

# Reflections on how to succeed as a researcher in Agricultural Economics

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# Success as an economist is influenced by:

1. Technical skills (your toolkit)
2. Ability to identify important topics / gaps in our understanding
3. Conceptual skill: linking question – theory – methods – estimable model
4. Teasing out the implications of the findings in meaningful ways, e.g.,
  - implications for the discipline
  - Insightful new understanding of how the system works
  - Implications for policy

# 1. Getting started: choosing a topic

1. Problem statement: what is the problem? Why does the problem need analysis?
2. Discover the current cutting edge by talking to the academic leaders in the field and ask them about their current research activities
3. Implicit E-B-P analysis behind conceptualization of the study
4. Identify early on which kind of contribution(s) you are aiming for:
  - Disciplinary
  - Subject Matter
  - Problem Solving
5. Iterative process: research questions/objectives – data - methods

- E – B – P
  - Environment
    - Most policy / research issues take place within a system
    - Who are the actors in the system?
    - What are their objectives / incentives
    - Structure and organization of the system (can get part of this from Step 2)
  - Behavior
    - How do the features of the environment affect the behavior of the actors?
  - Performance (outcomes)
    - How do features of environment and behavior affect outcomes?
    - How does performance feedback and affect E and B?

## 2. Get a feel for the data

- Plot distribution of all variables of interest
  - Skewed? outliers?
  - Distribution of dep var and main RHS variables: 10<sup>th</sup> – 25<sup>th</sup> -50<sup>th</sup> -75<sup>th</sup> -90<sup>th</sup> percentiles of distribution
  - Example: distance to point of sale
- Rough out “dummy tables”
  - Then fill in – usually tables of the distribution, % adopting, cross-tabs, bivariate relations

## 3. Iterate back and forth on 1 and 2

- Once you settle on the right set of research questions/hypotheses/issues, then consider:
  - your conceptual framework; theoretical foundation
  - Estimable models and how you derive them;
  - data to be used

# 4. Introduction

1. Funnel concept: broad to narrow
2. Problem statement
3. What's the likely outcome if the problem remains unresolved
4. How has previous literature addressed this issue, and how is it deficient in some way.
  - Identify the “knowledge gap” that needs to be filled/improved upon
  - Explain why building on the literature in this particular way is important
5. Clear presentation of objectives
  - How will your analysis help to resolve the problem?
  - If a quantitative analysis, use terms like “determines” , “estimates”, not “explores”
6. How you will achieve these objectives, i.e., methods
7. Who will benefit? / who will care?

# Intro (continued)

Optional:

- Whet the reader's appetite by giving main gist of findings
- Road map of remainder of paper

Length of intro: 600-800 words for typical article

# 5. Flesh out the outline

- I develop my outline usually after fleshing out steps 1-6 of the Introduction.
- Conventional approach for article where model and estimation results feature prominently:
  1. Introduction
  2. Conceptual Framework
  3. Methods / model(s)
  4. Data
  5. Results: descriptive results – estimation findings
  6. Conclusions and Policy Implications
- Use topic paragraphs

- For subject matter articles, much more variability as to organization of outline

# 6. Conceptual Framework

- Very important to integrate prior literature on the topic
- Doesn't need to be a "lit review" *per se*, but should describe how understanding, theory, and/or viewpoints have evolved over time by citing the relevant studies
- The lit review / concept. Framework should have a purpose – it tells a story that is consistent with your problem statement
- Sometimes appropriate to do this formally, other times not (depends on what kind of contribution you are aiming for – D, SM, or PS)
- Identify again the deficiencies/knowledge gaps in the existing literature – this sets up the contribution you are going to make in the remainder of the paper

# 7. Methods / model

- This section links the conceptual framework to the generation of findings
  - How do we go about deriving the findings of the study?
  - Best to state limitations and caveats, so that the reader is aware that you are aware
- Draw from economic theory, where appropriate, to derive your model
- Checklist:
  - Is endogeneity a problem? If so, explain how you address it (e.g., simultaneity, omitted variables)
  - Selection bias
  - Attrition bias
  - Does dependent variable have unusual distribution?

- The remaining steps: findings, conclusions, policy implications flow from the steps 1-7. I won't go further here, but let's now dwell more on
  - model specification: how to derive estimable models from a solid theoretical foundation (examples)