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Views of "No-Bid" Timber Sales from the National Forest System (NFS), Volume I

Ranking of Perceptions of Proximate Causes, Underlying Factors, and Proposed Solutions, Based on Closed-Ended Responses from a Survey of NFS Employees

Gregory E. Frey, Philadelphia Wilkens, and Sonia R. Bruck

AUTHORS

Gregory E. Frey is a Research Forester, U.S. Department of Agriculture, Forest Service, Southern Research Station, Forest Economics and Policy, Research Triangle Park, NC.

Philadelphia Wilkens was an Oak Ridge Institute for Science and Education (ORISE) Research Fellow, U.S. Department of Agriculture, Forest Service, Southern Research Station, Forest Economics and Policy, Research Triangle Park, NC. She currently is a Program Analyst, U.S. Endowment for Forestry and Communities, Greenville, SC.

Sonia R. Bruck is a Research Economist, U.S. Department of Agriculture, Southern Research Station, Forest Economics and Policy, Research Triangle Park, NC.

Cover photo: Timber sale, Chattahoochee National Forest. (USDA Forest Service photo by Lance Cheung)

ABSTRACT

When the National Forest System (NFS) of the U.S. Department of Agriculture's Forest Service offers a timber sale that receives no bids from prospective buyers, it can consume valuable resources, delay forest management activities, and cause the NFS to miss mandated targets. Previous work revealed that the drivers of no-bid sales have two distinct levels: proximate causes and underlying factors. To further explore these issues, researchers with the Forest Service Southern Research Station sent a survey to NFS personnel in February 2021 and requested that anyone involved in timber sales in any capacity respond. The survey received an estimated 38.3-percent response rate. Overall, the results suggest employees perceive that planning timelines and pressure, insufficient coordination and communication, market forces, low staffing levels, and lack of training and support work together to make no-bid sales more likely. The proposed solutions viewed as the most likely to lead to success were that Engineers could be more involved in early planning, colleagues could receive more training, and Line Officers could be more involved in communication with industry. There was variation in responses by NFS region and by position; for example, Regions 2, 3, 4, and 8 were more negative about market/appraisal and operational factors, while Regions 1 and 6 were more negative about policy and institutional factors.

Keywords: Appraisal, forest management, public land, timber sales.

PRODUCT DISCLAIMER

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Southern Research Station
200 W.T. Weaver Blvd.
Asheville, NC 28804
www.srs.fs.usda.gov

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CONTENTS

EXECUTIVE SUMMARY

When the National Forest System (NFS) of the U.S. Department of Agriculture's Forest Service offers a timber sale that receives no bids from prospective buyers, it can consume valuable resources, delay forest management activities, and cause the NFS to miss mandated targets. For these reasons, NFS management has sought to understand the causes of these "no-bid" timber sales and proposed solutions. We (the authors of this report) surveyed NFS personnel involved in timber sales to understand their overall perceptions regarding no-bid sales and how these perceptions vary by NFS region and agency position type.

Previous work revealed that the drivers of no-bid sales have two distinct levels: proximate causes and underlying factors (Frey and others, in press). Proximate causes are immediate, sale-specific reasons why a prospective bidder would choose not to bid on a particular sale; underlying factors are broader conditions that influence the proximate causes. We formulated the survey around these issues.

We sent the survey to NFS personnel in February 2021 and requested that anyone involved in timber sales in any capacity respond. We received 784 responses to the survey, for which we estimated a 38.3-percent response rate among positions most directly linked to timber sales. These NFS personnel have extensive experience (average of 8 years of experience among respondents to the survey) preparing and administering timber sales. This report provides appropriate summary statistics of findings based on their responses to the closed-ended questions of the survey, including their perceptions of various concepts related to no-bid sales.

Overall, the results suggest employees perceive that planning timelines and pressure, insufficient coordination and communication, market forces, low staffing levels, and lack of training and support work together to make no-bid sales more likely. These (and other) issues are all interrelated. Simply focusing on individual proximate causes or underlying factors without taking a holistic view is unlikely to fully resolve the issue of no-bid sales.

A high number of survey respondents agreed that they have good communication with their team and industry, they are involved where they need to be, staff are adequately involved in the sale process, and purchasers have the ability to do prescribed work. On the other hand, respondents agreed that there is insufficient staffing and that contract planning does not work within prescribed timelines. This, combined with interrelated underlying and other unobservable factors, may result in unacceptable levels of no-bid sales.

Survey respondents viewed traditional timber sales as more frequently having no bids than other contract types, although in Region 5, small business set-asides also were perceived to have no bids relatively frequently. Nationwide, the most frequent proximate causes of no-bid sales identified were construction/reconstruction, hauling, low volume per acre, and seasonal restrictions. In particular, high construction and reconstruction cost or complexity was an area of agreement among regions. Similar issues seemed to emerge among the NFS regions in the Central and Southwestern United States. For instance, hauling cost was a particular issue in Regions 2, 3, 4, and 5, as were small tree diameter and low overall volume per acre.

Among underlying factors of no-bid sales, respondents viewed sale location, pressure to meet targets, road packages, inadequate staffing, and planning timelines as the most problematic. Some NFS regions (2, 3, 4, and 8) were more positive about policy and institutional factors and negative about market/appraisal and operational factors, while others (1 and 6) were more negative about policy and institutional factors and positive about market/appraisal and operational factors.

The proposed solutions viewed as the most likely to lead to success were that Engineers could be more involved in early planning, colleagues could receive more training, and Line Officers could be more involved in communication with industry. Respondents in Regions 1 and 10 were less likely than the national average to believe timber sales would be more successful if industry were involved in planning, but respondents in Region 3 were more likely to think this would help.

A second volume of this report will explore the numerous open-ended responses to the survey. Future analyses of these data will include statistical comparisons of responses from different subgroups to better understand what influences their responses, as well as comparisons of perceptions of timber sales to agency data.

INTRODUCTION

Timber sales in the National Forest System (NFS) of the U.S. Department of Agriculture's Forest Service are a component of the overall land management strategy. Success of a timber program depends on active engagement and bidding by industry. However, in recent years, approximately 15 percent of timber volume offered for sale received no bids from prospective buyers (henceforth referred to as "no-bid" sales) (USDA Forest Service 2021). This can redirect valuable time, energy, and resources to the modification and re-advertisement of these timber sales. Further, no-bid sales delay potential forest management activity such as fuels reduction and cause the NFS to miss mandated targets for timber sales. For these reasons, NFS management has sought to understand the causes of no-bid sales and identify potential solutions.

The knowledge of NFS personnel is a valuable resource in this process. These employees have extensive experience preparing and administering timber sales and have seen firsthand what can go wrong and right. For this reason, we (the authors of this report) surveyed NFS personnel involved in timber sales to understand the overall perceptions of NFS employees regarding no-bid sales and how these perceptions vary by NFS region and agency position type. Identifying these perceptions can aid in the future formulation of potential solutions.

This first volume of the report includes data summaries of the responses. It presents quantitative rankings of proximate causes, underlying factors, and proposed solutions to unsold public timber offerings, based on employees' responses to Likert-scale questions. These rankings are then broken down by NFS region and agency position type.

BACKGROUND AND CONCEPTUAL FRAMEWORK

The scholarly literature contains many examples of research exploring factors that correlate statistically with either stumpage value or the likelihood of timber being unsold. Mostly, this research has focused on variables that affect the market desirability of a specific sale, such as:

- Timber volume and product class (Brown and others 2012, Carter and Newman 1998, Huang and Buongiorno 1986, Huebschmann and others 2004, Kueper and others 2014, Leefers and Potter-Witter 2006)
- Homogeneity of timber (Barr and Perez-Garcia 2006, Préget and Waelbroeck 2006)
- Contract length (Brown and others 2012, Kueper and others 2014, Leefers and Potter-Witter 2006)
- Location relative to mills or other forestry operations (Brown and others 2012, Huang and Buongiorno 1986, Klepacka and others 2017, Kueper and others 2014)
- Seasonal restrictions (Brown and others 2012, Kueper and others 2014)
- Road construction requirements (Kueper and others 2014)
- Bid guarantee/down payment (Kueper and others 2014)
- Environmental mitigation (Kueper and others 2014, Schuster and Niccolucci 1989)
- Salvage (Huang and Buongiorno 1986)
- Sale timing (Brown and others 2012, Leefers and Potter-Witter 2006)

In addition, a few studies explored broader conditions that influence success of timber sale offerings, such as:

- National and regional macroeconomic health (Schuster and Niccolucci 1991)
- Regional timber supply and demand (e.g., number of mills and other large forest landowners in the area) (Niccolucci 1989, Schuster and Niccolucci 1991)
- Manufacturing costs in the region (Klepacka and others 2017)
- Regulatory policies (Klepacka and others 2017, Schuster and Niccolucci 1989)
- Natural disasters (Carter and Newman 1998, Klepacka and others 2017)
- Seasonal variation (Carter and Newman 1998)

In a previous phase of this research project, Frey and others (in press) developed a conceptual framework for understanding the causes of no-bid sales based on interviews with key informants in the NFS and timber purchasing organizations. Thematic mapping of concepts and group of responses revealed two levels of factors driving sales that receive no bids: proximate causes and underlying factors (fig. 1). Proximate causes (numbers 1–4 in fig. 1) are generally specific to a sale and include high costs and low revenue associated with sales, along with timing and uncertainty. Underlying factors (numbers 5–8 in fig. 1) are conditions that may make the proximate causes more likely and include issues surrounding the institution, markets and appraisals, policy, and operational considerations (fig. 1) (Frey and others, in press). These factors may be modified and expanded upon in future work; however, they do largely correspond to the sale-specific and broader conditions found in the literature. Furthermore, through interviews, we identified a number of additional underlying factors that had not been previously identified in the literature, especially institutional and policy factors.

METHODS

Survey Development and Implementation

We developed the survey for a web-based platform using Microsoft Forms. Questions were based on the previous phase of research involving interviews with NFS and industry personnel (Frey and others, in press), which resulted in the development of a framework based on proximate causes and underlying factors of no-bid sales (see Background and Conceptual Framework). We drafted a question for each of the factors outlined in figure 1, along with questions related to position title, region, forest, district, and amount of time spent preparing or supporting the preparation of timber sales. The survey also included a list of proposed solutions to no-bid sales synthesized from repeated comments made by interviewees in the previous stage of research (Frey and others, in press) for survey respondents to rate in terms of their likelihood of success, as well as open-ended questions about what could make timber sales more successful and any other additional comments. (Responses to open-ended questions will be the topic of the second volume of this report; this volume reports only the closed-ended responses.) The majority of questions were optional, with the exception of position title and region.

Scientists at the Forest Service Southern Research Station (SRS) and employees in the NFS Washington Office (WO), Directorate of Forest Management, Range Management, and Vegetation Ecology involved in timber sale support reviewed

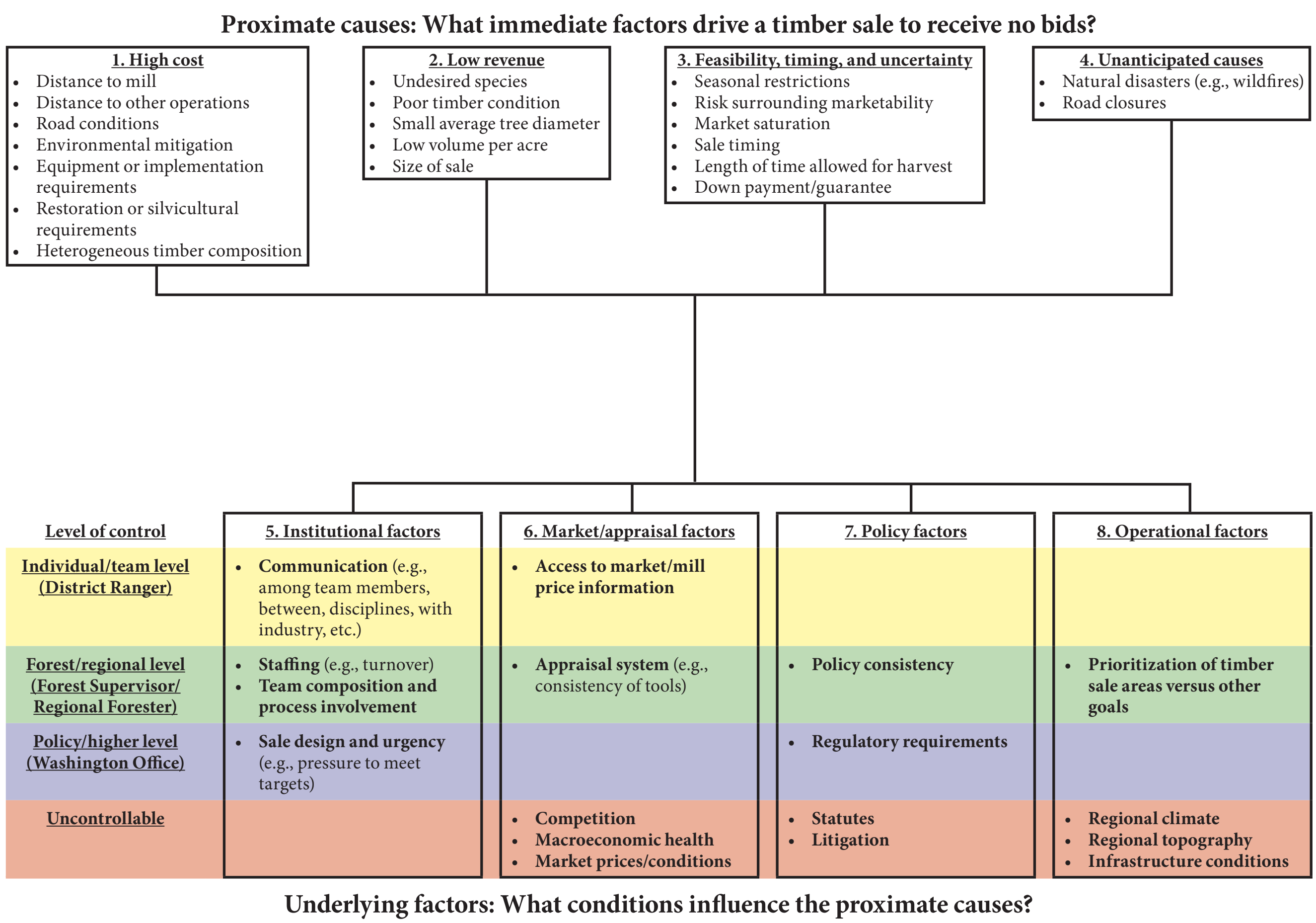

Figure 1—Framework for understanding the proximate causes and underlying factors affecting no-bid sales. This version was developed based on interviews of National Forest System employees and industry personnel, and may be refined in future work. Source: Frey and others, in press.

the questions before distribution to the survey pool. After this initial review, we invited four interviewees from the previous phase of research (Frey and others, in press)—all of whom were regional or forest-level employees who worked in timber sale preparation in some capacity—to pre-test the survey in an interview-style format. In this pre-testing phase, we gave each individual the survey beforehand to review and fill out (for timing purposes) and then performed the interview to process their thoughts about each question and the survey as a whole. They provided feedback on flow, question meaning, and clarity, and we welcomed them to provide additional questions they felt would be useful to the survey. After pre-testing, SRS and NFS WO employees again reviewed the survey for errors, comments, or edits.

After the survey was finalized, NFS WO employees followed Forest Service protocol to develop approvals for an official memorandum to be distributed to every Regional Forester in the NFS (app. A). The memorandum instructed them to send the anonymous online survey link to each employee in the Regional, Forest, and District Offices involved in timber sales in any capacity who were to fill out the survey within 30 days in February–March 2021. In addition, a national task force involved in updating and coordinating policies, methods, training, and practices related to generating forest ecosystem goods and services (known as the Forest Products Modernization effort) marketed the survey during weekly meetings and through their networks and listservs to reach the maximum number of employees possible.

The final survey questionnaire is presented in appendix B. The questionnaire was divided into seven sections:

I. Introduction

II. General questions (respondents' position and work location)

III. Timber sales (respondents' participation with timber sales)

IV. Types of no-bid timber sales (respondents' perceived frequency of no-bid sales by common sale contract type[1])

V. Direct (i.e., proximate) causes of no-bid timber sales (respondents' perceived frequency of specific causes playing a major role in a timber sale receiving no bids in their unit)

VI. Underlying causes (i.e., factors) of no-bid timber sales (respondents' level of agreement with various statements about conditions that might influence the direct causes)

VII. Proposed solutions/concluding questions (respondents' perceived likelihood of success of various proposals to improve timber sales)

Survey Analysis

Sections IV–VII of the questionnaire, which constitute the perceptions used in the data analysis, consisted of five-point Likert-scale questions. Likert scales are frequently used in surveys and ask respondents to rate their perceptions on a bipolar scale such as frequency (never/rarely to almost always/always), level of agreement (completely disagree to completely agree), or likelihood (very unlikely to very likely). Table 1 provides an overview of the main sections of the survey, including a list of principal Likert-scale survey questions along with a shortened version of each question used in this report for clarity.

Some of the questions in section VI (underlying factors) were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale), whereas other questions were worded positively, i.e., more likely to create a positive outcome. We preserved the original structure from the questionnaire in this report (table 1). Comparison of average scores between positively and negatively worded questions is not directly possible. To compare results of positively and negatively worded questions, we subtracted the average scores of negatively worded questions from the maximum of 4. The original agreement/disagreement responses are included in the data tables for reference.

Tree hauling in Kaibab National Forest. (USDA Forest Service photo by Lance Cheung)

[1] Timber contracts are awarded to the highest bidder of a timber sale. The Forest Service sells timber and other products through a variety of contract forms based on complexity and/or value of sale. No-bid sales typically are associated with a few relatively common types, which are described on page 10.

Table 1—Shortened wording (used in this report for brevity) and exact wording of each question and subquestion from sections IV–VII of the questionnaire (see app. B)

Shortened wording in this report	Exact wording from questionnaire
	Section IV. Types of No-Bid Timber Sales
	In this section, we want to understand what types of contracts generally receive "no-bids" on your unit. If you do not work with contracts, you are welcome to skip these questions.
	Question 18
Contract types	Please tell us how often each of these common contracts or agreements goes no-bid on your unit (if applicable).
Good Neighbor Authority	Good Neighbor Authority (GNA)
Small business set-asides	Small Business Set-Asides
Stewardship contracts/agreements	Stewardship Contracts/Agreements
Traditional timber sale contracts	Traditional Timber Sale Contracts
	Section V. Direct Causes of No-Bid Timber Sales
	In this section, we ask you about the Direct Causes. We would like for you to tell us the frequency a reason influences whether a timber sale receives a "no-bid" on your unit.
	Question 20
Direct (i.e., proximate) causes	Please tell us how often the following reasons play a major role in a timber sale receiving a "no-bid" on your unit. You are welcome to skip these questions if you feel you can't accurately answer them.
Construction/reconstruction	The specified construction and/or reconstruction work is too expensive, complex, or undesirable
Hauling cost	It's too costly to haul to the mill
Equipment/implementation method	The equipment or implementation method required for the sale makes it too costly or isn't readily available
Environmental mitigation	The environmental mitigation requirements (such as erosion control, site rehabilitation, etc.) are too expensive
Operational mitigation	Other operational mitigation requirements (such as slash treatment) make it too costly
Deposit collections	Forest Service deposit collections are too high
Low volume per acre	Low volume/acre yields make the sale too costly
Undesirable species	The species in the sale are undesirable/unmarketable
Small tree diameter	The average diameter of harvest trees is too small
Poor tree form/low wood quality	The harvest tree form is poor/the wood quality is low
Marketability risk	There is too much risk surrounding the marketability of the product
Seasonal restrictions	Seasonal restrictions in the sale make it infeasible or undesirable
Market saturation	The market is saturated with other sales or too many sales are put out at the same time
Volume/cruise risk	There is too much risk surrounding the volume yield/characterization of the cruise
Silvicultural prescription	Silvicultural prescription is too complex
	Section VI. Underlying Causes of No-Bid Timber Sales
Underlying causes (i.e., factors)	In addition to the immediate reasons a purchaser may choose not to bid, there are many reasons that drive the direct causes to occur more frequently. We have divided them into four categories: Institutional, Market/Appraisal, Policy, and Operational Factors. In the next section, we are going to provide a series of statements and we'd like to get your input on whether you agree or disagree based on your experiences with timber sales that you have on your unit.
	Question 22
Institutional factors	The following statements relate to the Institutional (Forest Service-specific) Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.
I am involved where I need to be	I feel that my position is involved in every part of the Timber Sale process (or Gate System) where it needs to be involved
There is adequate staffing	There is adequate staffing at the district/forest levels for me to concentrate on my job duties
There is adequate support	The Regional & Washington Offices provide adequate staffing/training materials to support me in my job duties
I have good communication with team	I have good communication with the team members I work with on timber sales
We have good communication with industry	Our team has good communication with industry regarding timber sales
Pressure from targets pushes sale forward[1]	The pressure of hitting a target or selling a sale often pushes sales forward

Shortened wording in this report	Exact wording from questionnaire
	Question 23
Market/appraisal factors	The following statements relate to the Market/Appraisal Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.
Can respond to market factors in appraisal	We can adequately respond to current market conditions in the appraisal of our timber sales
Confident in knowledge of market conditions	I feel confident in my knowledge of current market conditions in my appraisal zone
Access to prices and market conditions	I have access to mill prices and general market conditions to help me as I prepare my portion of the timber sale package
Product mix reflects industry wants	The product mix sold in our timber sales reflects what industry wants
	Question 24
Policy factors	The following statements relate to the Policy Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.
Planning works within timelines	The time required to complete the required planning portion (ex: NEPA) of our timber sales generally works for our timber sale timelines
Mitigation requirements are consistent	Mitigation requirements for timber sales are consistent across districts/forests
Litigation hinders timelines[1]	Litigation of projects often hinder[s] our timber sales timelines
Staff actively involved in process	Our timber staff is actively involved throughout the planning process
Smooth transition from planning to contracting	There is usually a smooth transition from the Planning/NEPA decision to the contract it gets put into
Complexity of contract[1]	The length of Forest Service timber sale contracts can deter purchasers
	Question 25
Operational factors	The following statements relate to the Operational Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.
Road packages more expensive than anticipated[1]	Road packages normally end up being more expensive than anticipated in our timber sales
Location impacts desirability[1]	The location of a timber sale can impact its desirability
Purchasers have the ability to do prescribed work	Purchasers generally have the ability to do specified work as we have prescribed it
	Section VII. Proposed Solutions/Concluding Questions
	Finally, in thinking about all of [the] reasons behind a timber sale receiving a "no-bid", we want to hear your opinion about a few proposed solutions. We also want to give you an opportunity to provide your own input on no-bids.
	Question 26
Proposed solutions	For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest.
Timber team more involved in early planning	Timber Sales on my unit would be more successful if the timber team was more involved in the Planning (ex: NEPA) process
Engineers more involved in early planning	Timber Sales on my unit would be more successful if engineers were more involved in the earlier stages of the planning process
More training (respondent)	Timber Sales on my unit would be more successful if I had more training on different aspects of timber sales
More training (colleagues)	Timber Sales on my unit would be more successful if my colleagues had more training on timber sales
Industry more involved in planning and preparation	Timber sales on my unit would be more successful if our industry were more involved in the planning and preparation process
Line officers more involved in industry communication	Timber Sales on my unit would be more successful if line officers were more involved with industry communication

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.)

Questions 18 and 20 used the following five-point scale, with points used for later scoring in parentheses:

- Never/rarely = 0–20% of the time (0)
- Sometimes = 20–40% of the time (1)
- About half the time = 40–60% of the time (2)
- Often = 60–80% of the time (3)
- Almost always/always = 80–100% of the time (4)
- I'm not sure/not applicable (excluded from analysis)

Questions 22–25 used the following five-point scale, with points used for later scoring in parentheses:

- Completely disagree (0)
- Somewhat disagree (1)
- Neither agree nor disagree (2)
- Somewhat agree (3)
- Completely agree (4)
- Not applicable (excluded from analysis)

Question 26 used the following five-point scale, with points used for later scoring in parentheses:

- Very unlikely (0)
- Somewhat unlikely (1)
- Neither likely nor unlikely (2)
- Somewhat likely (3)
- Very likely (4)
- I'm not sure (excluded from analysis)

We averaged response scores for each question nationally, by NFS region, and by position type to examine how responses may vary geographically and by profession.

To determine if there was any statistically significant difference in responses about proximate causes by region, we performed a chi-square ($\chi 2$) contingency table test. Region 10 was excluded from the $\chi 2$ analysis because of a low response rate. Statistically significant values of $\chi 2$ indicate high probability that at least one region has a different distribution of responses.

Numerous respondents did not use one of the prepopulated position categories but, rather, typed in a title for their job. Similar positions may have different titles depending on the region, or positions with similar titles may have different duties. All respondents are included in the national and regional results summaries. In the section on respondent characteristics, we grouped positions together to the extent possible, based on the typed responses. However, in comparisons of response by position, we consider only those respondents who used the prepopulated categories. This allows for greater certainty in categorization but may also introduce bias if those who did not use the prepopulated categories were systematically different from those who did. For "Line Officers," we grouped together District Rangers and Forest Supervisors.

Limitations

The results of closed-ended survey questions can help us understand certain issues. They provide a broad overview of the major issues and can help us understand differences in perceptions by geography and job. However, they are necessarily limited in the amount of depth and understanding they can provide about the intricacies of timber sale management.

In various sections, we summarize absolute differences between response scores for the purposes of visualization, but these do not imply any statistical significance. Since this survey is not designed as a test of specific hypotheses, we did not conduct statistical tests of the differences between scores among questions, or between regions or positions. Therefore, differences should be viewed as indicative, rather than conclusive.

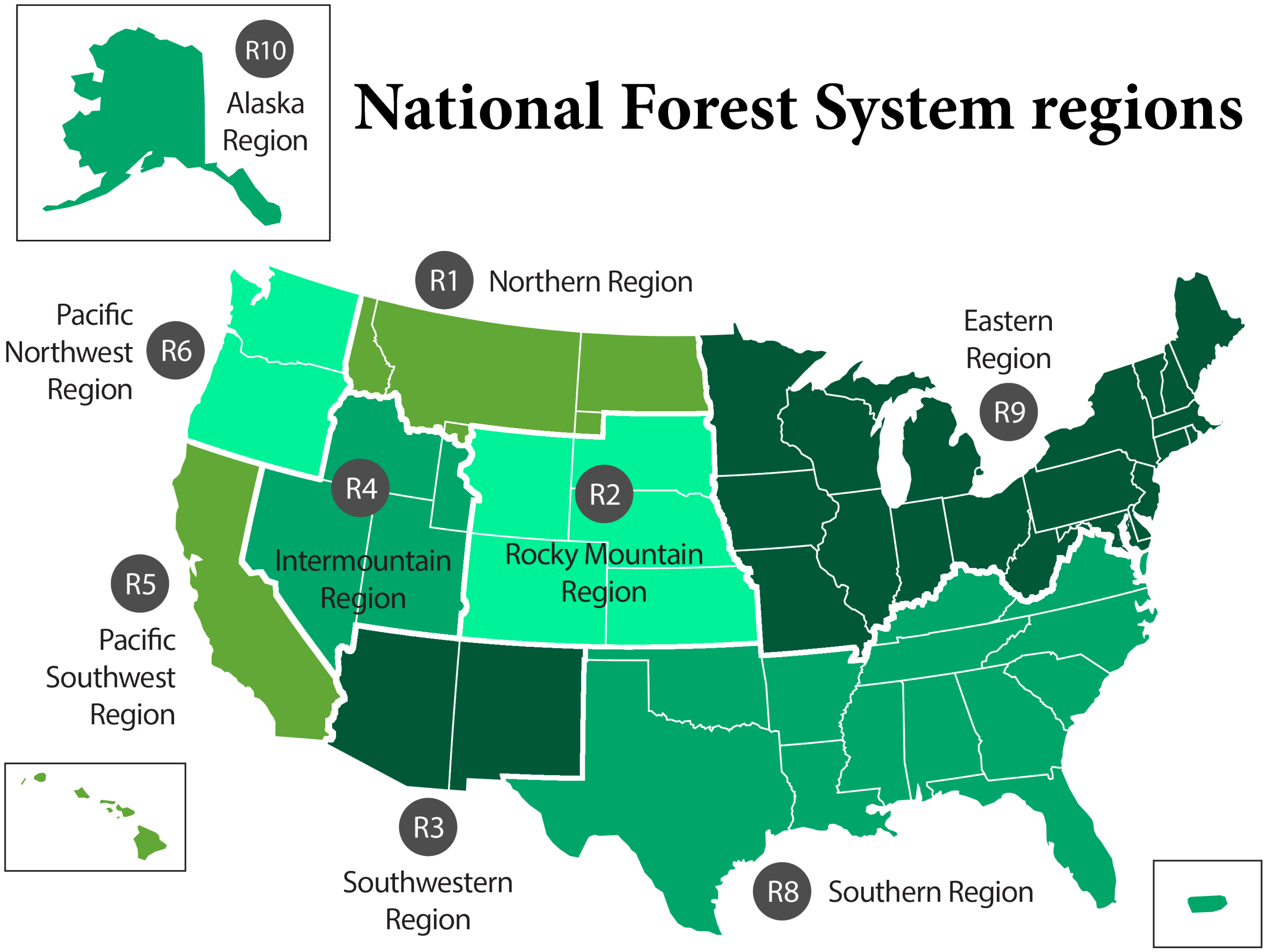

Figure 2—Map of National Forest System regions.

RESULTS

Respondent Characteristics and Estimated Response Rate

Overall, 784 NFS employees responded to the survey. All nine NFS regions (fig. 2) had some level of participation (fig. 3, app. C). Region 2 had the highest total participation (163 respondents), and Region 10 had the lowest total (7 respondents).

We obtained agency staffing-level data from early 2021 to compare against survey response rates and evaluate staff representation by region. We divided the number of total employees in each region by the total personnel in all NFS regions to obtain a percentage, and likewise with survey respondents (fig. 4). Regions 1, 2, 8, and 9 were relatively overrepresented among respondents. Regions 3, 4, 5, 6, and 10 were relatively underrepresented among respondents. A portion of these differences can be explained by regional differences in employment, organizational structure, and programmatic activity, since some regions have more active timber programs with relatively more employees working on timber sales, and other regions have other programmatic areas with relatively larger numbers of personnel (e.g., Region 5 may have a relatively larger percentage of employees dedicated to firefighting and fire management).

Respondents self-reported their percentage of time working on timber sales, number of years in their current position, and their position title. There were several prepopulated options for position title, but a relatively large number of respondents selected “other” and typed in their position title. On average, respondents reported spending 69 percent of their work time on timber sales and had been in their current position for 8.0 years. We grouped position titles into categories as shown in appendix D. Most respondents self-reported positions such as Timber Sale Administration, Timber Sales Preparation and Management, and Timber Marker (fig. 5). Other larger groups of employees included positions in Other Forest Management, Other Resource/Information Management, Contracts and Agreements, Engineers, and Line Officers (District Rangers and Forest Supervisors).

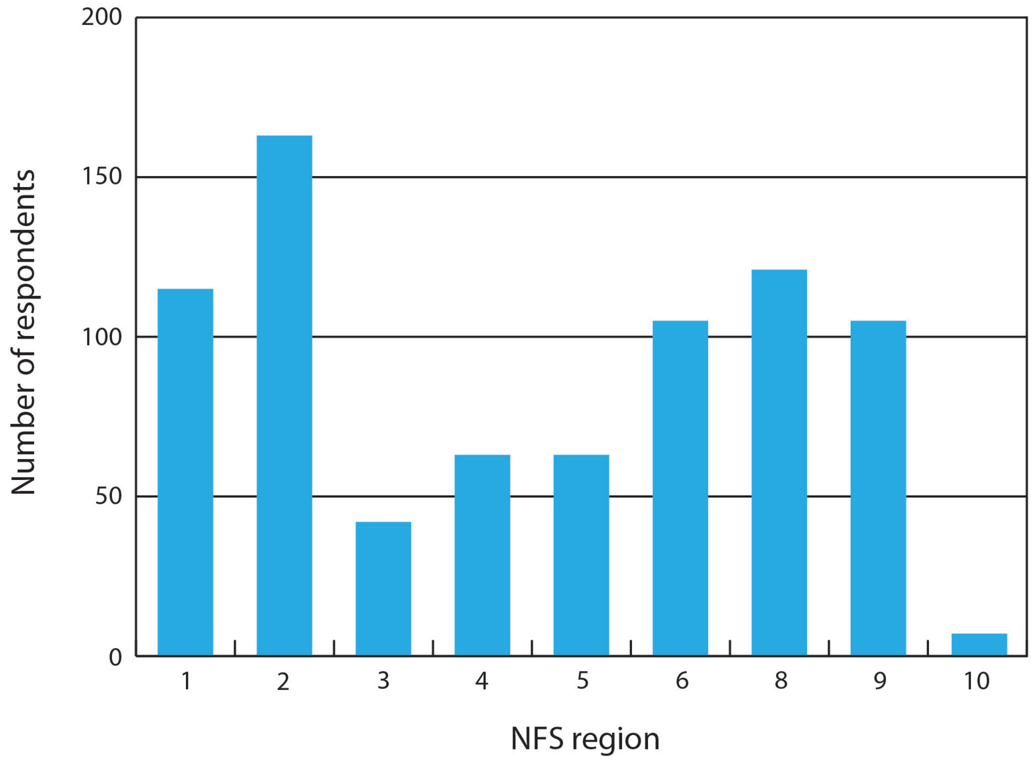

Figure 3—Number of survey respondents, by National Forest System (NFS) region.

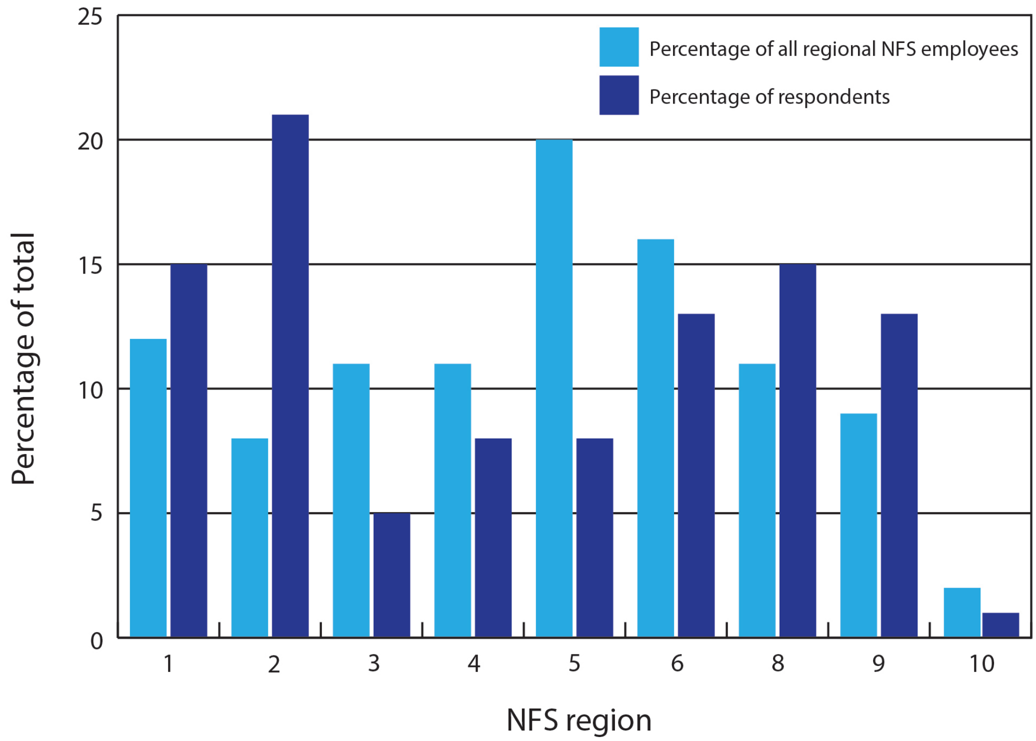

Figure 4—Comparison of percentages of all National Forest System (NFS) employees by NFS region and all survey respondents by NFS region.

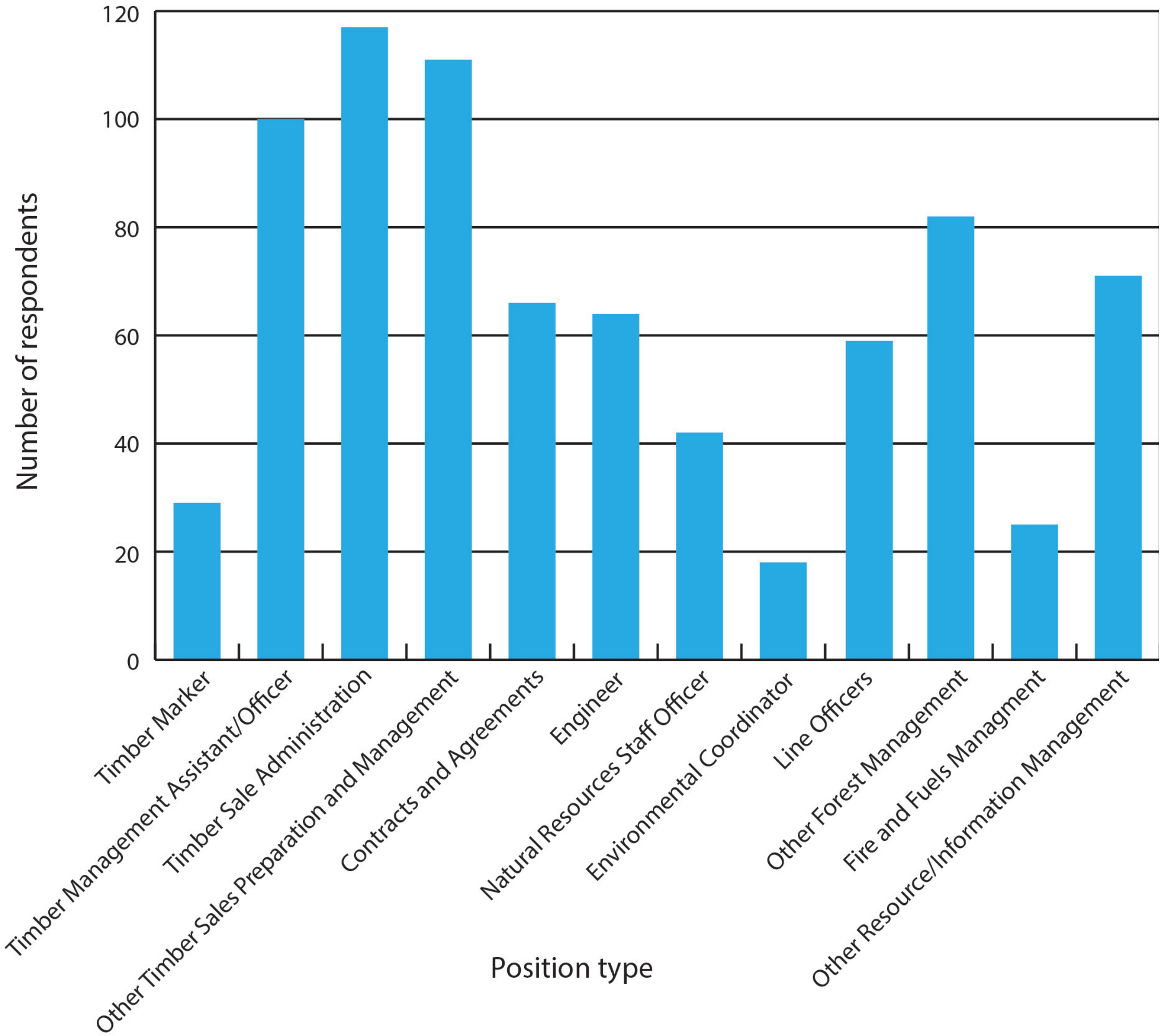

Figure 5—Number of survey respondents by position type (national level). Here, typed answers in the "other" category are grouped with similar responses (not done in Results by Position section or app. D).

We have no known population of potential respondents that can be used to calculate an exact response rate. Respondents were asked to self-determine whether they were "involved in or support timber sales **in any capacity**" (emphasis in original survey invitation memorandum) (app. A). Many position categories may touch on timber sales in various ways, depending on the region, forest, or district. Furthermore, position descriptions and titles themselves can vary around the NFS, and employees often prefer to think of themselves by various other titles that differ from their official designation. We do not know exactly how many individuals qualify based on the description above or how many received the survey. Therefore, we cannot calculate a precise response rate.

We believe the best possible estimate of response rate is based on the Timber Sales Preparation and Timber Sales Administration job categories. We assume that 100 percent of employees in these jobs consider themselves "involved in or support[ing] timber sales." Of our respondents, 357 self-reported their position as Timber Marker, Timber Management, Timber Sale Administration, or Other Timber Sales Preparation and Management (see app. D). Data from Forest Service Human Resources Management (HRM) suggest that 932 employees within the nine NFS regions had one of the following official position titles:

Table 2—Perceived frequency of no-bid sales by contract type, national averages

Contract type	Average score	Never/ rarely	Sometimes	About half the time	Often	Almost always/always	Not applicable	(Blank)
Good Neighbor Authority	**0.60**	29%	19%	3%	2%	1%	33%	13%
Small business set-asides	**0.89**	26%	20%	3%	4%	3%	30%	15%
Stewardship contracts/ agreements	**0.83**	34%	29%	4%	5%	2%	13%	12%
Traditional timber sale contracts	**1.15**	28%	39%	7%	9%	5%	3%	9%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See table 1 and appendix B.

Forester (Sale Administrator), Forestry Technician (Timber Sale Administrator), Forestry Technician (Timber Sale Preparation), Lead Forestry Technician (Timber Sale Preparation), Supervisory Forestry Technician (Timber Sale Preparation), or Timber Resource Specialist.[2] If these categorizations and assumptions are correct, it would imply a response rate of 38.3 percent among these types of positions.

Contract Type

The NFS uses various types of contracting, grants, and agreements to sell timber, but some were not appropriate for this analysis. Previous work identified four types that are frequently mentioned regarding no-bid sales:

1. Good Neighbor Authority (GNA) sales are contractual agreements with State and Tribal entities to sell national forest timber (16 U.S. Code § 2113a).
2. Small business set-aside sales are agreements where companies defined as small businesses are the first ones with the opportunity to bid on those sales (36 CFR § 223.103).
3. Stewardship contracts/agreements include both timber harvesting and environmental restoration. Integrated Resource Timber Contracts (FS-2400-13/13T) are utilized when the value of the timber exceeds the cost of the service work. Integrated Resource Service Contracts (SF-33/33T) are utilized when the cost of the service work exceeds the value of the timber (FSH 2409.18).
4. Traditional timber sale contracts (FS-2400-6/6T) are for sales of harvestable timber on national forests and involve a bidding process.

We asked NFS personnel to rate how frequently each type of contract receives no bids. Overall, traditional timber sales were considered most likely to receive no bids, with an average score of 1.15 (table 2). For reference, a score of 1 is equivalent to "sometimes," which is defined as 20–40 percent of the time. Other contract types were perceived to receive no bids with less frequency, with small business set-aside sales as the second most likely, followed by stewardship contracts/agreements, and GNA. Nearly a third of respondents indicated that small business set-aside and GNA contract types were "not applicable"; we speculate this means that they are unfamiliar with these types of contracts, or that they are not widely used to sell timber in their region, forest, or district.

Most contract types across national forests are traditional contracts (slightly over 50 percent nationally, based on data from the Forest Service Timber Information Management [TIM] system, 2007–2021), and more no bid sales are also traditional contracts. It is possible this skewed respondent's perceptions; however, the question asked them to interpret the relative frequency of no-bids. For reference, approximately 13 percent of traditional contracts received no bids nationally for 2017–2021 quarter 1 (Q1).

Proximate Causes

We asked NFS employees to rate the frequency with which various proximate (i.e., direct) causes play a major role in a timber sale receiving no bids in their unit. This was defined for the respondents as the specific reason why a timber purchaser would choose not to place a bid. Exact wording of each proximate cause is listed in table 1 (see also app. B).

On average nationwide, the causes that were perceived with the most frequency were construction and reconstruction (average score: 1.57), hauling cost (1.49), low volume per acre (1.33), and seasonal restrictions (1.20). The causes that were perceived with lowest frequency were silvicultural prescription (0.46), volume/cruise risk (0.53), deposit collections (0.66), and operational mitigation (0.67) (table 3).

[2] Official position titles appear in the Forest Service HRM database as Frstr (Sale Admr), Frstry Techncn (Timb Sale Adm), Frstry Techncn (Timb Sale Prep), Lead Frstry Techncn (Timb Sale Prep), Supvy Frstry Techncn (Timb Sale Prep), and Timb Resource Speclst, respectively.

Table 3—Perceived frequency of various potential proximate causes of no-bid sales, national averages

Proximate cause	Average score	Never/ rarely	Sometimes	About half the time	Often	Almost always/always	Not applicable	(Blank)
Construction/reconstruction	**1.57**	20%	29%	6%	13%	11%	10%	11%
Hauling cost	**1.49**	26%	26%	5%	13%	12%	8%	11%
Equipment/implementation method	**0.74**	43%	23%	4%	5%	3%	11%	12%
Environmental mitigation	**0.72**	44%	24%	3%	4%	3%	10%	12%
Operational mitigation	**0.67**	45%	22%	4%	4%	2%	11%	12%
Deposit collections	**0.66**	39%	19%	4%	4%	1%	19%	13%
Low volume per acre	**1.33**	26%	29%	8%	10%	8%	9%	11%
Undesirable species	**1.15**	30%	29%	8%	10%	5%	7%	12%
Small tree diameter	**1.06**	34%	25%	7%	9%	5%	9%	12%
Poor tree form/low wood quality	**0.96**	37%	23%	7%	8%	3%	10%	12%
Marketability risk	**1.10**	31%	22%	8%	8%	5%	13%	13%
Seasonal restrictions	**1.20**	29%	25%	11%	8%	6%	10%	12%
Market saturation	**0.97**	36%	22%	7%	6%	5%	12%	12%
Volume/cruise risk	**0.53**	46%	17%	3%	3%	2%	16%	13%
Silvicultural prescription	**0.46**	50%	18%	3%	2%	1%	12%	13%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a no-bid on your unit."). See table 1 and appendix B.

Underlying Factors

We asked NFS employees to rate their level of agreement with various underlying factors that create the conditions for proximate causes of no-bid sales to occur more frequently. We divided them into four categories: institutional, market/appraisal, policy, and operational factors (table 4). Most of the statements were worded positively, i.e., agreement would suggest a positive outcome or lower likelihood of no-bid sales. However, five of the statements were worded negatively, i.e., agreement would suggest a negative outcome or higher likelihood of no-bid sales. Table 4 shows the original wording and unadjusted scoring of the negatively worded statements. For comparison purposes, we inverted (i.e., subtracted from 4) the scoring of the negatively worded statements.

The factors with the highest level of positive agreement were: "I have good communication with team" (score: 3.37), "I am involved where I need to be" (3.13), "We have good communication with industry" (3.00), "Staff actively involved in process" (2.95), and "Purchasers have the ability to do prescribed work" (2.92). The factors with the lowest level of positive agreement were: "Location [does not impact] desirability" (0.67), "Pressure from targets [does not push] sale forward" (0.77), "Road packages [are not] more expensive than anticipated" (1.36), "There is adequate staffing" (1.61), and "Planning works within timelines" (1.64).

We do note that some of the factors identified here as "underlying" may be more in the grey area between proximate causes and underlying factors. Location of a timber sale could easily have been classified as a proximate cause of a no-bid sale, and as such may skew the level of agreement relative to other underlying factors.

Table 4—Level of agreement with statements about underlying factors of no-bid sales, national averages

Underlying factor	Average score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.13	4%	10%	6%	24%	49%	4%	4%
There is adequate staffing	1.61	27%	28%	7%	20%	12%	1%	4%
There is adequate support	2.11	10%	23%	20%	27%	13%	3%	4%
I have good communication with team	3.37	2%	5%	4%	28%	56%	1%	4%
We have good communication with industry	3.00	3%	8%	12%	32%	36%	5%	4%
Pressure from targets pushes sale forward[a]	0.77	3%	4%	12%	25%	50%	2%	4%
Market/appraisal factors								
Can respond to market factors in appraisal	2.01	9%	21%	19%	24%	8%	12%	7%
Confident in knowledge of market conditions	2.52	4%	11%	14%	29%	14%	21%	7%
Access to prices and market conditions	2.41	7%	10%	13%	18%	16%	29%	8%
Product mix reflects industry wants	2.22	4%	22%	18%	28%	9%	12%	7%
Policy factors								
Planning works within timelines	1.64	21%	27%	14%	24%	6%	3%	5%
Mitigation requirements are consistent	1.98	12%	24%	17%	31%	7%	4%	5%
Litigation hinders timelines[a]	2.14	22%	15%	17%	18%	15%	8%	5%
Staff actively involved in process	2.95	2%	14%	10%	30%	38%	2%	5%
Smooth transition from planning to contracting	2.37	6%	20%	15%	37%	14%	3%	6%
Complexity of contract[a]	2.24	13%	22%	25%	17%	6%	10%	7%
Operational factors								
Road packages more expensive than anticipated[a]	1.36	4%	10%	20%	29%	22%	8%	6%
Location impacts desirability[a]	0.67	2%	4%	7%	29%	51%	1%	5%
Purchasers have the ability to do prescribed work	2.92	2%	7%	13%	40%	26%	5%	7%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See table 1 and appendix B.

[a] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table 5—Perceived likelihood of success of various proposed solutions to no-bid sales, national averages

Proposed solution	Average score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	2.33	11%	12%	24%	25%	19%	6%	4%
Engineers more involved in early planning	2.64	7%	9%	18%	29%	26%	6%	4%
More training (respondent)	1.87	17%	17%	28%	21%	9%	4%	4%
More training (colleagues)	2.55	8%	9%	22%	34%	21%	3%	4%
Industry more involved in planning and preparation	2.25	12%	12%	23%	26%	16%	7%	4%
Line officers more involved in industry communication	2.49	9%	10%	20%	27%	22%	7%	5%

Responses received for survey question 26 ("Timber sales on my unit would be more successful if…."). See table 1 and appendix B.

Proposed Solutions

We asked NFS employees about potential actions that could be taken to reduce the number of no-bid sales. For each, employees indicated how likely it is that the proposed solution would lead to more successful timber sales on their forest.

Proposed solutions with the highest level of perceived likelihood of success were that Engineers could be more involved in early planning (2.64), colleagues could receive more training (2.55), and Line Officers could be more involved in communication with industry (2.49) (table 5). Interestingly, although more training for colleagues was relatively highly rated, more training for the respondent themself was not rated relatively as likely to be successful.

Results by Region

Appendix C presents detailed results in tables broken down by region for each of the topics described above. Here, we present a brief overview of some of the most salient regional results and variations from the national trends presented above.

No-bid sales and volume by region

For reference, we used data from the Forest Service TIM system to calculate the cumulative no-bid sales and volume by NFS region for the years 2017–2021 Q1 (fig. 6). No-bid sales in this calculation are defined as any that did not sell upon first offering. Many of these will subsequently be sold upon re-offer, or potentially "off the shelf" (i.e., not

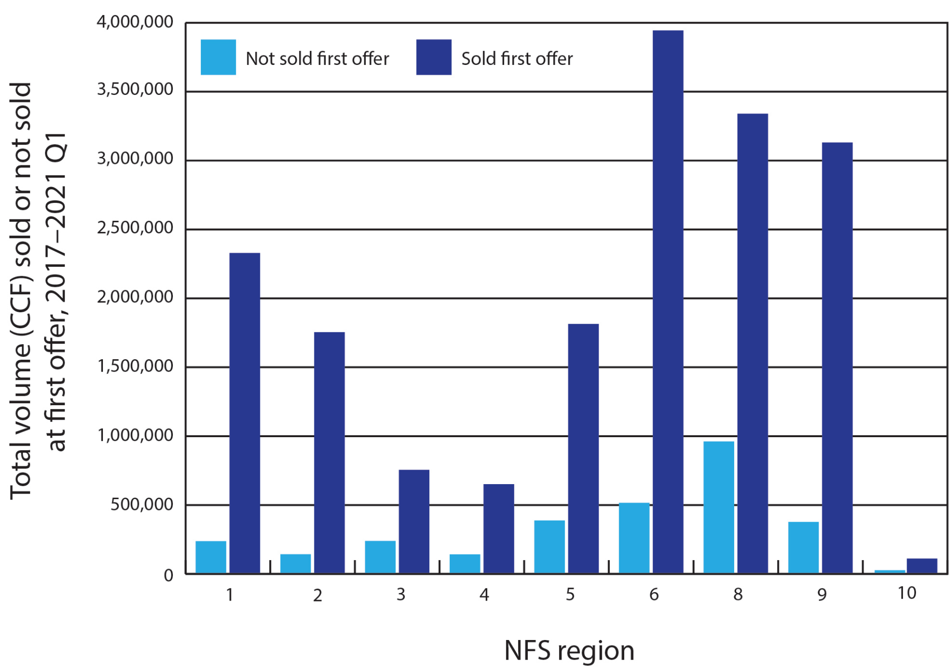

Figure 6—Total volume (hundred cubic feet [CCF]) of timber sold or not sold at first offer, 2017–2021 quarter 1 (Q1), by National Forest System (NFS) region. Data source: Timber Information Manager, USDA Forest Service.

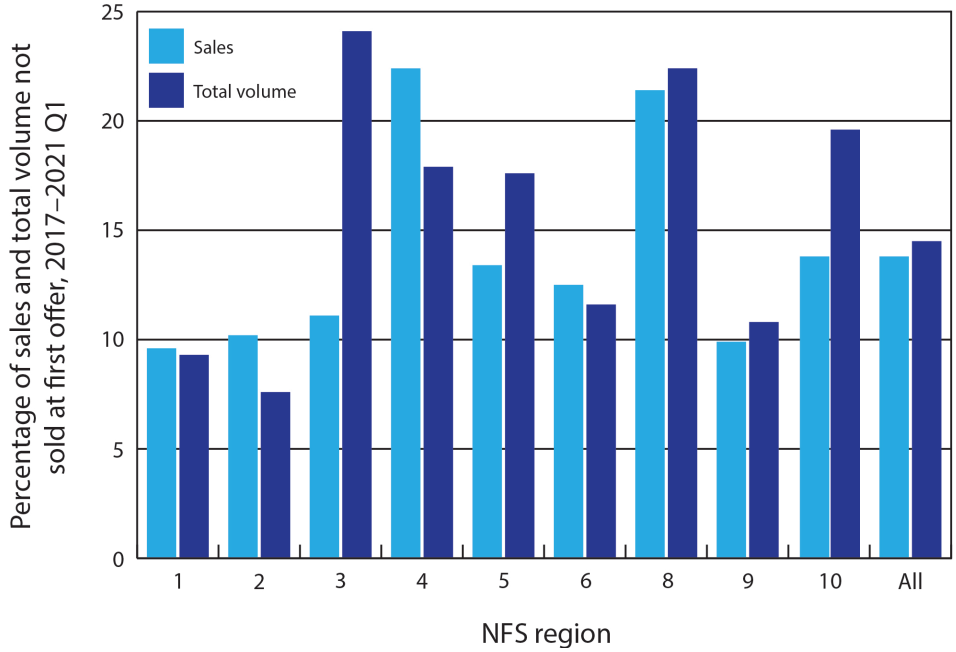

Figure 7—Percentage of timber sales and percentage of total volume not sold at first offer, 2017–2021Q1, by National Forest System (NFS) region. Data source: Timber Information Manager, USDA Forest Service.

re-advertised but left available for buyers upon request). Regions 6, 8, and 9 had the largest timber programs in terms of total volume sold. Regions 5, 6, 8, and 9 had the largest volume that received no bid on first offer.

It also can be instructive to understand the percentage of sales and volume that receive no bids (fig. 7). The national average was 13.8 percent of sales and 14.5 percent of volume that did not receive a bid at first offer. In terms of number of sales, the NFS regions with highest percentage of no-bid sales for 2017–2021 Q1 were Regions 4 and 8. In terms of total volume of timber, the regions with the highest percentage of no-bid volume for 2017–2021 Q1 were Regions 3, 8, and 10.

Contract type

In terms of contract type, many of the NFS regions mirrored the national averages in suggesting that traditional timber sales were most likely to have no bids, followed by stewardship and small business set-asides. Region 1, and to an extent Region 9, had less variation with none of the contract types rated as having particularly high likelihood of no-bid sales. Indeed, Region 1 had lower likelihood of no-bid sales than the national average for each contract type (though this was not the case for Region 9). Regions 6 and 8 rated almost all contract types as equally or more likely to have no bids than the national averages. Region 3 had the highest perceived likelihood of traditional sales having no bids, and also rated stewardship contracts as more likely to have no bids than the national average. Region 5 rated small business set-asides as being more likely to have no bids than any of the other contract types but GNA substantially less likely to receive no bids than the national average.

Proximate causes

We conducted a χ^2 test for responses related to perceptions of proximate causes of no-bid sales by NFS region (table 6), excluding Region 10 due to low response rate. Statistical analysis showed that responses for nearly all causes varied significantly by region. This is expected, since each region has unique geographic and market characteristics, but this finding confirms that responses are not simply random. The one proximate cause with no statistical difference among regions is high construction and reconstruction cost or complexity; this is also the most likely rated overall proximate cause of no-bids sales and a rare area of agreement among all regions.

Appendix C reports results of perceptions of proximate causes of no-bid sales by region. Differences between regional responses and the overall national average for each proximate cause are summarized in table 7. Among proximate causes of no-bid sales, several regions rated hauling cost as a particularly likely reason; this was true in Regions 2, 3, 4, and 5. Respondents from Region 3 also rated issues such as low volume, construction, and small tree diameter on average as happening about half the time or more (i.e., score >2, where 2 is equivalent to about half the time). Region 1 rated almost all of the proximate causes as less likely than their respective national averages. Conversely, Regions 3 and 4 rated almost all of the proximate causes as more likely than their respective national averages. Region 10 rated environmental mitigation as relatively more likely to be a cause of no-bid sales.

Table 6—Chi-square tests for regional differences in response distribution for section V of the questionnaire

Proximate cause	χ^2	p-value
Construction/reconstruction	26.21	0.560
Hauling cost	146.89	<0.001[a]
Equipment/implementation method	47.46	0.012[b]
Environmental mitigation	55.63	0.002[a]
Operational mitigation	50.45	0.005[a]
Deposit collections	56.87	<0.001[a]
Low volume per acre	79.04	<0.001[a]
Undesirable species	77.59	<0.001[a]
Small tree diameter	146.44	<0.001[a]
Poor tree form/low wood quality	75.45	<0.001[a]
Marketability risk	89.55	<0.001[a]
Seasonal restrictions	74.03	<0.001[a]
Market saturation	55.53	0.002[a]
Volume/cruise risk	46.42	0.016[b]
Silvicultural prescription	52.14	0.004[a]

Responses received for survey question 20 (“Please tell us how often the following reasons play a major role in a timber sale receiving a no-bid on your unit.”). Region 10 was excluded from statistical analysis due to low response rate. See table 1 and appendix B.

[a] p-value <0.01.

[b] p-value <0.05.

Underlying factors

Appendix C reports results of perceptions of underlying factors of no-bid sales by NFS region. Differences between regional responses and the overall national average for each underlying factor are summarized in table 8. Among underlying factors, an interesting pattern among categories (institutional, market/appraisal, policy, and operational) became apparent, after controlling for the categories that were negatively worded by inverting the scores as described above. First, variations from the national average by NFS region seemed to be relatively positively correlated by category, by region. That is, all the factors within a particular category for a particular region tended to deviate from the national average in the same direction. Furthermore, the institutional and policy categories seemed to be relatively linked, and the market/appraisal and operational categories seemed to be linked. For example, in Region 1, institutional and policy factors mostly tended to be more negative than the national average, whereas market/appraisal and operational factors tended to be more positive than the national average. Conversely, Regions 3 and 4, and to an extent Region 8, had market/appraisal and operational factors that mostly tended to be more negative than the national average, whereas

Table 7—Differences between average score by National Forest System (NFS) region and the national average score for perceptions of proximate causes of no-bid sales

	NFS region								
Proximate cause	1	2	3	4	5	6	8	9	10
Construction/reconstruction	-0.26	0.06	0.51	-0.02	0.00	0.21	-0.19	0.03	-0.82
Hauling cost	-0.72	0.55	1.38	0.75	0.27	-0.16	-0.43	-0.70	0.11
Equipment/implementation method	-0.17	0.00	-0.04	0.32	0.02	0.30	-0.09	-0.22	0.26
Environmental mitigation	-0.16	-0.06	-0.01	0.28	0.05	0.34	-0.03	-0.32	1.28
Operational mitigation	-0.06	0.04	0.50	0.21	0.14	0.17	-0.18	-0.33	-0.42
Deposit collections	0.01	-0.25	0.78	0.15	0.13	0.10	-0.05	-0.27	0.34
Low volume per acre	-0.63	0.32	0.86	0.40	0.23	0.08	-0.28	-0.33	0.42
Undesirable species	-0.59	0.35	0.32	0.41	-0.15	-0.26	-0.15	0.18	0.35
Small tree diameter	-0.66	0.53	1.00	0.48	0.05	-0.17	-0.11	-0.50	-0.56
Poor tree form/low wood quality	-0.47	0.49	0.37	0.43	-0.10	-0.42	-0.12	-0.05	0.04
Marketability risk	-0.65	-0.15	0.67	0.21	-0.05	-0.18	0.05	0.50	0.30
Seasonal restrictions	-0.44	-0.02	0.32	0.26	0.17	0.48	-0.49	0.14	-0.95
Market saturation	-0.49	0.01	0.47	0.08	0.41	-0.31	0.21	0.04	0.69
Volume/cruise risk	-0.32	0.00	0.35	0.04	-0.22	0.12	0.00	0.14	0.72
Silvicultural prescription	-0.15	0.00	0.36	0.17	-0.01	0.13	-0.02	-0.22	0.54

Larger numbers and darker colors indicate larger differences. Positive (green shading) numbers represent perception of proximate causes contributing to no-bid sales with higher frequency. Negative (red shading) numbers represent perception of proximate causes contributing to no-bid sales with lower frequency.

Table 8—Differences between average score by National Forest System (NFS) region and the national average score for perceptions of underlying factors of no-bid sales

Underlying factor	NFS region 1	2	3	4	5	6	8	9	10
Institutional factors									
I am involved where I need to be	-0.27	-0.15	0.09	0.00	0.06	0.00	0.13	0.29	0.21
There is adequate staffing	-0.40	0.15	0.12	0.11	-0.73	-0.26	-0.06	0.78	0.72
There is adequate support	-0.26	-0.05	0.04	-0.18	-0.07	0.08	0.15	0.23	0.29
I have good communication with team	-0.04	-0.09	0.10	-0.06	0.13	-0.04	0.06	0.10	-0.37
We have good communication with industry	0.19	0.05	-0.16	-0.24	0.19	0.10	-0.11	-0.14	-0.29
Pressure from targets pushes sale forward[a]	-0.28	-0.20	0.18	0.16	0.43	0.13	0.04	0.05	-0.63
Market/appraisal factors									
Can respond to market factors in appraisal	0.25	0.25	-0.55	-0.57	-0.23	-0.02	-0.01	0.22	-1.01
Confident in knowledge of market conditions	0.27	0.05	-0.14	-0.30	-0.11	-0.04	-0.05	0.14	-1.32
Access to prices and market conditions	0.71	-0.33	-0.37	-0.46	-0.07	0.41	0.01	-0.14	-1.21
Product mix reflects industry wants	0.38	-0.07	-0.50	-0.29	0.04	0.07	-0.14	0.13	0.07
Policy factors									
Planning works within timelines	-0.31	0.34	-0.26	0.09	-0.32	-0.16	-0.19	0.49	-0.79
Mitigation requirements are consistent	-0.27	-0.02	0.31	-0.31	0.07	-0.20	0.30	0.22	-0.14
Litigation hinders timelines[a]	-1.31	0.55	-0.30	-0.03	-0.24	0.14	0.16	0.80	-1.71
Staff actively involved in process	0.02	0.14	0.08	0.05	-0.14	-0.23	0.13	-0.05	-1.23
Smooth transition from planning to contracting	-0.03	0.03	-0.37	-0.08	-0.01	-0.06	0.11	0.22	-1.65
Complexity of contract[a]	0.28	0.00	0.05	-0.38	0.04	-0.12	-0.15	0.22	-0.24
Operational factors									
Road packages more expensive than anticipated[a]	0.18	0.10	-0.23	-0.05	0.22	-0.26	-0.24	0.21	-0.03
Location impacts desirability[a]	0.16	-0.06	-0.34	-0.25	-0.04	0.27	-0.03	0.05	-0.53
Purchasers have the ability to do prescribed work	0.22	-0.10	-0.15	-0.55	0.21	0.05	0.02	0.06	0.51

Larger numbers and darker colors indicate larger differences. Positive (green shading) numbers represent greater agreement with positive sentiment. Negative (red shading) numbers represent greater disagreement with positive sentiment.

[a] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) Here, for comparison of questions, we subtracted the average scores of negatively worded questions from the maximum of 4 and flipped the agreement/disagreement responses.

institutional and policy factors tended to be mixed relative to the national average. Other than these linkages, Region 2 had responses about policy that were more positive than the national average, and Region 9 was generally more positive than national average across categories.

Among specific factors, a few strong differences by NFS region stood out. Interestingly, litigation (in this case, a “negative” perception) was perceived as a major challenge in Regions 1 and 10, but respondents in other NFS regions were substantially less likely to perceive it as an issue. Additionally, in Region 1, respondents also agreed more than the national average that they had access to price data. In Regions 1, 5, and 6, respondents were less likely to agree that there was adequate staffing. In Region 9, respondents were more likely to agree that staffing was adequate and less likely to agree that litigation was a concern.

Proposed solutions

Appendix C reports results of perceptions of the likelihood of success of various proposed solutions to no-bid sales by NFS region. Among proposed solutions to no-bid sales, respondents in Regions 1 and 10 were less likely than the national average to believe timber sales would be more successful if industry were involved in planning, but respondents in Region 3 were more likely to think this would help. Region 4 was more likely than the national average to think that line officer communication with industry would help.

Results by Position

Appendix D presents detailed results in tables broken down by position for each of the topics described above. Here, we briefly discuss some of the most interesting variations by position. These analyses include only those survey respondents who used one of the prepopulated categories of position titles (unlike fig. 5, which attempts to categorize respondents who selected the “other” option and typed in their position title).

Considering contract types, Line Officers generally perceived that all contract types had no bids more frequently than national averages, whereas Natural Resources Staff Officers and Pre-Sale Foresters considered all contract types to receive no bids less frequently than the average respondent. Timber Markers were less concerned about small business set-aside sales than average. Contracting Officers and Natural Resources Staff Officers were less concerned about no-bid outcomes from traditional sales than average, whereas National Environmental Policy Act (NEPA)/ Environmental Coordinators and Line Officers were more concerned than average.

With regard to proximate causes of no-bid sales, NEPA/ Environmental Coordinators and Engineers generally perceived almost all the issues as more frequently to occur than the average respondent, whereas Timber Management Assistants/Timber Management Officers, Pre-Sale Foresters, Contracting Officers, and Natural Resources Staff Officers generally perceived all the issues as less frequently to occur than average. Timber Markers viewed equipment/ implementation method and volume-per-acre issues as more frequent and small tree diameter, marketability risk, and volume/cruise risk as less frequent than the average respondent. Although NEPA/Environmental Coordinators perceived almost all the issues to some degree as more frequent than the average respondent, a few perceptions were particularly strong relative to the average respondent: volume/ cruise risk, silvicultural prescription, poor tree form/low wood quality, and environmental mitigation. Silviculturists were more likely than the national average to agree with all statements about proximate causes of no-bid sales with one exception: “Silvicultural prescription is too complex.”

A few positions viewed groups of underlying factors of no-bid sales differently than the average respondent. Contracting Officers had overall more positive views of institutional, market/appraisal, and operational factors but more negative views on policy factors than the average respondent. Engineers overall had more positive views of operational factors but more negative views on institutional and market/appraisal than the average respondent. Line Officers had more positive views on institutional and policy factors but more negative views on market/appraisal factors than average.

Timber harvest in Kaibab National Forest. (USDA Forest Service photo by Lance Cheung)

Overall, it can be difficult to navigate trends associated with position type and timber sales, since many of these positions only work on a singular aspect of the sale itself. Therefore, perception can be a valuable tool to understand how different positions view no-bid sales, but it must also be accompanied with the understanding that positions within timber sale teams can be siloed.

CONCLUSIONS

A survey of NFS personnel in early 2021 explored perceptions of why some timber sale offerings from national forests receive no bids. These views capture a small portion of the cumulative wisdom of staff in the NFS who work closely with timber sales. This first volume of the report documents and summarizes closed-ended, categorical responses from the questionnaire. The summary includes responses about how frequently various contract types receive no bids, how frequently various proximate causes lead to no-bid sales, level of agreement with statements about underlying factors in no-bid sales, and likelihood of proposed solutions leading to successful timber sales.

Overall, the results suggest that employees perceive that planning timelines and pressure, insufficient coordination and communication, market forces, low staffing levels, and lack of training and support work together to make no-bid sales more likely. These (and other) issues are all interrelated. Simply focusing on individual proximate causes or underlying factors without taking a holistic view is unlikely to fully resolve the no-bid issue.

Traditional timber sales are viewed as more frequently having no bids than other contract types, although in Region 5, small business set-asides also were perceived to have no bids relatively frequently. Nationwide, the most frequent proximate causes of no-bid sales identified were construction/reconstruction, hauling, low volume per acre, and seasonal restrictions. In particular, high construction and reconstruction cost or complexity was an area of agreement among regions. Similar issues seemed to emerge among the NFS regions in the Central and Southwestern United States. For instance, hauling cost was a particular issue in Regions 2, 3, 4, and 5, as were small tree diameter and overall volume per acre.

Respondents viewed sale location, pressure to meet targets, road packages, inadequate staffing, and planning timelines as the most problematic underlying factors influencing the proximate causes of no-bid sales. Some NFS regions (2, 3, 4, and 8) were more positive about policy and institutional factors and negative about market/appraisal and operational factors, while others (1 and 6) were more negative about policy and institutional factors and positive about market/appraisal and operational factors.

The proposed solutions that were viewed as the most likely to lead to success were that Engineers could be more involved in early planning, colleagues could receive more training, and Line Officers could be more involved in communication with industry. Respondents in Regions 1 and 10 were less likely than the national average to believe timber sales would be more successful if industry were involved in planning, but respondents in Region 3 were more likely to think this would help.

Training and communication as suggestions for improvement are particularly interesting, given the results. In particular, we note that more training for other team members was much more highly rated as a potential solution to no-bid sales than was training for the individual respondent. Combined with the low levels of agreement that units have adequate staffing and support, the results related to training potentially could evoke a workforce that feels burned out without enough time or energy to go through training themselves individually (but willing to suggest it for others). Beyond that, assuming all position types are equally likely to have participated in the survey, this result is a major disconnect and potentially suggests gaps in communication and understanding of roles. Furthermore, breakdowns of results by position suggest that particular position types see underlying factors of no-bid sales related to their jobs as less problematic than factors related to others' jobs. For example, Engineers rated operational factors as less likely to be an issue but institutional and market/appraisal factors as more likely to be an issue; Line Officers had more positive views on institutional and policy factors but more negative views on market/appraisal factors. Respondents stated they had good communication within teams. Yet, results indicate that some individuals perceived themselves to be disconnected, or siloed, in parts of the agency.

The framework identified and validated through Frey and others (in press) and this research suggests that only addressing individual proximate causes of no-bid sales may help individual sales move forward; however, without considering underlying factors, that strategy would be unlikely to substantially mitigate the overall challenge of no-bid sales and may create other management challenges. For example, selling the highest value timber in a forest may result in those particular sales receiving bids but jeopardize ecological restoration and mitigation work. Beyond the limits inherent in addressing proximate causes of no-bid sales, addressing one underlying issue in isolation may create other challenges. For example, streamlining certain process steps or analyses without looking at broader institutional, policy, and other factors, may create issues in other areas.

The apparent limits to the effectiveness of addressing proximate causes or individual underlying factors of no-bid sales in isolation also point to a potential third, deeper level of factors within the agency that may affect no-bid sales but which were not directly captured in the survey. Such factors include agency history, culture, geography, and existing relationships with external actors, as well interrelationship and context within the broader U.S. economy and society. Production of timber is perhaps the forest activity with the longest history in the agency, and today's organization, structure, focus, and attitudes are influenced by the past. These unobserved characteristics, while unmeasured in our study, could be considered when addressing factors to enhance changes at each "level of control."

A second volume of this report will explore the numerous open-ended responses to the survey, which we expect may enhance qualitative understanding of no-bid timber sales and supply specific examples from respondents. These open-ended responses may speak in more detail to the "third-level" factors suggested but not fully identified here. They may also illuminate in more detail certain proposed solutions to no-bid sales, which were only quantified in rough terms (e.g., type of training, examples of early planning and communication). A preliminary review suggests a high degree of engagement and participation in open-ended questions (perhaps about 40 percent of survey respondents answered each open-ended opportunity). Additional research will explore the degree to which respondents' perceptions align or do not align with geographic and market variability, and to what extent they explain the actual occurrence of no-bid sales across the NFS.

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APPENDIX A

The following letter represents the survey invitation distributed to every Regional Forester in the National Forest System via official memorandum.

Forest Service Washington Office 1400 Independence Avenue, SW
Washington, D.C. 20250

File Code: 2400 **Date:** February 24, 2021
Route To:

Subject: Feedback Requested from National Forest Personnel on No-Bid Timber Sales

To: Regional Foresters

REPLY DUE MARCH 26, 2021

Timber sales from national forests provide numerous ecological and economic benefits to the American public. These sales take many resources to plan, prepare, and award. When timber sale proposals do not receive bids, the Agency loses time and resources in the readvertising process. In recent years, there has been a noticeable increase in the number of advertised sales that do not receive a valid bid from prospective buyers, which has a direct impact on the Agency's ability to reduce wildfire risk increase forest resilience and to meet expected outputs.

National Forest System leadership has been in contact with Regions about this complex challenge and continues to seek input from the field to identify causes and prioritize solutions. Work is being done on many fronts, involving all aspects of the Agency to understand and address the problem. Through the Forest Products Modernization (FPM) change effort, one project is exploring the thoughts and opinions of agency personnel involved in timber sales on why some sales do not receive valid bids. To that end, I am asking that employees who are involved in or support timber sales **in any capacity** including for example pre-sale foresters, to layout crews, to road engineers to contracting officers, resource specialists and more throughout the Agency take the time to provide feedback by completing this survey by March 26, 2021.

The link to the survey is https://tinyurl.com/timbersalesurvey. Please share this letter with your staff so they can participate in the survey. As with other issues we are addressing through FPM, it will take all of us collectively to improve our processes.

The survey should take less than 10 minutes to complete and individual responses to survey items will be kept confidential. The Agency is working diligently to reduce the number of no-bid timber sales on national forests and feedback will assist in providing necessary direction.

If you have any questions about this survey, please contact Gary Church at john.g.church@usda.gov or David Wilson at david.wilson@usda.gov.

X

Signed by: ALLEN ROWLEY
ALLEN ROWLEY
Acting Deputy Chief, National Forest System

APPENDIX B

The following survey questionnaire replicates that which was provided to National Forest System timber sales personnel, via an online platform. The questionnaire is provided verbatim here, with additional explanatory material in square brackets ([]). An open circle (❍) means that question only accepted a single response choice. An open rectangle (▯) means that question accepted multiple selections.

National Forest System Personnel Questionnaire on Timber Sales

[Section I]

This questionnaire is meant for all personnel on Regional, Forest, or District levels of the National Forest System that work on timber sales or support timber sales in any way. It should take less than ten minutes to complete.

Timber sales, for the purposes of this questionnaire, are those sales of harvestable timber on the National Forest that involve a bidding process (ex: 2400-6T, 2400-6S), also called "traditional timber sales." However, this can also extend to Good Neighbor Authority, Stewardship, Small Business Set-Asides, etc. if it is relevant to your region, forest, or district (referred to as your "unit" throughout the survey).

Even if your involvement with timber sales is only at certain points in the timber sale process, we would still appreciate your input. Your responses will be used to help understand what resources are needed to assist forests reduce the likelihood of a no-bid timber sale. However, we will keep all given information confidential and, if there are three or fewer responses per unit, we will aggregate to the next highest level (ex: forest or region) so that no one person may be identified.

The majority of questions are optional so please feel free to skip any that are not relevant to your position or that you don't wish to share.

* Required

[Section II]

General Questions

1. Which of these best describes your position title? *

❍ Contracting Officer
❍ District Ranger
❍ Engineer (ex: Transport, Civil)
❍ Natural Resources Staff Officer
❍ NEPA/ Environmental Coordinator
❍ Pre-Sale Forester
❍ Silviculturist
❍ Timber Management Assistant/Timber Management Officer
❍ Timber Marker
❍ Timber Sale Administration (ex: Sale Administrator, Harvest Inspector, Resource Clerk)
❍ Other [short text box]

2. How many years have you been in this position?

[short text box]

The value must be a number

3. What Region do you work in? *

If you work across Regions, please answer based on where your work station/office is located.

❍ Region 1: Northern Region
❍ Region 2: Rocky Mountain Region
❍ Region 3: Southwestern Region
❍ Region 4: Intermountain Region
❍ Region 5: Pacific Southwest Region
❍ Region 6: Pacific Northwest Region
❍ Region 8: Southern Region
❍ Region 9: Eastern Region
❍ Region 10: Alaska

[Depending on the response to question 3, the respondent is sent to the appropriate question among 4–12, which provides a list of national forests in that particular region.]

4-12. What Forest do you work on?

(You may choose more than one option.)

□ I work in the Regional Office
□ [Multiple options given for each region, using appropriate list of national forests in the region selected for question 3.]
□ Other (write in)

13. Do you work for a District or Supervisor's Office?

(Please feel free to skip if you don't wish to share)

❍ I work for a District
❍ I work for a Supervisor's Office
❍ Neither
❍ Other (write in)

14. What District(s) do you work for?

(Please feel free to skip if you don't wish to share)

[short text box]

[Section III]

Timber Sales

We want to ask you a few questions about working with Timber Sales. Even if you do not work on timber sales a lot or your position is more involved with supporting timber sales, it is still important to gather your input. Timber sales, for the purposes of this questionnaire, are those sales of harvestable timber on the National Forest that involve a bidding process (ex: 2400-6T, 2400-6S), also called "traditional timber sales". However, this can also extend to Good Neighbor Authority, Stewardship, Small Business Set-Asides, etc. if it is relevant to your unit (region, forest, or district).

When answering the following questions, please answer with your primary position and your primary location in mind.

15. Does your unit (Region, Forest, or District) have timber sales?

Answering "No" or "I don't know" to this question will take you to the end of the survey.

❍ Yes
❍ No
❍ I don't know

16. Does your work/position support timber sale program in any way?

Answering "No" to this question will take you to the end of the survey.

❍ Yes
❍ No

17. Approximately what percentage of time do you spend preparing, administering, directing, supporting, or otherwise working on timber sales?

Please write an answer between 0-100%.

[short text box]

The value must be a number

[Section IV]

Types of No-Bid Timber Sales

Planning, designing, advertising, and awarding timber sales is a complex, collaborative, and time-consuming process. Occasionally, sales make it all the way to advertisement but do not receive a bid from a timber purchaser. This is known as a "no-bid". For the purposes of this questionnaire, it is also considered a "no-bid" even if the sale is re-advertised and later receives a bid.

We understand that a "no-bid" might look different to everyone. Please answer all questions with your primary position and your primary work location in mind.

In this section, we want to understand what types of contracts generally receive "no-bids" on your unit. If you do not work with contracts, you are welcome to skip these questions.

18. Please tell us how often each of these common contracts or agreements goes no-bid on your unit (if applicable).

Never/Rarely = 0-20% of the time
Sometimes = 20-40% of the time
About half the time = 40-60% of the time
Often = 60-80% of the time
Almost Always/Always = 80-100% of the time

	Never/Rarely	Sometimes	About Half the Time	Often	Almost Always/Always	Not Applicable (NA)
Good Neighbor Authority (GNA)	❍	❍	❍	❍	❍	❍
Small Business Set-Asides	❍	❍	❍	❍	❍	❍
Stewardship Contracts/Agreements	❍	❍	❍	❍	❍	❍
Traditional Timber Sale Contracts	❍	❍	❍	❍	❍	❍

19. Anything else you think we need to know regarding contracts/agreements related to no-bids on your unit?

[long text box]

[Section V]

Direct Causes of No-Bid Timber Sales

Given the complex nature of timber sales, the reasons for a no-bid timber sale can often involve a host of factors. In order to better understand those factors, we have broken down the reasons for receiving a "no-bid" on a timber sale into two distinct sets:

Direct Causes: The specific reason why a timber purchaser would choose not to place a bid.

Underlying Causes: Factors (often interrelated) that trigger the direct causes.

In this section, we ask you about the Direct Causes. We would like for you to tell us the frequency a reason influences whether a timber sale receives a "no-bid" on your unit.

20. Please tell us how often the following reasons play a major role in a timber sale receiving a “no-bid” on your unit. You are welcome to skip these questions if you feel you can’t accurately answer them.

Never/Rarely = 0-20% of the time
Sometimes = 20-40% of the time
About half the time = 40-60% of the time
Often = 60-80% of the time
Almost Always/Always = 80-100% of the time

	Never/Rarely	Sometimes	About Half the Time	Often	Almost Always/ Always	I’m not sure/ Not Applicable
The specified construction and/or reconstruction work is too expensive, complex, or undesirable	❍	❍	❍	❍	❍	❍
It’s too costly to haul to the mill	❍	❍	❍	❍	❍	❍
The equipment or implementation method required for the sale makes it too costly or isn’t readily available	❍	❍	❍	❍	❍	❍
The environmental mitigation requirements (such as erosion control, site rehabilitation, etc.) are too expensive	❍	❍	❍	❍	❍	❍
Other operational mitigation requirements (such as slash treatment) make it too costly	❍	❍	❍	❍	❍	❍
Forest Service deposit collections are too high	❍	❍	❍	❍	❍	❍
Low volume/acre yields make the sale too costly	❍	❍	❍	❍	❍	❍
The species in the sale are undesirable/unmarketable	❍	❍	❍	❍	❍	❍
The average diameter of harvest trees is too small	❍	❍	❍	❍	❍	❍
The harvest tree form is poor/the wood quality is low	❍	❍	❍	❍	❍	❍
There is too much risk surrounding the marketability of the product	❍	❍	❍	❍	❍	❍
Seasonal restrictions in the sale make it infeasible or undesirable	❍	❍	❍	❍	❍	❍
The market is saturated with other sales or too many sales are put out at the same time	❍	❍	❍	❍	❍	❍
There is too much risk surrounding the volume yield/characterization of the cruise	❍	❍	❍	❍	❍	❍
Silvicultural prescription is too complex	❍	❍	❍	❍	❍	❍

21. Are there other direct causes that happen on your unit that were not mentioned above?

[long text box]

[Section VI]

Underlying Causes of No-Bid Timber Sales

In addition to the immediate reasons a purchaser may choose not to bid, there are many reasons that drive the direct causes to occur more frequently. We have divided them into four categories: Institutional, Market/Appraisal, Policy, and Operational Factors. In the next section, we are going to provide a series of statements and we'd like to get your input on whether you agree or disagree based on your experiences with timber sales that you have on your unit.

22. The following statements relate to the Institutional (Forest Service-specific) Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.

	Completely Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Completely Agree	N/A
I feel that my position is involved in every part of the Timber Sale process (or Gate System) where it needs to be involved	❍	❍	❍	❍	❍	❍
There is adequate staffing at the district/forest levels for me to concentrate on my job duties	❍	❍	❍	❍	❍	❍
The Regional & Washington Offices provide adequate staffing/training materials to support me in my job duties	❍	❍	❍	❍	❍	❍
I have good communication with the team members I work with on timber sales	❍	❍	❍	❍	❍	❍
Our team has good communication with industry regarding timber sales	❍	❍	❍	❍	❍	❍
The pressure of hitting a target or selling a sale often pushes sales forward	❍	❍	❍	❍	❍	❍

23. The following statements relate to the Market/Appraisal Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.

	Completely Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Completely Agree	N/A
We can adequately respond to current market conditions in the appraisal of our timber sales	❍	❍	❍	❍	❍	❍
I feel confident in my knowledge of current market conditions in my appraisal zone	❍	❍	❍	❍	❍	❍
I have access to mill prices and general market conditions to help me as I prepare my portion of the timber sale package	❍	❍	❍	❍	❍	❍
The product mix sold in our timber sales reflects what industry wants	❍	❍	❍	❍	❍	❍

24. The following statements relate to the Policy Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.

	Completely Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Completely Agree	N/A
The time required to complete the required planning portion (ex: NEPA) of our timber sales generally works for our timber sale timelines	❍	❍	❍	❍	❍	❍
Mitigation requirements for timber sales are consistent across districts/forests	❍	❍	❍	❍	❍	❍
Litigation of projects often hinder our timber sales timelines	❍	❍	❍	❍	❍	❍
Our timber staff is actively involved throughout the planning process	❍	❍	❍	❍	❍	❍
There is usually a smooth transition from the Planning/NEPA decision to the contract it gets put into	❍	❍	❍	❍	❍	❍
The length of Forest Service timber sale contracts can deter purchasers	❍	❍	❍	❍	❍	❍

25. The following statements relate to the Operational Factors that may influence no-bid timber sales. For these statements, please indicate your level of agreement.

	Completely Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Completely Agree	N/A
Road packages normally end up being more expensive than anticipated in our timber sales	❍	❍	❍	❍	❍	❍
The location of a timber sale can impact its desirability	❍	❍	❍	❍	❍	❍
Purchasers generally have the ability to do specified work as we have prescribed it	❍	❍	❍	❍	❍	❍

[Section VII]

Proposed Solutions/Concluding Questions

Finally, in thinking about all of reasons behind a timber sale receiving a "no-bid", we want to hear your opinion about a few proposed solutions. We also want to give you an opportunity to provide your own input on no-bids.

26. For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest.

	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure
Timber Sales on my unit would be more successful if the timber team was more involved in the Planning (ex: NEPA) process	❍	❍	❍	❍	❍	❍
Timber Sales on my unit would be more successful if engineers were more involved in the earlier stages of the planning process	❍	❍	❍	❍	❍	❍
Timber Sales on my unit would be more successful if I had more training on different aspects of timber sales	❍	❍	❍	❍	❍	❍
Timber Sales on my unit would be more successful if my colleagues had more training on timber sales	❍	❍	❍	❍	❍	❍
Timber Sales on my unit would be more successful if our industry were more involved in the planning and preparation process	❍	❍	❍	❍	❍	❍
Timber Sales on my unit would be more successful if line officers were more involved with industry communication	❍	❍	❍	❍	❍	❍

27. Do you have any suggestions for improving timber sales?

[long text box]

28. Are there any additional comments you'd like to provide?

[long text box]

29. If you have more feedback about this topic and would like to discuss it with our research team, please leave your name and email address below:

[long text box]

End of survey

APPENDIX C

Each section of this appendix presents results from a National Forest System region, including a chart with general information about respondents and tables with detailed results based on responses to questions 18, 20, and 22–26 of the survey (see app. B).

Region 1: Northern Region

Respondents in Region 1 by national forest (NF)

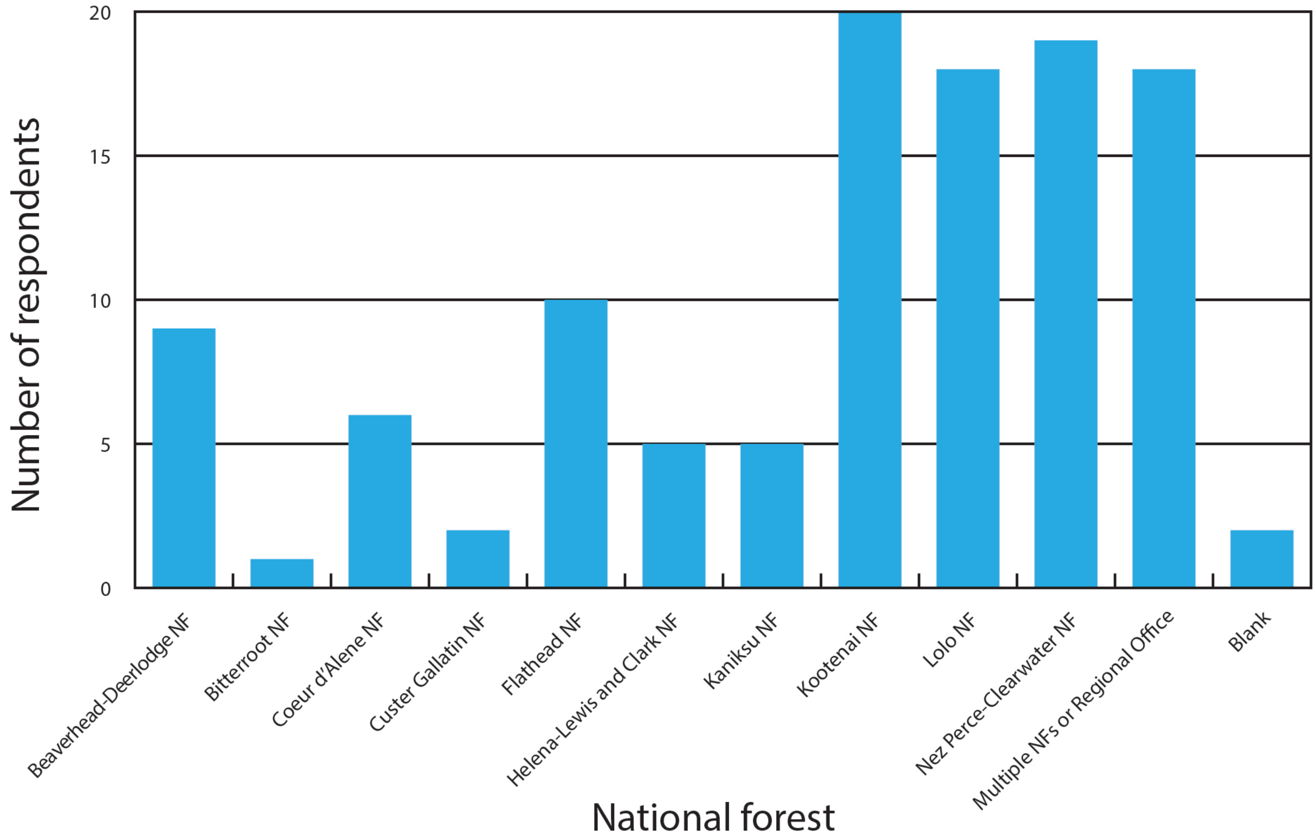

Figure C.R1.1—There were 115 total survey respondents from Region 1. On average, these respondents spent 69 percent of their work time on timber sales and had been in their current position for 8.0 years.

Table C.R1.1—Perceived frequency of no-bid sales by contract type, Region 1

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.45**	48%	21%	3%	2%	0%	15%	11%
Small business set-asides	**0.29**	57%	20%	0%	1%	0%	10%	12%
Stewardship contracts/agreements	**0.27**	63%	18%	1%	1%	0%	8%	9%
Traditional timber sale contracts	**0.41**	64%	20%	2%	3%	1%	3%	7%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R1.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 1

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.32**	20%	33%	6%	7%	8%	16%	10%
Hauling cost	**0.77**	37%	23%	4%	7%	1%	14%	13%
Equipment/implementation method	**0.57**	41%	26%	2%	3%	1%	17%	11%
Environmental mitigation	**0.55**	43%	23%	2%	3%	1%	16%	12%
Operational mitigation	**0.61**	42%	23%	2%	3%	2%	17%	12%
Deposit collections	**0.67**	41%	15%	4%	3%	3%	21%	13%
Low volume per acre	**0.70**	41%	23%	6%	1%	3%	13%	12%
Undesirable species	**0.55**	45%	18%	4%	4%	0%	13%	15%
Small tree diameter	**0.39**	54%	14%	2%	3%	1%	13%	14%
Poor tree form/low wood quality	**0.49**	51%	14%	3%	5%	0%	13%	13%
Marketability risk	**0.46**	49%	16%	2%	4%	0%	17%	13%
Seasonal restrictions	**0.76**	38%	20%	9%	3%	2%	16%	12%
Market saturation	**0.49**	50%	17%	1%	4%	1%	15%	12%
Volume/cruise risk	**0.21**	57%	10%	1%	1%	0%	18%	12%
Silvicultural prescription	**0.31**	55%	13%	1%	0%	2%	17%	13%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table C.R1.3—Level of agreement with statements about underlying factors of no-bid sales, Region 1

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	2.86	6%	17%	3%	30%	41%	2%	1%
There is adequate staffing	1.21	38%	33%	2%	18%	7%	0%	2%
There is adequate support	1.85	12%	30%	23%	21%	10%	2%	2%
I have good communication with team	3.33	3%	5%	2%	36%	52%	0%	3%
We have good communication with industry	3.20	1%	5%	10%	35%	42%	4%	3%
Pressure from targets pushes sale forward[1]	0.49	0%	4%	6%	22%	63%	2%	3%
Market/appraisal factors								
Can respond to market factors in appraisal	2.25	6%	17%	17%	30%	10%	12%	9%
Confident in knowledge of market conditions	2.78	3%	7%	12%	23%	22%	23%	10%
Access to prices and market conditions	3.12	3%	4%	6%	17%	30%	31%	10%
Product mix reflects industry wants	2.60	1%	11%	18%	32%	13%	15%	10%
Policy factors								
Planning works within timelines	1.34	30%	28%	13%	20%	3%	3%	4%
Mitigation requirements are consistent	1.70	16%	28%	17%	30%	1%	5%	3%
Litigation hinders timelines[1]	0.82	3%	6%	10%	29%	46%	3%	3%
Staff actively involved in process	2.96	1%	15%	11%	27%	40%	3%	3%
Smooth transition from planning to contracting	2.34	4%	23%	15%	38%	12%	3%	5%
Complexity of contract[1]	2.52	16%	23%	30%	8%	3%	14%	7%
Operational factors								
Road packages more expensive than anticipated[1]	1.54	4%	14%	23%	27%	17%	6%	9%
Location impacts desirability[1]	0.83	3%	4%	8%	32%	43%	3%	7%
Purchasers have the ability to do prescribed work	3.13	2%	3%	12%	39%	35%	3%	7%

Responses received for survey questions 22–25 (“The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement.”). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R1.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 1

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	2.32	11%	11%	23%	24%	19%	9%	2%
Engineers more involved in early planning	2.65	9%	6%	17%	35%	23%	8%	3%
More training (respondent)	1.71	23%	18%	21%	21%	9%	6%	2%
More training (colleagues)	2.40	8%	14%	24%	29%	19%	4%	2%
Industry more involved in planning and preparation	1.71	24%	15%	21%	25%	6%	7%	2%
Line Officers more involved in industry communication	2.28	15%	10%	19%	28%	18%	8%	3%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 2: Rocky Mountain Region

Respondents in Region 2 by national forest (NF)

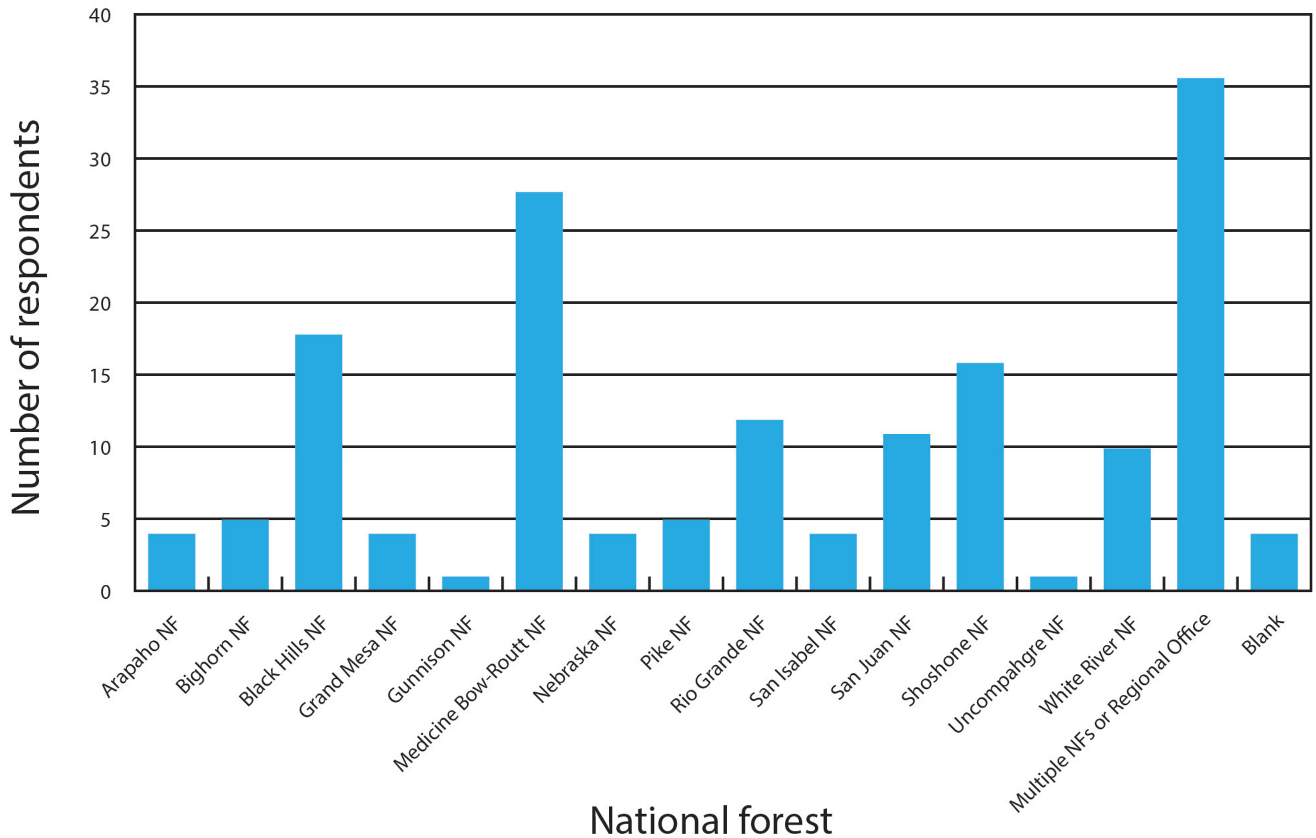

Figure C.R2.1—There were 163 total survey respondents from Region 2. On average, these respondents spent 62 percent of their work time on timber sales and had been in their current position for 9.4 years.

Table C.R2.1—Perceived frequency of no-bid sales by contract type, Region 2

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.54**	33%	18%	3%	1%	1%	25%	20%
Small business set-asides	**0.76**	15%	12%	1%	1%	2%	45%	24%
Stewardship contracts/agreements	**0.87**	31%	17%	4%	5%	3%	19%	20%
Traditional timber sale contracts	**1.48**	15%	35%	9%	14%	6%	6%	16%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R2.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 2

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.63**	21%	21%	6%	14%	11%	11%	16%
Hauling cost	**2.04**	15%	21%	4%	15%	20%	10%	15%
Equipment/implementation method	**0.73**	42%	16%	2%	6%	4%	14%	17%
Environmental mitigation	**0.65**	40%	21%	1%	2%	4%	15%	17%
Operational mitigation	**0.71**	41%	15%	4%	5%	2%	15%	17%
Deposit collections	**0.41**	36%	13%	2%	1%	0%	28%	18%
Low volume per acre	**1.65**	16%	26%	5%	9%	12%	15%	17%
Undesirable species	**1.50**	21%	26%	7%	10%	10%	10%	16%
Small tree diameter	**1.59**	15%	28%	7%	15%	7%	12%	17%
Poor tree form/low wood quality	**1.45**	23%	20%	8%	13%	7%	12%	17%
Marketability risk	**0.96**	32%	13%	4%	9%	2%	21%	18%
Seasonal restrictions	**1.18**	24%	28%	9%	5%	6%	12%	17%
Market saturation	**0.98**	35%	13%	6%	5%	6%	18%	17%
Volume/cruise risk	**0.53**	40%	11%	2%	4%	1%	21%	20%
Silvicultural prescription	**0.46**	48%	12%	1%	3%	2%	16%	18%

Responses received for survey question 20 (“Please tell us how often the following reasons play a major role in a timber sale receiving a ‘no-bid’ on your unit.”). See appendix B.

Table C.R2.3—Level of agreement with statements about underlying factors of no-bid sales, Region 2

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	2.98	4%	10%	9%	25%	40%	6%	6%
There is adequate staffing	1.76	22%	27%	9%	21%	14%	1%	6%
There is adequate support	2.06	10%	23%	20%	21%	14%	4%	7%
I have good communication with team	3.28	1%	6%	7%	31%	49%	1%	6%
We have good communication with industry	3.05	4%	8%	8%	24%	39%	9%	8%
Pressure from targets pushes sale forward[1]	0.57	2%	1%	10%	20%	58%	4%	6%
Market/appraisal factors								
Can respond to market factors in appraisal	2.25	7%	14%	17%	24%	11%	18%	9%
Confident in knowledge of market conditions	2.57	4%	7%	13%	25%	12%	30%	9%
Access to prices and market conditions	2.08	8%	7%	13%	17%	6%	40%	9%
Product mix reflects industry wants	2.15	3%	21%	17%	24%	7%	20%	9%
Policy factors								
Planning works within timelines	1.99	12%	23%	15%	29%	8%	6%	7%
Mitigation requirements are consistent	1.96	10%	25%	18%	30%	6%	6%	6%
Litigation hinders timelines[1]	2.69	29%	19%	17%	13%	4%	11%	6%
Staff actively involved in process	3.09	2%	9%	10%	28%	42%	3%	6%
Smooth transition from planning to contracting	2.39	6%	17%	18%	29%	16%	6%	8%
Complexity of contract[1]	2.24	11%	20%	21%	18%	3%	17%	9%
Operational factors								
Road packages more expensive than anticipated[1]	1.46	2%	13%	18%	27%	16%	15%	9%
Location impacts desirability[1]	0.61	2%	4%	5%	26%	53%	3%	7%
Purchasers have the ability to do prescribed work	2.81	3%	9%	9%	41%	20%	9%	9%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R2.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 2

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.21**	13%	12%	22%	22%	18%	6%	6%
Engineers more involved in early planning	**2.64**	7%	9%	17%	28%	25%	7%	7%
More training (respondent)	**2.06**	13%	14%	21%	28%	9%	7%	7%
More training (colleagues)	**2.52**	10%	8%	17%	33%	21%	5%	6%
Industry more involved in planning and preparation	**2.18**	12%	12%	21%	25%	13%	9%	8%
Line Officers more involved in industry communication	**2.27**	12%	9%	24%	23%	17%	9%	7%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 3: Southwestern Region

Respondents in Region 3 by national forest (NF)

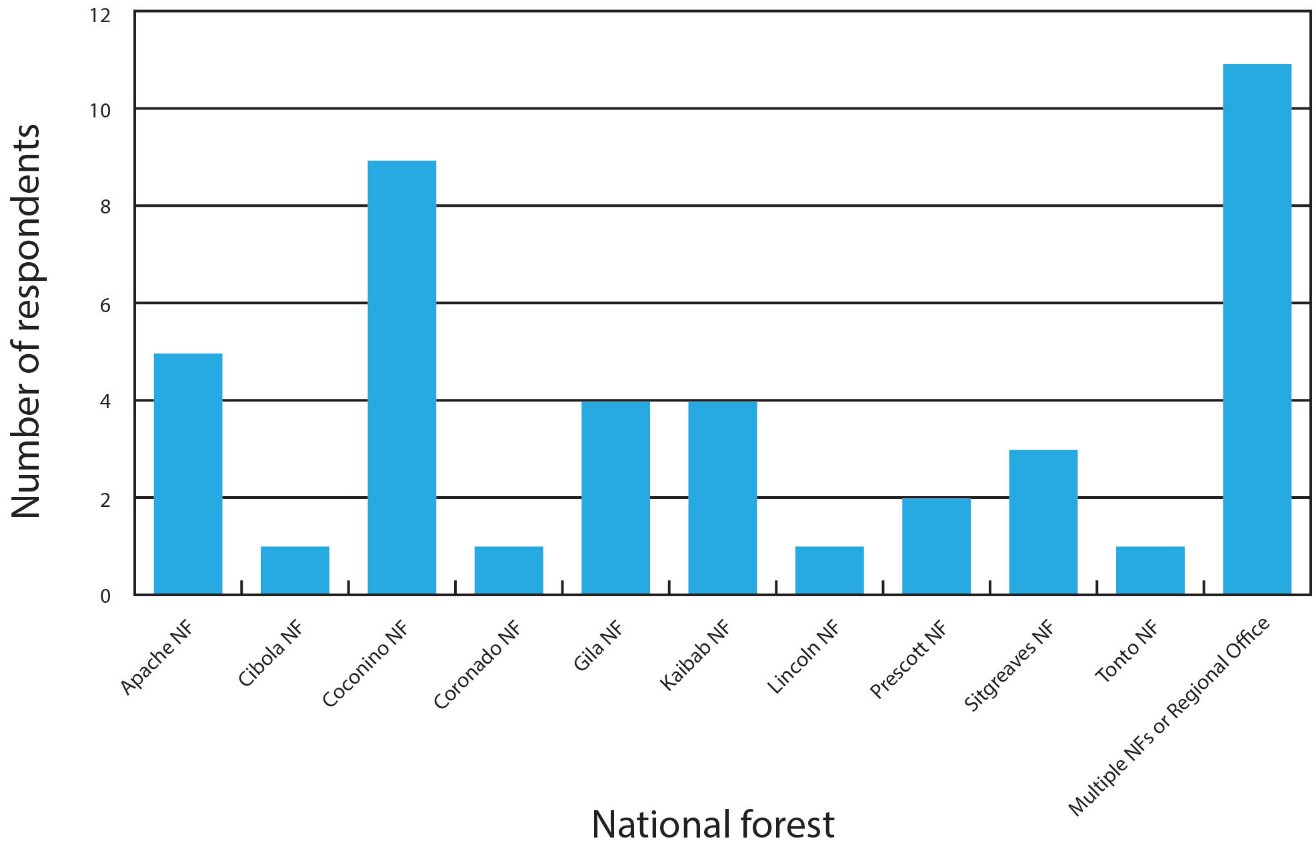

Figure C.R3.1—There were 42 total survey respondents from Region 3. On average, these respondents spent 71 percent of their work time on timber sales and had been in their current position for 5.3 years.

Table C.R3.1—Perceived frequency of no-bid sales by contract type, Region 3

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.67**	26%	10%	2%	5%	0%	43%	14%
Small business set-asides	**0.73**	19%	12%	0%	5%	0%	45%	19%
Stewardship contracts/agreements	**1.41**	19%	26%	17%	10%	5%	14%	10%
Traditional timber sale contracts	**1.92**	7%	33%	17%	17%	12%	7%	7%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R3.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 3

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**2.09**	12%	21%	10%	24%	14%	10%	10%
Hauling cost	**2.87**	2%	21%	7%	17%	45%	0%	7%
Equipment/implementation method	**0.70**	38%	33%	2%	2%	2%	10%	12%
Environmental mitigation	**0.71**	45%	21%	10%	2%	2%	7%	12%
Operational mitigation	**1.17**	29%	33%	7%	7%	7%	7%	10%
Deposit collections	**1.44**	21%	29%	7%	10%	10%	12%	12%
Low volume per acre	**2.19**	12%	19%	14%	26%	17%	2%	10%
Undesirable species	**1.47**	26%	29%	7%	12%	12%	5%	10%
Small tree diameter	**2.06**	19%	14%	19%	10%	24%	5%	10%
Poor tree form/low wood quality	**1.33**	26%	36%	5%	7%	12%	7%	7%
Marketability risk	**1.77**	19%	24%	14%	10%	17%	7%	10%
Seasonal restrictions	**1.51**	14%	33%	19%	12%	5%	7%	10%
Market saturation	**1.44**	21%	33%	5%	12%	10%	7%	12%
Volume/cruise risk	**0.88**	31%	31%	7%	7%	0%	10%	14%
Silvicultural prescription	**0.82**	36%	31%	10%	2%	2%	10%	10%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table C.R3.3—Level of agreement with statements about underlying factors of no-bid sales, Region 3

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.22	0%	14%	0%	26%	48%	5%	7%
There is adequate staffing	1.73	17%	36%	14%	14%	14%	0%	5%
There is adequate support	2.15	5%	29%	21%	29%	12%	0%	5%
I have good communication with team	3.48	0%	5%	0%	36%	55%	0%	5%
We have good communication with industry	2.85	0%	10%	17%	45%	21%	2%	5%
Pressure from targets pushes sale forward[1]	0.95	2%	5%	19%	26%	40%	2%	5%
Market/appraisal factors								
Can respond to market factors in appraisal	1.45	12%	36%	17%	12%	2%	17%	5%
Confident in knowledge of market conditions	2.38	0%	17%	17%	29%	7%	26%	5%
Access to prices and market conditions	2.04	14%	10%	7%	21%	10%	33%	5%
Product mix reflects industry wants	1.72	12%	26%	12%	24%	2%	19%	5%
Policy factors								
Planning works within timelines	1.38	24%	26%	12%	14%	5%	12%	7%
Mitigation requirements are consistent	2.29	7%	14%	19%	33%	10%	10%	7%
Litigation hinders timelines[1]	1.84	14%	14%	19%	24%	17%	5%	7%
Staff actively involved in process	3.03	0%	10%	10%	40%	31%	5%	5%
Smooth transition from planning to contracting	2.00	5%	29%	14%	33%	2%	10%	7%
Complexity of contract[1]	2.29	7%	24%	43%	5%	5%	10%	7%
Operational factors								
Road packages more expensive than anticipated[1]	1.13	7%	7%	14%	24%	38%	5%	5%
Location impacts desirability[1]	0.33	2%	0%	5%	12%	76%	0%	5%
Purchasers have the ability to do prescribed work	2.76	0%	10%	17%	38%	17%	12%	7%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R3.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 3

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.64**	2%	10%	24%	40%	17%	2%	5%
Engineers more involved in early planning	**2.89**	2%	2%	21%	36%	24%	10%	5%
More training (respondent)	**1.95**	7%	19%	40%	19%	5%	5%	5%
More training (colleagues)	**2.68**	7%	0%	26%	38%	19%	5%	5%
Industry more involved in planning and preparation	**2.67**	7%	7%	21%	21%	29%	10%	5%
Line Officers more involved in industry communication	**2.58**	5%	10%	17%	40%	14%	10%	5%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 4: Intermountain Region

Respondents in Region 4 by national forest (NF)

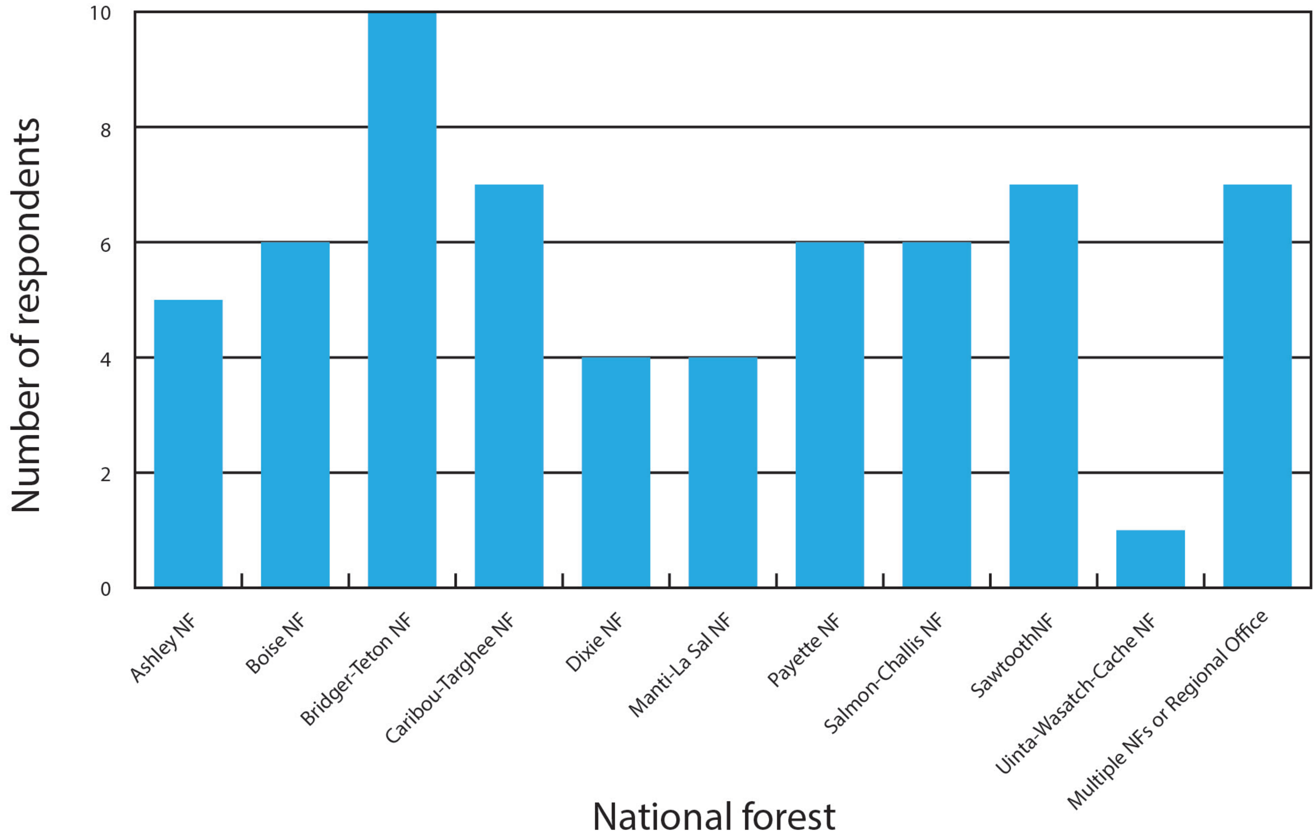

Figure C.R4.1—There were 63 total survey respondents from Region 4. On average, these respondents spent 60 percent of their work time on timber sales and had been in their current position for 7.9 years.

Table C.R4.1—Perceived frequency of no-bid sales by contract type, Region 4

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.53**	13%	14%	0%	0%	0%	60%	13%
Small business set-asides	**0.90**	17%	22%	3%	5%	0%	40%	13%
Stewardship contracts/agreements	**0.91**	21%	22%	2%	5%	2%	38%	11%
Traditional timber sale contracts	**1.30**	21%	43%	11%	11%	5%	0%	10%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R4.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 4

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.55**	21%	25%	5%	14%	10%	19%	6%
Hauling cost	**2.24**	10%	25%	8%	24%	21%	8%	5%
Equipment/implementation method	**1.06**	29%	32%	5%	10%	3%	14%	8%
Environmental mitigation	**1.00**	35%	29%	6%	10%	3%	10%	8%
Operational mitigation	**0.88**	33%	30%	8%	3%	3%	13%	10%
Deposit collections	**0.81**	35%	19%	6%	8%	0%	22%	10%
Low volume per acre	**1.73**	16%	32%	10%	21%	10%	6%	6%
Undesirable species	**1.55**	13%	44%	8%	17%	6%	6%	5%
Small tree diameter	**1.54**	19%	32%	16%	16%	6%	8%	3%
Poor tree form/low wood quality	**1.40**	24%	27%	13%	17%	3%	10%	6%
Marketability risk	**1.32**	27%	21%	8%	14%	5%	17%	8%
Seasonal restrictions	**1.46**	19%	29%	10%	13%	6%	16%	8%
Market saturation	**1.06**	35%	27%	6%	10%	5%	11%	6%
Volume/cruise risk	**0.57**	43%	21%	3%	0%	3%	19%	11%
Silvicultural prescription	**0.63**	41%	25%	6%	3%	0%	14%	10%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table C.R4.3—Level of agreement with statements about underlying factors of no-bid sales, Region 4

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	**3.13**	2%	13%	8%	24%	51%	2%	2%
There is adequate staffing	**1.72**	24%	30%	8%	19%	16%	2%	2%
There is adequate support	**1.93**	16%	22%	17%	29%	10%	5%	2%
I have good communication with team	**3.31**	2%	6%	6%	29%	54%	2%	2%
We have good communication with industry	**2.76**	5%	10%	22%	24%	33%	5%	2%
Pressure from targets pushes sale forward[1]	**0.93**	3%	6%	16%	25%	44%	3%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	**1.44**	13%	37%	30%	11%	0%	6%	3%
Confident in knowledge of market conditions	**2.22**	6%	21%	8%	38%	6%	17%	3%
Access to prices and market conditions	**1.95**	11%	16%	16%	16%	10%	29%	3%
Product mix reflects industry wants	**1.93**	5%	35%	17%	25%	6%	8%	3%
Policy factors								
Planning works within timelines	**1.74**	16%	35%	14%	22%	10%	0%	3%
Mitigation requirements are consistent	**1.67**	25%	24%	14%	21%	11%	2%	3%
Litigation hinders timelines[1]	**2.11**	17%	17%	24%	14%	14%	10%	3%
Staff actively involved in process	**3.00**	2%	14%	10%	29%	43%	0%	3%
Smooth transition from planning to contracting	**2.28**	8%	22%	11%	43%	11%	2%	3%
Complexity of contract[1]	**1.86**	14%	16%	22%	19%	19%	6%	3%
Operational factors								
Road packages more expensive than anticipated[1]	**1.31**	3%	8%	19%	38%	17%	13%	2%
Location impacts desirability[1]	**0.42**	0%	5%	2%	24%	68%	0%	2%
Purchasers have the ability to do prescribed work	**2.36**	5%	19%	21%	33%	14%	5%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R4.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 4

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.20**	8%	13%	38%	22%	13%	5%	2%
Engineers more involved in early planning	**2.65**	5%	10%	21%	33%	22%	8%	2%
More training (respondent)	**1.95**	13%	19%	32%	24%	8%	3%	2%
More training (colleagues)	**2.68**	0%	11%	33%	30%	24%	0%	2%
Industry more involved in planning and preparation	**2.49**	6%	8%	32%	24%	21%	8%	2%
Line Officers more involved in industry communication	**3.07**	0%	5%	21%	32%	37%	5%	2%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 5: Pacific Southwest Region

Respondents in Region 5 by national forest (NF)

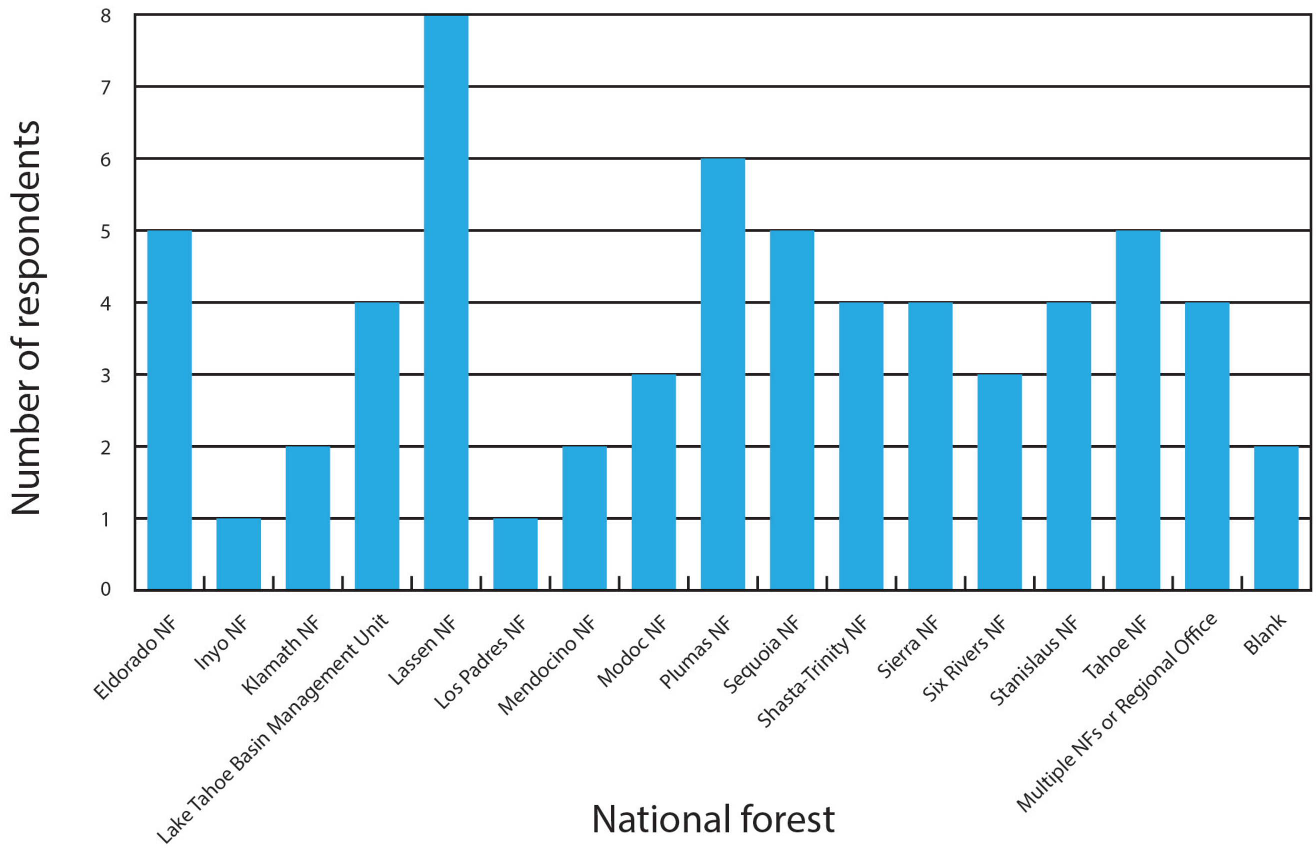

Figure C.R5.1—There were 63 total survey respondents from Region 5. On average, these respondents spent 73 percent of their work time on timber sales and had been in their current position for 8.0 years.

Table C.R5.1—Perceived frequency of no-bid sales by contract type, Region 5

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.20**	19%	5%	0%	0%	0%	60%	16%
Small business set-asides	**1.48**	29%	19%	8%	5%	16%	8%	16%
Stewardship contracts/agreements	**0.87**	30%	43%	5%	5%	2%	2%	14%
Traditional timber sale contracts	**1.09**	27%	44%	2%	10%	5%	2%	11%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R5.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 5

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.58**	17%	33%	8%	14%	10%	10%	8%
Hauling cost	**1.76**	19%	27%	10%	16%	14%	3%	11%
Equipment/implementation method	**0.75**	46%	25%	5%	3%	5%	5%	11%
Environmental mitigation	**0.76**	37%	43%	3%	2%	3%	2%	11%
Operational mitigation	**0.81**	38%	35%	3%	5%	3%	3%	13%
Deposit collections	**0.79**	40%	22%	8%	3%	3%	14%	10%
Low volume per acre	**1.56**	21%	33%	8%	11%	13%	5%	10%
Undesirable species	**1.00**	35%	32%	10%	8%	3%	2%	11%
Small tree diameter	**1.11**	40%	24%	3%	11%	8%	2%	13%
Poor tree form/low wood quality	**0.87**	40%	27%	6%	6%	3%	5%	13%
Marketability risk	**1.06**	37%	24%	10%	6%	6%	6%	11%
Seasonal restrictions	**1.36**	24%	35%	10%	11%	8%	3%	10%
Market saturation	**1.39**	24%	24%	13%	11%	6%	11%	11%
Volume/cruise risk	**0.31**	57%	16%	2%	2%	0%	13%	11%
Silvicultural prescription	**0.45**	54%	21%	3%	3%	0%	5%	14%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table C.R5.3—Level of agreement with statements about underlying factors of no-bid sales, Region 5

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.19	3%	6%	8%	27%	48%	2%	6%
There is adequate staffing	0.88	46%	27%	5%	13%	2%	2%	6%
There is adequate support	2.03	8%	32%	13%	32%	10%	0%	6%
I have good communication with team	3.50	2%	3%	3%	24%	60%	2%	6%
We have good communication with industry	3.19	3%	3%	11%	29%	44%	3%	6%
Pressure from targets pushes sale forward[1]	1.20	6%	3%	24%	30%	30%	0%	6%
Market/appraisal factors								
Can respond to market factors in appraisal	1.78	10%	30%	19%	24%	3%	6%	8%
Confident in knowledge of market conditions	2.41	8%	11%	21%	30%	16%	6%	8%
Access to prices and market conditions	2.34	10%	13%	13%	22%	17%	17%	8%
Product mix reflects industry wants	2.25	3%	24%	21%	27%	13%	5%	8%
Policy factors								
Planning works within timelines	1.32	24%	41%	8%	16%	5%	0%	6%
Mitigation requirements are consistent	2.05	14%	22%	16%	27%	14%	0%	6%
Litigation hinders timelines[1]	1.90	14%	21%	17%	24%	17%	0%	6%
Staff actively involved in process	2.81	0%	21%	5%	38%	29%	2%	6%
Smooth transition from planning to contracting	2.36	6%	21%	11%	44%	11%	0%	6%
Complexity of contract[1]	2.28	16%	24%	19%	22%	5%	8%	6%
Operational factors								
Road packages more expensive than anticipated[1]	1.58	6%	13%	25%	29%	17%	3%	6%
Location impacts desirability[1]	0.63	0%	5%	3%	38%	48%	0%	6%
Purchasers have the ability to do prescribed work	3.13	2%	3%	10%	43%	32%	3%	8%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R5.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 5

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.40**	13%	11%	19%	25%	24%	2%	6%
Engineers more involved in early planning	**2.75**	5%	6%	22%	29%	27%	5%	6%
More training (respondent)	**1.95**	13%	16%	29%	24%	6%	5%	8%
More training (colleagues)	**2.78**	2%	8%	17%	41%	19%	5%	8%
Industry more involved in planning and preparation	**2.35**	5%	16%	22%	30%	13%	6%	8%
Line Officers more involved in industry communication	**2.55**	5%	10%	22%	35%	16%	5%	8%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 6: Pacific Northwest Region

Respondents in Region 6 by national forest (NF)

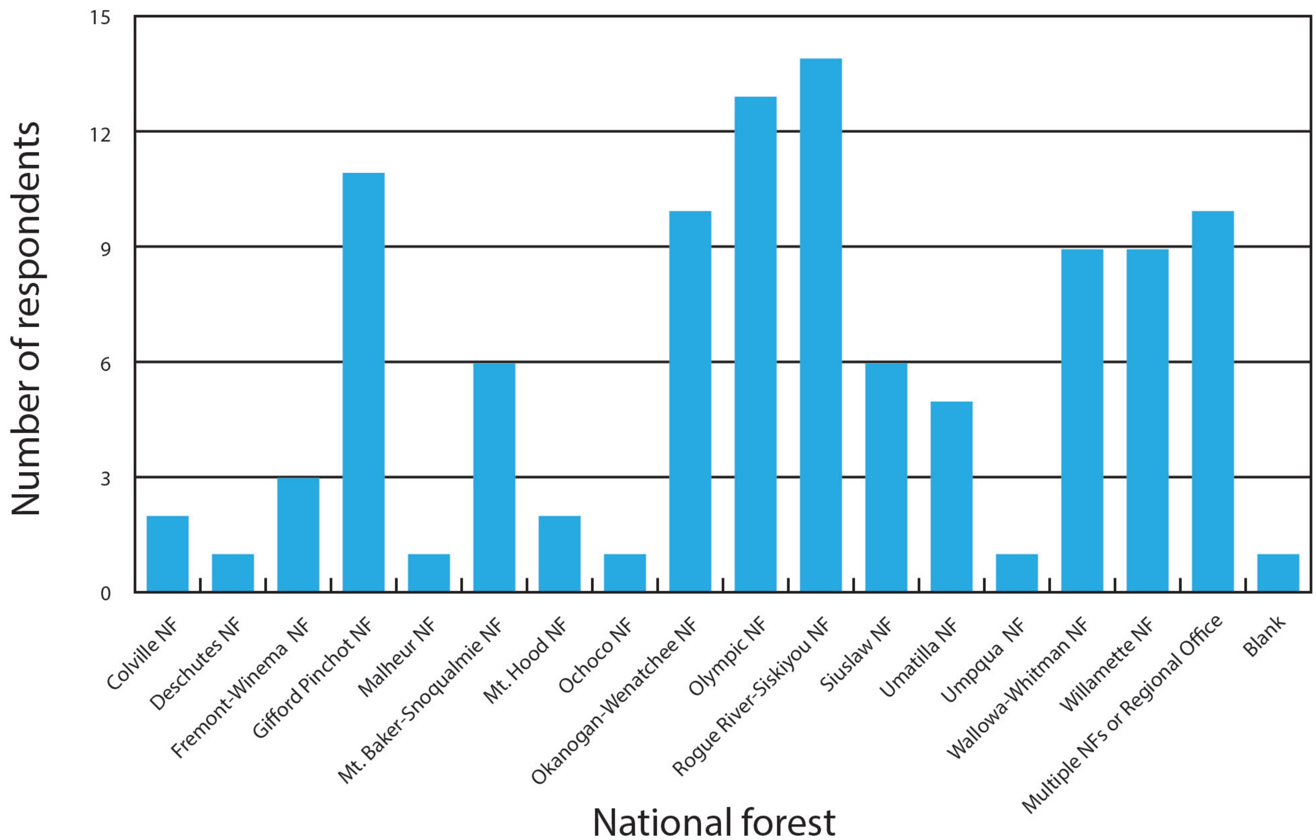

Figure C.R6.1—There were 105 total survey respondents from Region 6. On average, these respondents spent 74 percent of their work time on timber sales and had been in their current position for 8.6 years.

Table C.R6.1—Perceived frequency of no-bid sales by contract type, Region 6

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.61**	34%	24%	4%	0%	2%	22%	14%
Small business set-asides	**1.04**	24%	27%	7%	6%	3%	20%	14%
Stewardship contracts/agreements	**1.00**	27%	38%	7%	9%	1%	9%	10%
Traditional timber sale contracts	**1.15**	20%	50%	10%	5%	5%	1%	10%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R6.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 6

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	1.78	14%	32%	8%	16%	13%	5%	11%
Hauling cost	1.33	27%	31%	5%	10%	10%	6%	11%
Equipment/implementation method	1.03	32%	33%	7%	6%	6%	5%	11%
Environmental mitigation	1.06	39%	25%	2%	10%	8%	7%	10%
Operational mitigation	0.85	38%	28%	5%	8%	2%	10%	10%
Deposit collections	0.76	32%	26%	5%	6%	0%	20%	11%
Low volume per acre	1.41	25%	32%	10%	14%	8%	3%	9%
Undesirable species	0.89	37%	30%	10%	8%	1%	4%	11%
Small tree diameter	0.89	35%	33%	7%	4%	4%	8%	10%
Poor tree form/low wood quality	0.55	45%	21%	5%	2%	1%	13%	13%
Marketability risk	0.93	32%	26%	14%	5%	1%	11%	10%
Seasonal restrictions	1.67	19%	30%	11%	13%	13%	2%	10%
Market saturation	0.66	41%	29%	6%	3%	1%	10%	10%
Volume/cruise risk	0.65	39%	24%	2%	5%	1%	18%	11%
Silvicultural prescription	0.59	43%	25%	6%	3%	0%	11%	12%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table C.R6.3—Level of agreement with statements about underlying factors of no-bid sales, Region 6

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.12	5%	10%	6%	23%	50%	3%	4%
There is adequate staffing	1.35	30%	31%	8%	21%	5%	1%	4%
There is adequate support	2.19	5%	24%	25%	28%	11%	4%	4%
I have good communication with team	3.33	1%	7%	7%	26%	54%	2%	4%
We have good communication with industry	3.11	1%	6%	15%	29%	39%	7%	4%
Pressure from targets pushes sale forward[1]	0.90	4%	5%	13%	30%	44%	1%	4%
Market/appraisal factors								
Can respond to market factors in appraisal	1.99	7%	21%	23%	16%	9%	14%	10%
Confident in knowledge of market conditions	2.48	1%	14%	19%	24%	13%	18%	10%
Access to prices and market conditions	2.82	3%	10%	10%	15%	27%	26%	10%
Product mix reflects industry wants	2.29	2%	18%	21%	27%	9%	14%	10%
Policy factors								
Planning works within timelines	1.48	26%	27%	14%	21%	5%	2%	6%
Mitigation requirements are consistent	1.78	12%	30%	16%	26%	5%	6%	5%
Litigation hinders timelines[1]	2.27	24%	14%	16%	20%	10%	10%	6%
Staff actively involved in process	2.72	4%	16%	12%	30%	30%	2%	6%
Smooth transition from planning to contracting	2.31	6%	21%	19%	34%	13%	2%	5%
Complexity of contract[1]	2.12	10%	22%	26%	18%	7%	12%	6%
Operational factors								
Road packages more expensive than anticipated[1]	1.11	2%	5%	21%	34%	27%	5%	7%
Location impacts desirability[1]	0.94	0%	3%	18%	42%	30%	2%	6%
Purchasers have the ability to do prescribed work	2.97	0%	5%	16%	43%	23%	6%	8%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R6.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 6

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.55**	4%	12%	30%	24%	24%	4%	3%
Engineers more involved in early planning	**2.73**	3%	11%	22%	26%	29%	7%	3%
More training (respondent)	**1.96**	13%	18%	35%	18%	11%	1%	3%
More training (colleagues)	**2.76**	6%	7%	21%	34%	29%	1%	3%
Industry more involved in planning and preparation	**2.40**	6%	16%	27%	28%	19%	2%	3%
Line Officers more involved in industry communication	**2.71**	5%	12%	21%	21%	33%	5%	3%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 8: Southern Region

Respondents in Region 8 by national forest (NF)

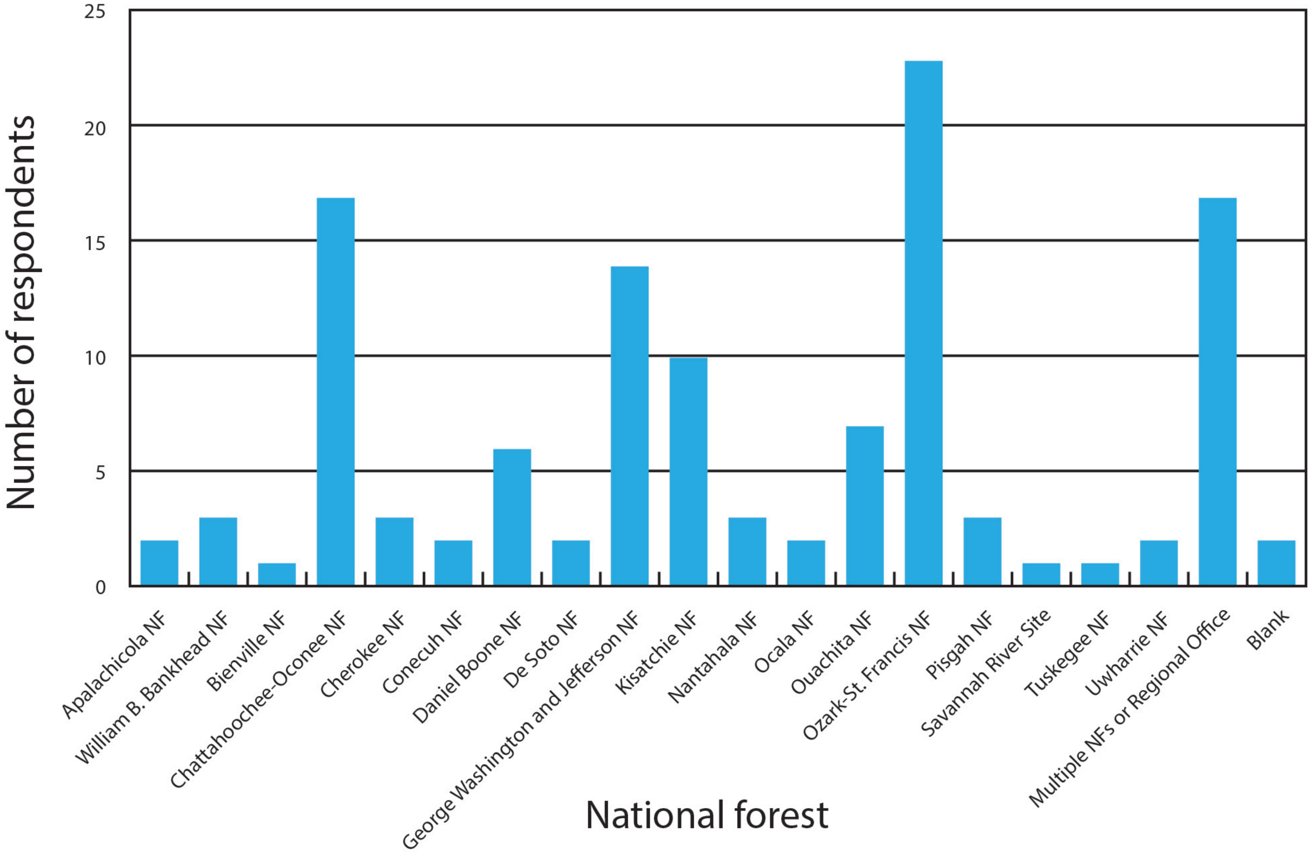

Figure C.R8.1—There were 121 total survey respondents from Region 8. On average, these respondents spent 70 percent of their work time on timber sales and had been in their current position for 7.8 years.

Table C.R8.1—Perceived frequency of no-bid sales by contract type, Region 8

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.93**	20%	16%	4%	5%	1%	44%	11%
Small business set-asides	**1.20**	20%	18%	5%	9%	2%	36%	10%
Stewardship contracts/agreements	**0.97**	27%	32%	4%	7%	2%	17%	10%
Traditional timber sale contracts	**1.38**	24%	38%	7%	12%	9%	3%	7%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R8.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 8

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.39**	24%	34%	4%	12%	9%	5%	12%
Hauling cost	**1.06**	31%	35%	3%	10%	4%	7%	10%
Equipment/implementation method	**0.65**	47%	21%	4%	5%	2%	8%	12%
Environmental mitigation	**0.69**	46%	26%	3%	2%	4%	6%	12%
Operational mitigation	**0.49**	56%	15%	3%	2%	2%	7%	13%
Deposit collections	**0.61**	42%	21%	4%	2%	2%	12%	16%
Low volume per acre	**1.05**	31%	29%	8%	8%	3%	7%	13%
Undesirable species	**1.00**	36%	26%	7%	10%	3%	5%	13%
Small tree diameter	**0.95**	34%	29%	7%	9%	2%	7%	13%
Poor tree form/low wood quality	**0.84**	40%	21%	6%	7%	2%	7%	15%
Marketability risk	**1.15**	26%	29%	6%	10%	4%	10%	15%
Seasonal restrictions	**0.71**	47%	15%	10%	6%	1%	8%	13%
Market saturation	**1.19**	30%	26%	12%	7%	7%	7%	12%
Volume/cruise risk	**0.53**	48%	18%	5%	2%	2%	12%	14%
Silvicultural prescription	**0.44**	51%	21%	4%	2%	0%	9%	13%

Responses received for survey question 20 (“Please tell us how often the following reasons play a major role in a timber sale receiving a ‘no-bid’ on your unit.”). See appendix B.

Table C.R8.3—Level of agreement with statements about underlying factors of no-bid sales, Region 8

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.26	3%	8%	6%	17%	55%	6%	5%
There is adequate staffing	1.55	26%	31%	6%	17%	12%	3%	4%
There is adequate support	2.26	12%	16%	19%	30%	17%	2%	5%
I have good communication with team	3.44	3%	4%	2%	24%	61%	2%	4%
We have good communication with industry	2.89	4%	9%	11%	36%	31%	4%	4%
Pressure from targets pushes sale forward[1]	0.81	4%	6%	9%	23%	51%	2%	4%
Market/appraisal factors								
Can respond to market factors in appraisal	2.00	12%	18%	17%	26%	8%	11%	7%
Confident in knowledge of market conditions	2.46	2%	12%	14%	34%	7%	25%	6%
Access to prices and market conditions	2.42	5%	13%	16%	15%	18%	26%	7%
Product mix reflects industry wants	2.08	7%	25%	17%	28%	9%	7%	7%
Policy factors								
Planning works within timelines	1.45	26%	23%	18%	22%	2%	3%	5%
Mitigation requirements are consistent	2.28	6%	17%	22%	38%	7%	5%	5%
Litigation hinders timelines[1]	2.29	21%	17%	20%	16%	10%	11%	5%
Staff actively involved in process	3.08	2%	8%	7%	35%	39%	3%	5%
Smooth transition from planning to contracting	2.48	6%	17%	17%	36%	18%	2%	5%
Complexity of contract[1]	2.09	12%	22%	26%	22%	7%	5%	6%
Operational factors								
Road packages more expensive than anticipated[1]	1.12	2%	7%	18%	33%	28%	5%	7%
Location impacts desirability[1]	0.64	2%	4%	4%	30%	54%	1%	5%
Purchasers have the ability to do prescribed work	2.94	1%	9%	13%	40%	28%	4%	5%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R8.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 8

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.47**	8%	11%	21%	25%	21%	9%	5%
Engineers more involved in early planning	**2.56**	10%	11%	17%	26%	28%	3%	6%
More training (respondent)	**1.94**	16%	12%	36%	15%	12%	5%	6%
More training (colleagues)	**2.52**	8%	7%	21%	37%	17%	2%	6%
Industry more involved in planning and preparation	**2.48**	10%	8%	22%	26%	22%	7%	5%
Line Officers more involved in industry communication	**2.55**	7%	11%	18%	24%	22%	12%	7%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 9: Eastern Region

Respondents in Region 9 by national forest (NF)

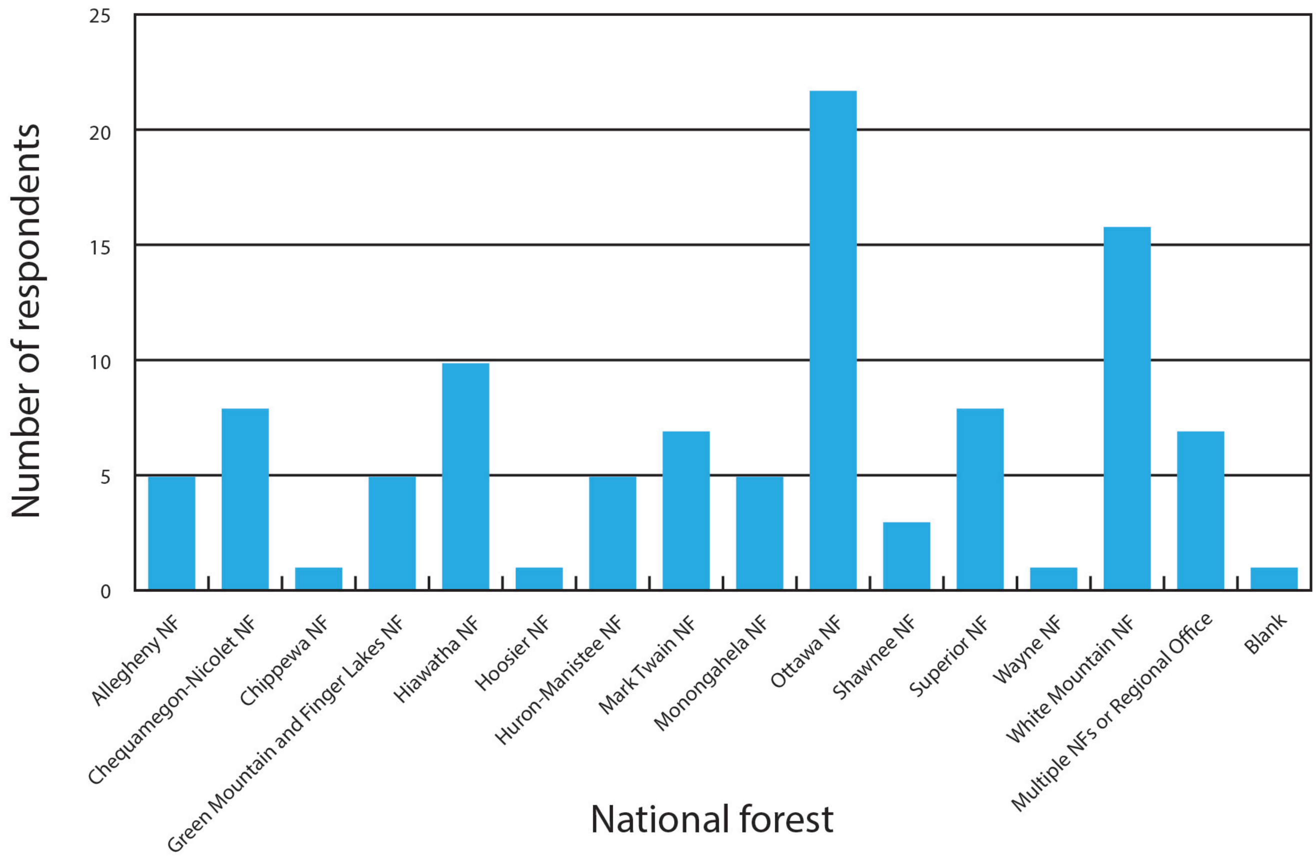

Figure C.R9.1—There were 105 total survey respondents from Region 9. On average, these respondents spent 84 percent of their work time on timber sales and had been in their current position for 8.1 years.

Table C.R9.1—Perceived frequency of no-bid sales by contract type, Region 9

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.65**	27%	32%	1%	2%	0%	32%	6%
Small business set-asides	**0.95**	20%	26%	4%	4%	2%	37%	8%
Stewardship contracts/agreements	**0.83**	35%	44%	4%	7%	1%	3%	7%
Traditional timber sale contracts	**0.91**	30%	54%	4%	5%	3%	1%	3%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table C.R9.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 9

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.60**	22%	30%	2%	13%	14%	12%	6%
Hauling cost	**0.79**	47%	20%	5%	10%	2%	10%	7%
Equipment/implementation method	**0.52**	59%	11%	4%	7%	1%	11%	7%
Environmental mitigation	**0.40**	62%	19%	2%	4%	0%	8%	6%
Operational mitigation	**0.34**	63%	18%	1%	3%	0%	8%	8%
Deposit collections	**0.39**	54%	16%	1%	4%	0%	15%	10%
Low volume per acre	**1.00**	35%	33%	7%	9%	4%	7%	6%
Undesirable species	**1.33**	20%	38%	13%	10%	5%	7%	7%
Small tree diameter	**0.55**	50%	23%	6%	4%	0%	10%	8%
Poor tree form/low wood quality	**0.91**	40%	30%	9%	8%	3%	6%	6%
Marketability risk	**1.61**	20%	27%	16%	10%	11%	9%	7%
Seasonal restrictions	**1.34**	28%	25%	16%	9%	8%	10%	6%
Market saturation	**1.01**	38%	24%	9%	7%	6%	11%	6%
Volume/cruise risk	**0.67**	50%	18%	4%	3%	5%	13%	7%
Silvicultural prescription	**0.24**	65%	12%	0%	1%	1%	12%	9%

Responses received for survey question 20 (“Please tell us how often the following reasons play a major role in a timber sale receiving a ‘no-bid’ on your unit.”). See appendix B.

Table C.R9.3—Level of agreement with statements about underlying factors of no-bid sales, Region 9

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	**3.42**	3%	5%	4%	23%	62%	3%	1%
There is adequate staffing	**2.39**	11%	19%	11%	32%	24%	0%	2%
There is adequate support	**2.34**	7%	18%	20%	37%	13%	3%	2%
I have good communication with team	**3.48**	3%	2%	6%	23%	65%	0%	2%
We have good communication with industry	**2.86**	6%	10%	10%	36%	33%	2%	3%
Pressure from targets pushes sale forward[1]	**0.82**	3%	6%	10%	32%	48%	0%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	**2.22**	10%	17%	12%	41%	9%	6%	5%
Confident in knowledge of market conditions	**2.66**	6%	10%	10%	36%	20%	12%	5%
Access to prices and market conditions	**2.27**	9%	10%	18%	25%	11%	22%	5%
Product mix reflects industry wants	**2.35**	1%	27%	18%	34%	13%	3%	4%
Policy factors								
Planning works within timelines	**2.13**	14%	21%	10%	37%	12%	1%	4%
Mitigation requirements are consistent	**2.20**	11%	24%	9%	39%	13%	0%	4%
Litigation hinders timelines[1]	**2.94**	45%	12%	21%	8%	5%	5%	5%
Staff actively involved in process	**2.90**	1%	19%	10%	24%	42%	1%	3%
Smooth transition from planning to contracting	**2.59**	3%	19%	10%	45%	18%	0%	5%
Complexity of contract[1]	**2.46**	20%	30%	19%	16%	6%	4%	6%
Operational factors								
Road packages more expensive than anticipated[1]	**1.57**	10%	15%	16%	22%	27%	8%	2%
Location impacts desirability[1]	**0.72**	1%	7%	10%	25%	53%	0%	4%
Purchasers have the ability to do prescribed work	**2.98**	3%	7%	11%	42%	31%	2%	4%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R9.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 9

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.01**	20%	11%	23%	24%	14%	5%	3%
Engineers more involved in early planning	**2.54**	13%	10%	15%	27%	30%	3%	2%
More training (respondent)	**1.51**	29%	21%	23%	16%	8%	1%	3%
More training (colleagues)	**2.32**	14%	10%	22%	30%	19%	3%	2%
Industry more involved in planning and preparation	**2.20**	14%	11%	21%	28%	15%	9%	2%
Line Officers more involved in industry communication	**2.33**	15%	10%	18%	30%	21%	3%	2%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Region 10: Alaska

Respondents in Region 10 by national forest (NF)

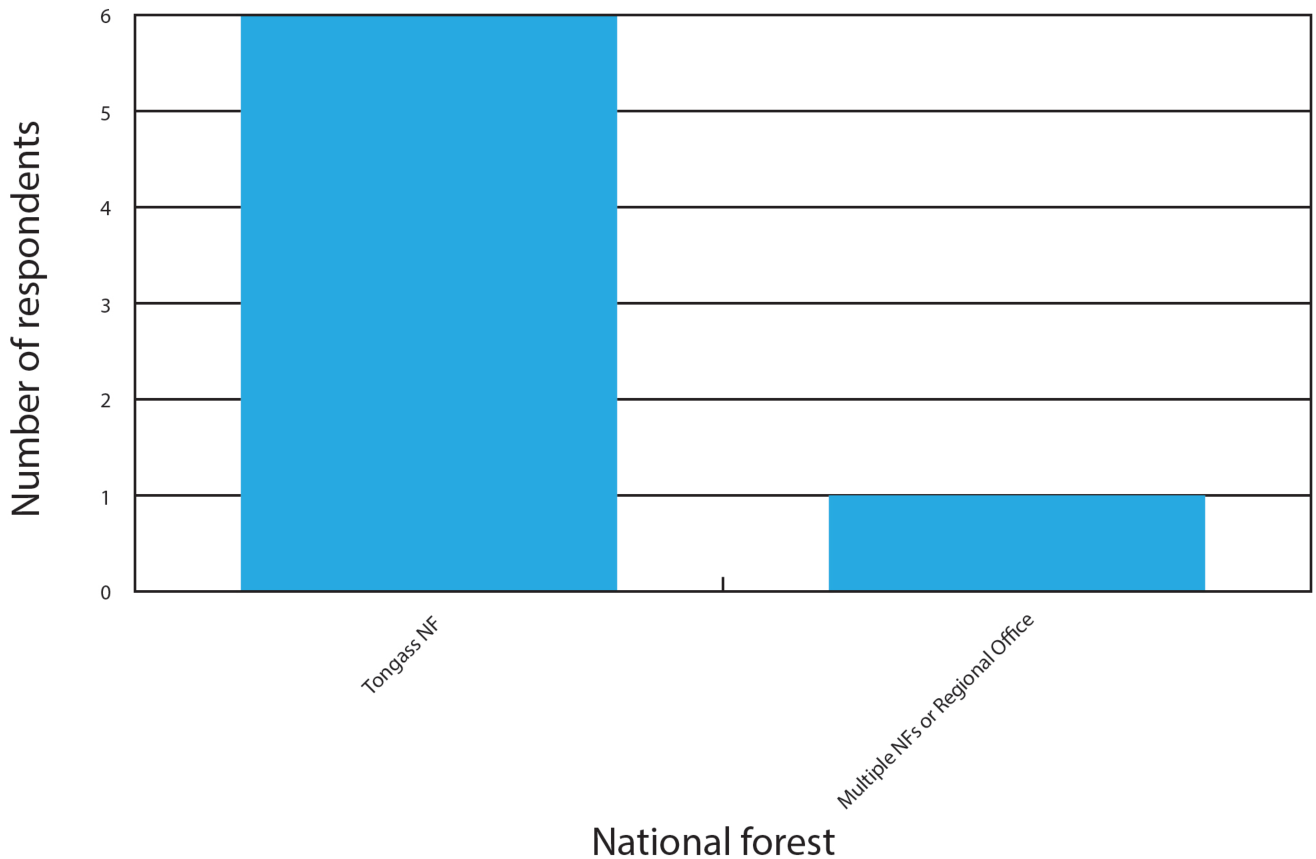

Figure C.R10.1—There were seven total survey respondents from Region 10. On average, these respondents spent 75 percent of their work time on timber sales and had been in their current position for 12.0 years.

Table C.R10.1—Perceived frequency of no-bid sales by contract type, Region 10

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.86**	43%	29%	29%	0%	0%	0%	0%
Small business set-asides	**0.40**	43%	29%	0%	0%	0%	29%	0%
Stewardship contracts/agreements	**0.57**	43%	57%	0%	0%	0%	0%	0%
Traditional timber sale contracts	**1.33**	29%	29%	14%	0%	14%	0%	14%

Responses received for survey question 18 (“Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable].”). See appendix B.

Table C.R10.2—Perceived frequency of various potential proximate causes of no-bid sales, Region 10

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**0.75**	29%	14%	14%	0%	0%	0%	43%
Hauling cost	**1.60**	14%	29%	0%	29%	0%	0%	29%
Equipment/implementation method	**1.00**	29%	14%	0%	14%	0%	14%	29%
Environmental mitigation	**2.00**	14%	14%	14%	14%	14%	0%	29%
Operational mitigation	**0.25**	43%	14%	0%	0%	0%	14%	29%
Deposit collections	**1.00**	14%	14%	14%	0%	0%	29%	29%
Low volume per acre	**1.75**	0%	29%	14%	14%	0%	14%	29%
Undesirable species	**1.50**	14%	29%	29%	14%	0%	0%	14%
Small tree diameter	**0.50**	29%	29%	0%	0%	0%	14%	29%
Poor tree form/low wood quality	**1.00**	29%	29%	0%	14%	0%	0%	29%
Marketability risk	**1.40**	14%	43%	0%	0%	14%	0%	29%
Seasonal restrictions	**0.25**	43%	14%	0%	0%	0%	14%	29%
Market saturation	**1.67**	14%	14%	0%	0%	14%	29%	29%
Volume/cruise risk	**1.25**	14%	29%	0%	14%	0%	14%	29%
Silvicultural prescription	**1.00**	29%	29%	0%	14%	0%	0%	29%

Responses received for survey question 20 (“Please tell us how often the following reasons play a major role in a timber sale receiving a ‘no-bid’ on your unit.”). See appendix B..

Table C.R10.3—Level of agreement with statements about underlying factors of no-bid sales, Region 10

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.33	0%	14%	0%	14%	57%	14%	0%
There is adequate staffing	2.33	29%	0%	0%	29%	29%	14%	0%
There is adequate support	2.40	14%	14%	0%	14%	29%	29%	0%
I have good communication with team	3.00	0%	14%	0%	43%	29%	14%	0%
We have good communication with industry	2.71	0%	14%	14%	57%	14%	0%	0%
Pressure from targets pushes sale forward[1]	0.14	0%	0%	0%	14%	86%	0%	0%
Market/appraisal factors								
Can respond to market factors in appraisal	1.00	29%	43%	29%	0%	0%	0%	0%
Confident in knowledge of market conditions	1.20	29%	14%	14%	14%	0%	29%	0%
Access to prices and market conditions	1.20	43%	0%	0%	29%	0%	29%	0%
Product mix reflects industry wants	2.29	0%	14%	43%	43%	0%	0%	0%
Policy factors								
Planning works within timelines	0.86	57%	14%	14%	14%	0%	0%	0%
Mitigation requirements are consistent	1.83	14%	14%	29%	29%	0%	14%	0%
Litigation hinders timelines[1]	0.43	0%	0%	14%	14%	71%	0%	0%
Staff actively involved in process	1.71	14%	43%	14%	14%	14%	0%	0%
Smooth transition from planning to contracting	0.71	43%	43%	14%	0%	0%	0%	0%
Complexity of contract[1]	2.00	14%	14%	29%	14%	14%	14%	0%
Operational factors								
Road packages more expensive than anticipated[1]	1.33	0%	0%	57%	0%	29%	14%	0%
Location impacts desirability[1]	0.14	0%	0%	0%	14%	86%	0%	0%
Purchasers have the ability to do prescribed work	3.43	0%	0%	14%	29%	57%	0%	0%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table C.R10.4—Perceived likelihood of success of various proposed solutions to no-bid sales, Region 10

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.86**	0%	14%	14%	43%	29%	0%	0%
Engineers more involved in early planning	**2.29**	0%	29%	29%	29%	14%	0%	0%
More training (respondent)	**1.50**	29%	14%	14%	29%	0%	14%	0%
More training (colleagues)	**2.29**	14%	14%	14%	43%	14%	0%	0%
Industry more involved in planning and preparation	**1.71**	29%	29%	0%	29%	14%	0%	0%
Line Officers more involved in industry communication	**2.29**	14%	29%	0%	29%	29%	0%	0%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

APPENDIX D

Each section of this appendix presents results by agency position, including detailed results based on responses to questions 18, 20, and 22–26 of the survey (see app. B).

Self-reported positions, shown below exactly as respondents provided them, were grouped as follows (total respondent numbers by position type are shown in fig. 5):

- Timber Marker
- Timber Management (e.g., Timber Management Assistant/Timber Management Officer)
- Other Timber Sales Preparation and Management (included numerous responses):
    - Forestry Tech – Presale
    - Lead Forestry Technician (timber)
    - Marking Crew Foreman
    - Pre-Sale Forester
    - R1 Timber Appraiser
    - Regional Office Timber Staff
    - Regional Timber Measurement Specialist R1/R4
    - Regional Timber Measurement Specialist R1/R4
    - Regional Timber Sale Administration Specialist
    - Timber crew lead
    - Timber Program Manager
    - Timber Resource Specialist
    - TMA/Pre sale/SILV/NEPA
- Timber Sale Administration (e.g., Sale Administrator, Harvest Inspector, Resource Clerk)
- Contracts and Agreements (included numerous responses):
    - Contracting Officer
    - Grants and Agreements
    - Idaho Department of Lands GNA Bureau Chief
    - Presale Resource Specialist - Contracts/Permits
    - Program Manager
    - Resource Specialist-Contract Prep
    - Stewardship Coordinator
- Engineer (e.g., Transport, Civil)
- Natural Resources Staff Officer
- Environmental Coordinator
- Line Officer, including:
    - District Ranger
    - Deputy Forest Supervisor
    - Forest Supervisor
- Other Forest Management (included numerous responses):
    - Forester
    - Forestry Tech
    - Forestry Program Manager
    - Forest Measurements Specialist
    - Recon Forester
    - Silviculturist/Research Silviculturist/Silviculture Forester

- Other Fire and Fuels Management (included numerous responses):
  - Fire Management Officer (FMO)/Assistant FMO
  - Fire Management Specialist/Assistant
  - Fuels Specialist/Assistant
  - Fire Staff Officer
  - Fuels Staff Officer
- Other Resource/Information Management (included numerous responses):
  - Archaeologist
  - Biologist/Bio Science Tech
  - Botany Specialist
  - Ecologist/Ecosystem Manager
  - Fish/Fisheries Biologist/Fish Program Lead
  - Forest Plant Ecologist
  - GIS Specialist
  - Heritage Professional/Resource Manager
  - Hydrologist
  - Information Management
  - Integrated Resource Technician
  - Lands and Minerals PM
  - Layout Technician
  - Measurements Specialist
  - Natural Resource Specialist
  - Rangeland Management Specialist
  - Realty Specialist
  - Recreation
  - Regional Valuation Specialist
  - Resource Information Specialist
  - Resource Program Manager/Specialist
  - Soil Scientist/Specialist
  - Special Uses Program Manager
  - Surveyor
  - Technical Resource Specialist
  - Wilderness/Trails Tech
  - Wildlife Biologist/Technician

For purposes of the following reporting of responses, only those respondents who used one of the prepopulated position categories were tabulated.

1. Timber Marker

Table D.1.1—Timber Markers' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.71**	21%	24%	0%	3%	0%	17%	34%
Small business set-asides	**0.42**	24%	17%	0%	0%	0%	24%	34%
Stewardship contracts/agreements	**0.84**	28%	28%	3%	7%	0%	7%	28%
Traditional timber sale contracts	**1.13**	28%	31%	7%	10%	3%	3%	17%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.1.2—Timber Markers' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.50**	14%	24%	7%	14%	3%	17%	21%
Hauling cost	**1.75**	24%	14%	3%	10%	17%	17%	14%
Equipment/implementation method	**0.94**	24%	21%	7%	7%	0%	21%	21%
Environmental mitigation	**1.21**	24%	21%	7%	10%	3%	17%	17%
Operational mitigation	**0.87**	24%	17%	3%	7%	0%	24%	24%
Deposit collections	**0.73**	34%	3%	7%	7%	0%	21%	28%
Low volume per acre	**1.73**	17%	24%	7%	17%	10%	7%	17%
Undesirable species	**1.05**	14%	41%	10%	3%	0%	10%	21%
Small tree diameter	**0.43**	48%	21%	0%	3%	0%	3%	24%
Poor tree form/low wood quality	**1.05**	24%	24%	10%	3%	3%	10%	24%
Marketability risk	**0.67**	21%	14%	7%	0%	0%	34%	24%
Seasonal restrictions	**1.50**	17%	17%	21%	10%	3%	14%	17%
Market saturation	**0.81**	28%	14%	10%	3%	0%	21%	24%
Volume/cruise risk	**0.15**	38%	7%	0%	0%	0%	31%	24%
Silvicultural prescription	**0.33**	34%	17%	0%	0%	0%	21%	28%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.1.3—Timber Markers' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.19	3%	3%	14%	21%	48%	3%	7%
There is adequate staffing	2.30	21%	10%	7%	31%	24%	0%	7%
There is adequate support	2.00	10%	24%	17%	31%	7%	3%	7%
I have good communication with team	3.38	3%	7%	3%	14%	62%	3%	7%
We have good communication with industry	3.04	3%	7%	10%	24%	38%	10%	7%
Pressure from targets pushes sale forward[1]	1.41	14%	10%	14%	17%	38%	0%	7%
Market/appraisal factors								
Can respond to market factors in appraisal	2.14	10%	14%	10%	31%	7%	7%	21%
Confident in knowledge of market conditions	1.87	10%	10%	14%	10%	7%	28%	21%
Access to prices and market conditions	2.21	7%	7%	14%	10%	10%	31%	21%
Product mix reflects industry wants	2.35	0%	21%	7%	38%	3%	14%	17%
Policy factors								
Planning works within timelines	1.83	21%	10%	14%	31%	3%	0%	21%
Mitigation requirements are consistent	1.79	17%	14%	24%	24%	3%	0%	17%
Litigation hinders timelines[1]	2.43	28%	10%	21%	10%	10%	3%	17%
Staff actively involved in process	2.71	3%	10%	10%	41%	17%	0%	17%
Smooth transition from planning to contracting	2.27	3%	10%	28%	31%	3%	3%	21%
Complexity of contract[1]	1.90	7%	14%	24%	14%	10%	10%	21%
Operational factors								
Road packages more expensive than anticipated[1]	1.38	0%	7%	21%	38%	7%	17%	10%
Location impacts desirability[1]	0.56	0%	3%	7%	24%	52%	0%	14%
Purchasers have the ability to do prescribed work	2.87	3%	0%	10%	55%	10%	7%	14%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.1.4—Timber Markers' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.35**	7%	7%	21%	24%	10%	17%	14%
Engineers more involved in early planning	**2.60**	0%	3%	24%	38%	3%	21%	10%
More training (respondent)	**2.35**	3%	14%	28%	21%	14%	10%	10%
More training (colleagues)	**2.60**	3%	14%	17%	31%	21%	3%	10%
Industry more involved in planning and preparation	**2.50**	3%	3%	28%	24%	10%	21%	10%
Line Officers more involved in industry communication	**2.48**	3%	14%	14%	38%	10%	10%	10%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

2. Timber Management Assistant/Timber Management Officer

Table D.2.1—Timber Management Assistants'/Officers' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.61**	39%	19%	5%	1%	2%	32%	2%
Small business set-asides	**1.06**	28%	20%	5%	6%	5%	31%	5%
Stewardship contracts/agreements	**0.88**	42%	27%	4%	8%	4%	13%	2%
Traditional timber sale contracts	**0.98**	38%	41%	8%	8%	4%	0%	1%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.2.2—Timber Management Assistants'/Officers' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.44**	29%	33%	3%	17%	11%	5%	2%
Hauling cost	**1.26**	37%	27%	9%	11%	10%	2%	4%
Equipment/implementation method	**0.49**	66%	16%	4%	6%	1%	4%	3%
Environmental mitigation	**0.65**	56%	26%	4%	2%	5%	3%	4%
Operational mitigation	**0.66**	55%	25%	5%	6%	2%	4%	3%
Deposit collections	**0.66**	51%	29%	3%	7%	1%	6%	3%
Low volume per acre	**1.25**	31%	32%	15%	11%	6%	3%	2%
Undesirable species	**0.94**	37%	38%	9%	8%	2%	3%	3%
Small tree diameter	**0.95**	44%	29%	6%	12%	3%	3%	3%
Poor tree form/low wood quality	**0.68**	54%	23%	8%	8%	0%	3%	4%
Marketability risk	**1.02**	41%	29%	12%	8%	5%	2%	3%
Seasonal restrictions	**1.03**	36%	32%	11%	8%	4%	6%	3%
Market saturation	**0.95**	42%	30%	9%	8%	4%	4%	3%
Volume/cruise risk	**0.27**	69%	22%	0%	1%	0%	3%	5%
Silvicultural prescription	**0.23**	76%	15%	2%	1%	0%	2%	4%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.2.3—Timber Management Assistants'/Officers' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	**3.65**	1%	4%	1%	16%	76%	1%	1%
There is adequate staffing	**1.55**	29%	31%	6%	19%	13%	1%	1%
There is adequate support	**2.07**	9%	28%	18%	33%	10%	1%	1%
I have good communication with team	**3.54**	1%	2%	3%	29%	63%	1%	1%
We have good communication with industry	**3.05**	1%	11%	10%	36%	40%	1%	1%
Pressure from targets pushes sale forward[1]	**0.65**	1%	6%	7%	27%	56%	2%	1%
Market/appraisal factors								
Can respond to market factors in appraisal	**2.05**	10%	34%	7%	35%	12%	1%	1%
Confident in knowledge of market conditions	**2.86**	1%	12%	10%	51%	23%	1%	2%
Access to prices and market conditions	**2.38**	10%	22%	10%	30%	24%	2%	2%
Product mix reflects industry wants	**2.31**	4%	26%	19%	32%	16%	1%	2%
Policy factors								
Planning works within timelines	**1.49**	33%	24%	10%	22%	9%	1%	1%
Mitigation requirements are consistent	**1.87**	20%	25%	10%	34%	9%	1%	1%
Litigation hinders timelines[1]	**2.32**	30%	18%	13%	23%	12%	3%	1%
Staff actively involved in process	**3.00**	1%	17%	6%	30%	43%	2%	1%
Smooth transition from planning to contracting	**2.59**	6%	16%	10%	46%	20%	1%	1%
Complexity of contract[1]	**2.42**	26%	23%	24%	14%	10%	1%	2%
Operational factors								
Road packages more expensive than anticipated[1]	**1.38**	6%	14%	12%	33%	24%	8%	3%
Location impacts desirability[1]	**0.52**	1%	5%	2%	27%	62%	1%	2%
Purchasers have the ability to do prescribed work	**2.93**	1%	12%	6%	50%	26%	4%	1%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.2.4—Timber Management Assistants'/Officers' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.02**	18%	16%	28%	20%	17%	0%	1%
Engineers more involved in early planning	**2.28**	17%	15%	15%	26%	25%	1%	1%
More training (respondent)	**1.74**	19%	23%	28%	20%	8%	1%	1%
More training (colleagues)	**2.48**	9%	9%	23%	40%	17%	1%	1%
Industry more involved in planning and preparation	**2.06**	20%	15%	22%	23%	19%	0%	1%
Line Officers more involved in industry communication	**2.35**	14%	14%	20%	24%	26%	1%	1%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

3. Pre-Sale Forester

Table D.3.1—Pre-Sale Foresters' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.57**	28%	20%	1%	1%	1%	42%	7%
Small business set-asides	**0.88**	31%	18%	4%	5%	3%	33%	6%
Stewardship contracts/agreements	**0.62**	46%	24%	7%	4%	0%	14%	4%
Traditional timber sale contracts	**0.98**	33%	45%	7%	4%	5%	2%	3%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.3.2—Pre-Sale Foresters' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.55**	25%	23%	9%	9%	13%	11%	9%
Hauling cost	**1.35**	30%	29%	4%	9%	12%	6%	9%
Equipment/implementation method	**0.67**	51%	20%	3%	4%	4%	7%	11%
Environmental mitigation	**0.69**	44%	25%	4%	3%	3%	9%	11%
Operational mitigation	**0.55**	49%	23%	3%	5%	0%	8%	11%
Deposit collections	**0.71**	36%	19%	4%	2%	3%	21%	15%
Low volume per acre	**1.31**	30%	27%	5%	14%	7%	6%	10%
Undesirable species	**1.09**	33%	30%	4%	10%	5%	6%	11%
Small tree diameter	**0.94**	37%	26%	8%	7%	3%	5%	13%
Poor tree form/low wood quality	**0.75**	43%	26%	4%	6%	2%	9%	9%
Marketability risk	**1.08**	32%	25%	9%	5%	6%	10%	12%
Seasonal restrictions	**1.29**	30%	25%	13%	8%	8%	6%	9%
Market saturation	**0.92**	32%	30%	4%	3%	5%	14%	11%
Volume/cruise risk	**0.39**	53%	14%	3%	1%	1%	15%	12%
Silvicultural prescription	**0.30**	58%	14%	4%	0%	0%	12%	11%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.3.3—Pre-Sale Foresters' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.38	1%	9%	2%	25%	61%	0%	2%
There is adequate staffing	1.58	26%	34%	6%	20%	12%	0%	2%
There is adequate support	2.06	11%	23%	21%	33%	9%	1%	2%
I have good communication with team	3.49	1%	4%	0%	33%	60%	0%	2%
We have good communication with industry	2.99	2%	8%	10%	44%	32%	0%	3%
Pressure from targets pushes sale forward[1]	0.74	3%	5%	8%	28%	53%	1%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	2.20	8%	19%	20%	39%	7%	3%	4%
Confident in knowledge of market conditions	2.43	5%	20%	13%	41%	14%	3%	3%
Access to prices and market conditions	2.38	12%	18%	10%	28%	25%	3%	4%
Product mix reflects industry wants	2.51	0%	20%	19%	44%	11%	2%	4%
Policy factors								
Planning works within timelines	1.64	24%	26%	15%	26%	6%	1%	2%
Mitigation requirements are consistent	2.07	13%	22%	15%	32%	11%	4%	2%
Litigation hinders timelines[1]	2.28	28%	12%	20%	20%	11%	7%	2%
Staff actively involved in process	2.98	1%	15%	12%	25%	44%	0%	2%
Smooth transition from planning to contracting	2.36	7%	21%	11%	42%	13%	2%	3%
Complexity of contract[1]	2.42	20%	23%	28%	18%	3%	6%	3%
Operational factors								
Road packages more expensive than anticipated[1]	1.24	6%	8%	16%	31%	30%	4%	4%
Location impacts desirability[1]	0.79	1%	6%	11%	32%	47%	0%	2%
Purchasers have the ability to do prescribed work	3.10	1%	4%	13%	38%	34%	6%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.3.4—Pre-Sale Foresters' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.39**	9%	10%	29%	29%	19%	3%	1%
Engineers more involved in early planning	**2.80**	5%	6%	22%	33%	30%	3%	1%
More training (respondent)	**2.16**	8%	22%	25%	31%	11%	2%	1%
More training (colleagues)	**2.85**	3%	7%	21%	37%	30%	1%	1%
Industry more involved in planning and preparation	**2.48**	6%	13%	23%	29%	21%	7%	1%
Line Officers more involved in industry communication	**2.59**	6%	10%	23%	33%	23%	4%	1%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

4. Timber Sale Administrator

Table D.4.1—Timber Sale Administrators' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.48**	28%	21%	2%	0%	0%	38%	10%
Small business set-asides	**0.71**	31%	16%	3%	4%	1%	36%	9%
Stewardship contracts/agreements	**0.87**	28%	40%	3%	3%	3%	15%	7%
Traditional timber sale contracts	**1.21**	23%	50%	7%	5%	9%	3%	4%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.4.2—Timber Sale Administrators' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.54**	22%	26%	8%	16%	9%	13%	6%
Hauling cost	**1.33**	31%	29%	5%	15%	9%	7%	5%
Equipment/implementation method	**0.74**	46%	21%	7%	8%	1%	11%	6%
Environmental mitigation	**0.58**	55%	17%	4%	5%	2%	10%	7%
Operational mitigation	**0.58**	56%	16%	5%	2%	4%	9%	7%
Deposit collections	**0.51**	48%	21%	8%	1%	0%	15%	7%
Low volume per acre	**1.23**	31%	29%	9%	10%	7%	7%	7%
Undesirable species	**1.14**	37%	25%	10%	10%	6%	6%	6%
Small tree diameter	**1.09**	38%	22%	9%	11%	5%	8%	7%
Poor tree form/low wood quality	**0.96**	43%	21%	8%	9%	4%	9%	7%
Marketability risk	**1.17**	36%	18%	7%	14%	5%	12%	9%
Seasonal restrictions	**1.26**	32%	25%	9%	11%	8%	9%	6%
Market saturation	**0.65**	51%	20%	4%	5%	3%	11%	6%
Volume/cruise risk	**0.65**	46%	26%	0%	5%	3%	13%	8%
Silvicultural prescription	**0.53**	55%	18%	4%	3%	2%	10%	8%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.4.3—Timber Sale Administrators' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.17	4%	11%	5%	17%	56%	3%	3%
There is adequate staffing	1.93	19%	26%	10%	27%	15%	0%	3%
There is adequate support	2.23	9%	19%	21%	32%	14%	3%	3%
I have good communication with team	3.47	2%	5%	4%	20%	64%	2%	3%
We have good communication with industry	2.90	7%	9%	9%	27%	39%	4%	3%
Pressure from targets pushes sale forward[1]	0.85	3%	5%	14%	26%	45%	3%	3%
Market/appraisal factors								
Can respond to market factors in appraisal	2.15	9%	16%	24%	22%	13%	12%	3%
Confident in knowledge of market conditions	2.65	1%	11%	19%	33%	15%	18%	3%
Access to prices and market conditions	2.55	6%	7%	16%	20%	18%	30%	3%
Product mix reflects industry wants	2.15	8%	27%	13%	32%	12%	5%	3%
Policy factors								
Planning works within timelines	1.58	21%	23%	19%	24%	2%	9%	3%
Mitigation requirements are consistent	2.16	9%	19%	21%	32%	9%	8%	3%
Litigation hinders timelines[1]	2.08	19%	9%	22%	12%	15%	18%	5%
Staff actively involved in process	2.78	2%	18%	13%	26%	33%	4%	3%
Smooth transition from planning to contracting	2.26	8%	20%	20%	30%	15%	4%	4%
Complexity of contract[1]	2.30	15%	27%	21%	22%	4%	6%	3%
Operational factors								
Road packages more expensive than anticipated[1]	1.31	5%	9%	21%	26%	26%	9%	3%
Location impacts desirability[1]	0.66	2%	7%	7%	21%	57%	3%	3%
Purchasers have the ability to do prescribed work	2.90	2%	7%	16%	40%	26%	6%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.4.4—Timber Sale Administrators' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.75**	4%	6%	23%	29%	26%	9%	3%
Engineers more involved in early planning	**2.81**	4%	8%	21%	22%	32%	9%	4%
More training (respondent)	**1.91**	18%	12%	30%	22%	9%	5%	4%
More training (colleagues)	**2.69**	5%	7%	24%	30%	25%	5%	4%
Industry more involved in planning and preparation	**2.53**	7%	10%	21%	25%	22%	11%	3%
Line Officers more involved in industry communication	**2.67**	10%	5%	15%	26%	28%	11%	3%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

5. Contracting Officer

Table D.5.1—Contracting Officers' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.51**	42%	17%	3%	3%	0%	28%	7%
Small business set-asides	**1.05**	27%	27%	3%	3%	7%	27%	7%
Stewardship contracts/agreements	**0.61**	52%	27%	8%	2%	2%	5%	5%
Traditional timber sale contracts	**0.74**	43%	45%	3%	0%	5%	0%	3%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.5.2—Contracting Officers' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.12**	30%	37%	3%	13%	3%	8%	5%
Hauling cost	**1.08**	32%	38%	3%	10%	5%	5%	7%
Equipment/implementation method	**0.51**	52%	27%	3%	3%	0%	10%	5%
Environmental mitigation	**0.70**	50%	27%	3%	5%	3%	7%	5%
Operational mitigation	**0.53**	52%	28%	0%	3%	2%	8%	7%
Deposit collections	**0.69**	53%	18%	7%	5%	3%	8%	5%
Low volume per acre	**0.90**	35%	35%	7%	10%	0%	8%	5%
Undesirable species	**0.77**	33%	45%	3%	5%	0%	7%	7%
Small tree diameter	**0.75**	38%	40%	3%	7%	0%	7%	5%
Poor tree form/low wood quality	**0.51**	55%	25%	5%	3%	0%	5%	7%
Marketability risk	**0.89**	32%	40%	12%	5%	0%	7%	5%
Seasonal restrictions	**1.13**	33%	35%	8%	8%	7%	3%	5%
Market saturation	**0.79**	40%	32%	10%	3%	2%	8%	5%
Volume/cruise risk	**0.47**	53%	30%	3%	2%	0%	7%	5%
Silvicultural prescription	**0.53**	50%	30%	2%	2%	2%	10%	5%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.5.3—Contracting Officers' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	**3.33**	0%	8%	8%	23%	57%	0%	3%
There is adequate staffing	**1.72**	17%	35%	13%	22%	10%	0%	3%
There is adequate support	**2.57**	5%	13%	22%	35%	22%	0%	3%
I have good communication with team	**3.62**	2%	0%	2%	27%	67%	0%	3%
We have good communication with industry	**3.41**	0%	8%	2%	28%	58%	0%	3%
Pressure from targets pushes sale forward[1]	**0.86**	2%	3%	20%	27%	45%	0%	3%
Market/appraisal factors								
Can respond to market factors in appraisal	**2.33**	5%	27%	12%	35%	17%	0%	5%
Confident in knowledge of market conditions	**2.98**	2%	8%	13%	37%	33%	0%	7%
Access to prices and market conditions	**2.80**	3%	15%	13%	25%	35%	3%	5%
Product mix reflects industry wants	**2.56**	0%	22%	15%	42%	17%	0%	5%
Policy factors								
Planning works within timelines	**1.48**	23%	35%	12%	22%	5%	0%	3%
Mitigation requirements are consistent	**1.91**	12%	32%	17%	23%	12%	2%	3%
Litigation hinders timelines[1]	**2.13**	22%	13%	20%	32%	7%	3%	3%
Staff actively involved in process	**2.79**	0%	17%	13%	38%	27%	0%	5%
Smooth transition from planning to contracting	**2.29**	3%	25%	17%	43%	8%	0%	3%
Complexity of contract[1]	**2.23**	12%	37%	17%	22%	8%	2%	3%
Operational factors								
Road packages more expensive than anticipated[1]	**1.45**	7%	12%	22%	30%	23%	3%	3%
Location impacts desirability[1]	**0.78**	0%	3%	12%	42%	40%	0%	3%
Purchasers have the ability to do prescribed work	**2.97**	0%	10%	12%	47%	28%	0%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.5.4—Contracting Officers' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.64**	12%	5%	17%	37%	27%	0%	3%
Engineers more involved in early planning	**2.82**	7%	5%	18%	32%	32%	2%	5%
More training (respondent)	**1.44**	27%	17%	30%	13%	3%	5%	5%
More training (colleagues)	**2.68**	10%	3%	20%	35%	27%	2%	3%
Industry more involved in planning and preparation	**2.40**	7%	10%	30%	35%	13%	0%	5%
Line Officers more involved in industry communication	**2.77**	7%	10%	17%	25%	35%	2%	5%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

6. Engineer

Table D.6.1—Engineers' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	0.63	22%	25%	3%	0%	0%	27%	22%
Small business set-asides	0.81	17%	25%	5%	2%	0%	29%	22%
Stewardship contracts/agreements	0.95	25%	30%	3%	10%	0%	8%	24%
Traditional timber sale contracts	1.23	22%	40%	5%	11%	5%	5%	13%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.6.2—Engineers' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	1.73	21%	25%	6%	16%	14%	5%	13%
Hauling cost	1.72	17%	21%	6%	11%	13%	17%	14%
Equipment/implementation method	0.97	24%	21%	2%	3%	5%	27%	19%
Environmental mitigation	1.12	32%	16%	2%	10%	6%	16%	19%
Operational mitigation	0.74	33%	17%	2%	8%	0%	21%	19%
Deposit collections	0.82	27%	16%	5%	6%	0%	27%	19%
Low volume per acre	1.70	11%	24%	11%	8%	10%	16%	21%
Undesirable species	1.47	16%	27%	10%	10%	6%	13%	19%
Small tree diameter	1.25	14%	27%	8%	3%	5%	24%	19%
Poor tree form/low wood quality	1.38	13%	25%	13%	10%	2%	17%	21%
Marketability risk	1.40	16%	19%	6%	11%	3%	25%	19%
Seasonal restrictions	1.43	19%	14%	11%	2%	10%	24%	21%
Market saturation	1.20	25%	24%	2%	6%	8%	17%	17%
Volume/cruise risk	0.93	25%	10%	6%	3%	3%	32%	21%
Silvicultural prescription	0.81	25%	14%	3%	6%	0%	30%	21%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.6.3—Engineers' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	2.52	10%	19%	6%	29%	29%	6%	2%
There is adequate staffing	1.34	32%	30%	8%	16%	8%	3%	3%
There is adequate support	1.75	11%	35%	24%	17%	8%	0%	5%
I have good communication with team	3.05	3%	6%	11%	38%	38%	0%	3%
We have good communication with industry	2.66	3%	13%	19%	30%	24%	8%	3%
Pressure from targets pushes sale forward[1]	0.59	2%	0%	14%	19%	57%	6%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	1.88	5%	16%	30%	14%	2%	27%	6%
Confident in knowledge of market conditions	2.16	5%	10%	22%	16%	6%	37%	5%
Access to prices and market conditions	1.59	8%	6%	24%	5%	0%	52%	5%
Product mix reflects industry wants	1.92	5%	14%	25%	13%	3%	33%	6%
Policy factors								
Planning works within timelines	1.79	13%	25%	24%	22%	5%	10%	2%
Mitigation requirements are consistent	1.96	13%	17%	19%	27%	6%	14%	3%
Litigation hinders timelines[1]	1.74	11%	16%	17%	22%	19%	11%	3%
Staff actively involved in process	3.15	2%	8%	11%	29%	46%	3%	2%
Smooth transition from planning to contracting	2.16	2%	29%	24%	27%	10%	6%	3%
Complexity of contract[1]	1.98	3%	24%	30%	19%	6%	13%	5%
Operational factors								
Road packages more expensive than anticipated[1]	1.87	11%	25%	13%	32%	14%	3%	2%
Location impacts desirability[1]	0.71	3%	5%	5%	30%	51%	3%	3%
Purchasers have the ability to do prescribed work	3.04	3%	8%	10%	30%	38%	8%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.6.4—Engineers' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.08**	13%	13%	17%	22%	11%	22%	2%
Engineers more involved in early planning	**2.71**	13%	5%	13%	29%	33%	6%	2%
More training (respondent)	**2.41**	11%	10%	21%	35%	17%	3%	3%
More training (colleagues)	**2.55**	10%	5%	24%	33%	21%	6%	2%
Industry more involved in planning and preparation	**2.42**	6%	10%	25%	29%	14%	14%	2%
Line Officers more involved in industry communication	**2.59**	6%	10%	17%	25%	22%	16%	3%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

7. Natural Resources Staff Officer

Table D.7.1—Natural Resources Staff Officers' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.54**	38%	12%	2%	5%	0%	33%	10%
Small business set-asides	**0.84**	33%	17%	0%	5%	5%	24%	17%
Stewardship contracts/agreements	**0.71**	38%	36%	0%	7%	0%	10%	10%
Traditional timber sale contracts	**0.90**	33%	45%	7%	5%	2%	0%	7%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.7.2—Natural Resources Staff Officers' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.54**	17%	40%	12%	5%	14%	2%	10%
Hauling cost	**1.40**	24%	31%	7%	14%	7%	5%	12%
Equipment/implementation method	**0.54**	52%	29%	5%	0%	2%	2%	10%
Environmental mitigation	**0.59**	48%	36%	0%	2%	2%	2%	10%
Operational mitigation	**0.68**	45%	36%	2%	0%	5%	2%	10%
Deposit collections	**0.56**	52%	17%	0%	2%	5%	12%	12%
Low volume per acre	**0.76**	36%	45%	5%	5%	0%	2%	7%
Undesirable species	**0.83**	40%	26%	12%	7%	0%	2%	12%
Small tree diameter	**0.63**	52%	31%	7%	5%	0%	0%	5%
Poor tree form/low wood quality	**0.69**	55%	17%	2%	10%	2%	2%	12%
Marketability risk	**0.69**	50%	19%	10%	7%	0%	5%	10%
Seasonal restrictions	**0.94**	26%	43%	10%	2%	2%	7%	10%
Market saturation	**0.78**	43%	31%	10%	0%	5%	2%	10%
Volume/cruise risk	**0.29**	64%	14%	0%	0%	2%	10%	10%
Silvicultural prescription	**0.36**	62%	21%	0%	0%	2%	2%	12%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.7.3—Natural Resources Staff Officers' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	2.88	5%	14%	12%	21%	43%	2%	2%
There is adequate staffing	1.44	33%	31%	2%	19%	12%	0%	2%
There is adequate support	2.03	12%	24%	19%	31%	10%	2%	2%
I have good communication with team	3.37	0%	5%	5%	38%	50%	0%	2%
We have good communication with industry	3.28	2%	7%	7%	21%	55%	2%	5%
Pressure from targets pushes sale forward[1]	0.76	2%	5%	7%	36%	48%	0%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	2.00	2%	36%	19%	21%	10%	2%	10%
Confident in knowledge of market conditions	2.70	0%	10%	10%	36%	10%	26%	10%
Access to prices and market conditions	2.87	0%	5%	7%	33%	10%	36%	10%
Product mix reflects industry wants	2.14	2%	24%	26%	26%	7%	5%	10%
Policy factors								
Planning works within timelines	1.78	24%	24%	7%	31%	10%	0%	5%
Mitigation requirements are consistent	2.15	7%	29%	14%	33%	12%	2%	2%
Litigation hinders timelines[1]	1.83	21%	12%	10%	17%	26%	12%	2%
Staff actively involved in process	3.23	0%	5%	7%	45%	38%	2%	2%
Smooth transition from planning to contracting	2.60	5%	17%	10%	45%	19%	0%	5%
Complexity of contract[1]	1.92	14%	12%	19%	33%	7%	12%	2%
Operational factors								
Road packages more expensive than anticipated[1]	1.14	0%	7%	26%	26%	29%	5%	7%
Location impacts desirability[1]	0.60	0%	2%	5%	40%	48%	0%	5%
Purchasers have the ability to do prescribed work	2.92	0%	5%	19%	48%	21%	0%	7%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.7.4—Natural Resources Staff Officers' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.25**	10%	21%	21%	21%	21%	0%	5%
Engineers more involved in early planning	**2.88**	5%	10%	12%	36%	33%	2%	2%
More training (respondent)	**1.74**	21%	17%	31%	7%	14%	5%	5%
More training (colleagues)	**2.53**	12%	5%	21%	36%	21%	2%	2%
Industry more involved in planning and preparation	**2.23**	12%	10%	31%	31%	12%	0%	5%
Line Officers more involved in industry communication	**2.89**	5%	7%	10%	38%	29%	5%	7%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if...."). See appendix B.

8. National Environmental Policy Act (NEPA)/Environmental Coordinator

Table D.8.1—NEPA/Environmental Coordinators' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.67**	22%	22%	6%	0%	0%	33%	17%
Small business set-asides	**0.83**	22%	6%	0%	0%	6%	50%	17%
Stewardship contracts/agreements	**1.17**	17%	33%	11%	0%	6%	22%	11%
Traditional timber sale contracts	**1.75**	11%	17%	22%	11%	6%	22%	11%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.8.2—NEPA/Environmental Coordinators' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.80**	11%	17%	6%	17%	6%	28%	17%
Hauling cost	**1.64**	28%	6%	0%	17%	11%	28%	11%
Equipment/implementation method	**1.64**	6%	39%	0%	6%	11%	28%	11%
Environmental mitigation	**1.73**	17%	22%	0%	6%	17%	28%	11%
Operational mitigation	**1.56**	11%	22%	6%	0%	11%	39%	11%
Deposit collections	**0.67**	17%	11%	6%	0%	0%	56%	11%
Low volume per acre	**2.20**	11%	6%	11%	17%	11%	33%	11%
Undesirable species	**2.08**	22%	6%	0%	22%	17%	22%	11%
Small tree diameter	**1.90**	17%	11%	0%	17%	11%	33%	11%
Poor tree form/low wood quality	**2.27**	17%	6%	0%	22%	17%	28%	11%
Marketability risk	**1.55**	17%	22%	0%	17%	6%	28%	11%
Seasonal restrictions	**2.09**	11%	6%	22%	11%	11%	28%	11%
Market saturation	**1.13**	28%	0%	6%	6%	6%	44%	11%
Volume/cruise risk	**1.88**	17%	6%	0%	11%	11%	44%	11%
Silvicultural prescription	**1.80**	11%	17%	6%	17%	6%	33%	11%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.8.3—NEPA/Environmental Coordinators' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	2.65	0%	22%	11%	39%	22%	0%	6%
There is adequate staffing	1.24	50%	11%	6%	17%	11%	0%	6%
There is adequate support	1.93	11%	22%	22%	17%	11%	11%	6%
I have good communication with team	2.63	6%	17%	6%	39%	22%	6%	6%
We have good communication with industry	2.40	17%	6%	6%	39%	17%	11%	6%
Pressure from targets pushes sale forward[1]	0.76	0%	0%	17%	39%	39%	0%	6%
Market/appraisal factors								
Can respond to market factors in appraisal	1.22	17%	11%	17%	6%	0%	39%	11%
Confident in knowledge of market conditions	1.60	6%	6%	11%	6%	0%	61%	11%
Access to prices and market conditions	3.33	0%	0%	0%	11%	6%	72%	11%
Product mix reflects industry wants	1.44	6%	22%	17%	6%	0%	39%	11%
Policy factors								
Planning works within timelines	1.94	11%	28%	17%	33%	6%	0%	6%
Mitigation requirements are consistent	1.88	17%	22%	22%	22%	11%	0%	6%
Litigation hinders timelines[1]	1.94	22%	17%	17%	11%	28%	0%	6%
Staff actively involved in process	2.35	11%	22%	11%	22%	28%	0%	6%
Smooth transition from planning to contracting	2.06	11%	33%	6%	28%	17%	0%	6%
Complexity of contract[1]	1.75	0%	6%	28%	6%	6%	44%	11%
Operational factors								
Road packages more expensive than anticipated[1]	1.20	0%	11%	11%	11%	22%	33%	11%
Location impacts desirability[1]	0.88	0%	0%	28%	28%	39%	0%	6%
Purchasers have the ability to do prescribed work	2.43	11%	6%	11%	39%	11%	11%	11%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.8.4—NEPA/Environmental Coordinators' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.53**	11%	11%	17%	28%	28%	0%	6%
Engineers more involved in early planning	**2.63**	6%	6%	28%	28%	22%	6%	6%
More training (respondent)	**1.53**	17%	28%	33%	17%	0%	0%	6%
More training (colleagues)	**2.35**	6%	17%	22%	39%	11%	0%	6%
Industry more involved in planning and preparation	**2.41**	6%	11%	33%	28%	17%	0%	6%
Line Officers more involved in industry communication	**2.53**	6%	6%	33%	33%	17%	0%	6%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

9. Line Officer (District Ranger or Forest Supervisor)

Table D.9.1—Line Officers' (including District Rangers and Forest Supervisors) perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.83**	21%	15%	6%	4%	0%	52%	2%
Small business set-asides	**1.11**	25%	13%	6%	4%	6%	42%	4%
Stewardship contracts/agreements	**0.83**	31%	29%	4%	2%	4%	29%	2%
Traditional timber sale contracts	**1.59**	21%	38%	8%	12%	15%	4%	2%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.9.2—Line Officers' (including District Rangers and Forest Supervisors) perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.59**	17%	37%	6%	13%	12%	13%	2%
Hauling cost	**1.79**	23%	27%	8%	15%	19%	6%	2%
Equipment/implementation method	**0.55**	54%	21%	6%	2%	2%	13%	2%
Environmental mitigation	**0.39**	63%	27%	2%	2%	0%	4%	2%
Operational mitigation	**0.50**	60%	19%	6%	2%	2%	10%	2%
Deposit collections	**0.41**	52%	13%	2%	4%	0%	25%	4%
Low volume per acre	**1.04**	38%	33%	2%	12%	6%	6%	4%
Undesirable species	**1.10**	33%	35%	13%	6%	6%	6%	2%
Small tree diameter	**0.93**	44%	23%	10%	6%	6%	10%	2%
Poor tree form/low wood quality	**1.07**	37%	29%	10%	8%	6%	10%	2%
Marketability risk	**1.09**	33%	29%	12%	6%	6%	13%	2%
Seasonal restrictions	**0.78**	44%	27%	12%	4%	2%	10%	2%
Market saturation	**1.14**	38%	19%	8%	4%	12%	15%	4%
Volume/cruise risk	**0.54**	50%	19%	6%	4%	0%	17%	4%
Silvicultural prescription	**0.33**	58%	23%	2%	0%	0%	13%	4%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.9.3—Line Officers' (including District Rangers and Forest Supervisors) level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.40	2%	8%	2%	23%	62%	2%	2%
There is adequate staffing	1.71	27%	25%	6%	17%	17%	6%	2%
There is adequate support	2.00	12%	21%	29%	17%	13%	6%	2%
I have good communication with team	3.54	2%	2%	6%	19%	67%	2%	2%
We have good communication with industry	3.28	0%	6%	8%	37%	46%	2%	2%
Pressure from targets pushes sale forward[1]	1.06	6%	8%	17%	23%	44%	0%	2%
Market/appraisal factors								
Can respond to market factors in appraisal	1.61	15%	33%	23%	19%	4%	4%	2%
Confident in knowledge of market conditions	2.24	6%	17%	12%	27%	10%	25%	4%
Access to prices and market conditions	2.00	13%	6%	10%	13%	10%	42%	6%
Product mix reflects industry wants	2.25	4%	21%	23%	37%	8%	6%	2%
Policy factors								
Planning works within timelines	1.78	21%	23%	17%	29%	8%	0%	2%
Mitigation requirements are consistent	2.08	10%	23%	25%	31%	10%	0%	2%
Litigation hinders timelines[1]	2.53	35%	17%	21%	6%	15%	4%	2%
Staff actively involved in process	3.62	0%	4%	2%	21%	69%	2%	2%
Smooth transition from planning to contracting	2.73	4%	10%	15%	50%	19%	0%	2%
Complexity of contract[1]	2.40	17%	23%	33%	13%	4%	8%	2%
Operational factors								
Road packages more expensive than anticipated[1]	1.31	8%	6%	23%	29%	29%	4%	2%
Location impacts desirability[1]	0.96	6%	8%	10%	29%	46%	0%	2%
Purchasers have the ability to do prescribed work	2.78	4%	8%	19%	40%	25%	0%	4%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.9.4—Line Officers' (including District Rangers and Forest Supervisors) perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**1.57**	19%	19%	44%	15%	0%	0%	2%
Engineers more involved in early planning	**2.24**	6%	23%	25%	27%	15%	2%	2%
More training (respondent)	**1.60**	25%	12%	40%	15%	4%	2%	2%
More training (colleagues)	**2.10**	10%	19%	29%	33%	8%	0%	2%
Industry more involved in planning and preparation	**2.04**	21%	12%	23%	23%	17%	2%	2%
Line Officers more involved in industry communication	**2.06**	13%	12%	37%	25%	10%	2%	2%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

10. Silviculturist

Table D.10.1—Silviculturists' perceived frequency of no-bid sales by contract type

Contract type	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Good Neighbor Authority	**0.56**	38%	19%	6%	2%	0%	31%	5%
Small business set-asides	**0.95**	25%	28%	5%	6%	2%	28%	6%
Stewardship contracts/agreements	**0.94**	30%	34%	5%	8%	2%	17%	5%
Traditional timber sale contracts	**1.32**	25%	38%	9%	16%	5%	3%	5%

Responses received for survey question 18 ("Please tell us how often each of these common contracts or agreements goes no-bid on your unit [if applicable]."). See appendix B.

Table D.10.2— Silviculturists' perceived frequency of various potential proximate causes of no-bid sales

Proximate cause	Score	Never/ rarely	Sometimes	About half the time	Often	Almost always/ always	Not applicable	(Blank)
Construction/reconstruction	**1.79**	14%	31%	2%	13%	16%	13%	13%
Hauling cost	**1.61**	25%	27%	2%	8%	19%	8%	13%
Equipment/implementation method	**0.98**	34%	28%	0%	9%	5%	13%	11%
Environmental mitigation	**0.78**	41%	30%	0%	5%	5%	9%	11%
Operational mitigation	**0.73**	44%	22%	2%	6%	3%	11%	13%
Deposit collections	**0.81**	36%	19%	3%	3%	5%	22%	13%
Low volume per acre	**1.65**	22%	28%	3%	9%	17%	8%	13%
Undesirable species	**1.45**	23%	27%	9%	19%	5%	5%	13%
Small tree diameter	**1.37**	30%	19%	11%	13%	8%	8%	13%
Poor tree form/low wood quality	**1.20**	28%	30%	5%	8%	8%	9%	13%
Marketability risk	**1.25**	36%	13%	8%	9%	9%	13%	13%
Seasonal restrictions	**1.67**	20%	22%	8%	16%	11%	11%	13%
Market saturation	**1.41**	28%	19%	9%	11%	9%	13%	11%
Volume/cruise risk	**0.72**	45%	13%	6%	5%	3%	17%	11%
Silvicultural prescription	**0.43**	56%	16%	5%	3%	0%	9%	11%

Responses received for survey question 20 ("Please tell us how often the following reasons play a major role in a timber sale receiving a 'no-bid' on your unit."). See appendix B.

Table D.10.3— Silviculturists' level of agreement with statements about underlying factors of no-bid sales

Underlying factor	Score	Completely disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Completely agree	Not applicable	(Blank)
Institutional factors								
I am involved where I need to be	3.08	2%	9%	8%	36%	39%	3%	3%
There is adequate staffing	1.26	33%	38%	2%	14%	9%	2%	3%
There is adequate support	2.15	8%	28%	19%	23%	17%	2%	3%
I have good communication with team	3.34	2%	5%	3%	36%	50%	2%	3%
We have good communication with industry	2.77	5%	5%	30%	25%	31%	2%	3%
Pressure from targets pushes sale forward[1]	0.68	3%	2%	8%	33%	52%	0%	3%
Market/appraisal factors								
Can respond to market factors in appraisal	1.45	19%	25%	20%	13%	3%	17%	3%
Confident in knowledge of market conditions	2.09	9%	13%	17%	22%	8%	28%	3%
Access to prices and market conditions	2.33	8%	6%	16%	13%	14%	41%	3%
Product mix reflects industry wants	1.93	6%	31%	17%	22%	8%	13%	3%
Policy factors								
Planning works within timelines	1.77	11%	42%	8%	30%	6%	0%	3%
Mitigation requirements are consistent	2.02	8%	27%	19%	41%	2%	2%	3%
Litigation hinders timelines[1]	2.24	27%	19%	14%	16%	17%	5%	3%
Staff actively involved in process	2.74	2%	19%	13%	33%	30%	2%	3%
Smooth transition from planning to contracting	2.46	3%	27%	9%	36%	20%	2%	3%
Complexity of contract[1]	1.96	6%	22%	27%	22%	8%	13%	3%
Operational factors								
Road packages more expensive than anticipated[1]	1.26	0%	9%	27%	31%	22%	6%	5%
Location impacts desirability[1]	0.44	0%	2%	5%	28%	63%	0%	3%
Purchasers have the ability to do prescribed work	2.97	3%	9%	9%	39%	34%	2%	3%

Responses received for survey questions 22–25 ("The following statements relate to the [underlying factors] that may influence no-bid timber sales. For these statements, please indicate your level of agreement."). See appendix B.

[1] Questions were worded as a negative perception, i.e., agreement suggests something that is more likely to create a negative outcome (no-bid sale). (Other questions were worded positively, i.e., more likely to create a positive outcome.) For comparison of questions on a positive scale, we subtracted the average scores of negatively worded questions from the maximum of 4.

Table D.10.4— Silviculturists' perceived likelihood of success of various proposed solutions to no-bid sales

Proposed solution	Score	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely	I'm not sure	(Blank)
Timber team more involved in early planning	**2.30**	13%	13%	22%	28%	19%	3%	3%
Engineers more involved in early planning	**2.55**	9%	8%	17%	31%	22%	8%	5%
More training (respondent)	**1.72**	22%	17%	25%	17%	9%	6%	3%
More training (colleagues)	**2.69**	6%	6%	25%	31%	27%	2%	3%
Industry more involved in planning and preparation	**2.10**	13%	19%	20%	28%	13%	5%	3%
Line Officers more involved in industry communication	**2.63**	8%	11%	17%	28%	28%	5%	3%

Responses received for survey question 26 ("For the following statements, please indicate how likely it is that these proposed solutions would lead to more successful timber sales on your forest. Timber sales on my unit would be more successful if…."). See appendix B.

Frey, Gregory E.; Wilkens, Philadelphia; Bruck, Sonia R. 2023. Views of "no-bid" timber sales from the National Forest System (NFS), volume I: ranking of perceptions of proximate causes, underlying factors, and proposed solutions, based on closed-ended responses from a survey of NFS employees. Gen. Tech. Rep. SRS-270. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 100 p. https://doi.org/10.2737/SRS-GTR-270.

When the National Forest System (NFS) of the U.S. Department of Agriculture's Forest Service offers a timber sale that receives no bids from prospective buyers, it can consume valuable resources, delay forest management activities, and cause the NFS to miss mandated targets. Previous work revealed that the drivers of no-bid sales have two distinct levels: proximate causes and underlying factors. To further explore these issues, researchers with the Forest Service Southern Research Station sent a survey to NFS personnel in February 2021 and requested that anyone involved in timber sales in any capacity respond. The survey received an estimated a 38.3-percent response rate. Overall, the results suggest employees perceive that planning timelines and pressure, insufficient coordination and communication, market forces, low staffing levels, and lack of training and support work together to make no-bid sales more likely. The proposed solutions viewed as the most likely to lead to success were that Engineers could be more involved in early planning, colleagues could receive more training, and Line Officers could be more involved in communication with industry. There was variation in responses by NFS region and by position; for example, Regions 2, 3, 4, and 8 were more negative about market/appraisal and operational factors, while Regions 1 and 6 were more negative about policy and institutional factors.

Keywords: Appraisal, forest management, public land, timber sales.