ECON 594: Applied Economics

How to Write a Paper

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Today

It's time to write up your results

- This lecture is about the write-up, not generating ideas
- The goal is to make your writing simple and predictable

The plan

- Why good writing pays off, and how papers actually get read
- The structure of an economics paper
- The title and the abstract
- The introduction, where you'll spend most of your effort
- The rest of the paper, and the order to write it in

Good writing gets rewarded

Reading is hard, and people don't want to do it

- Make it easy for the reader to stick around
- Don't confuse them
- Use words they understand
- Tell them the important things as soon as possible

Feld et al. (2022) had economists and writing experts rate the writing in published papers

- Grade level $= -15.59 + 0.39 \times \frac{\text{words}}{\text{sentences}} + 11.8 \times \frac{\text{syllables}}{\text{words}}$
- Better-written papers have a lower grade level
- Papers in the top-5 journals read at a Grade 13 level (Hengel 2022)

Good writing is its own reward

- Writing things so they are clear helps you think clearly

How papers actually get read

Most readers will never finish your paper

- Everyone reads the title
- Many read the abstract
- Some read the introduction
- Almost no one reads the whole thing closely

So the front of the paper does most of the work

- Spend a disproportionate amount of time on the front end
- A reader who only reads your introduction should still come away understanding the paper

Your paper guidelines

Your paper should conform to the following:

- Maximum 6,000 words (count it at `www.aeaweb.org/journals/word-count`)
- Maximum five main exhibits (figures or tables)
- An abstract of 100 words or fewer
- An appendix is fine for extra figures and tables (e.g. robustness checks)

This is short

- It forces economical writing and a single sharp question

The Taco Bell distinctiveness rule

Taco Bell has a rule for new menu items: change the taste or the form, but not both

- The Doritos Locos Taco is a normal taco with a nacho-cheese shell
- The Crunchwrap Supreme has normal burrito ingredients in a new-to-mankind hexagonal form
- Change taste and form together and customers don't like it

Your paper works the same way

- The form is what readers expect: the section order, the intro arc, standard tables and figures
- The taste is your contribution: the question, the design, the result

Make your idea the new thing and let the form stay boring

- Readers spend no effort decoding your structure, so all of it lands on your argument
- If you ever break form, keep everything else familiar

The structure of an economics paper

Most papers follow the same structure

- Readers expect it, so deviating just confuses them
- Don't deviate without a very good reason

The structure:

1. The start (the part that gets read)
   - Title
   - Abstract (100 words max.)
   - Introduction
2. The middle
   - Background
   - Data
   - Research design
   - Results
3. The end: conclusion (very rarely read)

The title

Titles should be informative and clear

- They can even state your result

Bad

- Guns and Donors: How Individual Political Donors Respond to Mass Shootings in the US

Better

- Mass Shootings and Political Donations in the US

States the result

- Mass Shootings Increase Donations to Pro-Gun Politicians in the US

Writing an abstract

Good abstracts are often formulaic

- One sentence motivating the paper
- One sentence saying what you did
- Two or three sentences on the results
- One sentence on the (policy) implications

In 100 words you often can't fit all of this

Abstract example: incarceration and employment

The Impact of Incarceration on Employment, Earnings, and Tax Filing

We study the effect of incarceration on wages, self-employment, and taxes and transfers in North Carolina and Ohio using two quasi-experimental research designs: discontinuities in sentencing guidelines and random assignment to judges. Across both states, incarceration generates short-term drops in economic activity while individuals remain in prison. As a result, a year-long sentence decreases cumulative earnings over five years by 13%. Beyond five years, however, there is no evidence of lower employment, wage earnings, or self-employment in either state, as well as among defendants with no prior incarceration history. These results suggest that upstream factors, such as other types of criminal justice interactions or pre-existing labor market detachment, are more likely to be the cause of low earnings among the previously incarcerated, who we estimate would earn just $5,000 per year on average if spared a prison sentence.

Why this abstract works

- The research question and design are established immediately
- Results are presented chronologically, so they're easy to follow
- It sticks to two main results (short-term drop, no long-term drop) and one contextualizing fact (very low earnings even when not incarcerated), so it reads as a narrative

Abstract example: child penalties

Does Biology Drive Child Penalties? Evidence from Biological and Adoptive Families†

By Henrik Kleven, Camille Landais, and Jakob Egholt Søgaard*

This paper investigates whether the impact of children on the labor market outcomes of women relative to men—child penalties—can be explained by the biological links between mother and child. We estimate child penalties in biological and adoptive families using event studies around the arrival of children and almost 40 years of adoption data from Denmark. Short-run child penalties are slightly larger for biological mothers than for adoptive mothers, but their long-run child penalties are virtually identical and precisely estimated. This suggests that biology is not a key driver of child-related gender gaps. (*JEL* J12, J13, J16)

Why this abstract works

- The research question and design are established immediately
- It defines “child penalties” once, so it can use the term repeatedly
- Question and design run in parallel: are penalties driven by biology, so compare biological and adoptive mothers
- The final sentence drives the conclusion home
- Aside: if the title is a question, the answer is almost always “no”

The introduction is the paper

The introduction is the hardest part to write

- Writing is rewriting: you'll redo it many times

What the introduction has to do

- Get the reader interested
- Explain what the paper does
- Leave them understanding 80% of the paper from the intro alone
- It's not a mystery novel: give away the ending

The abcABC formula for the introduction

The first page (abc)

- Paragraph 1: the setting, the thing we are studying
- Paragraph 2: what we already know
- Paragraph 3: what we do (the “this paper” paragraph)
  - Usually not the results yet
- All of this belongs on the first page

The rest of the introduction (ABC)

- More on the specific institution
- More on the research design
- The results
- Sometimes more on the related literature

Intro tips and tricks

Plan each paragraph before you write it

- Bullet-point the paragraphs first
- Each paragraph does a single thing

Make the first sentence of each paragraph a mini-summary (“topic sentence”)

- Read only the first sentence of each paragraph: does the intro still (almost) work?

Signpost what’s coming

- “We make three contributions. First ...”, then “Second, we ...”, then “Third, we ...”

Use simple words and short sentences

- Avoid “elegant variation”: use the same word for the same thing (“treatment”, not sometimes “intervention”)

Intro tips and tricks

Use the active voice

- Active: the subject performs the action
- Passive: the subject receives the action
- “I create an outcome index by ...” beats “An outcome index is created by ...”
- Active voice is more direct and easier to read

Motivate from the real world, not the literature

- Bad: “A large literature has studied incarceration in the United States.”
- Better: “More than one million people are incarcerated in the United States at any given time.”

CAHOOTS intro, paragraph 1: the setting

Police officers respond to a wide range of 911 calls, from violent crimes in progress to incidents involving mental health crises, homelessness, addiction, and interpersonal conflicts. Relying on police as universal first responders, however, may not be optimal: expanding officers' roles to include mediation and de facto social work can strain resources, reduce effectiveness in core law enforcement tasks, and increase the risk of unnecessary arrests or violence. An alternative approach is the integration of non-police first responders into municipal emergency-response systems. Typically composed of a non-uniformed mental health professional and a medic, these crisis response teams (CRTs) are trained to address crises related to substance use, mental health, and interpersonal conflict—situations that advocates argue differ fundamentally from traditional policing contexts and therefore warrant specialized responders (Irwin and Pearl, 2020; Krider et al., 2020).

CAHOOTS intro, paragraph 2: what we know

Despite growing public demand for alternatives and complements to policing and the rapid expansion of these programs to more than 100 localities since 2020 (Ba et al., 2024, 2025), there is limited evidence on how CRTs affect the outcomes of 911 calls. Do they substitute for police responses, operate alongside police, or respond to calls that would otherwise go unanswered, thereby expanding the scope of emergency services? Importantly, do they successfully de-escalate crises and reduce arrests? And how do they affect broader measures of community safety? While there is an extensive literature on police officers, evidence on CRTs is sparse (Dee and Pyne, 2022; Ba et al., 2025).

CAHOOTS intro, paragraph 3: what we study

This paper investigates the causal impact of sending CRTs to respond to 911 calls involving mental illness, homelessness, and addiction—either alone or as part of a broader police response. Our context is the longest-running such program in the United States, Crisis Assistance Helping Out on the Streets (CAHOOTS) in Eugene, Oregon. We use detailed administrative 911 call data and two complementary research designs to study the effect of the initial expansions and the effect of the marginal call after the program has reached scale, contributing to a comprehensive assessment of the effects and possible scope of crisis response programs.

CAHOOTS intro, then: the institution and the design

CAHOOTS originated in Eugene, Oregon in 1989. At the start of our study period in 2014, it was active only in Eugene, running from mid-morning to late at night. Over the following four years, it expanded in five distinct steps to offer 24-hour coverage in Eugene as well as in the neighboring city of Springfield. Our first research design exploits this variation in a difference-in-differences framework, where we instrument for CRT responses to 911 calls based on the timing of the expansions. This strategy isolates the effect of CRT responses driven specifically by the introduction to new times and geographies. On average, the expansions increased the probability of a CRT response by 7.5 percentage points (pp),

Why the CAHOOTS intro works

- Paragraph 1 sets up the real-world problem, not the literature
- Paragraph 2 lays out what we know and poses the open questions
- Paragraph 3 states exactly what the paper does
- “Crisis response teams (CRTs)” is defined once, then reused

Why the CAHOOTS intro works

- Paragraph 1 sets up the real-world problem, not the literature
- Paragraph 2 lays out what we know and poses the open questions
- Paragraph 3 states exactly what the paper does
- “Crisis response teams (CRTs)” is defined once, then reused
- Each paragraph’s first sentence mostly carries its point
  - ✗ “Police officers respond to a wide range of 911 calls, from violent crimes in progress to incidents involving mental health crises, homelessness, addiction, and interpersonal conflicts.”
  - ✓ “Despite growing public demand for alternatives and complements to policing and the rapid expansion of these programs to more than 100 localities since 2020 (Ba et al., 2024, 2025), there is limited evidence on how CRTs affect the outcomes of 911 calls.”
  - ✓ “This paper investigates the causal impact of sending CRTs to respond to 911 calls involving mental illness, homelessness, and addiction—either alone or as part of a broader police response.”

Writing the rest of the paper

Structure each section before you write it

- Break sections into subsections, sometimes sub-subsections
- Give each one an informative title
- Bullet-point the paragraphs first
- Define terms early (e.g. “child penalties” in Kleven et al.)

A few section-specific notes

- Background: explain what the reader needs to know, not everything you know
- Research design: be explicit, write out your estimating equation
- Results: present them in the order that makes sense, not the order you found them
- Tables and figures should be self-contained

Writing the conclusion

Keep it short, and don't just repeat the introduction

- Restate the question and the headline result in a sentence or two
- Draw out the broader implications: policy, external validity, the bigger question
- Be honest about the limitations, and point to what comes next

The order to write in

I write in this order

1. A finished set of results
2. A rough introduction (it's the plan for the rest)
3. Background
4. Data
5. Design
6. Results
7. Rewrite the introduction
8. Abstract and conclusion
9. Rewrite the introduction one last time

Writing with AI: plan first, then teach it your style

AI is no substitute for a plan

- Make the plan before you write
- You can use AI to help build it, but you decide the structure

Teach AI to write like you

- Feed it your own writing that you like, and have it draft a style guide
- Add the rules you want followed: consistent terms for the same concept, active voice, plain words

Writing with AI: keep control

Work in small pieces

- One section at a time, and be mindful of context
- A focused prompt on one section beats dumping in the whole draft
- Use it as a skeptical first reader: ask what's unclear or unconvincing

You are still accountable for the writing

- AI makes up facts and citations
- Clean up AI tells: elegant variation, needless em-dashes, inflated language

Wrap up

Write for a reader who is busy and easily lost

- Simple words, short sentences, active voice
- One idea per paragraph, summarized in its first sentence

Put your effort at the front

- Most readers only get as far as your introduction
- The title, abstract, and intro carry the paper

Writing is rewriting