

The Backwards Induction Approach to Grad School... and other random advice

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The Hurdles Approach

Year	1	2	3	4	5	6
Fall						
Spr						JOB MARKET
Sum	QUALS	FIELD P	CANDCY	PROPSL		DEFENSE

The “hurdles” you face

The Hurdles Approach

Year	1	2	3	4	5	6
Fall	core core	fields fields	teach revise P1			fix up P1,P3 JOB MARKET
Spr	core QUALS	start P1 FIELD P	start P2 CANDCY	start P3 PROPSL	P2 = JMP revise P2 revise P2	flyouts DEFENSE
Sum	retake?	revise?			revise P2	Done!

A typical myopic (hurdles-focused) student

The Hurdles Approach

Year	1	2	3	4	5	6
Fall	core	fields	teach			fix up P1,P3
	core	fields	revise P1		P2 = JMP	JOB MARKET
Spr	core	start P1	start P2	start P3	revise P2	flyouts
	QUALS	FIELD P	CANDCY	PROPSL	revise P2	DEFENSE
Sum	retake?	revise?			revise P2	Done!

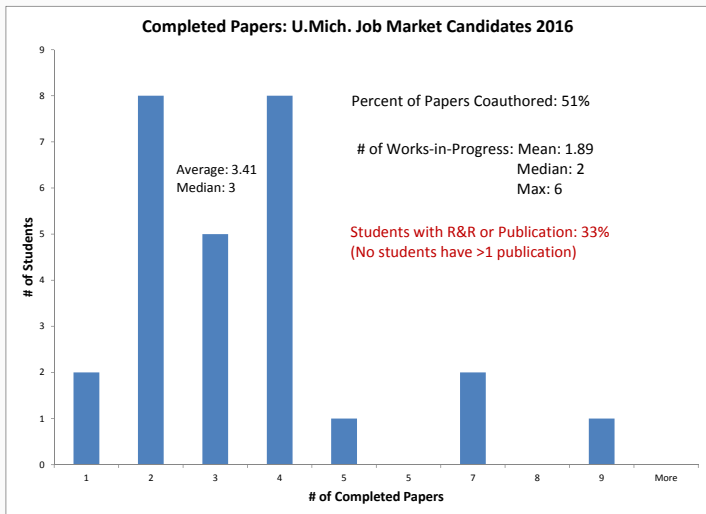
P2: Complete & polished. P1 & P3: Rough.
2-3 downloadable papers. None submitted to journals.

Terminology:

Working Paper: Downloadable PDF on your website.

Work in Progress: No paper available yet.

What Others Are Accomplishing



How to Stand Out?

How can you stand out in this market??

First: Understand How The Job Market Works

Timing:

- November: Send out packets. (200)
- Dec-Jan: 30-min Zoom interviews (10-15)
- Jan-Mar: Campus flyouts. (2-4)
- Feb-Mar: Job offers (1-2)

How you are evaluated (pre-interview):

- Working Papers (but they're hard/costly to assess)
 - The Job Market Paper ("JMP") ← only paper they read pre-flyout
- Rec letters (but they're not credible; all are glowing)
- Know you from a conference
- Publications/R&R's (external validation!)

Bottom line: **EXTERNAL VALIDATION**

Journals

OK, so you want a publication....

- Journals are sloooooow. Referees & editors.
- Submission to 1st decision (reject or R&R): 4–6 months
- Submission to publication: 2+ years.
 - Your grad school work is unlikely to publish pre-graduation
- **But**, an R&R is almost as good as a publication
 - Almost all R&R's publish eventually
 - R&R's will **definitely** make you stand out on the market
 - The more the better
- The problem: It takes time! Plan on rejection
 - Can't submit to multiple journals
 - Might take 3+ journals before you get an R&R
 - 3 journals \approx 1.5 years
 - Don't let rejection slow you down
 - Aim high? Risk/reward tradeoff.
 - Consult your advisor for help deciding

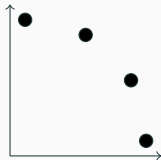
Coauthoring

51% of 2016 U. Michigan JMC papers were coauthored...

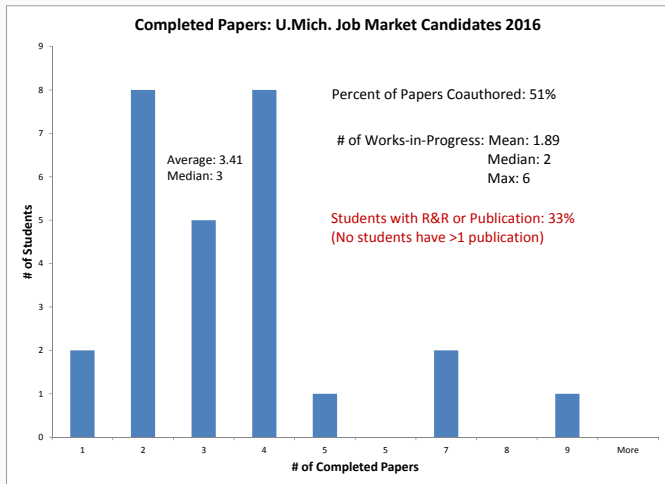
- Is coauthoring bad?
 - Pros and cons...
 - It's good to have a mix.
 - Coauthoring early is a great way to gain experience!!
 - Faculty or students
 - The market doesn't discount it much except for the JMP
 - Coauthored JMP can be okay if coauthor writes rec. letter
 - Don't worry about it so much!
 - Do NOT throw away a good idea just because it's coauthored
 - Alternatively, don't force coauthorships with friends, faculty, etc.
- Are you competing against fellow students?
 - **NO!!**
 - The market is thick enough
 - Cooperating will benefit you far more than competing

The Ranking Myth

- We/I do **NOT** rank people
 - Students, candidates, faculty, depts...
- How *could* you??
- People's talents & CVs are high-dimensional
- **Examples of Dimensions:** math-ability, # papers, # R&Rs, knowledge of literature, writing clarity, presentation skills, econometrics knowledge, experimental design skill, training, entrepreneurship in data sourcing, professionalism...
 - Everyone is good at *something* (and bad at something)
- Any ranking would require a functional $f : \mathbb{R}^n \rightarrow \mathbb{R}$
 - But any functional would be arbitrary!
- Schools are mainly looking for fit & overall research promise
 - Schools hiring in the same field won't all pick the same person
- Do **NOT** fall for the ranking gossip. It's ignorant and harmful.
- So be friends and help each other out!



The Market (An Example)



Your Goals

You need to draw attention to yourself (esp. outside top depts)

- Quality vs quantity?
 - You likely won't get attention from quality. Need quantity.
- A possible goal:
 - ≥ 4 complete downloadable papers
 - At least one R&R. External validation.
 - **Repeat: R&Rs are super valuable on the market**
- A competitive portfolio:
 - P1:** Quick & simple idea. Published/R&R.
 - P2:** Bigger/ambitious paper. Complete & submitted.
 - P3:** Complete. Coauthored? Submitted, hopefully R&R
 - P4:** Complete. Coauthored?
 - P5:** New idea. Rough draft.

(Can pick which is JMP later.)

The problem: Need to plan ahead for those R&Rs!

An Example Backwards-Induction Plan

Just focus on the job market. Backward induct from there...

Year	1	2	3	4	5	6
Fall						JOB MRKT
Spr						
Sum						

An Example Backwards-Induction Plan

P1: Quick & simple. Plenty of time for an R&R.

Year	1	2	3	4	5	6
Fall		Start P1				JOB MRKT
Spr						
Sum			Submit P1			

An Example Backwards-Induction Plan

P2: Bigger, more ambitious, more time to complete.

Year	1	2	3	4	5	6
Fall		Start P1	Start P2			JOB MRKT
Spr						
Sum			Submit P1		Submit P2	

An Example Backwards-Induction Plan

P3: Another shot at an R&R. Maybe coauthored?

Year	1	2	3	4	5	6
Fall		Start P1	Start P2		Submit P3	JOB MRKT
Spr			Start P3			
Sum			Submit P1		Submit P2	

An Example Backwards-Induction Plan

P₄: Complete, downloadable, not yet submitted.

Year	1	2	3	4	5	6
Fall		Start P ₁	Start P ₂	Start P ₄	Submit P ₃	JOB MRKT
Spr			Start P ₃			
Sum			Submit P ₁		Submit P ₂	

An Example Backwards-Induction Plan

P6: Your new idea. Your “pipeline.”

Year	1	2	3	4	5	6
Fall		Start P1	Start P2	Start P4	Submit P3	JOB MRKT
Spr			Start P3		Start P5	
Sum			Submit P1		Submit P2	

An Example Backwards-Induction Plan

Note: You'll *automatically* cross the hurdles!!

Year	1	2	3	4	5	6
Fall		Start P1	Start P2	Start P4	Submit P3	JOB MRKT
Spr			Start P3		Start P5	
Sum	QUALS	FIELDS	CANDCY	PROPSL	Submit P2	DEFENSE

An Example Backwards-Induction Plan

And you're never working on too many papers at once.

Year	1	2	3	4	5	6
Fall		Start P1	Start P2	Start P4	Submit P3	2
Spr		1	2	3	2	JOB MRKT
Sum	QUALS	1	Start P3	3	Start P5	DEFENSE
		FIELD	CANDCY	PROPSL	3	
		1	Submit P1	3	Submit P2	

Everyone is Different

Of course this is **just an example**.

Your personal timeline may be different. That's okay.

The point is to focus on the job market.

Focus on research and you'll automatically clear the hurdles.

R&Rs are important \Rightarrow try to get papers out early

Which paper will be my JMP????

- Do **NOT** try to search for a “JMP idea”
 - Nothing will ever feel good enough
 - You’ll drown under the pressure!
- Instead, just *write lots of papers*
- Then, around end of 5th year, pick which will be the JMP
 - Consult with your advisor/committee
 - Plenty of time to beef it up further
- Don’t fall in love with an early paper!! You’ll write more

And Now: The Random Advice

Journal Quality

Can publishing in a very-low-ranked journal be a **bad** thing?

Depends on which paper:

- 2nd-year project: publish anywhere!!
- Later papers (esp. JMP): be more selective
 - *Might* signal an upper bound on your future work

What's "very-low-ranked"?

- Maybe impact factor < 0.5 ?? Depends on many things

Bottom line: a very-low-ranked publication is fine (IMO) if it's part of a larger portfolio that shows more promise.

Summers?

- Summer after 1st year: Some time off
- Remaining summers: WORK!
 - Your time is far too valuable.
 - Only earn money (TA/RA) if really needed.
- Grad school isn't school, it's a job.

6th Year??

Should I stay for a 6th year??

- Yeah, it's a best response to the market
- You can produce & finish more papers
- Check about funding.

Should you be a good teacher?

- PJ's gut reaction: ABSOLUTELY NOT
 - Hour spent on research vs. hour spent on teaching
- Better answer: Sorta

- You can be a bad teacher at a top-100 school
- But you'll have more job opportunities if you can teach

- Be good enough, but **don't** let it consume you
 - When allocating time, it's easy to choose "busy work"
 - Figure out ways to dedicate time to research

Other Tips

- Start research early! Start a notebook of ideas.
- Read read read! Print a stack of papers.
- Learn how to write. Read *Style* by Williams & Bizzup
- Learn how to present! Give each other feedback!
- CONFERENCES! As many as you can.
- Overwork your JMP...
...but don't pick your JMP until later
- Stop being an undergrad! This is a JOB.
 - Pivot from consuming research to producing research
 - Grades don't matter. All that matters is that you learn stuff.
 - NPV of your research time is incredibly high right now!
- Be a visible member of the department.
 - Proactively schedule meetings w/ faculty
 - Be seen! Don't hide at home
- Don't be a perfectionist!
 - Ideas don't have to be amazing. Just start working!
 - Papers don't have to be amazing. Just submit it!

More Tips

- Expose yourself to research to get ideas
 - Print a stack of papers & read them all. Repeat.
 - Attend seminars
 - Reading groups
 - Chat with other students
 - Conferences
 - Summer schools
- Practice communicating your research to others
 - Reading groups & brownbags
 - Practice presenting! Over and over and over.
 - Give/get feedback on slides. Use of color, font, etc.
 - Meeting speakers! *Very* useful
 - Conferences
- Get your website up and running **now**
 - Standard format: CV, Research, Teaching. Nice & clean.
 - Save the “personality” for later
 - Make sure it's linked from the Dept. directory
- Pretend you're extroverted!
- BE CRITICAL & CONFIDENT

Download These Slides

PJ's Website: <http://healy.econ.ohio-state.edu>

Click on “My **grad school advice slides**”

Questions?

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