks. Having adequate dedicated resources to such a program is sensible and could avoid costly mistakes.

A key purpose of the RRIF program is the preservation of rail infrastructure in places where it provides service of value and importance to communities. Providing FRA with discretionary funds to pay for program administration and some or all of the FCRA-required subsidy costs of RRIF loans would help in accelerating improvements for high priority projects.

5.2 Recommendations for Regulatory Changes

5.2.1 Make Regulatory Changes Consistent with Legislative Changes Detailed in Section 5.1

If any of the legislative recommendations in Section 5.1 are enacted, they will require a regulatory action to modify the existing RRIF program rule. Appendix C provides an example of the changes associated with being able to use the authorized investigation fee for direct engagement of IFAs.

5.2.2 Examine the Application Requirements and Process and Consider Streamlining Them

Many interviewees stated that the regulation calls for some pieces of information multiple times. This gives some people the impression that, contrary to the mission of the program, FRA is intentionally making the process onerous. In addition, there is a lack of standardization in the application process so that applicants submit the application having had varying levels of contact, technical assistance, and or information exchange with RRIF Program staff.

FRA staff should learn where duplication exists, clarify the value of requiring the data at different points, and if appropriate amend the final rule to be more concise.

To further streamline the application, the full loan application should be redesigned so that the pre-application constitutes the first few sections of the application. By requiring the pre-application information of all applicants (now as part of the full application), this would eliminate confusion as to when application is valid and thus enters the RRIF status tracking system (triggering associated correspondence and other actions). RRIF regulation would need to be changed to reflect this change. An application form (discussed under “Recommendations for Administrative Changes” in Section 5.3) should be created based on the revised application components.

5.2.3 Revise the Regulation on the Number of Years of Financial History Data to Permit More Flexibility

Currently the application requirements include five years of financial data (current year plus four previous years). Whereas multiyear traffic data will almost always be available, multiyear financial data will not always be because a new operating company has been created. Already cases have arisen in which a loan applicant is a fairly new company with fewer than 5 years of financial data available. In these instances, FRA has made exceptions, accepting only three years (or whatever is available) and compensating for the lack of data by emphasizing other aspects of the application. In recognition of this *de facto* process and the potential for this situation to arise again, FRA should change the final rule language to include a contingency for the number of years of data required. Other DOT loan programs such as the Office of Small and Disadvantaged Business Utilization’s Short Term Lending Program and TIFIA require at least 3 years of data. This could be a reasonable approach for RRIF as well.

Final Rule language:

§260.25 Additional information for Applicants not having a credit rating

b) Detailed financial information, including:

- (1) Financial statements prepared by a Certified Public Accountant (audited, if available), for the four calendar years immediately preceding the date of filing of the application, including:
 - (i) A copy of Applicant's most recent year-end general balance sheet and a copy of Applicant's most recent unaudited general balance sheet; and
 - (ii) Applicant's most recent annual income statement and a spread sheet showing unaudited monthly and year-to-date income statement data up to the date the application is filed;
- (2) Projected financial statements, including spread sheets showing for each of the four years subsequent to the year in which the application is filed, both before and after giving effect to the proceeds of the assistance requested in the application:
 - (i) Forecasted annual income statement;
 - (ii) Forecasted year-end balance sheets. These spread sheets shall be accompanied by a statement setting forth the bases for such forecasts; and
 - (iii) A spread sheet showing changes in financial position for the year in which the application is filed, including the period ending on the date of

the application based upon actual data and the period from the date of the application to the end of the year, based upon estimated and forecasted data;

5.2.4 Require Some Pre-application Process Such As a Meeting, Teleconference, or Letter of Inquiry to Support a Preliminary Determination of Eligibility

In this initial phase specific informational requirements would be labeled as “required” or “optional”. Required information would include a description of the proposed project for which the loan is being requested, along with other basic information. Such information would:

- Eliminate applicants whose projects are ineligible to avoid a waste of time and effort by all parties involved.
- Serve as a formal, undisputable start point to the application process. This will aid in tracking and reporting the Program's progress and accomplishments.
- Enable FRA to assist potential applicants in formulating solid proposals early in the process.

A letter of inquiry for the aforementioned purposes is similar to TIFIA’s initiation step.

To limit the data burden on applicants, financial data requested in the current pre-application checklist would continue to be optional. FRA asks for this information in order to furnish a CRP estimate to the borrowers, which influences their willingness and ability to continue with the loan application process. This step could be avoided if FRA instead provides a simple look-up table or other mechanism so applicants have some information as to a rough range for the CRP. Interviewees mentioned 3%-5% of the loan principle as one rule-of-thumb that could be used, but this is probably too simplistic and approach).

Those wanting a more precise CRP estimate should be given a form detailing the data necessary for making the estimate using RRIF's calculating software program.

5.2.5 Remove Requirement in 260.23(o) to Submit a Letter from a Commercial Lender Refusing to Provide a Requested Financing at Terms Greater than 8 Years

The step of obtaining a letter from a commercial lender declining financing seems to have little purpose to either borrowers or application reviewers. It is well-known throughout the railroad industry and commercial lending industry that the long-term financing offered by FRA is unmatched by the private sector. The longest commercial loan term given, according to industry studies and our interviews, is eight years. Given this common knowledge, according to some, this step seems an unnecessary burden reflecting the inefficient nature of government bureaucracy.

Furthermore, in congressional testimony railroads have stated that obtaining a letter from a commercial lender denying funding assistance in essence advertises that the company is not credit worthy. This is undesirable for any business seeking capital funding. In addition, this added step does take time (even if only a few days) and slow down the

application process. If it takes too little time to obtain such a letter, application reviewers may view the origin of the letter with suspicion.

The public perception of the RRIF Program may benefit by removing this requirement if the requested loan term is greater than 8 years.

5.3 Recommendations for Internal Program Administrative Changes

5.3.1 Assign Potential Applicants to RRIF Credit Analyst Staff

After a railroad contacts the FRA indicating an interest in the RRIF program, it should be considered a potential applicant and assigned to a staff member who then becomes the principle point-of-contact and manager for that case. The staff person should keep FRA management informed as to the status of the case, and seek their approval on matters that are critical to the approval process such as notification regarding the CRP estimate and policy decisions on the loan structure.

5.3.2 Develop a Long Term Staffing Growth and Development Plan for the RRIF Program

The program staffing plan should begin by better defining the roles and responsibilities of each RRIF program staff position.

5.3.2.1 Identify the Required Functions and KSA's of RRIF Program Staff

Currently there is a shortage of program staff with all of the knowledge, skills, and abilities (KSA's) needed to review, evaluate and process loan applications. The process is described in Section 4.1.3 and summarized below.

In our review we divided the application review process into five functional areas. An initial step in developing the staffing plan recommended here should be to review and revise this list and develop more detailed tasking descriptions. This would then be the basis for implementing the other recommendations in this area. The application evaluation functional areas are:

- Assess existing railroad condition and the conformity of the proposed project with RRIF program requirements
- Review customer base and projections of revenues and operating costs
- Verify cost estimate for proposed improvements, rehabilitation, or acquisitions
- Assess creditworthiness by examining and analyzing financial records
- Verify the appraised value of loan collateral

It is unlikely that the program will find individuals with all of the required KSA's. Instead the program should plan to build a team (regardless of whether they are in-house or contractor support) that in combination has the required capabilities.

5.3.2.2 Program Manager Should Be the Team Leader

The RRIF Program Manager (PM) should manage all external and internal aspects of the overall program, delegate responsibility for processing individual cases to program staff, and rely on others with specialized skills that are essential to the program such as legal, computer programming, and acquisition.

Application evaluation capabilities must be organic to the program and its assigned staff, i.e., both the PM and the supporting Credit Analysts. To efficiently and effectively manage such railroad finance program, the Program Manager should have some expertise in the various identified knowledge, skills, and abilities (KSAs) required to support the application evaluation activities, and also have other program management, outreach, and negotiating capabilities. This is crucial because:

- The PM must be able to coordinate activities across a range of application evaluation activities.
- The PM must be able to appropriately delegate responsibilities (as described in Program Assessment Section) without relying on external assistance.
- The PM must be able to select and evaluate the performance of contractors or staff who fulfill several different functions, from developing management information systems to drawing legal documentation.
- The PM should identify problems with an application before it goes to OST's Office of Budget and Programs, thereby streamlining the process.

5.3.2.3 Assess Desired Mix of In-House and Contractor Support (Possibly Evolving over Time)

The RRIF program has relied on Independent (non-Federal staff) Financial Advisors for some of the application evaluation activities. The RRIF PM and FRA staff Credit Analysts also play a major role in making a creditworthiness assessment of a loan applicant (and perform many other essential functions). Some overlap in roles and responsibilities exists and can be considered of value as a verification and cross-check of the analysis. This situation gives additional credibility to FRA's loan approval recommendations. Still, it was evident that each IFA had more strength in some areas than others, and this suggests again that it is essential to develop a team approach to program staffing. It also suggests that the desirable mix of internal and external resources should be carefully assessed taking into account program needs, expected activity levels, and cost effectiveness. A general purpose IFA may not be the best long run option even though it was a practical and efficient expediency given the limited number of applications processed during the program start-up phase.

5.3.2.4 Make Better Use of Existing FRA Staff Capabilities – Both RDV and Non-RDV

After better defining the current roles and responsibilities of RRIF staff (above), expansion or contraction of those roles and responsibilities could be made to reduce duplication of effort and/or underutilization of staff KSAs. For example, credit analysts could be given a larger role in interfacing with applicants, as suggested above. Given the importance of the credit analyst's role in extracting and verifying data from applications and supporting reports, entering these data into the Credit Risk Assessment Model, and preparing the creditworthiness assessment, they should be sent for site visits to better understand the railroads operation and business records. The knowledge gained would be especially valuable in assuring that the data used in the FRA evaluation did not contain obvious errors.

There is a need to improve the application evaluation process by developing additional information and norms on the operating and financial performance of railroads. This is outlined in Recommendations 5.3.5.4 through 5.3.5.6 below, and staff from RDV and possibly other parts of FRA have the background and experience to contribute to these efforts.

Through interviews with FRA Regional office staff (part of the FRA Office of Safety, RRS) we learned that because of their safety enforcement role they are aware of the condition and management of short line railroads, especially ones that have experienced problems in the past. The RRIF program should take advantage of regional staff's knowledge by building stronger institutional links between RRIF and RRS Regional Offices. The RRIF Program should systematically request input from them to on general condition of rail lines and the company management. This input would be of value in the early stages of the application process when loan eligibility is assessed.

Regional offices could also be asked to aid in monitoring or inspecting the use of RRIF loan funds – an important facet of the program that thus far has not been relevant but will become more important as more loans are approved.

5.3.3 Create an Application Form with Attachments

At present there is no application form to be filled out. Instead applicants receive a checklist delineating each of the points of information noted in the RRIF legislation, and program regulation. Interviewees complained that the application is difficult to complete and the data requested is somewhat unclear. Very little guidance on how to complete each of the application steps is readily available. Creating an application form may improve applicants' ability to complete the application in a timely manner. The form would serve several purposes, as follows:

- To explain in more depth the kinds of information required by each question.
- The form would refer to a series of attachment templates, where the bulk of the detailed information, such as financial data, would be included. Templates would specify the length and/or format for data presentation.

By comparison, TIFIA provides application forms with their “Program Guide” that includes such guidance.

Examples of forms on web:

<http://osdbuweb.dot.gov/business/Docs/stlpapp.pdf> ;

http://tifia.fhwa.dot.gov/pg/pguide_ad.pdf; <http://www.ed.gov/DirectLoan/>;

<http://www.salliemae.com/customer/index.html> (great FAQs page);

<http://www.sba.gov/disaster/loans.html> (examples of FAQs).

5.3.4 Train and Direct Program Staff to Provide More Support as Applications Are Prepared and Supplemented

We understand that currently FRA credit analysts seldom interact directly with applicants. Some applicants stated that even the PM did not directly contact them on some matters once an application was submitted. Instead, the PM or other FRA staff would correspond with the IFA who would then contact the applicant to collect or clarify information submitted.

Credit analysts could also play an important role in clarifying questions the applicant might have prior to application submission. Application processing speed would likely be enhanced as a result of this policy.

5.3.5 Develop a Formal Structure for the FRA Application Evaluation and Approval Process

5.3.5.1 Develop a Realistic Milestone Schedule for Application Processing from Pre-Application Initiation to Initial Funds Disbursement

A detailed schedule will serve to provide realistic expectations to potential applicants, document source of any delays, and establish goals for program staff. Visibility of the program's complexity and many steps will especially benefit applicants and non-FRA stakeholders.

5.3.5.2 Formalize the Approval Process

If the number of loan applications under active processing increases, the RRIF program should set up a more structured approval process. It would include establishing an approval committee, scheduling of application status meetings, and recording of key decisions.

5.3.5.3 Institutionalize Systematic Communications Practices and Delegate Such Responsibilities to Administrative, or Other FRA Staff

Correspondence with applicants should be standardized to include contact:

- Immediately after interest is shown
- Acknowledging receipt of pre-application information
- Acknowledging receipt of application information

- Estimating a projected timeline for the application process (i.e., timing of milestones, duration at each stage and who is involved), and providing this information to applicants.

Correspondence should also provide to applicants contact information for staff that are involved in program activities.

These steps are not trivial or meant to increase administrative burden but rather are good customer relation practices.

Credit Analysts should be responsible for follow-up with the applicants to which they are assigned. This step helps the Program's image, application tracking, and staff planning.

5.3.5.4 Have FRA Staff Come To Agreement on What Financial History Data Is Necessary (e.g., Balance Sheet/Cash Flow) and How Tables Should Be Presented in the Borrowers Application

Discussions with program staff and IFAs indicated that some presently required information might be superfluous while other useful items might be missing. Diversity in format can cause confusion or make data evaluation inefficient for FRA staff and IFAs who review applicant reports. Standardizing data presentation by providing IFAs with table templates and report structure templates could accelerate application processing.

5.3.5.5 Review Which Financial Ratios Are Most Useful in Evaluating Risk and Creditworthiness

The program would profit by rethinking the value of each of the financial ratios called for in the IFA task list and considering the use of some additional measures. Interviews found that consistency among IFAs is lacking.

5.3.5.6 Develop an IFA Form or Template for a "Structured IFA Report" Based on FRA Staff Consensus

Each IFA is required to perform 10 tasks laid out in a document prepared by the RRIF PM. The last of these tasks is to "...prepare a written report of [the IFA's] analyses and findings, including a summary assessment of the creditworthiness of the transaction." Without any further guidance or specifications on the format of the report, each IFA presents data in the fashion of his/her own choice. Diversity in format can cause confusion or make data evaluation inefficient for FRA staff who review IFA reports. Standardizing data presentation by providing IFAs with table templates and report structure templates could accelerate application processing. This would not preclude the IFA from doing additional analyses and supplementing the standard evaluation information.

5.3.5.7 Conduct Analysis to Develop Guidance or Norms for Short Line Railroad Operational and Financial Measures.

This recommendation would result in a database containing, e.g., MOW spending per mile, transportation cost/car mile, revenue rate by carload and commodity, etc. Norms

will vary by category of SLRR and would be of obvious value in loan application evaluations. The categories would be determined when the norms are established. A working group of task force composed mainly of FRA staff, possibly including individuals from non-RDV parts of FRA would be an effective approach to this effort and would have the added benefit of developing the overall FRA staff knowledge-base, i.e., human capital.

5.3.5.8 Develop and Implement a Structured Tracking System for the Status of Loan Applications and RRIF Loans

Currently there is no comprehensive list of past, present, and potential RRIF borrowers. There exists a list of many applicants and the status of their application, but as noted previously, this list has several oversights leading us to question the thoroughness of the tracking system. It is hoped that better tracking will happen automatically as a result of implementing the recommendations in this report. Structuring the application evaluation process coupled with improving communications with applicants should enable RRIF staff to more accurately track and record the status of applications.

A comprehensive tracking mechanism will also make it easier to develop external reports of program activity, and accurate tracking will help trigger associated actions like initiating acknowledgement correspondence or technical assistance measures with the borrower.

The tracking system should extend to the post-loan monitoring phase and include an early warning of developing problems to make intervention possible before the problem becomes more serious.

5.3.6 Improve the Method for Estimating the Federal Loan Subsidy Cost and Credit Risk Premium

Appendix A identifies a number of issues and deficiencies in the process used by the RRIF Program to estimate the subsidy cost of the loan. The process involves use of a software program (the Credit Risk Assessment Model or CRAM) that was purpose-built for this program. Potential improvements to the model and process that should be pursued or considered are: (1) re-estimating the RRIF Credit Rating Model, including exploration of alternative model structures and the use of more recent data; (2) making the rating sensitive to the RRIF post-loan financial data; (3) using the most current and relevant default probability information; (4) ensuring that loan collateral properly enters the calculation of the CRP; and (5) correcting anomalies caused by the use of different interest rates for loan repayment and discounting to calculate the subsidy and CRP.

5.3.7 Utilize Existing FRA Regional Office (RRS) Inspection Process for Loan Monitoring

We heard anecdotal evidence of other loan programs that have experienced fraud or theft of funds and, therefore, caution FRA to institute preventative measures as soon as possible. Utilizing FRA Regional Offices – whose primary responsibility is to inspect railroads for safety compliance – is one option for managing the inspection component of monitoring loans. RRIF should improve communications with the Regional Offices so

that they are aware of RRIF borrowers and then request that routine Regional Office inspection visits be used to verify the appropriate use of RRIF funds. According to TIFIA staff, they too utilize review and inspection efforts by DOT non-program entities to fulfill their due diligence.

5.4 Recommendations for Improved Program Outreach

5.4.1 Improve Outreach to Railroads

Although FRA has taken some steps to introduce railroads to the usefulness and benefits of the RRIF program, FRA could be doing much more. FRA cannot rely solely on external entities to distribute information about the program because others may choose to provide negative publicity for FRA and RRIF, or may not reach the full range of railroads that might have an interest in RRIF.

One negative image that RRIF must overcome is the perception that only politically connected applicants will succeed in receiving a loan. If the program is to achieve its goals, it must appear to work for any and all railroads, regardless of size or political connections.

RRIF should use these outreach efforts to manage potential applicants' expectations as to how long the loan application process may take from start to finish. The program should develop a realistic time schedule for the loan evaluation and commitment process and provide applicants status updates referenced to these milestones.

To build a more positive reputation for the RRIF program, it would be useful for FRA to generate its own publications. To assure that FRA publications reach the widest audience possible, the RRIF program should create and maintain a mailing list database expanding upon ASLRRRA (American Short Line and Regional Railroad Association) and other readily available sources. A listserv with elective sign-up could be created online to build a further-reaching database of contacts, and this has the obvious advantage of reaching a group that have self-selected based on interest in the program.

Then, FRA can use the database to send outreach materials, including a periodic (e.g., quarterly) newsletter to railroads. A newsletter is one relatively simple vehicle for distributing program information. Other transportation programs, such as TIFIA, use this method to communicate with their stakeholders. The newsletter would probably be no more than one page (front and back) and cover subjects such as:

- Upcoming Events (e.g., workshops and other presentations on RRIF)
- Newly Available Materials (e.g., improved web site, training video, promotional brochure)
- Legislative or Regulatory changes/updates
- New Loans Submitted or Approved

5.4.2 Develop a Strategic Partnership with ASLRRRA

ASLRRRA is poised to convey FRA's improved image to a wide range of railroad members. FRA should continue to work with them to build a constructive rather than

adversarial relationship. FRA should identify an appropriate role and activities in the RRIF program process for ASLRRRA to assume. It should then consider drafting a Memorandum of Understanding (MOU) between ASLRRRA and itself to recognize their common interest in facilitating the physical improvement and financial viability of short line railroads, and formalize the identified partnership.

A few ways in which FRA could harness ASLRRRA's capabilities are:

- Provide new guidance documentation (i.e., Program Guide, Fact Sheets, etc.) to ASLRRRA representatives for distribution at meetings and/or through mailings.
- Present program updates at ASLRRRA members' meetings (they have both general and regional meetings each year).

5.4.3 Utilize FRA Regional Offices as an Information Conduit

Request FRA Regional Offices to Distribute Program Information

- FRA Regional Administrators contacted expressed willingness to promote the RRIF program by distributing ready-made outreach materials.

Present Program Updates at the Quarterly FRA Regional Officers' Meetings

- An FRA Regional Administrator enthusiastically supported the idea of allotting time for presentations by RRIF program staff at FRA RRS quarterly meetings. These meetings are led by the FRA Associate Administrator of Railroad Safety and are attended by the Regional Administrators and their deputies.

Present Program Updates at Annual Regional RRS Meetings

- These meetings are organized and held at regional level and are attended by many short line railroad management. They offer a ready-made opportunity to convey RRIF program information.

5.4.4 Identify Banks That Deal with Short Line Railroad Financing and Provide Them with RRIF Program Materials

Our interviews revealed that there seem to be a few banks that focus on providing loans to small railroads. The FRA should identify and contact these private lenders and request that they direct railroads to FRA if they receive an inquiry or loan application that they will not fund. This would be a responsibility of the RRIF Program Manager.

5.4.5 Enhance Current Program Web Site

The existing website is insufficient to support the needs of the target audience.

A series of low cost and easy to implement improvements should be pursued and might include the following:

- Application information and guidance on properly filling out the application form (e.g., dropdown menus, pop-up boxes, etc.)
- HTML, PDF, and MS Word versions of all print materials
- Contact information for application preparers and/or IFAs.

Examples of web sites: <http://osdbuweb.dot.gov/business/mp/miphtml28.html>

5.4.6 Create Guidance Documents

Many comparable programs (Federal, state and local) have user-friendly documents describing important elements of the program and its application process (beyond the regulation/legislation language). The Washington State DOT has a guide for their Local Rail Freight Assistance program and TIFIA has a Program Guide. Such documents can be done at a range of depths and scales depending on funding available.

5.4.6.1 Create A “Program Guide” or Handbook

This document should be comprehensive, yet simple to follow laying out each aspect of the program. Following are elements to include in a guide/handbook:

- Contact information
- Example of a model application
- An actual application template
- Frequently asked questions (FAQs)
- Explanation of the application timeline, identifying milestones
- Step-by-step walk-through of the application questions
- Application evaluation process explanation
- Eligibility requirements
- Policies on funding priorities (perhaps determined through FRA and OST staff discussions)
- Description of the contractual documents and procedures (term sheet, credit agreement, etc.)
- Acronyms/glossary

5.4.6.2 Create Fact Sheets for Wide Distribution

Fact sheets are generally promotional in nature, easy to skim through, and give a rough sketch of a particular aspect of the program. Fact sheets could be incorporated into the guide/handbook described above. Possible contents are:

- General timeline for application processing
- Steps in application evaluation process
- Options for third party payment of the CRP

5.4.6.3 Issue Guidelines on Various RRIF Policy Issues

In this program evaluation process we identified a number of specific issues that had arisen in the processing of applications and that were not part of the published program guidance or publicity. The RRIF program should identify and document the decisions made regarding these issues and where appropriate include them in program outreach materials. The examples we encountered are:

- Refinancing of existing debt
- CRP estimate and payment options (i.e., 3rd party funding)
- Dividends

Based on conversations it seems that there is some flexibility on whether or not corporate payout of dividends is allowed.

- Provisions for transfer of ownership over time
- Corporate (parent-subsiary) financial information
- IFA selection criteria and process
- Investigation fee option
 - Re-state and highlight the current preference to have a railroad hire an IFA instead of paying a fee
- Possible financial exposure of a 3rd party participant in a RRIF loan (Does an entity that contributes to the CRP become a loan guarantor?)
- What financial ratios are required to determine credit-worthiness and why
 - This is would be an outcome of deliberation by FRA staff and financial experts as recommended and described in section 5.3.1
- How many years of financial history data are necessary in an application

5.4.7 Systematically Contact State DOTs

This is an activity that the RRIF PM should undertake that would improve program effectiveness. Specific objectives are:

5.4.7.1 Have States Consider Funding CRP

In our interviews we found that several states were providing financial support to short line railroads. Applying available financial support towards the payment of the RRIF CRP would leverage those resources and result in more infrastructure development or improvement. States should be made aware of this option.

5.4.7.2 Encourage States to Provide Technical Assistance to RRIF Applicants

In Congressional testimony (April 25, 2001) FRA representatives said that States can be a valuable resource for railroads in assisting the RRIF application process. States can provide advice to applicants on meeting Federal funding requirements because they are accustomed to interfacing with Federal programs. When contacting State DOTs, the PM should find out which states have staff that deal with freight rail and have staff who are willing to aid the RRIF applicants. Providing such information to (potential) applicants and allowing railroads to have the option of utilizing their State DOT as advisors to the application preparation could hasten the process.

5.4.8 Periodically Provide Program Reports

In a Memo from OST to FRA (10/26/2001), OST suggests having FRA provide quarterly reports on “the number of transactions completed during the year and the status of pending applications and of any program change” from RRIF. This has not been a regular occurrence even though it would serve other program purposes as well.

5.4.9 Brief OST and OMB on Loan Evaluation Process

OST budget office is open to improving their understanding the railroad industry this would likely make them more supportive to the RRIF program. Currently OST staff have doubts about various aspects of the financial information presented to them, in part

because they know that the program manager and staff have conflicting objectives of both promoting the program (i.e., giving out loans) and guarding against financial defaults. Many of OST's concerns about specific applications stem from their lack of knowledge of small railroad industry. Educating OST about the railroad business and its finances simultaneously with the application review process could allay some of their concerns. OST staff stated that such voluntary briefings held by RRIF staff would be welcomed and encouraged.

5.4.10 Establish More Technical Assistance Mechanisms for Application Preparation Process

There are a range of options to consider for providing more technical assistance to loan applicants. They include the following:

5.4.10.1 Involve the ASLRRRA

ASLRRRA is not in a position to prepare or assist in preparing individual RRIF applications. ASLRRRA can, however, comment on the general eligibility of an applicant and provide other constructive advice on the application process. The FRA should be sure the ASLRRRA understands eligibility requirements, has all program promotional materials, and is familiar with the evaluation criteria, schedule and milestones. It is especially important that program participants have realistic expectations about the timing and likelihood of loan approval and the association can be a useful conduit for that information.

5.4.10.2 Have Credit Analysts Available to Answer Questions from their Assigned Applicants

As provided in Recommendation 5.3.4 above, Credit Analysts can play an important role in clarifying questions the applicant might have prior to application submission.

5.4.10.3 Identify a RRIF Program Ombudsman

The FRA should identify a RRIF program ombudsman and make that person available to answer questions and give advice on the application process. The (potential) applicant should consider this person to be available to mediate issues or disagreements when the assigned credit analyst response seems unsatisfactory. The RRIF program manager is realistically the best candidate for this role because of his/her familiarity with the program, but this assumes that, contrary to existing practice, the PM is not the principal point-of-contact for the applicant. Higher level FRA staff should be considered for this role or at least be identified alternative contact points for applicants.

5.4.10.4 Consider Developing a List of Application Preparers for Potential Applicants

Some RRIF applicants have utilized the services of consultants to assist them in preparing their loan applications. The FRA should consider identifying and publicizing this option, but would need to do so cognizant of legal restrictions and perceptions of partiality towards selected individuals. Facilitating or encouraging this option will,

however, likely improve the quality of the applications and expedite their evaluation. Since poor application quality is one area that has slowed the approval process, improvements in this area are of value.

5.4.10.5 Conduct Periodic Workshops

Interviewees were complimentary of the RRIF program workshop that was held in December of 2002. Additional workshops, perhaps geographically dispersed, are a low cost means of educating potential applicants about how to prepare a valid application. Such workshops would include a detailed review of the application form and process with a small group and answer questions as they arise.

5.4.10.6 Design a Technical Training by Telephone (T³) Program

This idea comes from a program developed by the ITS Professional Capacity Building Program of the U.S. DOT ITS Joint Program Office. It is designed to address concise, technical topics that may be re-occurring problems faced by the audience. Participants listen to a presenter over the phone as they follow along with a slide show that is sent in advance. Each session is around 1.5 hours long with the last 30 minutes dedicated to questions and answers.

This format could easily be adopted to the needs of the RRIF Program in that applicants could get the technical advice they need from Program experts at pre-determined times and without travel or tuition expenses. Topics such as ways to fund the CRP, how to reduce the CRP, and proper presentation of data could be addressed. Depending on the topic, presenters could include Program staff, supporting contractors, borrowers, or IFAs and they would utilize materials developed for use in the other forums discussed in Section 5.4.5. (For more detailed description, see: www.pcb.dot.gov/t3.)

5.4.10.7 Produce a Video

A video could be used as a teaching and/or outreach tool for the RRIF program. The cost of producing a video varies dramatically depending on the duration, amount of editing required, and desired quality. For instance, the simplest method would be to videotape a pre-scheduled RRIF application preparation workshop/seminar or outreach presentation using only one camera and one microphone and minimal editing. A more complicated method would be to prepare a script, videotape from several angles, allowing several takes, and to include PowerPoint-type slides or other materials to be edited in digitally.

The goal and intended audience for the video is the key to the approach taken in video production. For example, it could be used to introduce railroads to the RRIF program at venues where a staff member is not able to attend. Alternatively, a video could be used to train railroads, IFAs, or professional application preparers on how to fulfilling application requirements. Because a video is static and not adaptable to unique requests or backgrounds of audience members, it is considered more of a training tool rather than a form of technical assistance.

Appendix A: Credit Risk Premium Issues

A.1 Background: CRP Concerns

Interviewees raised various concerns about the estimation of the Credit Risk Premium (CRP) that RRIF borrowers must pay before a loan or loan guarantee can be issued.

Some of these concerns are:

- (1) The CRP seems large given the collateral level backing the loan
- (2) The CRP does not fall as the loan interest rate (and thus payments) are lowered even though the railroad is in a stronger financial position as a result of such a change
- (3) The CRP estimation process uses a model that is not publicly available and whose validity thus cannot be assessed
- (4) The process seems to be partly subjective or arbitrary
- (5) There is an inherent inconsistency in using different interest rates for discounting and computing loan payments

The CRP can have a major impact on the perceptions and utilization of the RRIF program. In particular, if the premium is too high it could more than offset any advantages offered by the low treasury loan rate and long repayment period, and few loans would result. Because of its importance to the program and the various concerns expressed, the CRP estimation process was examined to determine if some of the concerns were evidence of real problems that could be corrected.

To provide some perspective on CRP estimation issues, it is helpful to first have a brief overview of its mandate and purpose, and an outline of FRA's CRP estimation process. This is followed by a discussion of issues and possible changes.

A.2 CRP Purpose

The RRIF loan interest rate is (no less than) the Treasury borrowing rate for the same term and is essentially a "risk free" rate used in developing the repayment schedule. Unlike the U.S. Treasury notes, RRIF loans made to commercial enterprises such as railroads are not risk-free and there is a risk of default. From commercial experience it is expected that a large loan program over many years would suffer some losses due to defaults. The Federal Credit Reform Act of 1990 (FCRA), 2 U.S.C. 661, treats default losses as a subsidy cost of a Federal loan program and requires Federal agencies to explicitly estimate and budget the subsidy cost of new credit assistance.² The subsidy cost is the estimated long-term default costs to the Government of the loan or loan guarantee. FCRA provides technical guidance for the calculation of the subsidy in

² Different terminology is used in referring to the "subsidy cost" concept. The FCRA refers to this as the loan's budget cost to the government. The OMB refers to it as a subsidy and provides a Credit Subsidy Calculator computer program to be used in its estimation. The RRIF program often refers to it as the CRP, although technically this is only the part of the subsidy paid by non-Federal sources (typically the applicant).

Sections 502 (5) (A) through (F), and designates responsibility to the Federal Office of Management and Budget (OMB) for coordinating the subsidy estimate in Section 503 (a). The RRIF authorizing legislation specifies that the subsidy cost of the program may be paid from non-Federal sources. Because no appropriations have been available to cover the subsidy cost of RRIF loans, a CRP is paid by a non-Federal source (usually the railroad) to offset the government's risk of lending and is the RRIF program's mechanism for conforming to the FCRA requirements. In effect, it adds a premium to the risk free Treasury rate to account for expected costs (losses) in a commercial loan environment where defaults are a possibility.

A.3 CRP Estimation Process

The CRP estimation is part of a broader RRIF loan evaluation process. RRIF staff and documents refer to the broad evaluation process as a "Framework." Within that Framework is a "Credit Risk Assessment Model" (CRAM) that is a computer program developed by Ernst and Young (E&Y) in 1999 for FRA to support the RRIF program. CRAM has three interrelated functions:

1. It functions as a database management system for storing and reporting applicant financial and operating data.
2. It is decision support system (tool) that assists in the assessment of the creditworthiness of the applicant for the loan.
3. It is a computational tool for estimating the CRP.

It is the third function, estimation of the CRP that is examined in this Appendix.

The following is a simplified summary of CRAM and the CRP estimation process divided into seven major steps:

- (1) Collect and verify company historical financial data
- (2) Use historical financial data in categorizing ("ranking") a company into a risk group, or use the rating assigned by one of the public rating agencies (e.g., Fitch, Moody's, or Standard and Poor's)
- (3) Assign historical default risk probabilities using the ranking category from Step 2
- (4) Specify the amount of collateral backing the loan
- (5) Estimate loan repayment schedule using treasury interest rate
- (6) Estimate expected default values, including an adjustment for government recovery from the collateral
- (7) Discount expected cash flows, including loan disbursement. An embedded OMB Credit Subsidy Calculator (CSC) for discounting cash flows is used in this step.

Note: Steps 3 and 6 values are time sequences, i.e., probabilities and default estimates over the term of the loan.

CRAM uses railroad and loan data from Steps 1, 4, and 5 to perform the calculations in Steps 2, 6, and 7. Issues related to data reliability are discussed elsewhere in this report. The validity of the methods, models, and calculations in Steps 2 (rating and ranking categorization) and 7 (discounting) are discussed in detail because the issues are more

complex and improvements may have significant impacts on the CRP estimate; comments and concerns about Steps 3 (assigning default probabilities) and 6 (estimating defaults) are given briefer explanation because the issues are straightforward, although the impact on the estimate of the CRP of possible improvements in these areas is unknown and could be sizable.

A.3.1 Discussion of Step 2: Assigning a Railroad Applicant into a RRIF Risk Ranking Category

The estimation of a CRP in RRIF is a process involving two sub-steps:

- (a) A credit (risk) rating is determined
- (b) The credit rating is converted into the RRIF ranking scale

The CRAM CRP estimation requires a risk rating which is assigned in Step 2. The debt of large public corporations typically have risk ratings assigned by one of the four nationally recognized statistical rating organizations (NRSRO),³ Dominion Bond Rating Service Ltd. (DBRS), Fitch Inc., Moody's Investors Service, Inc. (Moody's), or Standard and Poor's (S&P). The many smaller non-Class 1 railroads (short line railroads) that are expected to be the majority of applicants to the RRIF Program do not have such public ratings. RRIF has adopted S&P's 20 categories as a basis for its system.

If the railroad applicant has a rating (e.g., BBB) by a public rating agency, that rating would be used. Since most short line railroads using the RRIF program will not have a public rating, one must be assigned. For these cases, an ordered logit model, RRIF's Credit Rating Model (CRM), is used to assign one of the S&P 20 credit ratings to each applicant. This risk rating model is a key step in the determination of the CRP. The CRM model and its application are both areas in which improvements should be considered as is discussed below.

CRAM converts the applicant's risk rating to a RRIF ranking scale (1 to 10 is used) and then uses this ranking in Step 3 to assign default risk. The RRIF ranking assignment done in CRAM can either be accepted or modified by program staff.

A.3.1.1 Comments on the RRIF Credit Rating Model

The RRIF program's CRM is described in an Ernst & Young (E&Y) report dated April 1999⁴ and was estimated using S&P 1997 ratings and financial data for over 1000 corporations. The E&Y authors reviewed and made use of published technical studies with similar objectives of estimating risk and used a relatively sophisticated econometric modeling approach (ordered logit). Some key parts of the model logic and development are poorly documented so their appropriateness and validity cannot be fully evaluated.

³ This is a formal designation of the U.S. Securities and Exchange Commission (SEC).

⁴ Railroad Rehabilitation and Improvement Financing Program: Credit Risk Framework, Ernst & Young, LLP, April 1999.

The limited available documentation is the basis for the issues and concerns noted in this discussion.

The ordered logit rating model classifies railroads into one of S&P's 20 risk categories. The model has 10 financial behavioral (explanatory) variables. Each of the 20 rating categories is then arbitrarily assigned to one of 10 FRA ranking categories for the subsequent risk estimation.⁵ The report did not give reasons for collapsing the 20 S&P rating categories into the 10 FRA risk ranking categories (or why 10 was chosen instead of some other number), nor for the decision to model 20 categories instead of the newly created 10 FRA categories. While using only 10 ranking categories in the FRA risk model may be sensible, reviewers would be more comfortable in this decision if some quantitative results for alternative model structures were provided. In particular, it seems reasonable to have explored reducing the number of categories to 10 before estimating the rating model, especially since S&P describes these finer distinctions, e.g., the + and - factors, as very marginal in significance. Even though the model assigns companies to one of 20 rating categories, the report provides predictive accuracy information only after further collapsing the 10 FRA risk categories into three "super" groupings. It is notable that the model accuracy (57%) is lowest for the high-risk categories that are the most critical for decision making. The precision required for a 20-category model may explain this relatively poor performance, and model performance might be improved if it was estimated using the 10 RRIF ranking categories.

The use of 10 explanatory variables is another factor whose effect on model performance should be evaluated. While omitting relevant explanatory variables is a common model estimation problem (usually because of lack of data), variables that overlap (i.e., are correlated) can also lead to unreliable coefficient estimates.⁶ Among the 10 variables used in this model are four that have sales, revenues, or operating income in their numerators so there is a high likelihood of correlation among them. Since this is more of a statistical rather than a causal (behavioral) model, omitting a variable does not result in a model specification error. One consequence of multicollinearity among explanatory variables is that when the model is used for prediction, any change in the collinear relationship would bias the result.

The RRIF rating model uses only fixed historical financial inputs with the consequence that the effects of the (future) RRIF loan do not affect the rating results. Thus, a lower loan rate or revenue enhancements resulting from the loan-financed improvements do not automatically reduce the risk and hence the CRP estimate, even though they result in improved cash flows. Also, the benefits of cost efficiencies flowing from the RRIF project do not affect the rating and the CRP estimate. A justification should be given for continued use of pre-loan (historical) applicant financial data for estimating the risk

⁵ It is important to keep in mind the distinctions between "rating" and "ranking" and between RRIF's two models, the CRAM and the CRM. "Rating" is a financial term referring to risk for debt issues and issuers. For example, Standard and Poor's has 20 rating categories ranging from AAA to D. The RRIF CRM produces a "rating" for each loan applicant. "Ranking" is a RRIF program risk categorization on a scale of 1 to 10 that is initially assigned by RRIF's CRAM and is then subject to modification by RRIF staff.

⁶ In the extreme this can result in the wrong sign on a coefficient. The CRM documentation shows one variable, the Current Ratio, that appears to have a wrong (negative) sign.

rating, especially since it is almost certainly the case that the model was estimated from post-loan financial data.

Another concern with the E&Y modeling approach is that no mention was made about stratifying the sample by size of company. There is a size variable that serves to penalize smaller companies, but it is also possible that the relationships between a risk rating and some of the explanatory variables are fundamentally different for small versus large firms. For example, smaller firms often have more volatility in their financial performance measures and this might not be viewed as negatively as the same volatility in a larger firm. Given that the model was developed primarily for application to small firms, some consideration and discussion of such effects is warranted.

The E&Y report (p. 13) notes that since the CRM is based on 1997 data "... it may be necessary to update ..." the model periodically. The FRA is contracting for a model update as part of a larger effort that includes the development of a system for supporting loan processing and monitoring. As an initial part of this contract effort, the CRM's modeling approach and decision logic should be reviewed to determine whether improvements are warranted. This review should be based on more detailed information than is provided in documentation from the 1999 report and should be done by a team that has experience with the financial and econometric analysis methods being used. Also, in updating the model, the issues discussed in this review should be considered.

A3.2 Discussion of Step 3: Estimating Defaults

According to the E&Y report (p.5), CRAM default probabilities are simply the historical default experience of rated U.S. corporations for each RRIF ranking category. Neither the source data, computational methods, nor values used in the model are provided in the documentation. In judging the validity of this step it would be helpful to know the number of observations in a ranking category, the number of defaults, their timing, and how the average probabilities were computed. It is possible, for example, that one large default dominates a weighted average in a category, or that a category's observations are so few that a single default in an early year represents a sizable percentage resulting in an inappropriate impact on the estimate of the CRP for a ranking category. The method used to establish the default probabilities should reflect the characteristics of the source data and there is no indication as to whether this standard statistical practice was followed.

The E&Y report (p. 22) recommends that the entire CRAM be periodically validated and refreshed "... to reflect updated industry information and default data." As already noted, the FRA is contracting for this update. The Volpe Center team recommends that as part of this update the data, methods, and resulting default rates be documented and reviewed to ensure that appropriate default probability estimates are developed. This will also serve to enhance the credibility of RRIF CRP estimation process to applicants and other Federal staff who participate in the loan approval process.

Over the longer term, the FRA should also consider developing a financial database for the short line railroad industry as a basis for industry-specific default data that could be used in the RRIF program. Future CRAM default rates then could either be based exclusively on this data, or could be a blend of this information with the data currently being used for all public corporations.

A.3.3 Discussion of Step 5: Collateral Values

Since in many railroad cases the collateral backing a loan will not depreciate (i.e., land) or declines in value more slowly than the loan principal (e.g., track structures maintained in accordance with loan provisions), in the case of a future default the government's expected recovery increases. The more years that elapse, the greater the probability that all or most of the loan would be recovered because the collateral value will have increased relative to the remaining loan balance.⁷ Thus, the risk to the government would decline and this would lower the CRP. There is no indication in the documentation as to whether or how this effect has been treated.

Another issue in this area is that a lag time is entered in the model to account for the time between default and recovery. The User Guide notes that a value of zero is permitted, but no further explanation or guidance is provided. It is normal in loan contracts to permit the lender to also recover accrued interest in such situations and thus there would be no additional loss (subsidy) to the government to the extent that funds are available. Proper usage of this factor in the program and by users should be assessed to ensure that it effects the CRP estimate appropriately, including reasonable expectations given historical railroad bankruptcy experiences.

A.3.4 Discussion of Step 7: Choice of Interest Rates and Discounting

While the loan rate is based on current Treasury rate, the discount rate used in the CRP (subsidy) calculation is the rate structure specified for U.S. budget calculations for the fiscal year. Thus, different interest rates can be used for (a) computing a loan repayment and (b) the discounting to present values used in estimating the CRP. This can add or subtract from the CRP depending on the specific case encountered. This is illustrated using a simple case of a \$1000 loan that has no risk of default and is to be repaid with one payment one year from the loan disbursement date. The simple case (one year and no default risk) is a convenience for observing the effects of interest rate differences alone. If P_0 is the loan amount or principal, FV_1 is the payment (Future Value) which is the loan amount plus interest at the rate i , and the subscripts denote times, then equation (1) determines the payment amount:

$$(1) FV_1 = P_0 * (1 + i)$$

⁷ The RRIF program policy is to have 100% of the loan backed by collateral. In these cases the collateral will likely exceed the remaining loan balance over most of the term.

Given a discount rate r , the Present Value (PV) at time zero of any Future Value (FV) at time t is found using the equation (2):

$$(2) PV_0 = FV_t / (1 + r)^t$$

If the loan is repaid with a single payment one year later, the PV formula becomes:

$$(3) PV_0 = FV_1 / (1 + r)$$

The CRP is the difference between the loan amount and the present value of the payments:

$$(4) CRP = P_0 - PV_0$$

Substituting equations (1) and (3) into equation 4 shows the CRP is:

$$(5) CRP = P_0 - P_0 (1+i)/(1+r)$$

It is evident from equation (5) that if i and r are equal, the risk-free CRP is zero, i.e., the interest rate has no effect on the CRP; however, if i is less than r (because treasury rates have fallen since discount rates were set for the Federal budget fiscal year), the CRP is positive and if i is greater than r , the risk-free CRP becomes negative. In cases with a sizable default risk premium, the estimated CRP will likely be positive, but for an applicant with strong finances and high collateral, a perverse result would occur in periods with rapidly rising interest rates. The table below provides example values for the \$1000 loan and interest rates of 5% and 6%. It can be seen that a one percent difference in the interest rates results in about a 1% variation in the CRP.

Treasury Loan Rate I	Loan Payment	Discount Rate $r = 6\%$		Discount Rate $r = 5\%$	
		PV	CRP	PV	CRP
5%	\$1050.00	\$ 990.57	\$ 9.43	\$1000.00	\$ 0.00
6%	\$1060.00	\$1000.00	\$ 0.00	\$1009.52	\$ -9.52

PV = Present Value = Payment / (1 + r)

CRP = Credit Risk Premium = \$1000.00 - PV of payments

While one problem with the use of different interest rates is the potential for perverse results, it can also be argued that it is theoretically unsound. The Treasury rate does represent the alternative cost of alternative uses of the loan funds at the time of the loan, and the discount process is supposed to account for this opportunity cost. To explain this in another way, if the CRP were otherwise correctly estimated and the government invested it using current (not budget year) interest rates at the time of the loan, the expected value of the fund at the end of the loan term would be zero, i.e., the CRP fund would exactly subsidize the expected losses. Using the budget year interest rate for

discounting does not provide this unbiased estimate of the subsidy. The remedy to this problem for the RRIF program could either be to set the discount and loan rate for a budget year and advertise it as fixed, or to use the current Treasury rates at the time of the loan for both discounting and creating the repayment schedule. In preparing this report the Volpe Center team did not determine whether such changes could be made administratively or would require regulatory or statutory actions. A TIFIA document from year 2000 indicates that it uses the same (current) Treasury rate for both discounting and setting loan repayment terms and this is at least suggestive that an administrative action concurred with by OMB is a possibility for solving this problem.

A.4 Summary

There are several areas of the CRP estimation process where a consideration of improvements is warranted. The potential improvements that should be pursued or considered are: (1) re-estimating the RRIF Credit Rating Model, including exploration of alternative model structures and the use of more recent data; (2) making the rating sensitive to the RRIF post-loan financial data; (3) using the most current and relevant default probability information; (4) ensuring that loan collateral properly enters the calculation of the CRP; and (5) correcting anomalies caused by the use of different interest rates for loan repayment and discounting to calculate the subsidy and CRP. The credibility and acceptance of the RRIF CRP estimation process would also be enhanced with more comprehensive documentation.

Appendix B: TIFIA Program Description

The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) established a new federal credit program (referenced hereafter as the TIFIA program) under which the U.S. Department of Transportation (DOT) may provide three forms of credit assistance – secured (direct) loans, loan guarantees, and standby lines of credit – for surface transportation projects of national or regional significance. The program’s fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation’s surface transportation system. In all cases, the DOT uses a merit based system to award credit assistance to project sponsors, who may include state departments of transportation, transit operators, special authorities, local governments, and private entities.

Legislative Reference

The TIFIA statute appears as sections 1501 through 1504 of the Transportation Equity Act for the 21st Century (TEA 21, Public Law 105-178), as amended by the TEA 21 Restoration Act (Title IX of Public Law 105-206). The substance of the legislation is codified within sections 181 through 189 of title 23 of the U.S. Code (23 U.S.C. 181-189), with supporting regulations appearing in part 80 of title 49 of the Code of Federal Regulations (49 CFR 80). These documents may be referenced in Appendix C of the program guide.

Policy Considerations

The public policy underlying the TIFIA credit program asserts that the federal government can perform a constructive role in supplementing, but not supplanting, existing capital finance markets for large transportation infrastructure projects. Section 1502 of TEA 21 states that “...a federal credit program for projects of national significance can complement existing funding resources by filling market gaps, thereby leveraging substantial private co investment.”

Because the TIFIA program offers credit assistance, rather than grant funding, its potential users are infrastructure projects that are capable of generating their own revenue streams through user charges or other dedicated funding sources. Identifying a constructive role for federal credit assistance begins with the acknowledgement that, compared to private investors, the federal government’s naturally long-term investment horizon means that it can more readily absorb the relatively short-term risks of project financings. Absent typical capital market investor concerns regarding timing of payments and financial liquidity, the federal government can become the “patient investor” whose long-term view of asset returns enables the project’s non-federal financial partners to meet their investment goals, allowing the project’s sponsors to complete a favorable financing package.

Funding

The credit program established under TIFIA may provide up to \$2.6 billion in federal credit assistance in fiscal year 2003.

A total of \$530 million of Federal funding is provided to pay the "subsidy cost" of supporting Federal credit under TIFIA, that is, to cover estimated losses. Annual caps totaling \$10.6 billion limit the principal amount of credit instruments issued.

Annual Authorizations for TIFIA Credit Assistance (dollars in millions)

Fiscal Year	1999	2000	2001	2002	2003
Federal Funding	80	90	110	120	130
Maximum Principal Amount of Credit	1,600	1,800	2,200	2,400	2,600

Program Administration

Implementation of the TIFIA program is the responsibility of the Secretary of Transportation. A seven-member TIFIA Credit Council, representing the Budget, Policy, Counsel and Intermodal offices within the Office of the Secretary of Transportation (OST) and the Administrators of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA) and the Federal Railroad Administration (FRA), provides policy direction and makes recommendations to the Secretary regarding the selection of projects for credit assistance.

Staff support to the TIFIA Credit Council is provided by the TIFIA Joint Program Office (TIFIA JPO), which coordinates and manages the day-to-day responsibilities of implementing the program. Recognizing the crosscutting and multi-modal nature of the program, the TIFIA JPO frequently relies on the staff of the DOT’s operating agencies and secretarial offices to assist with TIFIA implementation.

Implementation Process

All TIFIA assistance will be awarded based on a project’s merits and its satisfaction of TIFIA statutory requirements. The implementation process includes the following steps:

1. Letter of Interest. Each potential applicant must first submit a detailed letter of interest describing the project and outlining the proposed plan of finance, including the requested credit assistance. The DOT will review this preliminary submission to determine whether the project meets the threshold requirements for TIFIA participation and will subsequently contact the project sponsor to review the project’s eligibility and readiness to apply for program assistance.
2. Application. A project sponsor may submit an application only after the DOT confirms the project’s basic eligibility and readiness. Upon receiving such notification from the DOT, the project sponsor may submit its application package with all required materials. The DOT will not review incomplete applications or applications for projects that do not satisfy TIFIA requirements.
3. Sponsor Presentation. Each project sponsor whose application passes an initial screening for completeness and compliance will be invited to make an oral presentation to the DOT on behalf of the project. The DOT will provide guidance regarding the structure and content of the presentation at the time of the invitation.

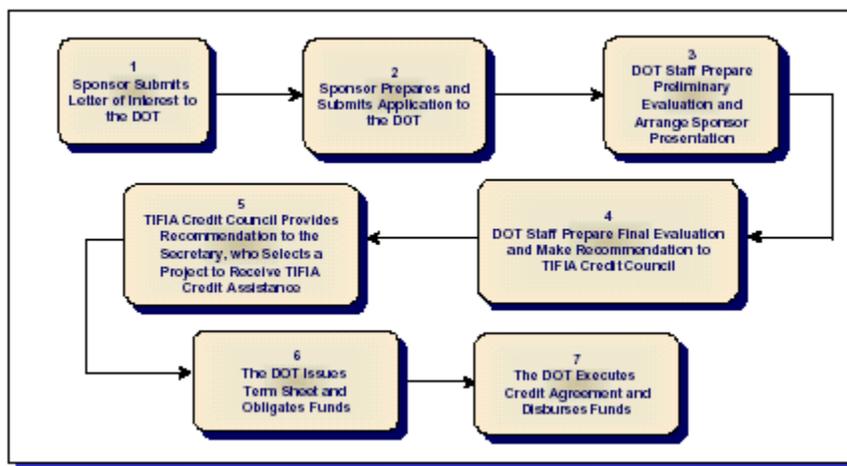
4. Project Evaluation. Based upon the written application, the oral presentation, and any supplemental submission of information, DOT staff will prepare a final evaluation and recommendation for the TIFIA Credit Council.

5. Project Selection. The TIFIA Credit Council, in turn, provides a recommendation to the Secretary of Transportation, who then makes the determination to select a project to receive TIFIA assistance. The DOT will not select a project that has yet to satisfy basic criteria such as obtaining environmental clearances.

6. Term Sheet Issuance and Funding Obligation. For each selected project, the DOT will issue a term sheet setting forth certain key business terms and conditions of TIFIA credit assistance. Execution of this document evidences the DOT's commitment, via obligation of budget authority, to fund the credit assistance.

7. Credit Agreement and Disbursements. The credit agreement is the definitive agreement between the DOT and the project sponsor, specifying all terms and conditions of the TIFIA credit assistance and authorizing disbursement of funds. Prior to execution of the credit agreement and subsequent funding disbursements, the project sponsor must satisfy all program requirements – including receipt of an investment grade rating on the project's senior debt obligations. For secured loans, the DOT will disburse funds, according to project needs, on a reimbursable basis for eligible project costs.

Exhibit 1-A: Selection and Funding of TIFIA Projects



Eligible Activities

Any type of project that is eligible for Federal assistance through existing surface transportation programs (highway projects and transit capital projects) is eligible for the TIFIA credit program. In addition, the following types of projects are eligible: international bridges and tunnels; inter-city passenger bus and rail facilities and vehicles (including Amtrak and magnetic levitation systems); and publicly owned intermodal

freight transfer facilities (except seaports or airports) on or adjacent to the National Highway System.

Each project must meet certain objectively measurable threshold criteria to qualify. It must cost at least \$100 million or 50% of the State's annual apportionment of Federal aid funds -- whichever is less. (For intelligent transportation system projects, the minimum cost is \$30 million.) The project also must be supported in whole or in part from user charges or other non-Federal dedicated funding sources and be included in the State's transportation plan.

Qualified projects meeting the initial threshold eligibility criteria are evaluated by the Secretary and selected based on the extent to which they generate economic benefits, leverage private capital, promote innovative technologies, and meet other program objectives. Each project must receive an investment grade rating on its senior debt obligations before Federal credit assistance will be provided.

TIFIA Web Site

Additional information, including the TIFIA program guide and application materials, can be obtained from the TIFIA web site at <http://tifa.fhwa.dot.gov>.

Appendix C: Example of Changes to the RRIF Program Regulation

Issue a Revised Rule Indicating That the Investigation Fee Will Be Collected and Removing the Third Party IFA Clause (Contingent Upon Legislative Change)

Collection of Investigation Fee

Use of the fee will give FRA RRIF staff more flexibility and control over the quality and standardization of application processing and evaluation. This would also expedite the process since FRA could assign an IFA immediately rather than go through a negotiation with the railroad as to which IFA is acceptable.

Current Language:

“§260.11 Investigation charge.

(a) Applicants for financial assistance under this part may be required to pay an investigation charge of up to one-half of one percent of the principal amount of the direct loan or portion of the loan to be guaranteed.

Suggested Language: Change first line to read, “Applicants for financial assistance under this part *are* required...”)

It is important to remember that the intent of the RRIF Program is to serve those railroads that are unable to afford large application fees, and therefore, there could be a cap on the total amount charged (e.g., a maximum fixed amount set to reflect average or typical FRA costs for contract support in evaluating loan applications or 1/2% of loan amount).

Remove Option to Hire 3rd Party Financial Evaluator

“§260.29 Third party consultants.

Applicants may utilize independent third-party consultants to prepare a financial evaluation of the proposed project and the applicant, if approved by FRA. Providing such an evaluation would greatly assist FRA in the evaluation of the application and would significantly reduce the time necessary for FRA to process the application. We encourage the use of third party consultants.”