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The National Environmental Policy Act and the USDA Forest Service: Where We Agree, Where We Disagree, and Why

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Abstract

In this article, we respond to a critique of our earlier work examining the USDA Forest Service's (USFS's) planning processes. We appreciate that our critics introduce new data to the discussion of USFS planning. Further data integration is a promising path to developing a deeper understanding of agency activities. Our critics' analysis largely supports our original claims. Our most important difference is in our conceptualization of the planning process's relationship to agency goals. Although our critics conceive of the USFS's legally prescribed planning processes as a barrier to land management activities, we believe that public comment periods, scientific analysis, and land management activities are tools the agency uses to achieve its goals of managing land in the public interest.

Study Implications: The USDA Forest Service's current planning process has been critiqued as a barrier to accomplishing land management activities, but it is also an important tool for insuring science-based management and understanding public values and interests that the agency is legally bound to uphold.

Keywords: US National Forest Policy, National Environmental Policy Act, forest planning

Morgan, Niccolucci, and Berg (Morgan et al. 2021) recently published a critique of our analysis of data from the USDA Forest Service's (USFS's) planning, appeals, and litigation system (PALS) (Fleischman et al. 2020). Although framed as a critique, Morgan et al.'s work strongly confirms our original findings. As such, our differences are not based on empirical data and analyses, but instead on our conceptualization of National Environmental Policy Act (NEPA) processes within the context of USFS actions; whereas Morgan et al. appear to see NEPA analysis as a step to achieve outputs such as treating acres or harvesting timber, we see the public, participatory, and scientific process required by NEPA *and* the on-the-ground work of managing fuels or harvesting timber as tools that jointly contribute to the USFS's ultimate goal of managing lands in the public interest.

In terms of the important substantive findings of our research, Morgan et al. (2021) agree with our major findings. Our findings were based on simple and easily reproducible descriptive statistics about the USFS NEPA workload. We found that a large majority

of NEPA projects completed by the USFS are processed as categorical exclusions (CEs), whereas most of the remainder are shorter environmental assessments (EAs) as opposed to longer environmental impact statements (EISs). We found that by all available measures, the USFS completes NEPA analyses faster than peer agencies, and that the median and mean times for NEPA review agency-wide are considerably less than a year because the vast majority of NEPA reviews are subject to CEs. We reported wide variations in NEPA workload and timelines between administrative units. We also reported a declining trend in the number of analyses initiated over our study period and found that litigation was not very common agency wide. However, we adopted a stricter interpretation of the litigation data when reanalyzing our data in response to Morgan et al. The new interpretation indicates litigation is slightly more common than we originally reported. As described in our erratum, 318 (not 292, a difference of 26 projects out of 33,976) and 17% of EISs were litigated (not 12%) during the time frame studied. We have corrected our archived dataset to reflect this change.

Morgan et al.'s critique of our work relates to five topics: (1) data cleaning, (2) results of alternative analyses they performed, (3) testing speculative statements we made about the USFS budget, (4) examining additional data sources on USFS accomplishments, and (5) the relationship between NEPA and agency goals. We address each of these in turn.

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First, they questioned our data cleaning and analytic procedures and performed some alternative analyses. None of these change the substantive nature of our findings, and several are based on misunderstandings of our methods. In the analyses, we dropped seven cases that have a negative number of days entered for time to completion. We do not think that data on ongoing projects can be reliably analyzed because these might include both ongoing projects and projects that were terminated without completed analysis but for which final information was never entered into PALS.

Morgan et al. suggest that we did not perform careful data cleaning or error checking, and that the quality of our data is poor. We detail in the footnotes of our article our data cleaning and error checking, including comparison of the PALS database to data available on USFS websites, where we found 95% of projects matched across multiple data sources. Alternate assumptions about the remaining 5% of the data do not meaningfully alter the results, as evidenced by the fact that Morgan et al. reanalyzed our data and came to the same conclusions. We published our data but erred in not also posting our data analysis scripts, which were not required by the journal. These are now posted in the data repository with our data (Fleischman et al. 2021).

Second, Morgan et al. perform alternative analyses, which they claimed lead to different results; however, these alternative assumptions and analyses performed by Morgan et al. are flawed and/or do not result in meaningful differences. For example, Morgan et al. use ordinary least squares regression to calculate the length of time a typical NEPA process takes, whereas we simply report medians. Median values are the statistically more appropriate measure of the central tendency of a skewed measure, such as elapsed days, where a very small percentage of projects are outliers with very long analysis times; therefore, our analysis better reflects the data (Dicker et al. 2012).

Third, Morgan et al. misinterpret and misquote clearly speculative statements made in our discussion section about possible causes of the patterns we observed. They assemble data to test what they call our "hypotheses," in an attempt to demonstrate that our speculations are incorrect. Our paper tested no hypotheses and made no causal claims. We are nonetheless pleased that Morgan et al. made an effort to examine some of these speculations, although it would be more accurate if Morgan et al. described these as their own hypotheses, derived from our descriptive analysis and informed speculation. Morgan et al. claim to find that USFS budgets are not flat or declining but instead are flat or increasing. This would be interesting if true, as it contradicts high-profile reports from the agency (US Forest Service 2015, National Interagency Fire Center 2021).

However, Morgan et al.'s findings do not support their claim. They report several measures of inflation-adjusted budgets, and all are flat or declining—the only statistically significant increases they report are those that are not adjusted for inflation. Furthermore, statistically insignificant increases they report in "National Forest System resource program budget line items (BLIs) available to fund environmental (NEPA) analyses" that are not inflation corrected appear to be entirely driven by funding increases between 2017 and 2019 (see Morgan et al., Figure 3). Because the vast majority of data in our dataset were for projects completed prior to 2017, an increase from 2017–2019 cannot explain trends in our data.

Our article clearly indicated that flat or declining budgets was one of two *possible* reasons for a decline in completed NEPA analyses between 2005 and 2018. As such, Morgan et al.'s analysis of USFS budgets adds

little to our knowledge, confirming the widely reported fact that USFS budgets have been flat or declining for several decades, and that budgetary constraints may be one of several possible causes of declining numbers of completed NEPA projects.

The other possible reason we suggested for declining NEPA analyses was the growth in programmatic EISs. Morgan et al. state that we are dismissive of this possibility, but in fact it was the first possible reason we highlighted. We observed a decline across all types of NEPA analyses, including recreation programs and special use permits, which are often not included in large programmatic EISs, and we thus consider that at the very least, a growth in programmatic EISs is an incomplete explanation. Because neither we nor Morgan et al. provide strong evidence about this subject, it is an area that merits further investigation.

Fourth, Morgan et al. also introduced a series of measures of on-the-ground accomplishments drawn from USFS databases we did not use. As Morgan et al. indicate, these measures provide mixed evidence about the rate of USFS work and whether a variety of on-the-ground activities, such as timber harvest, reforestation, hazardous fuels treatments, and invasive weed treatments, are being affected by the declining number of NEPA analyses. We did not investigate the on-the-ground impacts of NEPA analyses, and we believe this information is potentially useful. Morgan et al.'s analysis of these data does not yield clear conclusions. Furthermore, Morgan et al. provided no measures related to recreation, which we show to be the type of activity most commonly subjected to NEPA—and therefore the most likely to be affected by declining numbers of NEPA analyses.

Fifth, Morgan et al. object to what they see as our conflation of NEPA outputs with ultimate land management outcomes. As such, they argue that their measures of on-the-ground accomplishments are better measures of USFS activity. We agree that NEPA output is not a measure of USFS outcomes and did not present it as such in our article. However, measures that Morgan et al. rely on, such as the number of acres treated or the quantity of timber extracted, are themselves intermediate steps towards the ultimate goals of USFS management, which include healthy lands and human communities. In the past, the USFS relied on similar outcome measures, such as the extraction of allowable cuts calculated based on annual growth rates, or the extinguishing of wildfires by 10 AM the following day, that ultimately proved harmful to USFS goals. A robust, politically open process of gathering scientific information and public input may help the USFS avoid such mistakes by more carefully considering its goals and developing better techniques to achieve those goals. The introduction to our article provided examples of how NEPA processes had contributed to the USFS shifting its goals or refining its practices to better achieve those goals.

Ultimately, public comment periods, scientific analysis, and land management activities are tools the agency uses to achieve its goals of managing land in the public interest. Much like a fuels treatment, NEPA has costs as well as benefits, and a deeper understanding of what those costs are and how they can be minimized relative to their benefits would help the agency use the NEPA process more effectively. Although neither our analysis nor Morgan et al.'s directly addresses this big question, both of our analyses point to high levels of variability within the agency in terms of how NEPA is carried out. We suggest, as we did in our original article, that studying this variability may help the agency understand what works well, and what doesn't, in the NEPA process.

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