Desperately seeking careers:
The plight of many PhD graduates

Lynn McAlpine
Lancaster, February 2018
Explore …

• Your career experiences
• Career trajectories: interaction of multiple factors
• What can we do?
• What are the research gaps?
Your experiences: Questions

• What careers are you imagining/ did you imagine during the PhD?
• What factors do you think influenced your thinking?
• If you experienced changes in your thinking, why was that?
• How would you rate your knowledge of labour sectors, the jobs PhD graduates get, etc.? (1 excellent – 5 poor)
• Where do/ did you get your career knowledge?
• When, in your PhD, have you/ did you start thinking about your future career?
## Career trajectories and labour sectors

<table>
<thead>
<tr>
<th>Labour sector</th>
<th>Permanence?</th>
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<tbody>
<tr>
<td><strong>Academic</strong></td>
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<tr>
<td>Teaching-only: can do research ‘on the side;’ may involve Master’s supervision</td>
<td>Yes often over time</td>
</tr>
<tr>
<td>Research-only: contracts, contingent work; if fellowship, then independence; for both, unlikely to teach but may informally supervise</td>
<td>No</td>
</tr>
<tr>
<td>Teaching-research: range of responsibilities related to teaching, research and service/administration</td>
<td>Yes after provisional period (4-6 years)</td>
</tr>
<tr>
<td>Academic professional: involves research or teaching support; may involve teaching</td>
<td>Yes usually</td>
</tr>
<tr>
<td><strong>Private, public and para-public</strong></td>
<td></td>
</tr>
<tr>
<td>Professional: no research expected, but may do ‘desk’ research or ‘evaluation’ research</td>
<td>Yes often</td>
</tr>
<tr>
<td>Research professional: main responsibility research</td>
<td>Yes often</td>
</tr>
</tbody>
</table>
Three cases: What strikes you?

Hannah  
Charles  
KS
Global trends

• Societies need highly educated workers for global competitiveness
• Absolute number of grads risen steadily but number of academic positions has not .... ‘a parking lot’? (Standford et al., 2009)
• Example: Canada
  • In 2012, 6600 PhDs graduated, but only 1,500 to 2,000 tenure-track positions (Chiose 2015)
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<tbody>
<tr>
<td>All higher education (higher in SS, H)*</td>
<td>41%</td>
<td>43%</td>
<td>28%</td>
<td>29%</td>
<td>43%</td>
<td>36%</td>
</tr>
<tr>
<td>Private (higher in STEMM)</td>
<td>20%</td>
<td>33%</td>
<td>35%</td>
<td>29% science, 23% education, 12% health, 3% business, 3% research &amp; admin, 4% engineering</td>
<td>32%</td>
<td>57%</td>
</tr>
<tr>
<td>Government</td>
<td>36%</td>
<td>12%</td>
<td>3%</td>
<td>12%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Parapublic/NGO</td>
<td>3%</td>
<td>12%</td>
<td>18%</td>
<td>12%</td>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>Researcher regardless of sector</td>
<td>60%</td>
<td>65%</td>
<td>62%</td>
<td>N/A</td>
<td>62%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Not just traditional teaching-research: alternate careers; portfolio positions
** Categories not the same
## Discipline matters in and out of HE

<table>
<thead>
<tr>
<th>Country/discipline cluster</th>
<th>UK</th>
<th>Canada (educ. Positions; 4/5 in universities)</th>
<th>US</th>
<th>Cont. Europe, e.g., Austria (aver .in HE sector 25%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic-related humanities/social sciences</td>
<td>68%: Research positions (15%); teaching positions (44%)</td>
<td>54-76% (no further breakdown)</td>
<td>2/3 of English, political science</td>
<td>49% (30% humanists; 19% social scientists)</td>
</tr>
<tr>
<td>Academic-related sciences</td>
<td>34-43%: Research positions (16-27%); teaching positions (10-17%)</td>
<td>34-56% (no further breakdown)</td>
<td>1/3 of science, engineering and math</td>
<td>40% IT &amp; engineering; 53% natural &amp; medical sciences</td>
</tr>
</tbody>
</table>

Regardless of labour sector, social scientists find more opportunities in non-research occupations.
State of play

• HE trends
  – Temporary positions increasing, often linked to rise in research positions (Cantwell, 2011)
  – Growth in post-PhD teaching-only posts (Bennett et al, 2017)
  – Increase in academic professionals (Berman & Pitman, 2010)
• Other sectors, BUT data mostly private sector (Boulos, 2016; Cruz-castro & Sanz Menendez, 2005; OECD, 2013)
  – Private sector: no change in % of temporary positions; higher salaries than other sectors
  – Employers sceptical about added value unless have previous experience of PhD grads
  – Employers with R&D units seek PhD grads; in firms without R&D, jobs result from grads making the contact
• Mobility (OECD, 2013)
  – More frequent among PhD grads not in research (job-to-job)
  – International mobility and migration increasing over time
So, that’s post-PhD …

• What’s happening during the degree?
Institution matters…

- Reputation of university impacts job attainment (Jackson & Michelson, 2015; McAlpine & Austin, in press)
- Generic skills training: but does it matter?
  - Little evaluation, but Jackson & Mickelson (2015) report lack of influence on post-PhD employment
Department matters…

- Variation in explicit support for alternate careers (O’Meara et al., 2014; Thiry et al., 2015)

  ➔ Legitimizing alternate careers
  - Promoting external internships
  - Providing networking (non-academic) opportunities
  - Career fairs, supervisory discussions, etc.
  - Supportive social and intellectual climate
  - Data on careers of PhD graduates

NB Students often assume academics not supportive of non-academic careers
Day-to-day work environment matters

- Influences on interest in traditional academic post
  - Sustained motivation
    - Positive day-to-day intellectual and social climate; happy place to be
  - Reduced motivation
    - Negative day-to-day work environment; lack of collegiality and supervisory support
    - Dislike work pressures and total commitment that seniors experiencing
Variation in agency during PhD

- Engaging in job-search strategies substantially increases success in gaining prompt employment post-PhD (Jackson & Michelson 2015)
- Put off thinking about careers til end; 2/3 no systematic strategies (Thiry et al., 2015)
- Little use of career services (Vitae, 2012)
- PhD students wish for career preparation, but rarely engage in career-seeking strategies (McAlpine & Amundsen 2016)
- Agency: Goal setting, strategic thinking and action
  - Investing (or not) in creating the right profile during the PhD
  - Actively exploring (or not) alternate careers
  - Developing resilience: doing everything you can but accepting the influence of ‘luck’
  - Adjusting goals in light of changing circumstance
Beyond work influences: The personal
(McAlpine & Amundsen, 2016)

- Family relationships
  - Elderly parents, children, co-locating with partner
  - Financial concerns re family security
- Life goals
  - Desire for children
  - Child arriving: shift in priority
- Work-life balance
- Well-being
  - Relationship break-up
  - Chronic health issues
  - Stress, anxiety, burnout
- Personal values
  - Alignment with work
- Financial duress
Nested contexts: What can we influence?
Planning for after…

Post-PhD trajectories are built from the beginning of the PhD (Mangematin, 2000)

- What can departments do?
- What can students do?
- What can supervisors do?

- Break into pairs/ small groups: be prepared to name at least two things for each question
Last thoughts

• No matter what people may say about "the system" being unsupportive, or plagued with ...power differentials ...each [of us] needs to acknowledge these barriers and move ahead with things ... This means focusing energy and getting things done, which is ultimately an individual effort. (Charles)

• Do we not owe individuals a more complete view of their careers to give them greater insight into how to develop, grow over time? (Khapova & Arthur, 2011)
Researching the gap

• Non-academic careers of graduates
  – Under-employed, fully employed? What PhD learning is being used? What is missing?
  – Individual changes in employment: changes over time, gaps in employment, (ease of) shifts within and across sectors
  – Specific jobs and responsibilities within specific institutions and sectors

• Employers across non-academic sectors
  – Why are they(not) prepared to hire PhDs? What is value added?
  – What do PhDs do? Specific jobs and responsibilities in specific institutions and sectors