

## CHAPTER 5: WRITING A POLICY ANALYSIS

The outline of a policy analysis

Here is a suggestion for the sections of a policy analysis and what to include in them.

### Introduction

The amount of space you devote to the introduction will vary a great deal from analysis to analysis. You will not need a long introduction for an analysis that evaluates the impact of increasing cigarette taxes. The issue, smoking and its impact on health, will be familiar to most readers, and the policy proposal entails modifying an existing policy rather than implementing a completely new one. A policy analysis that addresses an unfamiliar topic or policy will require a longer introduction.

*The most important lesson in the writing trade is that any manuscript is improved if you cut away the fat.*

-Robert Heinlein

Describe the circumstances behind the proposed change in policy. What is the **problem** the policy is trying to address? Why now?

Describe the policy. What, exactly, will the policy do? Emphasize the **contrast** between the proposed policy and the status quo. Avoid bland, generic descriptions of policy changes. Be specific.

Describe the **rationale** for the policy. How will the policy address the problem? What is the theoretical justification? Is there a market failure? Of course, describe the rationale in clear, jargon-free language.

Describe the **mechanism** by which the policy change may affect the outcome. In some cases, the mechanism will be obvious. You should not devote much space to it. In other cases, the mechanism will not be obvious. You should explain it.

Provide a **summary** of your main finding or result. This is very important. It highlights the most important piece of information in the paper and provides a context for understanding everything that follows.

### Methods and Results

Note that Methods and Results go in a single section, in contrast to the way that scientific papers are typically organized. I find that presenting results alongside methods often helps the reader understand what you did. The alternative is presenting methods and results separately, with other text in-between. When reading the results, the reader has to remember what he or she read in the methods. Better to put them together (in most cases). Consider this sentence, which combines methods and results:

I calculated the decrease in the share of diabetic patients who would have an unhealed ulcer (-2 percentage points), by multiplying the percent reduction in ulcers associated with the intervention (-10%) by the baseline prevalence (20%).

I find that the text and numbers complement one another. It is easier to understand the methods if you see the actual numbers.

Begin this section with a conceptual overview of your methods. It is like a map that helps the reader navigate through the details. Like this: “Using an estimate of how cigarette consumption declines with increases in prices and an estimate of the share of cigarette tax increases that are passed on to consumers in the form of higher prices, I predict how increasing the cigarette tax in Georgia will affect tax revenue.” A conceptual overview is not a piece of theoretical jargon. It is more than a list of assumptions. A good general format is “Using assumptions about [describe one or two key assumptions], I predict [describe key steps in the analysis and the outcome].”

Describe your assumptions and how they fit together. Including details here helps to establish your credibility. Pay particular attention to “policy effect” assumptions that describe how behavior responds to changes in policy. Give the reader a sense of how causal effects were estimated (but avoid jargon). **How do we know what the effect is without being able to conduct a randomized trial?**

Don’t just say, “Our assumption about the impact of the policy is based on a study using data from California.” That tells the reader very little. Instead, tell the reader about how the causal relationship between the policy and the outcome was estimated. Since assumptions regarding causal effects are so critical and important, it is OK to refer to them multiple times. For example, you could write a sentence in the Introduction or Conclusion like “Based on the results of a study that examined how health care costs changed when XYZ Corporation added coverage for contraceptives, we predict that....”

*Clutter is the disease of American writing. We are a society strangling in unnecessary words, circular constructions, pompous frills and meaningless jargon...Our national tendency is to inflate and thereby sound important. The airline pilot who announces that he is presently anticipating experiencing considerable precipitation wouldn't think of saying it may rain. The sentence is too simple—there must be something wrong with it.*

*But the secret of good writing is to strip every sentence to its cleanest components. Every word that serves no function, every long word that could be a short word, every adverb that carries the same meaning that's already in the verb, every passive construction that leaves the reader unsure who is doing what—these are the thousand and one adulterants that weaken the strength of a sentence. And they usually occur in proportion to education and rank.*

-William Zinser

Describe the sources and direction of any biases. A statement like, “This study may not be generalizable because it was based on data from 2007,” is inadequate. You need to explain why a study from 2007 may not be generalizable. What is different about today and 2007? Is the estimate too large or too small?

Clearly differentiate between assumptions you pulled from external sources and numbers you calculated yourself. Suppose you are projecting the impact of requiring employers to cover contraceptives on costs. You find a study that reports that when an employer added coverage for contraceptives, health care costs declined by 10%. You use this figure to project the impact of contraceptive coverage. It would be incorrect to say, "We estimated that contraceptive coverage will reduce costs by 10%." You didn't estimate this figure. You assumed it.

Describe the limitations of your analysis. This does not mean you should list every limitation, only those that you think are most important. You should also describe the direction of the bias and the rationale behind it. For example, "Omitting changes in longevity leads us to overstate the impact on revenues because....." You do not need to have a separate section or paragraph that describes limitations. Instead, limitations should be woven into the rest of the analysis. Do not include this sentence in your analysis. "This analysis has a number of limitations." You could put that into any policy analysis, and so it is not informative.

### **Conclusion**

Summarize your main results. You can also address the implications for policy, but be cautious. You want to appear like an analyst, not an advocate. If you seem overly opinionated, the analysis may seem less credible.

### Jargon

Avoid jargon. Just because we use a term in class does not mean it is OK to use it in a policy analysis. I am not your audience. Jay Sulzmann (and people like him) are your audience.

### Informative section headers

Just because I have used the section headings "Introduction", "Methods and Results", and "Conclusions" when describing the content of a policy analysis does not mean you have to use them. It is fine to use more descriptive headings (for example, "The impact of tax levels on cigarette consumption.") and by all means, break your paper up into smaller sections.

### Citing sources in the text

The normal rules of citation apply. Generally, you do not need to cite common knowledge.

Think carefully about how you phrase citations. Consider the following study by Harvard Medical School professor Lisa Rotenstein.

Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. *Journal of the American Medical Association* 2016;3016(21):2214-2236.

Here are five alternative approaches to citing it in the text.

1. According to the American Medical Association, 27% of medical students are depressed (Rotenstein et al. 2016).
2. According to Rotenstein et al. (2016), 27% of medical students are depressed.
3. According to Harvard University researchers, 27% of medical students are depressed (Rotenstein et al. 2016).
4. Twenty seven percent of medical students are depressed (Rotenstein et al. 2016).
5. Twenty seven percent of medical students are depressed.<sup>1</sup>

The first approach is wrong. Although the American Medical Association owns the *Journal of the American Medical Association*, it did not perform the study.

The second approach is the type of citation you would typically see in an academic journal. Academics working in this area might see the name “Rotenstein” and think, “Okay, I know Lisa, she does good work, I can trust this estimate.” But you are not writing for an academic audience. If you do not think your audience knows or has heard of Lisa Rotenstein, the phrase “According to Rotenstein et al. (2016)” adds verbiage without adding information.

The third approach conveys information that may or may not be useful depending on the context. If the result is unexceptional and believable, then you do not really need the opening phrase. However, if the result is unexpected, then the opening phrase helps establish credibility. Consider the following statements.

Regular participation in yoga can increase your life expectancy by 5 years.

According to Emory University researchers, regular participation in yoga can increase your life expectancy by 5 years.

My reaction to the first statement is “No way!” My reaction to the second, “That is hard to believe, but, given the source, I’m open to the idea.” The opening phrase provides useful information in this context.

When in doubt, use approach 4 or 5 above.

### Formatting references

A citation should, at a minimum, provide the name of the first author, the title of the document, and the title of the place of publication (if a journal, newspaper, book, magazine, online site [like Slate or Vox]). The exact form of the citation does not matter. A web link is not sufficient.

### Avoid quotes

In rare cases it is permissible to use a direct quotation. For example, if a well-known individual has a quote about the impact of a policy that conflicts with your results, then you could use the quote to help motivate your analysis.

Do not use quotations as a substitute for rephrasing ideas and concepts in your own words.

Why does writing matter?

When we ask prospective employers about the skills they find lacking in our graduates, “writing” is always at the top of the list. Many employers screen job applicants for writing ability. Once you get a job, you will be more likely to be noticed by people who are in a position to advance your career.

*As an investor, you need to perform calculations and have a logical investment thesis. This is your left brain working. But you also need to be able to do things such as judging a management team from subtle cues they give off. You need to be able to step back and take a big picture view of certain situations rather than analyzing them to death. You need to have a sense of humor and humility and common sense. And most important, I believe you need to be a good writer. Look at Buffett; he's one of the best writers ever in the business world. It's not a coincidence that he's also one of the best investors of all time. If you can't write clearly, it is my opinion that you don't think very clearly.*

- Mark Sellers, Hedge Fund Manager in a talk to Harvard Business School Students

*Toronto Blue Jays president Mark Shapiro, Cleveland's longtime GM, pointed out that almost every applicant to a team is “smart, hardworking and passionate about baseball.” The Indians, he said, “were looking for a point of differentiation,” like writing.*

-Wall St. Journal article: The Cleveland Indians' Brain Trust: Baseball Writers. Why the reigning American League champions have stocked their front office with former journalists

Good writing in the context of policy analysis (and in pretty much every other field) is clear and concise. Good writing does not have to be poetic or literary. Good writing is workmanlike. It has a job to do – communication – and it gets the job done efficiently.

If you are now thinking, “This is a policy analysis course. He should grade based on the content, not the writing,” you are missing the point.

Writing = content.

If you do a great analysis but can't communicate it clearly, you might as well not have done it.

Consider the quote below from a statistician with the San Francisco 49ers.

*At the end of the day, it boils down to this. The information is only as good as it is to the person receiving it. I'll take a C+ piece of analysis communicated perfectly over an A+ piece of analysis that's not communicated well. Only a small portion of the work is the analytics itself. The rest is putting it in a practical format so the salary-cap person and the coach can appreciate it and use it. Instead of trying to go overboard with analytics, focus on the practical: Focus on the things that have the highest impact on your organization.*

-Paraag Marathe, Chief Strategy Office, San Francisco 49ers in interview with C. Bialik of FiveThirtyEight Decemer 23, 2014

When it comes to analysis, no amount of rigor, precision, or creativity can make up for poor communication. In the context of this class, good writing means that your paper clearly explains your analysis. It makes it easy for the reader to understand key assumptions, the structure of the model, and the results.

A well-written paper is one where the writer put in a lot of effort so the reader doesn't have to.

How to write well

A common thread running throughout all writing advice is that authors should strive for brevity. You should include all important information, but convey it as concisely as possible. In mathematical terms, good writing maximizes the ratio of words to content. Good writers scour their work for

opportunities to cut out words, sentences, and even entire paragraphs.

It is probably easiest to illustrate good writing with examples.

*Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts.*

- William Strunk and E. B. White, *The Elements of Style*

**BAD:** Plaintiff John Doe is currently serving a custodial sentence in the New York State penal system."

**IMPROVED:** John Doe is a prisoner at Sing Sing.<sup>1</sup>

**BAD:** Beginning in 01/00, a numberholder (BIC A only) who has attained full retirement age (FRA), but is not yet age 70, may elect to suspend his/her retirement benefit in order to earn delayed retirement credits (DRCs). This change is part of the Senior Citizens' Freedom to Work Act of 2000. This legislation eliminated the annual earnings test (AET) and the foreign work test (FWT) for those who have attained FRA. It allows beneficiaries to receive full retirement benefits regardless of earnings. Prior to 01/00 those benefits would have been subject to the AET or FWT and DRCs would have been earned for months subject to a full work deduction. Because those beneficiaries will no longer be subject to the AET or FWT, they are being given the opportunity to elect voluntary suspension of retirement benefits to earn DRCs.

<sup>1</sup> Freedman A. Why trial lawyers say it better. *Wall St. Journal* January 29, 2011.

**IMPROVED:** A Social Security recipient who previously filed for Social Security benefits can suspend benefits at Full Retirement Age (66 for most people) and earn delayed retirement credits [an extra 8% per year added to their Social Security] until age 70. At full retirement age (66 for most), they may also continue to work and earn unlimited earnings without having any of their Social Security benefits withheld due to the Annual Earnings Test.<sup>2</sup>

The improved versions are much shorter than the originals, and they are easier to understand. They do not omit relevant information.

Good writing should also be clear, which means avoiding jargon, acronyms, and other constructions that make it difficult for your reader. It means having compassion for your reader. It means using simple words. For example, use “use” in place of “utilize”.

One of the worst things you can do is try and sound “smart” by using complicated words and sentences. Writers who use big words sound dumb.<sup>3</sup>

While I’ve been writing this document, I’ve been trying to pay more attention to my own writing. Here are some examples of edits I made to improve clarity and excise unnecessary words.

**ORIGINAL:** The survey was initiated by 956 unique individuals with 674 respondents completing the entire survey (70.5% completer rate).

**REVISED:** Nine hundred and fifty six individuals started the survey and 674 (70.5%) completed it.

The revised version is four words shorter

*Good prose is like a window pane: you see straight through it to what the author is trying to say. –George Orwell*

**ORIGINAL:** Hospitals’ average acquisition cost for a unit of red blood cells was \$225 in 2011 (DHHS 2011). Hospitals incur additional costs to store and process blood units and perform blood typing and cross-matching prior to transfusion.

**REVISED:** Hospitals pay about \$225 for each unit of blood (DHHS 2011) and incur additional costs for storage, processing, blood typing, and cross-matching.

The revised version is much shorter.

**ORIGINAL:** Based on the comments, we took the opportunity to make substantial revisions to the approach

<sup>2</sup> Evans H. *Do I Make Myself Clear?* New York: Little, Brown, and Company; 2017.

<sup>3</sup> Oppenheimer, D. M. (2005). Consequences of erudite vernacular utilized irrespective of necessity: Problems with using long words needlessly. *Applied Cognitive Psychology* 20(2), 139-156.

REVISED: Based on the comments, we made substantial revisions to the approach

“Took the opportunity” doesn’t add anything.

ORIGINAL: Our study will help to advance our understanding of the generalizability and sustainability of interventions

REVISED: Our study will advance our understanding of the generalizability and sustainability of interventions

You don’t need “help to”. The second version sounds stronger and more confident.

ORIGINAL: The *Journal of the American Association* published a study in 2002 on the impact of nurse staffing levels in hospitals on patient mortality.

REVISED: The *Journal of the American Association* published a study in 2002 showing that hospitals with high nurse staffing levels had lower patient mortality rates.

The revised version is slightly longer (by one word, if you are counting), but it provides a lot more information. It tells us about the direction of the association.

ORIGINAL: Organizations commission and perform policy analyses for a variety of reasons.

REVISED: Organizations commission and perform policy analyses because of legal and regulatory requirements and to influence policymakers, the media, and the general public.

The revised version is quite a bit longer, but it provides a lot more information. The original phrase “a variety of reasons” is vague.

ORIGINAL: However, if lawsuits put providers on notice that their behavior is being monitored, then they have the potential to have a significant impact on treatment patterns.

REVISED: However, if lawsuits put providers on notice that their behavior is being monitored, then they may have a significant impact on treatment patterns.

REVISED AGAIN: However, if lawsuits put providers on notice that their behavior is being monitored, they may affect how doctors treat patients.

The revised version is shorter.



## Editing

A truism of writing is that it never comes out good the first time. You have to edit and then edit some more. And some more. It is not uncommon for authors to go through 10, 20, or 50 drafts of their work.

*The letter I have written today is longer than usual because I lacked the time to make it shorter.*

- Blaise Pascal

You need perspective to edit your work. You need to see your work through the eyes of your reader. It is hard to get perspective, which is why “editor” is a job category.

You do not have access to an editor. You can and should have friends and classmates read your work. If you are lucky, you will find a classmate who is a good writer and is conscientious and confident enough to make good suggestions to improve your work

*The only kind of writing is rewriting.*

- Ernst Hemingway

You gain perspective with time. Which is why it is important to leave enough time to put your paper down for a day or two and then come back to it with a fresh set of eyes. Time and time

*Time is the best editor.*

again I put a paper aside, thinking it is good, only to pick it up again and find that it needs a lot of work.

*Constantly step back from your canvas.*

The moral of the story: good writing takes time, and cherish people who give constructive feedback.

## An illuminating twitter thread



5/fin | "Write so that a half-drunk & exhausted reader not only understands you but is inspired."

Bill Gardner is thinking of a grad student writing a grant, but you could sub in "professor" or "boss" for "grant reviewer" and "memo" for "grant" and it would still apply.

I will never grade your paper after two drinks, but you can assume I will be reading your paper 1) alongside many other papers, 2) at night, 3) when I am busy/harried/distracted. Write accordingly.

“Rules” you should break

It is perfectly OK to use “I” or “we”. If you are the only author, it should be “I”.

A paragraph need not have three sentences. One sentence paragraphs are fine.

You can start a sentence with “And” or “But”.

A bad piece of writing

I was reading a paper the other day in a top economic journal and came across a piece of writing that just struck me pretty bad. The paper addresses the question: Did the Affordable Care Act’s Medicaid expansion cause doctors to cut back on care provided to Medicare beneficiaries? The authors find that they do. This is from the paper:

The leading explanation for our results is that they stem from physician responses to changes in fixed practice components brought on by changes in the heterogeneous payment environment. That is, when physicians who treat both Medicare and Medicaid patients experience increases in the share of Medicaid patients (whose coverage is more restrictive), these physicians reduce treatment intensity for all patients.

Where to begin. The opening clause (“The leading explanation for our results is that they stem...”) is redundant. You expect an explanation to follow “The leading explanation for our results is that...”. But “they stem” is not an explanation. It would be better to write the first sentence in such a way as to eliminate the “they stem” or keep the “they stem” but omit the “leading explanation for our results”. But that hardly solves the problem.

The rest of the sentence is a mess. “fixed practice components”? “heterogeneous payment environment”? What the hell do those mean? I work in this field. I don’t know.

Sometimes “That is” or “In other words” precedes a sentence that helps to clarify or expand the point of the sentence before it. Here it is code for “I know you didn’t understand the first sentence, so now we are going to explain it to you in language you can understand.”

A rewrite: Our results suggest that when physicians who treat both Medicare and Medicaid patients experience increases in the share of Medicaid patients (whose coverage is more restrictive), these physicians reduce treatment intensity for all patients.

Another one

This is from a draft paper on which I am a coauthor.

ORIGINAL: African-American (AA) vs. white disparities exist in referral by dialysis facility providers for evaluation at a transplant center, completion of the medical evaluation, placement on the national transplant waiting list, and receipt of a living or deceased donor transplant. In addition, ethnic disparities

exist in transplant access, in that Hispanics have lower transplant rates after waitlisting, but not before.

This has 59 words.

REVISED: Compared to whites, African-Americans (AA) are less likely to be referred by dialysis centers for transplant, complete the evaluation, be placed on the waiting list, and receive a living or deceased donor transplant. In addition, Hispanics are equally likely to be listed but are less likely to receive a transplant after waitlisting.

The revised version is shorter (52 words) and more direct. I think it is also more forceful. It describes the impact of disparities rather than simply saying that they exist.

It also avoids the awkward construction, "In addition, ethnic disparities exist in transplant access, in that..." Just get to the point already.

Stilted academic writing

I Walk My Dog Because It Makes Me Happy: A Qualitative Study to Understand Why Dogs Motivate Walking and Improved Health<sup>4</sup>

Abstract: The strength of the dog-owner relationship is known to be correlated with dog walking, and this qualitative study investigates why. Twenty-six interviews were combined with autoethnography of dog walking experiences. Dog walking was constructed as "for the dog," however, owners represented their dog's needs in a way which aligned with their own. . . . Owners reported deriving positive outcomes from dog walking, most notably, feelings of "happiness," but these were "contingent" on the perception that their dogs were enjoying the experience. . . . Perceptions and beliefs of owners about dog walking were continually negotiated, depending on how the needs of the owner and dog were constructed at that time. Complex social interactions with the "significant other" of a pet can strongly motivate human health behaviour. Potential interventions to promote dog walking need to account for this complexity and the effect of the dog-owner relationship on owner mental wellbeing.

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<sup>4</sup> Westgarth C, Christley RM, Marvin G, Perkins E. I Walk My Dog Because It Makes Me Happy: A Qualitative Study to Understand Why Dogs Motivate Walking and Improved Health. *International Journal of Environmental Research and Public Health* 2017;14(8): E936.

### Some tips

A number of years ago Emory brought in a writing expert, Paul Cassella, to give a presentation on writing grants. I thought he had some good insights that I'd like to share with you.

1. Writing advice is empirical. It is based on common mistakes.
2. Writing is re-rewriting. Writing rarely comes out good the first time.
3. Put emphasis on the second part of the paragraph.
4. Display confidence
5. Ok to use I/we
6. Feature-Benefit model
7. Writing is a tool for thinking
8. The easier it is to understand the writing, the more the reader can focus on content
9. Use spoken language to inform writing and vice versa.
10. Vary passive voice.
11. Repetition of terms, especially technical ones, is ok.
12. Memo written to grandmother will be clearer than one written to a Nobel prize winning scientist.

### Some more tips/instructions

1. Know the difference between a cost analysis, cost benefit analysis, and cost effectiveness analysis. Also, be aware that these are jargonny terms. Avoid them. Instead of saying, "I performed a cost analysis.", write, "I predicted the impact on costs to the state."
2. Do not have a separate limitations section. Weave limitations throughout the rest of the paper.
3. Never call for future study. Your reader wants to know the answer now.
4. Do not phrase topic as "I am going to look at". Instead: "I will predict...".
5. Do not write, "I propose [policy]." You are analyzing a policy, not proposing it.
6. Overestimation is not a word. (As in, "This may be an overestimation...").
7. Be clear about the perspective. To whom do savings accrue? Who pays the costs?
8. State clearly what you plan to do. Make sure your description matches what you do.
9. Avoid acronyms and quotations.
10. Do not make overly broad assumptions, like, "I assume that X policy will improve Y". Assumptions are quantitative relationships.
11. Breaking your paper up into smaller sections will make it more readable.

Here is a good website

<https://insidegovuk.blog.gov.uk/2014/08/04/sentence-length-why-25-words-is-our-limit/>