

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**National Oceanic & Atmospheric Administration**  
**Florida Fishing and Boating Survey**  
**OMB Control No. 0648-0769**

**Abstract**

This request is for renewal and revision of a currently approved information collection. The proposed data collection will be a continuation of the data collection approved under OMB Control No. 0648-0769. The purpose of the Florida Fishing and Boating Survey (FFBS) is to collect data that allows fisheries managers to develop models that predict how Florida anglers respond to changes in trip costs and fishing regulations for reef fish species. By developing these models, NOAA Fisheries and regional fisheries council staff will be able to improve the analysis of the economic effects of proposed changes in fishing regulations and changes in economic factors that affect the cost of fishing. The survey will target marine recreational anglers who fish in Florida from a private boat. This request is for a renewal and revision. Changes to the previous approved collection are 1) to include anglers on the Atlantic coast of Florida (previously only Gulf of Mexico anglers included); 2) adapt the survey to ask about all federally managed fish in both the Atlantic and Gulf of Mexico (previously survey focused on gag grouper in Gulf of Mexico); and 3) remove the mail component of the survey, financial incentives, and the non-response survey.

**Justification**

**1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) manages recreational fisheries, under the authority of the Magnuson-Stevens Fishery Conservation and Management Act as reauthorized in 2007 (16 U.S.C. §1801 et. seq.). NMFS (aka NOAA Fisheries) is required to enumerate the economic effects of the policies it implements on fishing participants and coastal communities. In order to routinely fulfill this mandate and in recognition of the economic and social importance of recreational fisheries, NOAA conducts economic surveys on marine recreational anglers. Specifically, the MSA states "Conservation and management measures shall, consistent with the conservation requirements of this chapter (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities" (16 U.S.C. §1851 (a)). Additionally, the MSA specifies that a fishery management plan must include a fishery impact statement that includes the social and economic impacts of conservation and management measures for participants in the fishery and fishing communities (16 U.S.C §1853 (a(9))). In addition to the MSA, the Modernizing Recreational Fisheries Management Act of 2018 ("MRFMA"; Public Law 115-405) states that economic factors are important criteria to be used in fisheries allocation decisions in mixed-use fisheries (e.g., those having both commercial and recreational aspects). In addition to laws regarding economic analysis for fisheries, the [Regulatory Flexibility Act](#) (RFA), and [Executive Order 12866](#) (E.O. 12866) also legally mandate economic analysis by federal government agencies. A separate document with a summary of these laws and regulations is included with this submission.

The objective of the Florida Fishing and Boating Survey (FFBS) is to understand how recreational anglers respond to changes in trip costs and fishing regulations. This survey will improve NOAA Fisheries' ability to predict changes in the number of recreational fishing trips anticipated with changes in economic conditions and fishing regulations. Improved models that predict anglers' behavior will, in turn, improve the analysis of the economic effects of proposed changes in fishing regulations and changes in economic factors that affect the cost of fishing (such as fuel prices). The FFBS will produce results that will help meet the goals outlined in the [National Saltwater Recreational Fisheries Implementation Plan](#), especially the plan to bolster understanding of the social and economic importance of recreational fishing. The work also addresses needs identified in the 2018 National Saltwater Recreational Fisheries Summit Report (NOAA 2018), in particular the need for improvements in the ability to predict changes in species-specific saltwater recreational fishing effort expected when fishing or economic conditions change. Note that, while the survey is expected to provide useful information for different stakeholders interested in analyzing effects of changes in regulations, the research is not designed to examine a specific regulation.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

The FFBS will collect recreational fishing and boating information directly from the Florida saltwater recreational fishing community with a specific focus on anglers who fish from private boats for federally managed species (including but not limited to species such as grouper species, snapper species, etc.). A sample of anglers who are also boat owners will be drawn from the Florida State Reef Fish (SRF) fishing license frame. The survey will be conducted no more than two times per year in order to capture recreational fisheries in both the Gulf of Mexico and the South Atlantic coasts of Florida. It will combine actual and contingent behavior data collected through the surveys to estimate a trip demand model (e.g., Alberini et al. 2007 and Whitehead et al. 2012). The model will provide estimates of hypothetical changes in recreational fishing effort expected from changes in fishing costs and regulations. The model will also generate estimates of the potential change in fishing and boating activity anticipated with changes in trip costs. The estimates can be used to develop predictive models that forecast how fishing and/or boating effort will change when the trip costs change (e.g., via fuel price changes) and when the fishing regulations (season length or bag limits) change. The results can also be used to determine if fishers and boaters respond the same to changes in trip costs. Primary users are NMFS and fisheries council staff.

Methods

The FFBS is designed as a web-based survey in order to reduce data collection and recording costs, and to take advantage of technological innovations in survey administration and design. The survey can be filled out on mobile or desktop platforms. NOAA has programmed the web survey in an online survey software called Qualtrics and NOAA economists will be responsible for all aspects of survey administration.

A sample of anglers who have a Florida State Reef Fish (SRF) fishing license will be sent an email with an invitation to the online survey. Reminder emails will be sent for those not responding to the initial email. There are two main sections of the survey following an introduction and screening/eligibility question. For the respondents that use their boat for fishing, the first section asks a series of questions related to fishing activity. There is also a subset of the fishing questions that will be answered by those who fish for a specific species (e.g., gag grouper). The specific federal species asked about will vary depending on the year and location (Gulf of Mexico or South Atlantic). Those who do not use their boat for fishing are routed to a third section that asks a series of questions related to boating activities. Note that each respondent will answer either the fishing questions or the boating questions, but not both types

of questions. The survey will collect information only on fishing or boating activity associated with the respondent effort over the previous 2 months.

The fishing and boating question sections each have questions about the number of trips taken in the previous 2 months and the number of trips that would have been taken with different trip costs. The fishing section also has questions about the number of trips that would have been taken with different fishing regulations for anglers who fish for the particular species the survey is targeting.

Q1: Screening question to determine if the respondent is eligible to complete the survey - i.e., do they own and use a boat (If no, end of survey).

Q2: Screening question to determine if the respondent used their boat in the <Gulf of Mexico> or <South Atlantic> in the two-month period.

Q3: If they did not use their boat during the two-month period in < Gulf of Mexico> or <South Atlantic>, question asks for the reason they did not use it, then ends the survey.

#### *Fishing Questions*

Q4: Screening question to determine if the respondent is eligible to complete the portion of survey related to fishing in the <Gulf of Mexico> or <South Atlantic> during two-month period by asking if they used the boat to fish during the two-month period.

Q5: If not used for fishing, then asks why they did not use the boat to fish during that time period in the <Gulf of Mexico> or <South Atlantic>. (Skips over fishing-related questions and goes to boating questions).

Q6: Asks how many days they used their boat in the two-month period in the <Gulf of Mexico> or <South Atlantic>.

Q7-Q9: are questions to determine the size of the party, duration, and cost of a typical fishing trip.

Note: Q7-Q9 will only be answered by those who reported fishing during the two-month period in the <Gulf of Mexico> or <South Atlantic>.

Q10: Intro text for cost of fishing and graphic of gas prices in Florida over time.

Q11-Q13: Series of questions asking how many days they would have fished with different trip costs.

Q14: Question on what species they were fishing for in the <Gulf of Mexico> or <South Atlantic> during two-month period.

Q15: Asks how many days during the two-month period, that they previously reported X number of days fishing, that they targeted <species>.

Q16-Q18: Questions to determine how many days would have been fished in two-month period with different <species> regulations.

Q19: Determine how many days the boat was used without fishing in the two-month period.

Now they Skip to Q28 on household income then end the survey.

#### *Boating Questions*

Note: Q20-Q27 will only be completed by those who answered no to Q4 (that they did not use boat

for fishing).

Q20: Asks how many days they used their boat (not for fishing) during the two-month period. Note: Q21–Q27 will only be answered by those who reported boating during the two-month period.

Q21–Q23: Questions to determine the size of the party, duration, and cost of a typical boating trip.

Q24: Intro text for cost of boating and of gas prices in Florida over time.

Q25–Q27: Series of questions asking how many days they would have boated with different trip costs.

Q28: Question that ask their household income (range).

End of survey.

The results of the survey will be shared with other Federal, state, and local management entities. The information generated from survey data will be useful for Federal, state, and local management entities interested in the potential changes in effort as a result of potential or actual changes in fishing costs and regulations. The results of the survey and models developed from the survey data will allow fisheries managers to examine the consequences of projects, policies, or regulations that may affect recreational fishing – favorably or adversely. The results of the survey will be published and also available to anyone requesting the information.

In addition, NOAA technical reports and/or papers for peer-reviewed publications will be prepared that describes the outcomes of the survey. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to Section 515 of Public Law 106-554.

Results from the initial survey that was conducted in 2020 were used to inform a bioeconomic model of gag grouper that the Southeast Regional Fisheries Office is developing to assist with understanding the interactions between angler behavior and gag grouper stock sizes under different economic, regulatory, and environmental conditions. A paper describing the results of the survey is currently under review at an academic journal: Carter, D.W., S. Lovell, and C. Liese. in Review. "The Effect of Changes in Trip Costs and Gag Grouper Regulations on Recreational Fishing Demand in the Gulf of Mexico." North American Journal of Fisheries Management.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.**

The data will be collected via a voluntary survey that respondents will take online. Initial contacts will be made by email. An electronic database system will be used to track respondents. The online survey will be programmed to include prompts and skip patterns. (See Q2 above for additional description of the methodology).

**4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Question 2**

Based on discussions with NOAA and state fisheries experts and an extensive literature review, there is no current data collection that collects similar actual and contingent economic behavior data in the state of Florida or the Southeast region. The state of Florida conducts a State Reef Fish Survey (SRFS) but that is designed to estimate total catch and total effort data statewide for reef fish only, and is not an

economic survey. NOAA Fisheries will work with the State of Florida to avoid using the same addresses as those targeted by the State Reef Fish Survey for the same survey implementation period and to coordinate responses to any questions regarding the survey.

There are many prior studies related to the value of recreational fishing (see Johnston et al. 2006 for a review). The literature on saltwater recreational fishing in the Southeast US (South Atlantic or Gulf of Mexico) includes studies on reef fish species, typically red snapper, groupers as a general category, or coastal pelagics (king mackerel, dolphinfish). This body of research has focused on estimating angler WTP by species and/or quantities of fish caught per trip (Carter and Liese 2012; Gillig et al. 2003; Haab et al. 2012; Hindsley et al. 2011; Lovell and Carter 2014). Very little research focuses on predicting changes in recreational fishing behavior in the Southeast US. Whitehead et al. (2011) investigate how anglers would change number of charter trips they take in North Carolina in response to hypothetical changes in the combined snapper-grouper bag limits, and bag limits for King Mackerel. While this work deals with bag limits for snapper-grouper species it is unlikely that the estimates are strictly applicable to individual snapper or grouper species in either the Gulf of Mexico or South Atlantic, or some of the other federally managed species. Cross-study comparisons suggest that economic measures related to recreational fishing cannot be easily transferred from one study area or mode (charter, shore, private boat, etc.) of fishing to other contexts (Johnston et al. 2006). Gillig et al. (2000) estimated changes in effort based on changes in estimated catch, but only focused on red snapper. The trip cost and catch elasticities were estimated from a survey of anglers from 1991 who fished at sites across the Gulf of Mexico.

Gillig et al. (2003) extends their analysis on this same dataset to examine the impact of the revealed preference data on the overall willingness to pay using their combined stated-preference and revealed preference model. Given many changes in regulations and stock abundance during the intervening 27 years, there is a strong possibility that angler behavior and preferences with regard to red snapper and reef fish in general may have changed as well. Therefore, this work cannot reliably be used to predict current changes in fishing related behavior in Florida. Other related research examines the potential changes in Florida coastal recreational activity anticipated with changes in costs and quality (e.g. Bhat 2003 (marine reserves), Park et al. 2002 (snorkeling), Thomas and Stratis 2002 (boating), Milon 1988 (preferences of anglers for natural versus artificial reef habitats). A more recent study by Whitehead et al. estimated a single site travel cost model to estimate the effects of the lost recreational use values from the Deepwater Horizon oil spill on all cancelled recreational trips to northwest Florida, including uses other than fishing.

In summary, our literature review did not find any research directly useful to the objective of our proposed research which is to estimate the magnitude of potential changes (elasticities) in private boat recreational fishing effort for specific federally managed species, such as specific types of groupers (e.g. gag grouper) or snappers in Florida associated with changes in regulations (e.g. catch) or trip costs. As an example, given over 80% of trips from West Florida for gag grouper are from private boat anglers, there is need for more current research that is tailored to this specific mode and that can estimate how changes in bag limits or trip costs influence the number of trips taken.

**5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

This collection of information does not impact small businesses, and is targeted towards recreational anglers.

**6. Describe the consequence to Federal program or policy activities if the collection is not**

**conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

This research will provide scientific support to NOAA Fisheries' Southeast Fisheries Science Center, NOAA Fisheries' Southeast Regional Fisheries Office, the Gulf of Mexico Fisheries Management Council and the South Atlantic Fisheries Management Council. The data and models currently used to predict changes in recreational fishing effort anticipated with change in regulations are either not available at the single species level or dated. Consequently, Federal or state agencies will not be able to accurately calculate the benefits and costs of future proposed changes in fishery regulations without the information collected in this survey. Inaccurate estimates of changes in benefits and costs can lead to incorrect policy conclusions and mistaken selection of regulations that are economically inefficient. This could harm the sustainability of Federal or state fishery management programs.

**7. Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with OMB guidelines:**

This collection will be conducted in a manner consistent with OMB guidelines.

**8. If applicable, provide a copy and identify the date and page number of publications in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

A *Federal Register* Notice 'Florida Fishing and Boating Survey' was published on Friday May 6, 2022 (87 FR 27134), soliciting public comment. No substantive comments were received.

NOAA Fisheries was in contact with the State of Florida regarding the survey and sampling procedures. NOAA Fisheries' will continue to coordinate and work with the State of Florida to ensure that we do not sample the same addresses as those targeted by the Florida State Reef Fish Survey and to coordinate responses to any questions regarding the survey. NOAA Fisheries' economists will work with the NOAA Fisheries' Recreational Coordinators Group to keep the recreational fishing community informed of the survey and written documents based on survey results.

NMFS reached out to several external stakeholders to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported. No comments were received.

**9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

There will be no payments or gifts to respondents. The previous survey conducted in 2020 used incentives in the mail-mode option of the survey, but the mail mode is being eliminated in this revision as the results showed that response rates to the email /web mode were high enough to achieve the desired number of completed responses. The higher cost of the mail mode was also a consideration given current and projected budget constraints.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records**

**notice (SORN) or privacy impact assessment (PIA), those should be cited and described here**

No personally identifiable information will be collected through the survey. Responses will only be associated with a unique, randomly assigned identification code. Any public release of survey data will be without identification as to its source or in aggregate statistical form. All survey data will be stored on secured, password-protected servers at NOAA facilities, and all transfer of survey data will utilize secure file transfer protocols.

The information in the license database and sample frame is covered under the Privacy Act System of Records COMMERCE/NOAA-11, Contact Information for Members of the Public Requesting and Providing Information Related to NOAA's Mission. The FFBS will contain written text informing participants of the confidential and voluntary nature of their response.

When writing final reports and publishing the findings of this research, tabulations of individual responses will occur at a high enough level of aggregation so that no single individual may be identified. In addition to the confidentiality protection measures, survey participants are provided the option to skip questions of concern and stop their participation in the survey at any time with no consequence to themselves. Finally, in the event of a Freedom of Information Act (FOIA) request, we will protect confidentiality to the extent possible under Exemption 4 of the FOIA.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

There are no questions of a sensitive nature.

**12. Provide estimates of the hour burden of the collection of information.**

The survey will be completed by approximately 3,120 people (1,560 each for the Gulf of Mexico and 1,560 each for the South Atlantic portions), per year, resulting in an estimated burden of 156 hours (3,120\* 3 minutes / 60 minutes). See our response to Part B, Question 1 for the calculations used to estimate the number of total responses. Burden hours estimated to complete the survey were determined from the initial FFBS survey response times. The 2020 FFBS collected data from private boat anglers who fished in the Gulf of Mexico from Florida. Anglers who completed the survey averaged 3 minutes per survey according to data collected by the Qualtrics survey software.

While NMFS periodically collects household income-level data from saltwater anglers, personal income-level data for saltwater anglers are unavailable. Therefore, we use the May 2021 national BLS' average hourly wage of \$28.01 for "All Occupations" as a proxy for the hourly wage rate of our survey respondents. The resulting total wage burden costs are then estimated to be \$2,801 (156 burden hours x \$28.01 per hour), or \$4,370 annually over the three-year information request. These results are summarized in Table 2.

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**Table 2. FFBS Estimated Responses and Burden Hours**

Information Collection	Type of Respondent (e.g., Occupational Title)	# of Respondents /year (a)	Annual # of Responses / Respondent (b)	Total # of Annual Responses (c) = (a) x (b)	Burden Hrs / Response (d)	Total Annual Burden Hrs (e) = (c) x (d)	Hourly Wage Rate (for Type of Respondent) (f)	Total Annual Wage Burden Costs (g) = (e) x (f)
FFBS - GOM	Recreational Angler	1,560	1	1,560	.05	78	28.01	2,184.78
FFBS - SA	Recreational Angler	1,560	1	1,560	.05	78	28.01	2,184.78
<b>Totals</b>				<b>3,120</b>		<b>156</b>		<b>4,369.56</b>

**13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).**

There are no capital/start-up or ongoing operation/maintenance costs associated with this information collection. There are no record-keeping costs associated with this information collection.

**14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.**

The duration of the survey will be for approximately 2 months per survey, and up to 2 surveys per year. Total hours conducting each of the surveys will be 160 per year; 240 total hours for analyzing the results, and 240 hours for writing up a technical report or journal article. Total annual hours will be 1,280.

Survey administration and data analysis will be done by two ZP-IV NOAA economists. We use hourly loaded wage rates to estimate the cost of a NOAA economist's time, assuming an annual salary of \$161,000 and a 40% benefit load.

Average annual costs, over the three-year information request period, are shown in Table 3 below. The average annual cost of federal administration, analyzing, and modeling is estimated to be \$ (\$225,400/year x 61%).

Cost Descriptions	Grade/Step	Loaded Salary /Cost	% of Effort	Fringe (if Applicable)	Total Cost to Government
Federal Oversight	ZP-IV	\$225,400/yr	61%		137,494
Other Federal Positions					
Contractor Cost					NA
Travel					NA
Other Costs:					NA



TOTAL				137,494
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**15. Explain the reasons for any program changes or adjustments reported in ROCIS.**

Program changes include a second survey that targets anglers on the South Atlantic coast of Florida (previously only Gulf of Mexico anglers included) with an additional 1,560 estimated responses. A second program change is the updated prevalence rate of gag anglers from 0.32 to 0.25 in the relevant population of anglers. This updated estimate of the number of respondents (based on the most recent survey) who might target a specific species increases the number of respondents from 1,250 to 1,560 per survey. A third change is to remove the non-response survey as we could not reject the null hypothesis that the sample means for various key variables were the same between those who responded and those who did not.

Adjustments include the reduction in the estimated time to complete the survey from 5 minutes to 3 minutes per angler.

Information Collection	Respondents		Responses		Burden Hours		Reason for change or adjustment
	Current Renewal / Revision	Previous Renewal / Revision	Current Renewal / Revision	Previous Renewal / Revision	Current Renewal / Revision	Previous Renewal / Revision	
FFBS - GOM	1,560	1,250	1,560	1,250	78	104	Updated estimate of time to complete survey, number of eligible respondents
FFBS- GOM non-response survey	0	175	0	175	0	15	Removal of non-response survey
FFBS - South Atlantic	1,560	0	1,560	0	78	0	Addition of second annual survey for the South Atlantic/East Coast of Florida
<b>Total for Collection</b>	<b>3,120</b>	<b>1,425</b>	<b>3,120</b>	<b>1,425</b>	<b>156</b>	<b>119</b>	
<b>Difference</b>	<b>1,695</b>		<b>1,695</b>		<b>37</b>		

Information Collection	Labor Costs		Miscellaneous Costs		Reason for change or adjustment
	Current	Previous	Current	Previous	
FFBS - GOM	2,184.78	NA	0	0	Labor costs not previously calculated
FFBS- GOM non-response survey	0	NA	0	0	Labor costs not previously calculated. Nonresponse survey being removed.
FFBS - South Atlantic	2,184.78	NA	0	NA	Labor costs not previously calculated. New respondent area for survey.
<b>Total for Collection</b>	<b>\$4,369.56</b>	<b>NA</b>	<b>0</b>	<b>0</b>	
<b>Difference</b>		<b>\$4,370</b>		<b>0</b>	

**16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

The general time schedule (based on the prior survey) is as follows: survey preparation takes 2-3 weeks, administering the survey takes 3 weeks, analyzing results takes 6 weeks, and writing an article takes 6

weeks - each time the survey is run. The analytical techniques that will be used are described in Supporting Statement B, and include statistical analysis of means and standard deviations using commercial statistical software, econometric modeling and analysis using standard statistical/econometric techniques, and tests of confidence using standard statistical tests. Results of the economic models that use data collected by the FFBS may be reported for management purposes or in peer reviewed journals. Tabulations of responses to survey questions will be aggregated in order to maintain respondent confidentiality, as described in our answer to question A10.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

The agency plans to display the expiration date for OMB approval of the information collection on all instruments, e.g., the opening screen for the web survey that provides the OMB approval number and expiration date.

**18. Explain each exception to the certification statement identified in “Certification for Paperwork Reduction Act Submissions.”**

The agency certifies compliance with [5 CFR 1320.9](#) and the related provisions of [5 CFR 1320.8\(b\)\(3\)](#).

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