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5	27	Further clarification as to the intended meaning of "easily imagined" and "new efforts" would be helpful. It is unclear whether this is intended to refer to new implementations of easy to conceptualize and implement ideas or whether this refers to new long term research efforts that could be undertaken. And if the latter, whether these are avenues the panel recommends EPA pursue. If that is the case, where would they fall in terms of
7	20	How could we think through applying lessons from Harberger when a regulation does not manifest via price and is not easily represented as a final good price wedge? Does that change the way in which the terms are applied
9	18-19	What criteria could EPA use to establish an appropriate and defensible threshold?
10	20-25	In what contexts would this objective be particularly important? How would EPA go about determining which relatively small shocks are potentially better or poorer candidates for CGE analysis in this context?
11	27	Is the first paragraph specific to dynamic economy-wide models, or all economy-wide models? Also, we note some inconsistency in the way CGE models are characterized - some sections seem to focus on dynamic models as the norm; others acknowledge that static CGE models are relatively common; some sections promote inter-temporal models with perfect foresight; others acknowledge limitations of this type of model and promote a
12	27-30	While the white papers provided specific examples of rulemakings that fall into different general classes, the hope was for recommendations/ advice conditional upon the more general classes of rulemakings that could be applied to future rulemakings with more confidence. Some of the draft responses make recommendations with respect to specific past rulemakings. It would be helpful if the panel could provide additional clarification in these instances as to whether the advice/recommendations are limited to those specific cases or is applicable to
16	19	Are there circumstances in which a stand-alone model may be potentially useful, be it static, recursive dynamic, or forward-looking? What about in cases where it is not necessarily feasible to link to a sector model?
19	36-37	Is this meant to be a summary of the discussion under 3.2.6 or apply more generally to all of 3.2? It seems out of sync with the tone of much of 3.2, which EPA interprets as supportive of a case-specific approach to determine whether a CGE model adds value over a PE approach. If that is in fact the intention of the SAB, it may
21	13-15	From our review the reporting of confidence intervals around CGE modeling results does not appear to be standard practice in the literature. Therefore, it would be useful to EPA if the panel could expand on this recommendation with additional specifics about particular approaches for conducting such analysis and how
23	14	To better inform future Agency research priorities, it would be very useful if the panel could group these prospective model considerations by ability to defensibly implement into an applied model at the current time (e.g., possible bins could be routine/current practice, demonstrated but not routine, demonstrated theoretically

23	40-41	We are flagging this statement for a potential revisit for consistency once the Panel has opined on the charge question related to presenting results under 6.3
24	35-36	We interpret this statement to mean that EPA should incorporate all relevant factors listed in the above bullets into an economy-wide model. If this is what the Panel intends, we ask it to provide appropriate citations for each factor since it is our understanding that many of these have not typically been included in a CGE or other
25	10	EPA is wondering why no reference is made in the response to the practice of representing a regulation as a negative productivity shock (vs as a price equivalent), which is another dominant approach in the literature and
25	23-24	This paragraph regarding how to introduce technological detail into an economy-wide model seems inconsistent with the response to 3.6 on linking sector specific models with CGE approaches.
25	29-30	And if these elasticities are not available in the literature? What approach could EPA use to parameterize the
31	2-5	Could the panel expand on this advise? It strikes us that there are potential trade-offs between options D and C that might be important (e.g., the level of spatial and technological detail). What is an analyst giving up if they choose option D over B or C, and in what contexts would this be an important consideration?
31	18	This description is potentially inconsistent with the characterization of CGE models in previous sections, where dynamic approaches are characterized as dominant./typical.
32	13	Do these descriptions/criticisms apply equally well to other I-O macro-econometric models (e.g., LIFT) that have been used to evaluate national regulatory policy on several occasions?
32	26-27	It is unclear what specific advice EPA should glean from the example in the next two paragraphs. EPA requests additional clarification of what is meant by a hybrid approach and what EPA should take into consideration when determining if such an approach is warranted for a particular application.
33	23	Note that CBO and JCT only applies this approach for a subset of proposed legislation that is generally much larger in magnitude than even a large individual environmental regulation (e.g., the Affordable Care Act). Otherwise, it is EPA's understanding that they use a static scoring approach. EPA wonders whether this recommendation to consider a general hybrid framework is also referring to the thresholds used to determine whether a dynamic GE approach is warranted? If that is the case, there may be an inconsistency with other recommendations regarding size thresholds in other responses (e.g., section 3.1 (p. 9 - thresholds), 3.2.1 (p. 10 -
37	4-6	Given this reference, should EPA be interpreting these responses as only applying to the case of the Clean Air Act as a whole, or also in the case of individual regulations that have a smaller impact than the one referenced?
38	13-15	This statement seems to be made in the context of analyses of the Clean Air Act as a whole. How should EPA think through what constitutes a relatively large vs. small risk in the context of analyzing an individual air

40	16	This paragraph seems to state that the Panel thinks the representation of non-market values in a CGE model is conceptually straight forward. What information would EPA need to credibly parameterize the model?
41	1-4	It would be helpful if the panel could further clarify what the implications of this recommendation/statement are for EPA. For example, what would it mean for the level of aggregation required to capture benefits vs. costs?
41	32	The response to this question describes the empirical literature and seems to support the notion that it credibly supports modeling mortality and morbidity impacts as a change in the time endowment. EPA would appreciate it if the panel also identified in what contexts this approach is appropriate/technically feasible. For instance, how should EPA think through issues of consistency between end points/C-R functions used by EPA in its
43	1	This response might benefit from a brief summary paragraph to better distinguish between near term recommendations and future research options. It is not always clear which recommendations fall into which bin.
43	37	This term is not defined. What is meant by a plausibility analysis in the specific context of a BCA for an individual
51	12-16	EPA is flagging for a consistency check with other statements regarding the incorporation of involuntary unemployment into CGE and as a response the committee may want to revisit for consistency after answering
51	20-21	Are there studies that offer empirical estimates of this relationship? If so, the addition of citations would be very helpful. If they are not available, is this a research gap the panel is trying to highlight?
53	13-15	Further clarification would be helpful regarding how to interpret this recommendation given the previous advice that EPA should first "focus on effects for which the causal chain is shorter and the links in the chain more direct." Can the SAB clarify whether this should be a research priority for EPA?
53	34-37	While this type of stickiness in passing through costs may occur in the short run, we want to confirm that the Panel is of the opinion that costs are not passed on in the long run via competitive labor and insurance markets. See, for example, <a href="http://www.nber.org/bah/spring05/w11160.html">http://www.nber.org/bah/spring05/w11160.html</a> . Further clarification would also be helpful as this conclusion seems at odds with the response in 4.5 and citations provided in 4.4.
54	13	Children are also more vulnerable to health effects from air pollution exposure and often benefit from air
55	12-13	It would be helpful to have further clarification as to how EPA should interpret this statement given the potential contradiction with statements in the previous response that changes in health status will not affect
55	21-23	This is unclear. Please clarify. Does this mean declines in averting behavior are likely to be more or less important with regard to the quantitative results? Also, this is a very specific example. We are also asking about other types of air regulations besides NAAQS. Does this apply to those other cases?
56	23	Citations would be very helpful here.

56	31-33	We interpret this to mean that the SAB advises EPA to refrain from quantifying productivity gains in ALL cases, including when the population targeted by the rule - for instance, agricultural workers - matches well with a particular empirical study. We ask the panel to be clear about the circumstances in which use of the results from such studies would not be problematic, or if the SAB is questioning the quality of such studies to indicate
59	4	Additional specifics would be helpful - do you mean qualitatively discuss in a BCA?
60	10-12	This part of the charge question appears to not be addressed in the response.
60	20-21	Further clarification would be helpful. Is the SAB suggesting that EPA conduct local or regional CGE analysis to incorporate spatial sorting into welfare analysis, or that spatial sorting is a more relevant consideration when
61	12	SIPs are a feature of NAAQS but not necessarily other types of air regulations. How should this advice be interpreted in other regulatory contexts?
61	35	Is the SAB recommending the specific model or the approach? (USAGE is also a 50 state model.) If EPA uses this approach, is it giving up modeling features that may be important for capturing sorting behavior (e.g., limited intertemporal optimization in exchange for regional /sectoral detail)?