Summary and extraction

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Outline

- A few more summary tools
- Introduction to ODS
- Saving reports to other files
- Extracting important parts
- Saving to data sets

Other ways to summarise your data

- proc contents data=XXX; run;
- proc means data=XXX n mean max min range std; var a b c; run;
- proc univariate data=XXX; var a b c; run;
- proc freq data=XXX; tables a; run;

Your turn

- Try each of the different summaries on at least one variable in the server survey data

ODS

- ODS = output delivery system
- Each of the tables that make up the output, you can individually select and redirect
- Display output, or as a new SAS dataset
- Help: Base SAS | SAS Output Delivery System: User's Guide

We've already used ods!

- ods listing close;
- ods html newfile=proc;

- ods graphics on;

Other output formats

- listing, html, pdf, rtf, ps, excel, xml, latex

- ods pdf;
- ods pdf file="my-report.pdf";
- PROC ...; run;
- ods pdf close;

Your turn

- Practice outputting to different files
- It's very useful to change the working directory

Web pages

Watch where the semicolons go!

- ods html body = 'report-body.html'
- contents = 'report-contents.html'
- frame = 'report.html';
- ...
- ods html close;

Your turn

- Try it out for a linear model
- Add some lsmeans statements

Find table names

- The hard way:
  - ods listing;
  - ods trace on / listing;
  - PROC ... ; run;
  - ods trace off;
  - ods listing close;

Find table names

- The easy way:
  - Right-click on the table in the results viewer and choose properties

Select output

- ods output select=tablename;
- Lasts for one procedure

- ods listing;
  ods trace on / list;
  proc univariate data=ss;
  var men-elderly_adults;
  run;
  ods trace off;
  ods listing close;
- ods select BasicMeasures;
  proc univariate data=ss;
  var men-elderly_adults;
  run;

Your turn

- Fit a model, and only output the table of model parameters (make sure to use model y = x / solution)

Output to data

- ods output odsname = datasetname;

- Lasts for one procedure
- Select controls visible output, output controls data set output - they operate independently

Your turn

- Run a model that displays the residuals (use model y = x / p)
- Extract the table of residuals and save as a SAS dataset
- Export it to csv