

SUPPORTING JUSTIFICATION – Part A
Workforce Development (WFD) Survey
OMB No. 2130-0621

Summary of Submission

- This information collection request is an update to the previously approved survey conducted in 2018. The proposed qualitative study is intended to survey a select group of railroad industry personnel to gain insight into the current workforce development practices and challenges.
- The total number of burden hours requested for this submission is 88.75 hours.
- The total number of responses requested for this submission is 213.

1. Circumstances that make collection of the information necessary.

The Federal Railroad Administration (FRA) has statutory responsibility to ensure the safety of railroad operations as prescribed in the Federal Railroad Safety Act of 1970 (49 U.S.C. § 20103). In order to conduct safe railroad operations, the workforce must have the requisite skills to operate equipment and technologies. To that end, one of FRA’s strategic initiatives is to explore and share workforce development best practices that support the railroad industry in building and maintaining a workforce with the necessary skills and talent to conduct safe railroad operations.

Due to an increasingly dynamic and maturing workforce combined with changing skills requirements imposed by newly introduced technologies, there is an increasing risk in not having the necessary talent pools to fill critical railroad operational positions.

Since 2011, the Department of Transportation’s (DOT) Federal Railroad Administration (FRA) has routinely performed a comprehensive overview of the railroad industry workforce. The Railroad Industry Modal Profile was a response to the DOT National Transportation Workforce Development Initiative that required each DOT Operating Administration (OA), also referred to as modes, to produce an analysis of its industry workforce.

The most recent published update in April 2016, [Railroad Industry Modal Profile: An Outline of the Railroad Industry Workforce Trends, Challenges, and Opportunities](#), highlighted numerous workforce challenges including aging workforce, diversity, knowledge management and succession planning, work-life balance, recruitment, and the impact of evolving technology.

The prevailing workforce concerns during the early stages of the DOT National Transportation Workforce Development Initiative were the large number of retirement-eligible employees in transportation related fields and the national shortage of science, technology, engineering, and math (STEM) graduates. Since the railroad industry had done very little hiring in the late 1980s and throughout most of the 1990s, the retirement-

eligible population became quite large, even beyond that of most other industries and transportation modes (each of which were also grappling with similar retirement population concerns).

These workforce challenges persist and although industry has recognized the need to focus on recruitment and retention strategies, it continues to face risks in maintaining a viable workforce and building a pipeline of diverse talent. In order to take effective and efficient action to minimize these risks, FRA requires trustworthy information on current workforce development challenges, strategies, and outcomes. Initial data collected for the modal profile established a baseline understanding of the risks and status. However, in an effort to confirm and further develop the understanding of the risks, potential solutions, and best practices that have been implemented by railroad stakeholders, this survey is proposed. With this submission, FRA is requesting permission to gather the needed knowledge about the railroad industry workforce.

2. How, by whom, and for what purpose the information is to be used.

The Department of Transportation (DOT) Research and Innovative Technology Administration (RITA) launched the National Transportation Workforce Development Strategy Initiative in 2009 in partnership with representatives from each DOT OA. The intent of the partnership was to establish an analytical foundation outlining a collaborative cross-modal approach for identifying and addressing transportation workforce challenges on a national platform. The FRA identified a team to support the DOT initiative and develop a Railroad Industry Modal Profile.

From 2010 to 2011, the Federal Railroad Administration Workforce Development Team (FRA-WDT) conducted extensive research and dialogues with railroad industry stakeholders (e.g. Class I freight and passenger railroads, short line and regional railroads, labor unions, major associations, academia and other railroad experts) in order to develop the Railroad Industry Modal Profile, which was initially published in October 2011. The purpose of the first publication was to identify workforce issues facing the railroad industry at that time in addition to outlining viable solutions to address the issues.

The proposed survey is an effort to update the modal profile and establish a methodology for systematically collecting the data every two years. Primary users of the information will be personnel within FRA whose charge it is to identify and share workforce development practices to address the railroad industry's workforce talent needs and ensure safe operations. A second set of users will be the railroad industry in general. Both management and labor in the various industry sectors face similar challenges in finding and developing diverse talent pools, succession planning and knowledge management. The summarized data can assist industry stakeholders in identifying and potentially mitigating those challenges. Finally, the public, including academia and railroad associations, have an interest in understanding and analyzing the collective status of workforce development across the industry. As new technologies are introduced, public concerns about safety arise. This summary information can provide insights as to how the railroad industry is developing the necessary skills in their workforce and keeping pace with change.

The purpose of this data collection effort is to learn about workforce development practices and activities, attitudes about these activities, and concerns and recommendations to address workforce development challenges. FRA is conducting this survey as a *qualitative* rather than *quantitative* data collection effort. To that end, the qualitative data will be used to gain specific information regarding the status of workforce development programs and activities. FRA intends to collect this data every two years so the data points will reflect the current state of workforce development in the rail industry and help to identify trends.

The FRA desires to incrementally standardize and improve the data collection effort to provide more consistency and value to the modal profile. A survey instrument will allow for consistent and efficient data collection across years. Following the same methodology as previously used in the 2018 study, the FRA Office of Research, Development & Technology plans to issue the survey to industry stakeholders in the following segments.

Mode/Group
Passenger Railroads
Class 1 Freight Railroads
Labor Unions
Short Line and Regional Railroads
Academia
Railroad Industry Associations

3. Extent of automated information collection.

All data collected will be via a web-based survey. This method of administration is possible as most questions in the survey will be fixed choices with an option for additional written response.

Human resource and workforce development personnel within organizations from across the railroad industry and associated organizations comprise the sample population for this data collection effort. Contact information for this subset has been identified for each of the individuals within the survey population of interest. E-mail addresses (and introductions) will invite respondents to reply to the web-based survey form.

FRA intends to collect 100% of the survey data electronically. Understanding that some individuals may be more comfortable completing a paper version of the survey, the email invitation to participate will also include information regarding how to request and complete a paper survey.

Considering the limited survey population and their respective positions related to support of workforce related policies and issues, it is expected that all participants will be familiar with technology to facilitate the ease of survey data collection.

Historically, web-based surveys have a higher item non-response rate. To mitigate this risk, FRA has designed the web survey to require answers to all questions before moving to the next section of the survey. This will reduce non-responses due to carelessness or

unintentional error. Each survey question will have a “prefer not to answer” option for those questions in which the respondent chooses not to respond.

4. **Efforts to identify duplication.**

The survey team has been in communication with the leadership of FRA and knows for certain that there are no similar efforts undertaken within the Administration and the need to update the data is highly desired.

Additionally, relevant groups in academia and in transportation policy have shown interest in the existing Modal Profile data.

5. **Efforts to minimize the burden on small businesses.**

Respondents will be individuals in railroad industry organizations (e.g. labor unions, academia, railroad associations, and railroad workers). Individuals invited to respond to the survey will be identified through the industry research and the organizations’ management referrals to pinpoint the appropriate expertise. The 30-question survey can be completed in approximately 25 minutes so the burden to businesses should be negligible.

6. **Impact of less frequent collection of information.**

FRA has considered a less frequent data collection period from the proposed two-year survey cycle. Two years is considered optimal based on the rapid pace of change in the railroad industry and the importance of the data in providing research and information that can assist in shaping policy and priorities for the workforce development community in rail. Taking into account the time needed to develop and implement workforce strategies, updating the profile data every other year will provide the inputs necessary to identify areas for improvement while simultaneously providing the time necessary to measure effectiveness of ongoing strategies in meeting industry challenges. Should the surveys be conducted less frequently, shifting trends and new challenges to workforce development would not be identified as quickly, potentially compounding corrective actions to meet these challenges. Additionally, data reflecting progress with implemented programs will be outdated and limit the ability to assess data in context of when it was originally captured.

Taking appropriate and effective action to address workforce issues requires that timely data is captured in the survey. The data collection cycle proposed can potentially reveal safety-related indicators and trends that require action by railroad stakeholders. This data will assist the FRA and key stakeholders across the railroad industry to develop and adapt strategies in a timely manner to address workforce challenges and improve collaboration of best practices.

Currently the Modal Profile is the only known resource for the aggregated qualitative and quantitative data to provide the railroad industry information to respond to workforce development challenges. Trustworthy qualitative data collected over a period of years are needed to ascertain the status of the workforce and identify strategies to address problems

and to design effective solutions, as needed. Further, considering the time needed to design and implement programs, and budgeting and planning cycles, data collection every two years is appropriate.

7. Special circumstances.

The survey contains no special circumstances. Survey participation is entirely voluntary. Respondents will not be required to participate; if they do choose to engage in the survey effort, they will not be required to respond more than every two years. Further, participants will be given up to 60 days to complete the survey. In accordance with their participation, no confidential/proprietary information, outside documentation or records, or pledge of confidentiality will be requested in association with the survey.

Respondents will be invited to respond via an e-mail containing a hyperlink to an electronic form. FRA is asking for response by survey respondents within a few days of receipt of the information as e-mails tend to get lost and respondents may forget about the survey invitation. Reminder notices will be sent one week, two weeks, three weeks, one month, and 45 days after the initial invitation is sent. Respondents will be given the flexibility to respond at any time up to 60 days after the initial survey invitation is sent.

8. Compliance with 5 CFR 1320.8.

As required by the Paperwork Reduction Act of 1995, FRA published a 60-day notice in the Federal Register on 7/31/2020, soliciting comment on the proposed data collection; no comments were received. *See* 82 FR 15417. FRA published a 30-day notice in the Federal Register on 7/25/2017 and received comments from the Association of American Railroads (AAR). *See* 82 FR 34569.

Background

In 2007, FRA's Office of Policy and Program Development conducted a study entitled *An Examination of Employee Recruitment and Retention in the U.S. Railroad Industry* which identified the recruitment and retention challenges that the U.S. freight railroad industry faced, given the increase in the retirement-eligible population and growth in freight railroad transportation. After conducting structured interviews and focus groups with several industry stakeholders, it was determined that the lack of work-life balance was a primary challenge to recruitment efforts, due to demanding work schedules, the incremental pay rate system for particular craft positions, and the lack of an available pipeline to train and develop qualified talent. The study also determined that relocation, furloughs, misperceptions of job functions, and demanding work schedules made it difficult for the industry to retain talent.

In early 2009, FRA was requested to support the DOT National Transportation Workforce Development Strategy Initiative, led by DOT's Office of the Secretary of Transportation (OST). This initiative's goal was to develop an Analytical Foundation to outline the need for a national cross-modal approach to addressing transportation workforce development challenges. Each DOT OA was asked to support the development of the Analytical Foundation by developing a modal profile for its respective industry; this profile identified the current state of the industry from a workforce perspective and it

included challenges as well as potential solutions. In response to OST’s request, Ms. Monique Stewart was designated as the FRA Workforce Development Lead and the FRA-Workforce Development Team (WDT) was formed (see Figure 1). The FRA-WDT consists of representatives from the FRA Office of Research and Development, FRA Office of Railroad Safety, railroad academia, and a Subject Matter Expert (SME) in Human Capital Planning.

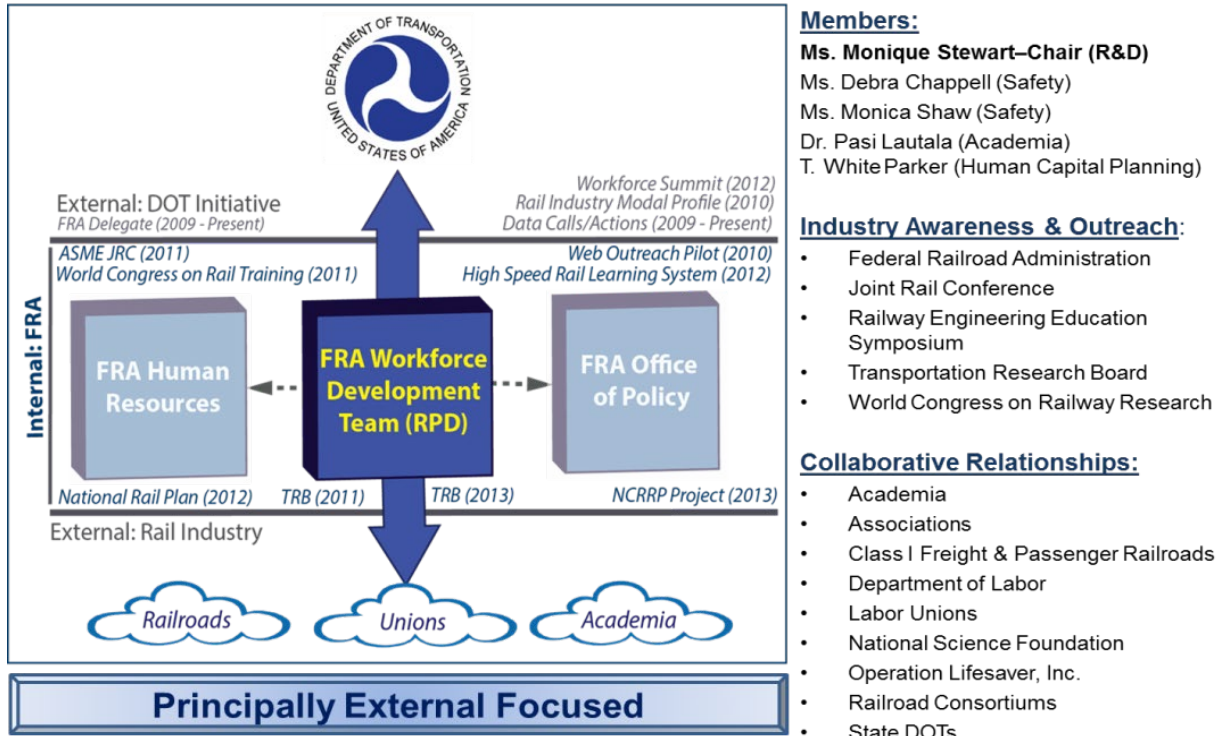


Figure 1: FRA-WDT Focus, Scope, and Accomplishments

The FRA-WDT focuses on external (non-FRA) industry perspectives and convenes regularly to discuss FRA industry related workforce development data calls and actions. Additionally, several projects have been initiated to expand the outreach function of the FRA-WDT, some of which are highlighted in Table 1. The FRA-WDT is continuously considering innovative projects that may improve the industry’s awareness of workforce issues, heighten the level of perception regarding the nuances of the rail industry workforce, or otherwise contribute to promoting the interest of the broader rail industry across the active labor force.

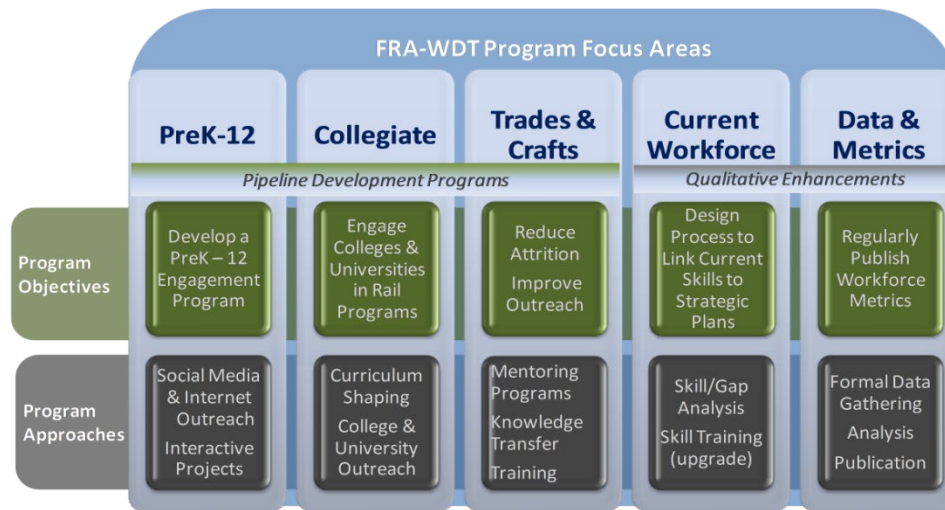
Table 1: FRA-WDT Program Activities Summary

Project Name	Project Description
Web-based PreK – 12 Outreach Portal	A prototype STEM-based outreach portal for elementary school-aged students and their teachers to learn about railroad technology, occupations, and community importance.
High Speed Rail Learning System (HSRLS)	A prototype online learning system to deliver high-speed rail and other rail related courses to the public in an effort to develop the skills needed to support and sustain the U.S. high-speed rail system.
Railway Engineering Education Symposium (REES) Scholarship	A collegiate sponsorship for faculty to participate in the annual REES where railroad engineering education is highlighted.

With the FRA-WDT established, efforts to develop the Railroad Industry Modal Profile commenced in 2010. Expanding upon the recruitment and retention study conducted by FRA three year’s prior, the FRA-WDT conducted focused discussions with several industry stakeholders representing academia, associations, Class I freight railroads, labor unions, and state Departments of Transportation, among others, to fully understand the railroad industry workforce. Each industry stakeholder participated in an informal dialog about the current state of the railroad industry and the railroad industry workforce, as well as their thoughts on the future of the railroad workforce. The information from the collected dialogs is presented in Table 2. Once the key challenges had been identified, the FRA-WDT defined the workforce development program’s areas of focus (depicted in Figure 2), which serves as the action framework for which industry workforce development efforts can be aligned. Elements can be added or removed from the conceptual action framework, as the nature of the railroad industry continues to evolve.

Table 2: Top Railroad Industry Challenges – 2011 Report

#	Workforce Challenge	Academia	Associations	Class I Railroads	FRA	Labor Unions	Short Lines & Regionals
1	Aging Workforce – Knowledge Transfer	■	■	■	■	■	■
2	Workforce Diversity (Women, Minorities, Other)			■	■		
3	Overall Image of the Industry	■	■	■	■	■	
4	National Training Standards for Freight Rail Trade and Craft Positions					■	
5	Work-Life Balance (Attrition in the 0-5 Year Population of Rail Employees)			■		■	
6	Quality of Data and Metrics Available to Monitor Rail Industry Workforce Trends	■	■		■		



Each workforce challenge was then aligned with one or more of the FRA-WDT program focus areas. This mapping allowed the team to maintain focus on each challenge while workforce activities and projects were executed. Table 3 shows how the program elements were aligned to the key challenges.

Table 3: FRA Workforce Development Program Element Mapping to 2011 Railroad Industry Challenges

#	Workforce Challenge	FRA Workforce Development Program Element
1	Aging Workforce – Knowledge Transfer	<i>Pipeline Programs:</i> PreK-12; Collegiate; Trade & Craft
2	Workforce Diversity (Women, Minorities, Other)	<i>Pipeline Programs:</i> PreK-12; Collegiate; Trade & Craft
3	Overall Image of the Industry	<i>Pipeline Programs:</i> PreK-12; Collegiate; Trade & Craft
4	National Training Standards for Freight Rail Trade and Craft Positions	<i>Qualitative Enhancements:</i> Current Workforce Development
5	Work-Life Balance (Attrition in the 0-5 Year Population of Rail Employees)	<i>Pipeline Programs:</i> PreK-12; Collegiate; Trade & Craft
6	Quality of Data and Metrics Available to Monitor Rail Industry Workforce Trends	<i>Qualitative Enhancements:</i> Data & Metrics

The FRA–WDT did not attempt to directly solve railroad workforce challenges; instead, the group encouraged industry-wide collaboration that: 1) fosters broader industry dialog and 2) brings cohesion to the efforts of individual organizations expended on workforce development.

The 2011 publication of the Railroad Industry Modal Profile was well received by the railroad community and the general public. In fact, the document was cited by the industry workforce related publications and initiatives shown in Table 4.

Table 4: 2011 Railroad Industry Modal Profile References in Industry

Date	Event/Organization	Publication/Initiative
March 2011	American Society of Mechanical Engineers (ASME) Joint Rail Conference (JRC)	“Railroad Industry Workforce Assessment – Next Steps: Working Together To Shape the Rail Workforce of the 21st Century” publication
April 2011	1 st World Congress on Rail Training	“Railroad Industry Workforce Assessment – Next Steps: Working Together to Shape the Rail Workforce of The 21st Century” publication
April 2012	National Transportation Workforce Summit	“Railroad Industry Workforce Assessment – Next Steps: Working Together to Shape the Rail Workforce of the 21st Century” publication
2013	Transportation Research Board (TRB)	National Cooperative Rail Research Program (NCRRP) Project 06-01: Building and Retaining Workforce Capacity for the Railroad Industry
2013	U. S. Department of Labor Employment and Training Administration	Transportation, Distribution, and Logistics Competency Model
2016	Transportation Research Board (TRB)	Railroad Industry Modal Profile: An Outline of the Railroad Industry Workforce Trends, Challenges, and Opportunities – Update

As a continuation of efforts, FRA–WDT is establishing an industry survey of workforce related issues that will be conducted every two years. The results of this survey and the collection of other industry data will be an update to the Modal Profile and serve as a basis for industry-wide collaboration regarding workforce activities.

9. Payments or gifts to respondents.

There are no monetary payments provided or gifts made to respondents associated with this proposed collection of information.

10. Assurance of confidentiality.

FRA fully complies with all laws pertaining to confidentiality, including the Privacy Act of 1974. Thus, information obtained or acquired by FRA in this survey will be used exclusively to compile data to describe the status and challenges of workforce issues among railroad employees throughout the United States.

To ensure confidentiality for respondents, no individual survey responses will be released and data will only be reported as group means or aggregate summaries. Participants will be advised before commencing the survey that the survey is anonymous. However, as FRA does not currently have a formal rule or official policy which provides an assurance of confidentiality, participants will be advised that FRA cannot assure confidentiality.

11. Justification for any questions of a sensitive nature.

This survey will not ask respondents questions regarding sexual behavior and attitudes, religious beliefs, or other matters that would be considered private or of a sensitive

nature. Participation in this proposed study by railroad industry employees is completely voluntary. The survey will ask respondents questions tapping into their experience and expertise related to workforce development practices and activities. Although these questions will only focus on workforce issues, each question has a “prefer not to answer” option, so respondents may opt out of answering any of the survey questions.

12. Estimate of burden hours for information collected.

The chart below provides a breakdown on the estimated burden for participants to respond to the survey.

Based on pre-testing, it will take approximately 25 minutes for a respondent to complete the survey. The increase in survey invitations from the original survey is based on the desire to cast a broader request for input, to include more potential respondents and improve the overall value of the data collected.

Table 5: Estimated Burden

Workforce Development Professionals	Respondent Universe	Total Annual Responses	Average Time (minutes) per Response	Total Annual Burden Hours	Total Annual Dollar Cost Equivalent
Passenger Railroads	35	12.00	25.00	5.00	\$204.95
Class 1 Freight Railroads	7	50.00	25.00	20.83	\$853.96
Short Line & Regional Railroads	752	125.00	25.00	52.08	\$2,134.90
Labor Unions (with specific focus on workforce membership and railroad programs)	15	7.00	25.00	2.92	\$119.55
Associations (with focus on railroad workforce membership and the rail industry)	20	10.00	25.00	4.17	\$170.79
Academia (Learning institutions with dedicated curriculum and training programs for railroad industry).	18	9.00	25.00	3.75	\$153.71
TOTAL	847.00	213.00	150.00	88.75	\$3,637.86

*The average hourly salary rate for a respondent is \$40.99, based on an estimated median annual salary of \$85,260, per [U.S. Bureau of Labor Statistics for a Management Analyst 13-1111](#). Estimated total cost to respondent: 88.75 hours x \$40.99 per hour = \$3,637.86.

13. Estimate of total annual costs to respondents.

Other than the hourly wage cost associated in question number 12 above, there will be no additional cost burden to respondents beyond any customary and usual expenses associated with private practices. Further, respondents will not be required to keep any records associated with this data collection effort.

14. Estimate of Cost to Federal Government.

Resources	Estimated Hours	\$/Hour	Total
FRA Supervisor	8	\$120	960
FRA Specialist	24	\$100	2,400
Contractor*	80	\$150	12,000
Total Cost/Survey			\$15,360

* Contractor to develop survey questions and on-line resource for hosting the survey leveraging a Survey Monkey account.

15. Explanation of program changes and adjustments.

This proposed survey is an enhanced update to previously collected information documented in various workforce development research products. Therefore, this is not considered a program change. The collection method, an electronic survey, is the same as was previously utilized in the 2018 workforce development survey.

The estimate number of respondents in each category were reviewed and updated, therefore, the total number of expected respondents and thus burden hours were adjusted, which resulted in a light increase. There are no program changes.

There is no additional cost to respondents.

16. Publication of results of data collection.

The survey data will be published in an update to the Modal Profile. The update is estimated for publication approximately 9-12 months after the completion of data collection.

Data collection will begin as soon as possible after the date of OMB approval, and continue every two years thereafter. Data collection will be completed within 120 days of commencement. Current plans call for analysis to be completed within two months of the end of data collection.

17. Approval for not displaying the expiration date for OMB approval.

Once OMB approval is received, the FRA will publish the approval number for these information collection requirements in the Federal Register.

18. Exception to certification statement.

No exceptions are taken at this time.