**Response to Editor and Reviewer Comments**

**(1) First, the paper lacks a clearly stated, specific hypothesis or research question. One must be provided in the introduction. In addition, the end of the introduction should provide short descriptions of the key relationships you examine, in plain English. The current last sentence of the introduction gives a good sense of where the current writing stands, and the direction in which we like to see it go. It reads “Using a unique linked dataset of all payer claims, income, and birth records from Colorado from 2014-2019, we used a regression continuity design to measure the causal effect of postpartum Medicaid eligibility on stability of insurance enrollment in the postpartum year, examining type of insurance enrollment, switches, and gaps in coverage.”  This sentence provides a great deal of analytical detail that should be left for the data and methods section (e.g., “used a regression continuity design”), speaks in terms of concepts (“causal effect of,” “stability of insurance enrollment”); and does not indicate the main goals of your inquiry in concrete terms. A more appropriate wording would be something along these lines: “We examine how retention of Medicaid coverage for a full year after childbirth, for which women with pregnancy-related  Medicaid coverage and incomes 138% FPL or higher are not eligible, affects continuity of insurance. This includes [fill in].”**

Thank you for these clarifying suggestions. We have revised the last paragraph of the introduction, omitting terms pertaining to the study’s methodology and focusing instead on the comparisons we make in the paper:

*“The objective of this study was to evaluate the effect of postpartum Medicaid eligibility on continuity of insurance coverage in the year after birth. Using a unique linked dataset of all payer claims, income, and birth records from Colorado from 2014-2019, we compared continuity of insurance enrollment in the postpartum year among those with incomes below 138% FPL, who retain Medicaid eligibility beyond 60 days postpartum, to those with incomes between 139-265% FPL, who lose Medicaid eligibility at 60 days postpartum.”* **(2) Second, the analytical approach is unusual and complex, and explained in highly technical terms. An unusually large proportion of the main text is given over to explaining the methods. However, the explanation of your primary analysis, essentially a tutorial, would impose a major burden on the non-expert reader, who may not be in a position to understand it (for example, is not familiar with statistical parlance), and who does not need to understand the mechanics to benefit from your work. The success of your revision will rest largely on providing a much shorter explanation of the key aspects of the analysis in the methods and data section. Provide the level of detail required for non-expert readers, along with key details for readers at all levels (e.g., highlight the methods that distinguish the present study from previous research), and present the finer details that would be of interest only to expert readers in the appendix; you already do this to some extent. Use concrete, practical terms whenever possible.**

We have simplified our analytic approach and clarified the description in the methods. Briefly, we used two common techniques to estimate a regression discontinuity: a local regression limited to a narrow bandwidth around a cutoff value, and a parametric estimation strategy that uses the full income range. While the former is more rigorous from a causal inference standpoint, fortunately, our results are quite similar with either approach. We have now opted to present the simpler of these two approaches, the parametric strategy among women with incomes 0-265% FPL (the full income sample), as our primary strategy and have moved the results of the local regression among a narrow bandwidth to the Appendix.

We have also clarified and streamlined our description of the regression discontinuity approach as shown below:

*“We employed a regression discontinuity design using the income eligibility threshold of 138% FPL ($24,000 for a family of two) as a sharp cutoff dividing postpartum Medicaid eligibility versus ineligibility. We assessed the effect of losing Medicaid eligibility postpartum on continuity of coverage in the postpartum year by comparing births to mothers with incomes below 138% FPL, who were eligible for Medicaid after 60 days postpartum, to those with incomes 139-265% FPL, who were ineligible for Medicaid after 60 days postpartum. The regression discontinuity design assumes that characteristics of those with incomes close to this arbitrary cutoff are similar, reducing differences across eligibility categories that could bias the effect of postpartum Medicaid eligibility on insurance outcomes.”*

**(3) Third, the current presentation of findings does little to clear up precisely what is examined and how; the language continues to be technical and abstract. We identify two items that are, possibly, most important to clarify.  
  
(3a) One of these is “bandwidth.” What, in practical terms, do the values around 138% represent? Also, what are the differences between narrow and wide bandwidth in terms of the information they provide; what they should be used for (e.g., examining full sample); and the quality of the information gained? Please build some cases into the results text where findings are taken from exhibits, and expressed in lay terms.**

The bandwidth refers to the income range above and below 138% FPL within which each mother’s income must fall between in order to be included in the analysis. As noted in response (2) above, we have now moved the approach in which we limit the sample to a narrow bandwidth of incomes above and below 138% FPL to the Appendix, and present only the results among all births in the sample to mothers with incomes between 0-265% FPL. This resulted in omitting the vast majority of text that refers to the income bandwidths. **(3b) The other is exactly what you did, in practical terms, to determine what would be affected were postnatal maternity coverage extended to a full year. For example (and these are only examples), did you simply compare outcomes in two groups of women, based on their income level relative to FPL?  Or did you model determinants of coverage among women whose income qualified them to retain Medicaid coverage for a full year, and apply those determinants to subjects who became ineligible--thereby taking their other relevant characteristics into account?**

Thank you for these helpful comments, we recognize the need to be more explicit regarding our methodological approach. We first present the continuity of coverage outcome means descriptively among women eligible versus ineligible for postpartum Medicaid eligibility based on income as a percentage of the federal poverty level. We compared outcomes among births to mothers with incomes below 138% FPL, who were eligible to retain Medicaid, to births to mothers with incomes 139-265% FPL, who were not eligible to stay enrolled in Medicaid at 60 days postpartum. We then modeled the association between income eligibility (above versus below 138% FPL) and continuity of coverage outcomes, taking into account the characteristics listed in Exhibit 1. The regression discontinuity approach assumes that births to mothers with incomes close to the arbitrary income cutoff of 138% FPL will be similar to each other on these relevant characteristics. To capitalize on this study design, we weighted observations closer to the cutoff more heavily.

We have clarified the statistical analysis section to reflect this description as follows:

*We first measured covariates means among births to women with incomes 0-138% FPL versus 139-265% FPL and tested for significant differences in slope at the 138% FPL cutoff. Then, to visually assess the relationship between postpartum Medicaid eligibility and continuity of coverage outcomes, we plotted the distribution of each outcome by income. Finally, we used weighted least squares to estimate a parametric quadratic polynomial regression, weighting observations closest to the income threshold more heavily.17,18 Models included an indicator variable for postpartum Medicaid eligibility, income as a continuous variable, and an interaction term between these two variables. This interaction term was the estimate of interest, indicating whether the effect of postpartum Medicaid eligibility varied significantly for births above versus below the postpartum Medicaid eligibility cutoff of 138% FPL. We included all covariates in each model and clustered robust standard errors within mothers.*

We moved the more technical language to Appendix 3:

**Appendix 3. Covariate Scatter Plots as a Function of Income**

To assess the internal validity of the regression discontinuity design, we plotted the relationship between each covariate and income using scatter plots and tested whether the difference in slope on each side of the 138% FPL cutoff was statistically different, using t-tests to ascertain whether the distribution of each variable shifted demonstrably at the 138% threshold. Such “jumps” in the distribution at 138% FPL would indicate that the postpartum Medicaid eligibility threshold is associated with systematic differences between those eligible and ineligible for postpartum Medicaid coverage.

**(4) Reviewer 1 requests clarification and additional information at several points, primarily regarding methods. Please note that some of the additional information requested goes beyond what is appropriate to cover in the body of the paper (please see previous comments). In such cases, please provide it the appendix. Two such requests beg editor input: adding details of the sensitivity analyses, and providing the regression formula. In the body of the paper, please continue to treat the sensitivity analyses as you currently do. That is, briefly describe their nature the methods, and report only the main findings and implications in the results. Any additional details should be provided in the appendix. Also, do not include the more technical information requested in the body of the paper. This applies, for example, to regression formulas. Please note that formulas may not appear anywhere in the paper itself, not even the endnotes. This is an example of fine detail that belongs in the appendix.**

We have updated the manuscript to reflect Reviewer 1’s comments as indicated in the responses below. We have added details regarding the sensitivity analyses and regression formulas only to the Appendix and not to the body of the paper.  **(5) Reviewer 2’s requests also require the editors’ input. This reviewer questions the grouping of coverage gaps and transitions to other forms of insurance, noting that both are “disruptions” but have different impacts. We leave it to you to determine how best to address this concern; please be sure to explain your choice in your letter of response.**

Please see our response to Reviewer 2, comment (1).

**(6) The reviewer also asks for additional analyses involving cost. Please do not honor these requests; the paper already covers extensive ground. In your letter of response, simply indicate “not added per editors’ guidance.” That said, there should be a section of the discussion that identifies topics for further research, which should flow from what your findings add to current knowledge. We leave it to you to decide what belongs there.**

Please see our response to Reviewer 2, comment (3). Though we agree with the reviewer that examining costs would be valuable but is beyond the scope of the paper. We have also added a sentence to the discussion that identifies topics for further research:

*“Future work should also examine the effects of extended postpartum Medicaid eligibility on costs, utilization, and health outcomes.”* **(7) Finally, Reviewer 3 finds the paper generally well executed, but informed the editors that “it needs revision in order to be able to assess what is actually going on with coverage for [the] two groups.” The points raised focus on the conceptual underpinnings of your approach, and whether your methods are appropriate to your research questions. We note this underscores the need to more clearly state those questions, but goes well beyond that. We leave it to you to determine the appropriate responses to this reviewers’ concerns, noting only that the choice of health conditions must be explained in the methods. Again, please be sure your letter of response explains and supports your responses.**

**[respond to this after adding mean durations within coverage type]  
  
(8) To the requests for clarification provided by the reviewers, the editors add three requests. The first two are described earlier in this message (the matter of bandwidth, and how you determined what would happen were the Medicaid postnatal benefits extended to a full year postpartum). The third concerns a stated advantage of your methods. Early on, your state that your analytical approach permitted quasi-random assignment of enrollees. However, it is unclear where you took advantage of that benefit, and what the groups were.**

We have clarified how we leveraged Colorado’s income cutoff for postpartum Medicaid eligibility beyond 60 days as a form of quasi-random assignment below:

*“In Colorado, women with incomes up to 265% FPL are eligible for Medicaid or CHIP from conception through 60 days postpartum. After 60 days, only women with incomes at or below 138% FPL remain eligible for Medicaid under the state’s Medicaid expansion to low-income adults. Those with incomes between 139-265% FPL lose Medicaid eligibility and must find alternative health insurance coverage through an employer or the state Marketplace or become uninsured.*

*We take advantage of this quasi-random assignment of postpartum Medicaid eligibility based on income through a regression discontinuity design using the income eligibility threshold of 138% FPL ($24,000 for a family of two) as a sharp cutoff dividing postpartum Medicaid eligibility versus ineligibility. We assessed the effect of losing Medicaid eligibility postpartum on continuity of coverage in the postpartum year by comparing births to mothers with incomes below 138% FPL, who were eligible for Medicaid after 60 days postpartum, to those with incomes between 139-265% FPL, who were ineligible for Medicaid after 60 days postpartum.*” **GENERAL EDITS   
(9) Insert short more short subheadings (2-6 words) in the results and discussion sections to help organize the material and aid reader navigation (e.g., “Policy Implications” in the discussion section). You already do this in the methods and data section.**

We have added subheadings to the results and discussion sections. **(10) Number the pages. Without numbers, reviewers reported difficulty linking their comments to specific text.**

We have added page numbers. **(11) In the main text and abstract, do not use percent signs. Write out “percent” or “percentage.” Distinguish values that are percentages from percent points.**

We have written out percent as opposed to using the percent signs throughout the manuscript and distinguished between percent points and percentages.  **(12) Direct readers to the appendix, at all appropriate points in the main text, through an endnote added to the current list of endnotes. (See instructions, below).**

We include an endnote directing readers to the Appendix.  **ABSTRACT  
(13) Focus more on the findings and their implications, provide less background information. For example, refer to the more stringent income limit to retain Medicaid coverage after maternity-related coverage ends at sixty days post-partum, but don’t provide details. Please try to keep mention of the ARA in the abstract, as this flags the policy-relevance of your topic and will help attract readers.**

We have condensed the sentence in the abstract on background, retaining the mention of the American Rescue Plan Act. The remainder of the abstract describes key findings. We have one additional sentence regarding implications:

*Abstract: The 2021 American Rescue Act included a new option for states to extend postpartum Medicaid eligibility from 60 days to up to one year after the end of pregnancy. Using linked all payer claims, income, and birth record data from Colorado from 2014-2019, we evaluated the effect of postpartum Medicaid eligibility on continuity of insurance coverage in the postpartum year using a regression discontinuity design. We found that maintaining eligibility for Medicaid after childbirth improved stability of insurance enrollment in the postpartum year.* *Postpartum Medicaid eligibility led to 1.5 additional months of any postpartum insurance enrollment (p < 0.001), a 12 percentage point decrease in the probability of a postpartum disruption in coverage (p<0.001), and gaps in coverage that were 0.08 months shorter (p<0.001). Our findings indicate that postpartum transitions to commercial coverage may not be seamless, and states that extend postpartum Medicaid eligibility will improve continuity of postpartum insurance coverage for Medicaid enrollees.*

**CONCLUSIONS  
(14) Brief, formal conclusions are not required; but if you offer them, offset them with the main heading, “Conclusions.”**

We have added a subheader for the concluding paragraph. **ABSTRACT, DISCUSSION, AND CONCLUSIONS  
(15) The key take-home messages at the end of the abstract and in the discussion/conclusions must be consistent, but not necessarily identical.**The take-home messages are not identical but rather both indicate that a postpartum Medicaid extension is a promising strategy to smooth continuity of coverage during the postpartum year in the Medicaid program.

**EXHIBITS IN THE BODY OF THE PAPER  
(16) Specific edits to the tables to appear in the body of the paper are provided in the attached Word file. It contains the two tables, as currently provided, with some necessary changes already implemented that are not obvious (e.g., aligning copy), and instructions/explanations for the rest in comment bubbles. As noted below, the existing tables must be moved to the appendix, as they contain information that may not be provided in the paper, and are not formatted per journal guidelines. Use the versions of the tables in the attached file as your starting point. When you have made the necessary changes, accept your changes, and move the “clean” new versions to the end of the main manuscript file; delete the current versions.**

We have updated the tables according to the notes provided and moved the clean versions to the end of the revised manuscript file. **Exhibit numbering:  
  
(17) Exhibits must be numbered in the order in which they are first referenced in the main text. Exhibit 4 is currently called out before Exhibit 3. Fortunately, this can be fixed with a simple change in wording, rather than a change in exhibit numbers.**

We have moved this sentence so that Exhibit 3 is referenced prior to Exhibit 4:

*“Exhibit 3 shows the probability of a coverage disruption in the postpartum year by income with regression lines plotted within the narrow bandwidth, displaying an increase in the rates of coverage disruptions at the postpartum Medicaid eligibility threshold. Among the full income sample, those with incomes below 138 percent FPL were enrolled for an average of 10.7 months compared to an average of 9.0 months among those with incomes above 139-265 percent FPL (results shown in Exhibit 4).***”  
   
Location and format/file type:  
  
(18) The figures are currently provided in the correct location (in separate files) but not in the correct form; they are provided in Word, and do not appear to be accompanied by the data behind them. Simple figures should be created in Excel, and submitted in Excel files with the following characteristics. The file name should include the exhibit number. The file must contain two components: A clearly labeled spreadsheet with all data points and other information (e.g., legend) required to regenerate the exhibit for publication; and an editable image of the exhibit as you envision it, linked to the data in the spreadsheet. The file must identify the exhibit number and include the exhibit caption. Moreover, the key elements in the figure should be labeled in the figure, not just explained in the notes (e.g., what a shaded area represents, in a few words), and the axes require full descriptive labels. If you cannot provide your figures in Excel because that program cannot accommodate them, please check with us to determine whether your file types (e.g., .eps) are compatible with our requirements. It’s also possible Excel can be used, but you require some guidance.**

We have updated the axis labels to fully descriptive labels. The shaded area is no longer shown on the figures as we now estimate our primary model among the full sample as opposed to a restricted sample requiring shading. We have provided the files as .eps as to hopefully enhance their ability to be edited, but are happy to work with the editorial team to continue to update the exhibits to conform to the journal requirements. **To be included with each exhibit to appear in the body of the paper:  
  
(19) The exhibits must be accompanied by their numbers, captions, source lines, and notes (if any). This information should not be provided only in the Exhibit List; it must also be with the exhibit for editing and other production purposes. The information in the Exhibit List and with the exhibit should agree, word-for-word; the two sources are used for different purposes by the production team, who require the same information.**We have added the numbers, captions, source lines, and notes to each of the exhibits in the manuscript.

**(20) Several restrictions apply to tables in the body of the paper. Both of the current tables provide information that may not appear, notably exact p-values, and confidence intervals/standard errors. Moreover, there are multiple formatting issues—for example, only one value may be presented in a given table cell (e.g., findings expressed as means and percentages must be presented in separate columns). The current versions of both tables must therefore be moved to the appendix, and be replaced by revised/abridged versions; instructions for creating those versions are provided in the attached file.**

We have made all of the changes indicated in the comments, including removing exact p-values, confidence intervals, and standard errors. On the updated versions, only one value is presented in a given table cell. We have moved the prior versions of the tables to the Appendix. **Labeling/column headings:  
  
(21) Ability to read and interpret the figures in the paper is greatly compromised by inadequate labeling (figures), while the tables suffer from incomplete and excessively condensed column headings.**

We have added additional details on the labels for the figures and adjusted the table headers as noted in the document with comments on the tables. **(22) Some information currently found in the notes should be built into the paper. For example, if tabled values are presented in parentheses, it should be clear what they represent without the reader having to consult the notes; and y axes require full labels (e.g., not just “Months” or “Probability”). The column headings must be expanded to be adequately descriptive, as well as accessible to all readers.**

We have updated the axis labels to provide more detail and expanded the column headings to be more descriptive. We have omitted values in parentheses. **(23) The attached file contains the required edits to the tables to improve column headings, and some of the entries in the first column. Again, I cannot provide more detailed edits for the figures until they are brought into agreement with journal guidelines and production requirements.**

We have implemented all recommendations provided in the attached table file. **DIRECTING READERS TO THE APPENDIX/SECTIONING THE APPENDIX  
  
(24) Interested readers must be directed to the appendix, which will be posted online, in an endnote. The first time appendix content is mentioned in the main text, include the number of the next endnote in numerical order. Create a new endnote, with that number, which reads: “To access the Appendix, click on the Appendix link in the box to the right of the article online.” Insert that endnote in the existing list, and renumber the entries that follow. Each subsequent reference to appendix content in the main text must include the number of that new endnote (do not create a new endnote each time).**

Endnote 16 references the Appendix as instructed. **(25) To help guide readers to the appropriate portion of the appendix, please give each section a separate designation. State the relevant designation(s) whenever you refer readers to the appendix.**

We have updated references to the Appendix throughout so that they correspond directly with the designated section of the Appendix.  **Reviewer 1  
Reviewer #1: The purpose of this paper was to estimate the effect of postpartum Medicaid eligibility on the continuity of insurance coverage following pregnancy. Using data from Colorado over a five-year period, the authors found evidence that beneficiaries whose income exceeded the eligibility threshold had less stable insurance coverage during the postpartum year. I organized my comments by section of the paper, beginning with general comments. Overall, most of my comments address the clarity of the paper's method section, which could benefit from revision.**

Thank you for your thoughtful comments on our manuscript. **GENERAL COMMENTS  
  
(1) Consider providing more context for US-centric information (ex: define Medicaid, state what "Congress" is, etc.). US readers likely know this information without additional explanation, but this may not be second-hand knowledge to non-US readers. Perhaps they do not know that Medicaid is a federal- and state-mandated health insurance program for low-income individuals.**

Thank you for this suggestion to increase the accessibility of our manuscript to non-US readers. We have added the following definitions:

*“Medicaid is a federal and state program that provides health insurance to low-income Americans.”*

*“To promote continuity of postpartum coverage for Medicaid beneficiaries, Congress (the House of Representatives and the Senate in the U.S.) passed the American Rescue Plan Act on March 11, 2021. The law included a five-year state option for federal matching funds to be used to extend full-benefit Medicaid or Children’s Health Insurance Program (CHIP) coverage for up to one year after the end of pregnancy.”* **INTRODUCTION  
  
(2) Define "postpartum period" in the first sentence (generally defined as 0-6 weeks following childbirth). Perhaps define this broadly in the context of the paper, as you're interested in insurance coverage beyond 6 weeks post-childbirth.**

Thank you for this clarifying suggestion, we have edited the first sentence of the introduction as follows:

*“The postpartum period is an important target for policy intervention to improve maternal health outcomes. Though the postpartum period is traditionally defined as the first six weeks following childbirth, one-third of maternal mortality occurs up to one year postpartum. Postpartum complications of pregnancy include conditions related to postpartum depression, hypertensive disorders, and cardiovascular conditions, and rates of severe postpartum morbidity are rising.1,2”* **(3) State when the American Rescue Plan Act (i.e., don't just write "recently passed" without a date).**

We have added the exact date of the passage of the American Rescue Plan Act:

*“To promote continuity of postpartum coverage for Medicaid beneficiaries, Congress (the House of Representatives and the Senate in the U.S.) passed the American Rescue Plan Act on March 11, 2021. The law included a five-year state option for federal matching funds to be used to extend full-benefit Medicaid or Children’s Health Insurance Program (CHIP) coverage for up to one year after the end of pregnancy.”* **METHODS  
  
(4) Define income for Medicaid eligibility (Is it individual income, or household income? Does it depend on the number of dependents/children?).**

Eligibility for Medicaid is based on household income as a percentage of the federal poverty level (FPL). FPL varies by the number of members in the household, including dependents and children. We have clarified this in the methods section:

*“Income was assessed at the household level as a percent of FPL.”* **(5) A small note: You use a couple abbreviations (CIVHC, CDPHE, HCPF) that only appear once in the main text. You can take these out to save word space.**

Thank you for pointing this out – we have removed the unnecessary abbreviations. **(6) "Birth records, income data…first and last names." Please confirm that this is maternal information for linking data sources.**

The data linkages were conducted based on maternal information. We have clarified this as shown below:

*“We then merged this sample of births with the income file and the birth records based on maternal social security numbers, dates of birth, and names; match rates were 98.9% for the income linkage and 96.1% for the birth record linkage.”* **(7) "Finally, we excluded 908 births…for the Medicaid expansion population." This seems like the group that you want as the "exposure" group for the regression discontinuity design. If their income was underreported, then their comparability to the group of women who are just above the eligibility threshold (139% FPL) is quite high. The only major difference is arbitrary variation in eligibility, which is ideal for RDD.**

Thank you for this insightful question. We excluded the 908 births to women with incomes between 133-138% FPL because the Affordable Care Act changed the way that incomes are computed for determining program eligibility. Under the Affordable Care Act, adults are Medicaid-eligible with “modified adjusted gross incomes” (MAGI incomes) at or below 133% FPL. However, Section 2002(a)(14)(I)(i) of the Affordable Care Act added a five percentage point disregard from the FPL, effectively moving the eligibility threshold from 133% to 138% FPL.

Ideally in a regression discontinuity design, the density of observations across the running variable (income) is smooth. However, we observed a dip specifically in the income range of 133-138% FPL. Given the eligibility policies underlying this exact income range, we attribute this drop in density to Colorado program administrators underreporting incomes that fell in this range given the ambiguity introduced by the five percentage point disregard in the ACA. To avoid any potential bias introduced by unique characteristics of those with incomes specifically in this range, we chose to exclude these 908 births, which only comprised 0.6% of the sample. As shown in Appendix 9 and reported in the results, the inclusion or exclusion of these 908 births did not alter our main findings.

**(8) "…we used the income recorded in the Medicaid eligibility file in the month following 60 days postpartum." What counts as a month? Is it a 30/31-day period? Someone's postpartum period could end in the middle of the month—for example, January 15, 2017. In that scenario, would you get their income information for the February 2017?**

Thank you for this clarifying question. The Medicaid eligibility file in the all payer claims database contains monthly enrollment information as Medicaid eligibility is determined on a monthly basis, rather than partial-months or days. If one’s postpartum period ended in the middle of the month, their eligibility would extend to the last day of the month when their eligibility ended. For this reason, we assign income from the month following 60 days postpartum. We have added the following sentence to clarify this:

*“All continuity of coverage outcomes were computed in months as Medicaid eligibility is determined on a monthly basis.***”  
  
(9) "For the remainder of the sample, we looked backwards from the target assignment date (month following 60 days postpartum) and assigned the closest recorded income to the target date, which was populated within the preceding three months for the majority of births." This is unclear to me. Were you getting income information during the beneficiary's postpartum period and/or pregnancy?**

We received income data directly from the state Medicaid agency, which is updated in real-time on a monthly basis as income eligibility for the Medicaid program is reported by enrollees to administrators of the program. It is the same source of information program administrators use to record and determine Medicaid eligibility, therefore income can be updated at different time points for different women. We found an updated income reported in the month following 60 days in the dataset (our target date for income assessment) for the majority of the sample, though it is possible that some women had their income reverified earlier than that date and therefore it was not updated again at that exact time point. In those cases, we looked backwards from our target date and fortunately were able to find an updated income within 3 months of our target date for the majority of births.

*“Fifty-eight percent of the sample had an updated income reported exactly at this time point. For the remainder of the sample who may have had their incomes updated or verified earlier than 60 days postpartum, we looked backwards from the target assignment date (month following 60 days postpartum) and assigned the closest recorded income to the target date, which had been updated within the preceding three months for the majority of births.***”  
  
(10) I have two thoughts regarding coverage disruption. First, is any "gap between periods of insurance enrollment" count as disruption? If so, a one-day gap is equivalent to many days or months without insurance. What are the implications of that, if any? Second, why does switching to another insurance type count as disruption? I'm not sure why immediately switching from Medicaid insurance to non-Medicaid insurance is equivalent to having Medicaid, having no coverage for an extending period of time, and then eventually getting insurance again. Perhaps more detail is needed on the definition of "coverage disruption."**

As noted in response (8) above, all continuity of coverage outcomes were assessed at the monthly level, so gaps in coverage were at least one month in duration to be counted as a coverage disruption in our outcome definition. We examine three outcomes related to coverage gaps that capture different dimensions of these disruptions, including the probability of experiencing a coverage gap at all as a binary, yes/no variable (i.e., did a mother experience any lapse in coverage of one month or longer), the mean number of coverage gaps experienced, and the mean duration of a lapse in coverage. Importantly, this latter outcome captures variability in the length of the gap, as noted by the reviewer.

To address the reviewer’s second point, we classified switching insurance as a coverage disruption because an extensive body of literature has documented the negative effects of switching insurance on access to care, as noted on page 3 in the introduction. These deleterious effects can be present even if transitions in coverage are seamless, given differences in cost-sharing, provider networks, and benefit design between Medicaid and commercial insurance. For these reasons, we chose to classify a switch in coverage, particularly during the postpartum period, as a coverage disruption. However, to delve deeper into the effects of Medicaid eligibility loss on different types of coverage disruptions, we also examine switches, gaps, and coverage loss independently as secondary outcomes:

*“As secondary outcomes, we examined the probability of a gap between insurance types, the mean duration of the gap, the probability of an insurance switch, and the mean number of insurance switches. To determine which type of insurance women were enrolled in during the postpartum year, we measured the probability of any enrollment in commercial insurance or Marketplace insurance, as well as the probability of being exclusively insured by Medicaid.”*

**(11) "We used the birth record to measure maternal health…" In this paragraph, it would be helpful to define the variables. For example: "..including age (years), race (black, Native American, white, etc.)…" Please define preterm birth (gestational age <37 weeks) and spell out abbreviations.**

Thank you for these clarifying suggestions. To maintain word count and comply with the editor’s suggestion to limit additional methodological detail from the body of the manuscript, we have added details on each of these covariates to the Appendix. **(12) "To assess the internal validity of the regression discontinuity design…" What specific tests did you conduct?**

We have added additional details regarding these tests to Appendix 3 to describe the specific graphical and statistical tools we used to assess the internal validity of the regression discontinuity design, including scatter plots and t-tests for differences in slope for each covariate on either side of the 138% FPL cutoff:

*“To assess the internal validity of the regression discontinuity design, we plotted the relationship between each covariate and income using scatter plots and tested whether the difference in slope on each side of the 138% FPL cutoff was statistically different. We used t-tests to ascertain whether the distribution of each variable shifted demonstrably at the 138% threshold. Such “jumps” in the distribution at 138% FPL would indicate that the postpartum Medicaid eligibility threshold is associated with systematic differences between those eligible and ineligible for postpartum Medicaid coverage.”*

**(13) "Our primary estimation strategy for the regression discontinuity design…" I think you could strengthen this paragraph by including a regression formula and indicating the focal estimand.**

Thank you for this suggestion. We have not added regression equations to the manuscript per the editor’s guidance. However, these equations are available in Appendix 4 of the supplementary material, and provided below for reference:

*Parametric RDD.* We also implemented a parametric regression discontinuity model as an alternative specification. This approach uses the full range of available incomes in our sample (recentered around the cutoff of 138% FPL). These equations took the form:

Where is the outcome variable of interest, is a dummy variable indicating treatment (income greater than the cutoff), and represents the selected functional form used to approximate the nonlinear relationship between the rating variable (income) and the outcome variable. In this specification, represents the treatment effect. The matrix includes the same covariates described above.

We estimated a series of functional forms for , including polynomials up to order 3 that differed on either side of the income threshold. The specification with the best model fit included two cubic polynomials, estimated as:

**(14) The paragraph on sensitivity analyses/robustness checks could benefit from more detail. For example, what are the "flexible, parametric models" that you ran?**

In response to the editor’s general concern regarding accessibility of the methods for a broad audience, we now present the parametric model as our primary estimation strategy and provide additional details regarding its estimation as shown below. Appendix 4 and 5 provide additional details on the estimation of the different higher-order polynomial models and compare results across specifications, revealing minimal differences. Below we provide the updated description of our primary estimation strategy:

*“We first measured covariates means among births to women with incomes 0-138% FPL versus 139-265% FPL and tested for significant differences in slope at the 138% FPL cutoff. Then, to visually assess the relationship between postpartum Medicaid eligibility and continuity of coverage outcomes, we plotted the distribution of each outcome by income. Finally, we used weighted least squares to estimate a parametric quadratic polynomial regression, weighting observations closest to the income threshold more heavily.17,18 Models included an indicator variable for postpartum Medicaid eligibility, income as a continuous variable, and an interaction term between these two variables. This interaction term was the estimate of interest, indicating whether the effect of postpartum Medicaid eligibility varied significantly for births above versus below the postpartum Medicaid eligibility cutoff of 138% FPL. We included all covariates in each model and clustered robust standard errors within mothers.”*

*“We conducted several sensitivity analyses to confirm the robustness of our results. First, we tested a variety of functional forms with higher order polynomials. We selected the quadratic form due to model fit and evidence that lower-order polynomials are preferable in the context of regression discontinuity estimation.”*

**(15) Additionally, more background on emergency Medicaid eligibility is needed. Who gets it, and why is maternal foreign-born birth a proxy for emergency Medicaid?**

Emergency Medicaid provides temporary coverage only for emergency services to individuals who meet all the requirements for a Medicaid program but do not meet the citizenship requirements for full Medicaid coverage. Emergency Medicaid would cover a delivery hospitalization, but does not extend through 60 days postpartum (or beyond) since it is only short-term, emergency coverage. Therefore, the traditional, pregnancy-related eligibility and coverage limits under study in this paper do not apply to this group.

We implemented two approaches to try to exclude those who may be on emergency Medicaid. First, we excluded births to those who were only enrolled in Medicaid for one month, the month of their delivery hospitalization, as this extremely short-term Medicaid coverage during pregnancy would indicate that they were not eligible for full benefits. Second, we excluded women who were not born in the U.S. as they are more likely to be ineligible for full Medicaid benefits due to citizenship restrictions. These results are shown in Appendix 8, and do not substantively change our findings. We have updated the language describing this sensitivity analysis to enhance clarity:

*“Fourth, we implemented two sample restrictions as proxies for excluding women with emergency Medicaid eligibility. Emergency Medicaid provides coverage for emergency services only (including delivery hospitalizations) to individuals who meet all Medicaid eligibility criteria with the exception of citizenship requirements. First, we excluded births to women who were not born in the U.S. and were therefore less likely to be U.S. citizens who qualified for full pregnancy-related Medicaid benefits. Second, because emergency Medicaid coverage is limited to covering the costs of an acute, urgent event such as delivery, we also tested the exclusion of births to women who were enrolled in Medicaid only during the one month that they gave birth.”*

**(16) "Relatedly, our causal estimates are derived…may not generalize to women outside the income range." I'm not sure if I agree, or at least a clear justification is necessary. Is it that, for example, beneficiaries at ~140% FPL are less likely to get postpartum non-Medicaid insurance than beneficiaries at 200+% FPL?**

Thank you for this question. We originally included this limitation because as shown in Exhibit 1, there are significant differences in characteristics of those with incomes 0-138% FPL versus 139-265% FPL. As you suggest, these characteristics may be associated with one’s likelihood of maintaining continuous coverage. For example, those with higher incomes are more likely to be married and therefore may be more likely to have an offer of coverage through a spouse. When we limit to a narrow income bandwidth above and below 138% FPL, these differences are minimized, but there is a trade-off in generalizability as we are limiting to a very specific group of women with incomes in a narrow range. These women may differ from those on the higher or lower ends of the income spectrum between 0-265% FPL. However, we have omitted this limitation from the manuscript since our primary specification now includes the entire income sample.  **RESULTS  
  
(17) I think this section is clearly written. I have no major comments related to the results.**

Thank you for these positive remarks regarding the results section. **DISCUSSION  
 (18) "…including providing continuous Medicaid coverage during a period when women are at highest risk of postpartum complications…" What are these complications that occur between 60 days and 12 months postpartum? This information could be in the Introduction to underscore the relevance of your study.**

The most common complications during the postpartum year are related to cardiovascular conditions, including cardiomyopathy and cerebrovascular accidents, substance use disorders, and mental health conditions. We have revised the introduction to highlight examples of conditions that can arise in the postpartum year:

*“Postpartum complications of pregnancy include conditions related to postpartum depression, hypertensive disorders, and cardiovascular conditions, and rates of severe postpartum morbidity are rising.1,2”*

**FIGURES  
  
(19) On all figures, you should define the y-axis fully and not just in the title (ex: "probability of coverage disruption," not just "probability").**

We have updated the axis titles to be more descriptive of the outcomes.  **Reviewer 2**

1. **Thank you for the opportunity to review this article. This is a timely topic given the option under ARPA. As you note, there have been a number of articles published on this topic. After reviewing the article, one question I have is why gaps in coverage and transition to ESI or Marketplace are grouped together? While they are all technically "disruptions," the impact is different. In Ex. 1, can the utilization and health outcomes be reported for those who lost coverage vs. those who transitioned to another insurance type. Can Ex. 3 be disaggregated between those who became uninsured vs. transitioned to private insurance?**

Thank you for these questions. We define a coverage disruption as a gap or switch in coverage because prior literature has demonstrated that even seamless transitions between health care plans can have negative impacts on access to care due to differences in cost-sharing, provider networks, and benefit design. We reference this literature in the introduction:

*“Even if women are able to transition to alternative coverage, switching insurance is associated with delays in access, increases in emergency department utilization, lower rates of filled prescriptions, and a lower likelihood of reporting a usual source of care.9–11 Differences in provider networks, benefit design, and cost-sharing and premiums between Medicaid and commercial coverage may further hinder continuity of care among women who switch insurance postpartum.12”*

We agree with the reviewer that it is informative to examine switches and gaps separately, which is why we decompose these further as secondary outcomes, examining the probability of gaps and switches separately, as well as the mean number of each event and the average duration of a gap. We do not examine utilization or health outcomes, as doing so would go beyond the scope of the present analysis, as noted by the editor. We are unable to disaggregate the outcomes by those who become uninsured versus transition to private insurance because the uninsured are not included in the all payer claims database.

1. **In the Discussion, do the estimates for potential OOP spending under Marketplace coverage take into account the expanded subsidies provided under ARPA?**

**(3) The all payer claims database from CO offers an opportunity to examine a number of interesting questions. I think that some additional analyses would provide new and valuable information for policymakers deciding whether to take up the new option under ARPA. For example, are you able to look at differences in state spending for the groups that maintained continuous Medicaid vs. those who experienced a coverage transition? That is likely to be an important consideration for states over the next year.**

We thank the reviewer for this excellent suggestion. We agree that examining costs across the two groups would be very informative. However, we are pursuing this in other work and per the editor’s guidance, adding a cost analysis would be beyond the scope of the present study.  **Reviewer 3**

**This paper is on an important topic - to what extent do women leaving Medicaid covered prenatal and delivery care in a Medicaid expansion state switch coverage or gap in coverage between insurance types.  It is a thoughtful well executed paper that includes lots of sensitivity analysis, but I have a number of concerns about the paper.  
  
(1) First, income is inconsistently measured across enrollees.  For almost 60 percent it is measured at two months after delivery.  These women are most likely women who were eligible through pregnancy related eligibility and consequently higher income.  Is there a way to measure women's income in a consistent way?**

Thank you for this important question. The income data analyzed in the study was provided directly by the Colorado Department of Health Care Financing and Policy which administers the Colorado Medicaid program, and is the same information they use to determine Medicaid program eligibility. However, because of this, incomes can be verified at different times for different enrollees, and therefore there is no one point in time when all of the women in our sample have a uniformly updated income. Given the potential for income fluctuations over time and our study objectives, we chose to pull the income from as close to the 60 day postpartum mark as possible. For the majority of women, income was reverified at this time point. For those who did not have an updated income from this time point, income was verified within the prior 3 months for 80%, and within the prior 12 months for 98.5%. There could be several reasons that income was not updated for this group, including the use of other state data sources that showed no change in income during this time period therefore requiring no updated data entry in the system. We see no evidence that those with incomes populated at 60 days postpartum were more likely to be eligible through pregnancy-related eligibility, and even if this were to be the case, this would reduce the accuracy of the income measures for those enrolled in non-pregnancy-related pathways as well. We have added a sentence to the limitations section acknowledging this:

*“Third, we were unable to measure income at the same point-in-time for all women in the study sample as Medicaid administrators can verify income for enrollees at different times throughout the year. This may introduce bias in our results if incomes are systematically inaccurate across eligibility groups. However, we use the gold standard of income data provided directly by the state Medicaid program and incomes were updated for nearly 60% of the sample the month following 60 days postpartum.”*

**(2) Second, the measures that are presented make it hard to figure out what is going on.  Beyond enrollment in ANY coverage, I would want to specifically see mean enrollment in Medicaid/CHIP, commercial, marketplace, and no coverage.  This would give a sense of the extent of the differences in uninsurance that are occurring between the higher income group and low income group, which to my mind is vastly more important than whether or not the coverage is continuous and there are gaps between coverage (although the authors can disagree with me on this.)  It will also give a sense of whether their income measure is sorting women appropriately.  For example, if there are many months of Medicaid coverage in the higher income group, this would suggest that the income measure has a lot of measurement error.  My understanding of the measures being presented is that the only gap in coverage they are measuring is gaps between coverage, this seems like an important issue but less important  
than months of uninsurance.   For example, if only 20 percent of those in the higher income group have a coverage switch that must mean that 80 percent either have Medicaid or are uninsured and understanding this is critical.**

Thank you for these suggestions. We have added mean durations of enrollment in the different insurance types to Exhibit 4, provided below. You are correct that we only examine gaps between types of coverage rather than uninsurance. We do so out of caution because in the APCD, loss of coverage does not necessarily indicate that the individual was uninsured, as some self-insured commercial plans do not submit their claims to the database. We therefore do not equate loss-to-follow-up in the APCD with becoming uninsured. However, we felt more confident classifying gaps in coverage during a 12 month period as periods of uninsurance because of their short duration; it is unlikely people transition to a different plan for less than a year and then switch again.

**(3) Third, in general, I find the description of the measures to be somewhat unclear.  Moreover, because there are different income bands for each adjusted outcome, one cannot really figure out, for example, what is the average coverage gap for those who have a coverage gap.  Which is also an important measure.**

Thank you for this comment. In response to the editor’s suggestions to enhance the clarity of our methods, we have now updated our primary results to using the full income sample as opposed to a local polynomial approach in which each outcome has a different bandwidth and therefore different sample sizes. The adjusted estimates presented in Exhibit 4 are now estimated on the full sample and the local polynomial results are provided in the Appendix.

We have updated the description of the measures to enhance clarity: **(4) Fourth, there was no evidence presented that women eligible for Medicaid would not have offers of employer-sponsored coverage for themselves or from a spouse through a self-insured employer plan, despite a citation.  This seems like a viable source of coverage for women in this income group and as such means that the results may understate transitions, gaps and uninsurance.**

We agree that some women may have access to a self-insured employer plan through their own job or a spouse’s job that they can transition to after the 60 day postpartum Medicaid eligibility period ends. It is unclear whether this would lead to an underestimate of transitions, gaps, and uninsurance or an overestimate, as we are unable to observe the enrollment trajectories for those who transition to self-insured plans not included in the APCD. We have elaborated on this limitation:

*Second, while the APCD includes claims for all births to Medicaid-enrolled mothers in Colorado, the database excludes many commercial, self-insured payers who are not required to submit their claims to the APCD (those that submit do so voluntarily). Therefore, we were likely unable to observe postpartum enrollment for some women who switched into self-insured commercial plans in the year after birth which may have led to inaccuracies in the measurement of coverage switches or gaps for those we could not observe.* **(5) Fifth,  the article needs place the findings in the context of their effects sizes. The discussion talks about effects that are much bigger for the higher income group but if these effect sizes are still small it makes the argument for policy solutions weaker.  The way it is written now, one could conclude that this is not a big policy problem that needs a solution.  This is unlikely to be true and needs to be more carefully explicated.  I would spend move more of the sensitivity analyses to the appendix and spend more time making the case in the results for the magnitude of these effects.**

We agree with the reviewer that additional clarification regarding the effect sizes would strengthen the discussion. We acknowledge that the effect sizes are relatively small compared to prior work. However, this is likely due to measurement error that biases our estimates towards the null, including the potential for ID sharing between mothers and infants, an issue that has now been added to the limitation section as shown below, and the potential for income misclassification. The fact that we still observe a strong and persistent effect despite these potential limitations indicates that the effect is robust.

*“Fourth, in some cases, Colorado Medicaid allows mothers and infants to share the same Medicaid ID after birth. Because infants are automatically eligible for Medicaid in their first year of life, ID sharing may result in an underestimate of postpartum coverage loss, biasing our findings towards the null.***”**

*“Prior work using survey data has found higher rates of postpartum coverage disruptions than we observed in this analysis.22 It is possible that our results may underestimate the true magnitude of the effect of postpartum Medicaid eligibility loss due to inaccuracies in income measurement or Medicaid ID-sharing between mothers and infants in the Colorado APCD, as described in the limitations. However, the fact that we observe strong effects despite these concerns indicates that our findings are robust, though magnitudes should be interpreted taking these limitations into account.***”  
  
(6) Minor issue:  There is no justification for why the various health conditions are included in the analysis.  One could make an argument for that but it needs to be made.  In addition, preterm birth, eclampsia, HELLP, multiple births are not complications of delivery.  The first three are complications of pregnancy.**