**Report**

**Writing and communication – 10 pts**

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| **Points** | **Criteria** |
| 10 pts | * The overall report clearly conveys a compelling research narrative that pivots around a central research question or theme. The authors clearly have a strong grasp of the research topic, and are able to effectively transfer their knowledge and methods to the reader in simple language. * All of the relevant sections appear and are well-structured, the content of each section is appropriate to that section, and the length of the report is appropriate. * Report is professional, authoritative, and clear. Language is concise, clear, easy-to-follow and professional. Tone and style match that of published journal articles. Report reads like a published manuscript that may appear in a scientific journal. |
| 8-9 pts | * Report is clearly structured around a central research question or theme. * Language is generally clear and professional, although some style elements may not quite meet literature conventions. Language may be somewhat verbose or roundabout. * The authors clearly have a strong grasp of the research topic and demonstrate authority on the topic. * All of the relevant sections appear, the content of each section is appropriate to that section, and the length of the report is appropriate. |
| 7 pts | * All required sections and content appear somewhere in the paper although perhaps not in the section that the reader would expect. Report addresses the required research questions, but no central theme or story emerges. Report is the appropriate length. * Language is mostly clear although inaccuracies may occur in some places * The authors demonstrate adequate understanding of the research topic with some minor inaccuracies. |
| <= 6pts | * Report is too disorganized to follow or major content gaps exist. * The authors demonstrate insufficient understanding of the research topic. * Report is much too long or much too short. |

**Introduction and background – 10 pts**

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| **Points** | **Criteria** |
| 10 pts | * The authors concisely provide sufficient background information to compel the reader’s interest in the subject. * The reason for the research is clearly identified and compelling * The authors have brought in non-superfluous and appropriately cited outside sources in order to further develop the research narrative. |
| 8-9 pts | * The authors provide sufficient background information and the reason for conducting the research is clearly identified. * Background or research gap may not be compelling. |
| 7 pts | * Some background information is provided but the research feels poorly justified |
| <= 6pts | * Background information is inappropriate to the topic or not provided |

**Statistical methodology – 15 pts**

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| **Points** | **Criteria** |
| 15 pts | * The authors demonstrate flexibility with and authoritative knowledge of statistical topics covered in class. * The authors effectively troubleshoot through complex data wrangling or methodological challenges that surpass topics covered in class and are able to identify simple solutions. * Statistical methods are simply but adequately conveyed and well justified. * Methods are appropriate to the data and adequately and meaningfully address the research questions. |
| 12-14 pts | * The authors demonstrate authoritative knowledge of statistical topics covered in class. * The authors effectively troubleshoot through complex data wrangling or methodological challenges that surpass topics covered in class, but solutions may be overly complex * Statistical methods are adequately conveyed and the statistical approach is justified but the authors may over or under emphasize certain areas. * Methods are appropriate to the data and adequately and address the research questions. |
| 11 pts | * The authors demonstrate basic knowledge of statistical topics covered in class. * The authors troubleshoot through complex data wrangling or methodological challenges that surpass topics covered in class, but solutions may be incorrect. * Statistical methods can be deciphered by the reader. * Methods are mostly appropriate to the data. Some analyses may be inappropriate. |
| <= 10 pts | * The authors do not demonstrate adequate knowledge of statistical topics covered in class. * Statistical methods are not clear or inappropriate to the data. |

**Results – 15 pts**

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| **Points** | **Criteria** |
| 15 pts | * Results are effectively and concisely reported in-text in the style of a journal article. Results reporting includes point estimates, precision estimates, and p-values, as appropriate. * All results contribute to the overall research narrative. |
| 12-14 pts | * Results are appropriately reported in-text and include point estimates, precision estimates, and p-values, as appropriate. Reporting may not be concise or may be stylistically naïve. |
| 11 pts | * The reader is able to decipher the main results of the paper although results reporting may lack some important information such as size/direction of the effect, precision estimates, or p-values. |
| <= 10 pts | * The results of the analysis are not clear from the text of the report. |

**Conclusions – 10 pts**

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| **Points** | **Criteria** |
| 10 pts | * The authors arrive at conclusions and interpretations that are appropriate to the results. Conclusion are not stated too strongly or too weakly relative to the results of the analysis. * The authors extend the results of the analysis to contribute to a better understanding of a big picture story without overstating the results. |
| 8-9 pts | * The authors arrive at conclusions and interpretations that are appropriate to the data although possibly over or understating the importance or strength of the results. |
| 7 pts | * The conclusions and interpretations are mostly appropriate with some errors. |
| <= 6 pts | * The conclusions and interpretations do not follow from the analysis |

**Figures and Tables – 10 pts**

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| **Points** | **Criteria** |
| 10 pts | * Figures and tables are high quality, and include legends, titles, and captions. All figures are cited appropriately in the text, and an unfamiliar reader could understand the main conclusion of the figure/table without referring to the rest of the report. * Each figure and table tells a mini research narrative, and it is clear how each figure/table contributes to the overall research narrative and helps to drive the readers understanding of the story. |
| 8-9 pts | * Figures and tables are high quality, and include legends, titles, and captions. All figures are appropriately cited in text. An unfamiliar reader could understand the main conclusion of each figure/table without referring to the rest of the report. * The authors may include too many figures/tables or figures/tables that do not contribute to the overall research narrative. |
| 7 pts | * Figures and tables are of adequate quality and include legends, titles, and captions. Most figures are appropriately cited and referenced in the text. Each figure serves a purpose, although the purpose may not be clear without reference to the text. Some information may not be meaningful or figures/tables may be poorly formatted. |
| <= 6 pts | * Figures and tables are poor quality or not meaningful. * Figures/tables are not referenced in the text. * Purpose and conclusions of the figures are unclear. |