

University of California, Davis
Department of Public Health Sciences

Fall 2023

Survival Analysis

BST 222

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Final Project Assignment

To be Presented in Class, December 5 or December 7, 2023

For the final project, you will form groups of 3–4 and prepare a 20–30 minute presentation on the analysis of a data set suitable for survival analysis methods, to be given in the last week of class. The results of the project may be presented by one of the group, or several at your choice, but the whole group will be graded on the content and presentation. Your “audience” will be assumed to be non-statisticians with an interest in the subject matter rather than the statistical methods, so you should focus on explanation and interpretation rather than technical details, although enough of the technical details should be clear from the slide that your choice of statistical methods can be discerned. You should also submit a technical report that details the methods and results. Your grade as a group will be based on

1. Choice of survival-analysis data set. It should be sufficiently complex to have some challenge, but not so intricate that the results can’t reasonably be presented in the allowed time.
2. The statistical analysis should be of high quality, though it does not need to consider every detailed aspect or possibility.
3. The presentation slides, which should summarize the conclusions and interpretation.
4. The presentation itself, which should be assured and professional.
5. The technical report, which should contain all the details.

The steps in the project should be as follows:

1. Choose a data set with data suitable for survival analysis. Sources can be statistical papers, medical papers, data sets attached to textbooks, data sets included in R packages, or possibly other sources. You can find a curated list of R survival packages at <https://CRAN.R-project.org/view=Survival>.
2. Using appropriate methods, analyze the data and record your analysis in the technical report.

3. Prepare a slide deck in PowerPoint, Keynote, R Markdown, or another package.
4. Meet as a group in person or virtually during the development and then practice the presentation in the group.
5. Present during the last week of class.