Strategies (and Encouragement) for Ph.D. Health Economists on the Job Market

John Cawley
Cornell University and NBER
December 4, 2019
Thanks to…

• ASHEcon
  – Leslie Ofori, Program and Conference Manager
  – Debbie Freund, Executive Director

• Kosali Simon, Indiana University

• M. Melinda Pitts, FRB Atlanta
Your Objective

• In academic job search, success is defined as a good match of applicant with the position/institution
  – Everyone’s best match is different

• For you to find a good match:
  – You must know where you fit
    • Fields you will work in; ideally, even the subfields
    • Type of research you will pursue (e.g. methodological approach)
    • Your comparative advantages as researcher and teacher
  – These might be hard for you to decide while still in graduate school, but knowing this will help you immensely on market
  – Be honest with advisors and potential employers about interests, skills, and what you seek in a match
Supply and Demand

• **Supply** of new Ph.D. Economists (NSF Survey of Earned Doctorates, 2019)
  – 1,247 in 2018

• **Demand** for new Ph.D. Economists: # new jobs in economics advertised during 2018 *(AER P&P, 2019)*:
  – New academic jobs: 3,041
  – New nonacademic jobs: 987
  – Roughly triple the flow of new econ PhDs from American universities, but:
    • Also includes senior openings
    • Some PhDs trained abroad are applying for these too
Ratio of Lagged New Jobs to # of New Economics PhDs

Data: NSF SED, JOE. Includes both academic and nonacademic jobs.
Consider the Options (There are Many)

- Decide which types of jobs are the best match for you in terms of:
  - Type of academic institution and department
    - Liberal arts college – more teaching, undergrads but not MAs or PhDs
    - Research universities – more research, less teaching. Best department fit depends in part on your subfield of health economics:
      - Economics department: any subfield potentially
      - Business School: esp. IO, pharma, health care
      - Public policy: any subfield but esp. empirical, policy-relevant topics
      - Public health: may be hard money or soft money; must be play well with other disciplines
      - Medicine: likely soft money so grant-writing important; little teaching; must play well with other disciplines

- Implications of your first departmental home for your publishing:
  - Econ Dept: value econ journals almost exclusively, “top 5” especially
  - Business: econ journals plus business journals
  - Policy: broad set count: econ, health policy, medical journals
  - Public Health, Medicine: more medical journals, less economics journals, need more publications for tenure so shorter papers with more authors, more interdisciplinary work
% Respondents, by Academic Unit, Saying Types of Journals “Irrelevant” to Promotion

<table>
<thead>
<tr>
<th>Academic Unit</th>
<th>N</th>
<th>General Economics Journals</th>
<th>Health Economics Field Journals</th>
<th>Non-Health Economics Field Journals</th>
<th>HSR/Health Policy Journals</th>
<th>Clinical/Medical Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Sciences</td>
<td>37</td>
<td>10.8%</td>
<td>10.8%</td>
<td>35.1%</td>
<td>33.3%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Business</td>
<td>36</td>
<td>5.6</td>
<td>11.1</td>
<td>33.3</td>
<td>30.6</td>
<td>27.8</td>
</tr>
<tr>
<td>Public Policy</td>
<td>24</td>
<td>0.0</td>
<td>0.0</td>
<td>4.2</td>
<td>0.0</td>
<td>16.7</td>
</tr>
<tr>
<td>Public Health</td>
<td>37</td>
<td>21.6</td>
<td>2.6</td>
<td>0.0</td>
<td>0.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Medicine</td>
<td>32</td>
<td>44.8</td>
<td>6.9</td>
<td>3.5</td>
<td>6.9</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Morrisey, Cawley, Simon & Tan working paper 2019
Data: Survey of membership of ASHEcon, 2018
Median # of Publications in Past 5 Years, by Journal Type

<table>
<thead>
<tr>
<th>Assistant Professors</th>
<th>General Economics Journals</th>
<th>Health Economics Field Journals</th>
<th>Non-Health Economics Field Journals</th>
<th>HSR/Health Policy Journals</th>
<th>Clinical/Medical Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Sciences (N=11)</td>
<td>1.5</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Business (N=16)</td>
<td>0</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Public Policy (N=7)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Public Health (N=14)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3.5</td>
<td>4</td>
</tr>
<tr>
<td>Medicine (N=12)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Source: Morrisey, Cawley, Simon & Tan working paper 2019
Data: Survey of membership of ASHEcon, 2018
Consider the Options (There are Many)

• Also consider post-doctoral fellowships
  – SIEPR at Stanford
  – Harvard Society of Fellows
  – NBER postdocs in Aging & Health
  – NIH-funded ones at Population Centers – compete against sociologists/demographers for these
  – If ad hoc individual postdoc, find out how much time you get for your own research (if any)

• Also consider nonacademic jobs:
  – Government (e.g. Federal Reserve, BLS, FTC, Census, CBO, AHRQ)
  – NGOs (e.g. IMF, World Bank)
  – Contract research organizations (e.g. RAND, Mathematica Policy Research, Urban Institute, Abt Associates)
  – Consulting (e.g. Analysis Group, Charles River Associates, Cornerstone Research, Precision Health Economics)
  – Industry (Google, Amazon, Ebay)

• *There are good people everywhere*
In Your Downtime Before the Meetings

• Revisit your job candidate website, and other online presence
  – Keep it professional!
  – Ideally, do not use Google Docs or any other gated website for your CV, JMP

• If you don’t already have them, get:
  – At least two professional, conservative outfits for interviewing
  – Reliable laptop for working on your job market paper and presentation while traveling
  – Reliable mobile phone
  – Carry-on luggage
  – Credit cards with high credit lines
Applications

• Check JOE weekly, but you’ve probably mostly done with applications
• It is expected you will apply for some jobs you are unsure about; both sides of market learn during job search
• Don’t apply for jobs you are certain you won’t accept
• Not unusual to apply for 100+ jobs
  – Average of 107 applications for Econ PhD job seekers during 2007-2010 (McFall et al., 2015)
• Keep your advisors informed on your list of interviews – ask them to contact the 3-5 employers you see as particularly good fit
  – Also show them entire list; they may know people at some places, may be willing to contact them
Applying

- **Job market materials:**
  - Cover letter: can explain why you’re a good match for the position
    (cannot / should not do for every application, just the closest matches)
  - Job market paper
  - Recommendation letters
  - Optional: other papers than your JMP – *only if they’re strong*
  - If requested: teaching statement, research statement, diversity statement

- **AEA has an electronic clearinghouse for the job market** – **JOE Network** – that facilitates applications, exchange of information
  - Other clearinghouse: EconJobMarket.org
  - Some Individual employers also have own portals you must use

- **Employers may contact you to request that you apply** – send again to specific individual who asked
Interviewing at the ASSA Meetings

• Annual meeting of roughly 8,000 economists in early Jan, this year in San Diego (you’re lucky!)

• Virtually all initial interviews take place at the ASSA Meetings
  – Some may be in advance by Skype

• Your placement committee should organize practice (mock) interviews to prepare you
  – If they don’t, ask them (or your advisors) to do it
  – Take these seriously, practice yourself in advance
Interviewing Tips

• When contacted for interview, ask who will be interviewing you
• Research the employer and the individual interviewers
• Practice answering the likely questions listed in my job market guide [https://www.aeaweb.org/content/file?id=869](https://www.aeaweb.org/content/file?id=869)
  – Practice many times your opening “spiel” on your JMP: what’s your research Q, why should everybody care, how did you test it, what did you find, and what are the implications of your findings?
  – Understand where you fit in the discipline and literature, what are your comparative advantages
  – What is your research agenda for the next 5 years? What’s your next paper unrelated to your dissertation?
  – What are you willing to teach, and how would you teach it?
  – Be able to explain why you’re a good match for the search (if you are)
Interviewing Tips

• Have list of questions to ask *them*, to help you determine whether it’s a good match
  – Do NOT ask about salary or chances of tenure
  – Try not to ask anything easily found online, e.g. number of faculty in the department – you should do your homework in advance
  – DO ask about the research environment, interests of students, future of department

• Don’t just be reactive; have mental list of information you absolutely want to convey to this employer, and make sure you do
What Are Employers Looking For?

• Someone who will be a very successful researcher
  – Intelligent, knows the literature, strong research agenda, ambitious, energetic, ideally already has papers published or forthcoming

• Someone who will teach and advise students well
  – Organized, experienced, dedicated, kind, good communicator (fluent English), no possibility they would discriminate or harass

• Someone who would be a nice colleague
  – Friendly
  – Openness to collaboration
  – Reasonable, team player, willing to produce public goods (committee work, administration)
Campus Visits

• After interviews, employers typically invite 3-5 candidates for campus visits
  – Big variation in timing; some departments take 2-3 weeks to determine list, or may ask you at end of interview!
• You should refuse invitation if know there’s no way you’d ever take the job (they’ll be grateful you didn’t waste their time)
  – Only decline if you have offer in hand that dominates that job
• Visit consists of:
  – Meetings 1:1 or in small groups with faculty
  – Research seminar (job talk) – 90 minute
  – Dinner(s) with faculty
Job Talk

• Most valuable asset on job market is high-quality, polished job talk
  – Practice it many, many times!
  – Always record the feedback you get and use it to make the paper and talk better

• Design like hourglass:
  – Beginning has wide, broad appeal – anyone can understand why it’s an interesting question
  – Middle is narrowly focused on your methods
  – Conclusion again has wide, broad appeal – anyone can understand why what you found is important

• Expect to be interrupted with questions – it’s a dialogue
  – Do not interrupt your own sentences to call on questioners – wait until you finish your thought
  – Do not dodge questions – answer as best you can
  – Do not let someone derail your talk – you can tell a persistent questioner that you have to move on and will follow up with them later
Secondary Market “Scramble”

- AEA sponsors a “scramble” in late March
- Unmatched applicants and employers register, then each can see who is available on the other side
  - Only registrants can see who is available—no stigma
- AEA plays no further role; applicants and employees contact each other
- Interviews, visits, job matches result
- In March 2018, 709 job candidates 80 employers (with 83 jobs) participated (AER P&P, 2019)
# Applications - Interviews – Flyouts - Offers

## TABLE 4
Mean Number and Success Rates by Job Market Stage

<table>
<thead>
<tr>
<th></th>
<th>Applications</th>
<th>Interviews</th>
<th>Fly-Outs</th>
<th>Job offers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>107.0 (2.3)</td>
<td>16.8 (0.4)</td>
<td>5.7 (0.2)</td>
<td>2.9 (0.1)</td>
</tr>
<tr>
<td>Observations (N)</td>
<td>905</td>
<td>905</td>
<td>905</td>
<td>905</td>
</tr>
<tr>
<td>Proportion resulting in interview</td>
<td>0.194 (0.006)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion resulting in fly-out</td>
<td>0.076 (0.004)</td>
<td>0.366 (0.009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion resulting in job offer</td>
<td>0.040 (0.002)</td>
<td>0.200 (0.006)</td>
<td>0.573 (0.011)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>904</td>
<td>898</td>
<td>863</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Standard errors in parentheses. Mean number applications, interviews, fly-outs, and job offers are estimated for respondents who provided information about outcomes at all four stages. Mean success rates are estimated for respondents who provided information about outcomes at all four stages and had at least one choice at the stage for which the success rate is calculated. Estimates use post-market survey weights. Sample size is larger than survey sample column of table 1 because no additional covariates are included here.*

Source: McFall et al. (2015).
Offers and Negotiating

• If a department makes you an offer, you’ll likely be notified by phone by the search chair or department chair
  – *Always get the offer in writing*

• Offer will include:
  – Salary
    • 9-month, 10-month, or 12-month
    • Hard money or soft money
  – Summer support (if on 9-mo or 10-mo contract)
  – Course reductions for first year or two
  – Research funds / travel budget / office budget
  – Computer budget
  – Moving expenses
Negotiating

• Typically 7-10 days to consider the offer
  – Could be as little as a weekend to decide
  – *Usually* possible to get extension

• Tell other employers that you have an offer

• Offers usually only improved if you have richer offer from institution in same market of similar or higher quality/ranking

• Be pleasant during negotiation — people have long memories, and *everybody* talks

• When deciding, remember that the quality of colleagues and grad students are important
  – Don’t over-weight a few thousand bucks relative to your happiness and future career trajectory
Starting Salaries of New Assistant Professors, 2018-2019

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Salary</th>
<th>Additional compensation</th>
<th>Teaching Load (courses per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD institutions</td>
<td>$132,554 (46)</td>
<td>$40,819 (33)</td>
<td>3.2 (44)</td>
</tr>
<tr>
<td></td>
<td>[19,353]</td>
<td>[29,237]</td>
<td>[1.1]</td>
</tr>
<tr>
<td>MA institutions</td>
<td>$100,318 (11)</td>
<td>$26,916 (6)</td>
<td>4.1 (9)</td>
</tr>
<tr>
<td></td>
<td>[15,635]</td>
<td>[24,187]</td>
<td>[1.7]</td>
</tr>
<tr>
<td>BA institutions</td>
<td>$85,086 (27)</td>
<td>$8,974 (10)</td>
<td>5.6 (29)</td>
</tr>
<tr>
<td></td>
<td>[16,295]</td>
<td>[6,055]</td>
<td>[1.2]</td>
</tr>
</tbody>
</table>

*Notes: This online version of Table 3 has been corrected and does not match the version in print.*

- Some institutions hired more than one new assistant professor; thus means cover more people than institutions, but are not weighted by number of new hires. Standard deviations are in brackets.
- Includes guaranteed summer compensation (over all years) and other compensation of cash value to employees, such as a signing bonus. Does not include fringe benefits, moving expenses, computer that remains the property of the institution. Mean computed over only institutions reporting additional compensation.
- Mean computed over only institutions reporting teaching load.

Average Salary for Newly-Hired Assistant Professors

Source: UAQ. *AER P&P*, various years. Adjusted using CPI-U of BLS.
Good News

• Vast majority land a job they like
  – Only 2.1% of econ PhDs unemployed after job search season (Siegfried and Stock, 2004)
  – 64% get their first-choice job type (academic, govt, etc.); McFall et al. (2015)
    • 20% get their second-place job type
  – 69.1% said they were “very” or “extremely” satisfied with their job placements (McFall et al., 2015)
    • Another 24.4% were “somewhat” satisfied
  – 94% of PhD economists reported they liked their new jobs “very much” or “fairly well” (Siegfried and Stock, 2004)

• Throughout career, Ph.D. Economics have lowest unemployment rate of any doctoral field (NSF, 2010): 0.9%
Table 7: Characteristics of Accepted Jobs

<table>
<thead>
<tr>
<th>Panel A: Accepted job type</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant professor at four-year college</td>
<td>0.08</td>
</tr>
<tr>
<td>Assistant professor at university</td>
<td>0.62</td>
</tr>
<tr>
<td>Researcher at NGQO</td>
<td>0.19</td>
</tr>
<tr>
<td>Researcher in business or industry</td>
<td>0.07</td>
</tr>
<tr>
<td>Postdoctoral fellow</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Source: McFall et al. (2015)
NGQO=nonprofit, govt, or quasi-govt organization
Summary: Four Most Important Pieces of Advice

1. Know where you fit in the profession
   a. What fields you will specialize in
   b. How your job market paper relates to the literature
   c. Your comparative advantages as a researcher and teacher

2. Success on the job market is finding a good match – a job in which you are appreciated and in which you can grow and improve

3. Honesty with your advisors and potential employers about your interests, comparative advantages, and constraints on your search will improve your chances of finding a good match
Summary: Four Most Important Pieces of Advice (cont.)

4. The job market is first period in a repeat game. You will continue to interact with people you meet on the job market as journal referees, discussants, grant reviewers, tenure letter writers, and colleagues. Conducting yourself with maturity and integrity will pay dividends far into the future.
For More Information

AEA’s Job Openings for Economists (JOE) Website
https://www.aeaweb.org/content/file?id=869

Cornell University