

Computational Results Section of a Computational Research Paper

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Where we've been

- Data section
- Theory section

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Computational results section is where you:

- answer your research question
- connect the data section with the theory section

Types of computational research

- Descriptive papers: **x**
 - New data sets
 - Highlighting interesting slices
 - Suggestive of more rigorous analysis
 - Highlight unexplained relationships, puzzles
 - **You're not doing ONLY this in your projects**

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 - Model solution requires computation
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- Combinations of the three

Examples of descriptive papers

- Heathcote, Perri, Violante, “Unequal We Stand: An Empirical Analysis of Economic Inequality in the United States, 1967—2006”

Examples of identification papers

- Mobley, Kuo, Watson, and Brown, “Geographic Disparities in Late-state Cancer Diagnosis: Multilevel Factors and Spatial Interactions”

Examples of numerical solution papers

- DeBacker, Evans, Phillips, “Integrating Microsimulation Models of Tax Policy into a DGE Macroeconomic Model: A Canonical Example”

Components of identification papers

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 - Specify all equations
 - How do you estimate parameters?
 - What is the objective function?
 - Some of this might go in an appendix
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Open source caveats

- Might not want to put all code up until paper is published
- Might not be able to put all data up due to proprietary/privacy issues
 - Synthetic data methods improving

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④ Sensitivity/robustness analysis

- Try some different assumptions and see if your results change
- Different restrictions of the data (variables, outliers, transformations)
- Different model specifications (probit vs. logit, quadratic terms, interaction terms, statistical learning model, network analysis seed)
- Evidence for global maximum/minimum

Order of paper production

- 1 Data section
- 2 Theory section (1 and 2 could switch order)
- 3 Computational results section
- 4 Conclusion
- 5 Introduction
- 6 Abstract

Title

- Moving target
- Not too short, not too long, not too cute
- refer to research question

Flexibility on sections

- Section orders can be changed
- Number of sections can be expanded/consolidated (e.g. method/experiment/results)
- **Key question:** What will most clearly communicate answer?

Final point

Your paper is evidence
for the answer to your
RESEARCH QUESTION