Some history of OECD efforts

- OECD STI stats had from their start a predominantly organisational perspective – e.g. R&D statistics
- There was soon recognition of need to extend to person-based perspective, matched to policy developments
  - First an attempt to interpret existing labour & household surveys from an STI perspective => HRST => Issues.
  - Then a direct attempt, started in 2004, to assess the careers of those trained to be researchers.
  - -> The Careers of Doctorate Holders (CDH) study: [http://oe.cd/cdh](http://oe.cd/cdh)
The OECD-led CDH initiative

- International partnership (+UNESCO +ESTAT at start)
- Identify (stock of) doctorate holders in population,
  – assess to what extent they are engaged in research
  – collect other relevant information: “careers”
  – -> strongly inspired and supported by US-NSF
- Technical guidance developed and loose coordination of disparate national initiatives
- Data collected in different waves, starting 2007.

Are doctorate skills utilised for research?

**Percentage of doctorate holders working as researchers, 2009**
As a percentage of total employed

CDH focus on early careers
Doctorate holders after graduation

Source: OECD and NISTEP Japan, based on ad hoc tabulations of Careers of Doctorate Holders surveys and early destination surveys from France, the United Kingdom and Japan, August 2012.

Sector of employment of recent doctoral graduates engaged in research

Source: OECD and NISTEP Japan, based on ad hoc tabulations of Careers of Doctorate Holders surveys and early destination surveys from France, the United Kingdom and Japan, August 2012.
Share of indefinite contracts among recent doctoral graduates engaged in research

What happened to CDH?

- Revised set of CDH guidelines emphasized early careers. -> “postdoc” experience
- Proved difficult to sustain coordinated policy and statistical interest in measurement efforts.
  - Technical challenges encountered – lack of implementation consensus and data sharing
  - Education/Research policy // NSOs
  - Researcher careers compared to NEETs during the GFC.
  - Area was deprioritised almost everywhere
- Lost opportunity to co-ordinate graduate surveys that are happening anyway – e.g. recent Eurograduate survey.
- More modest objectives in recent joint efforts (STI/EDU)
  - Light data collections. Insufficient for addressing several research policy questions.
  - Data output of 2017 data collection released at http://oe.cd/
A new OECD initiative: A global portrait of science, from the prism of scientific authors

Scientist authors’ job security, by country of residence, 2018

Weighted percentage of employed respondents within each group

Indefinite protected employment contract | Other indefinite | Fixed term employment contract | Indefinite protected employment contract (Unweighted)


Scientific authors’ job security by age and occupation

Weighted percentage of employed respondents (rows add up to 100%)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Indefinite protected employment contract</th>
<th>Other indefinite</th>
<th>Fixed term employment contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 34</td>
<td>16.43</td>
<td>8.88</td>
<td>74.67</td>
</tr>
<tr>
<td>35 to 44</td>
<td>34.37</td>
<td>14.36</td>
<td>51.25</td>
</tr>
<tr>
<td>45 to 54</td>
<td>52.69</td>
<td>18.08</td>
<td>29.22</td>
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<tr>
<td>55 to 64</td>
<td>61.63</td>
<td>12.94</td>
<td>25.43</td>
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<tr>
<td>65 or more</td>
<td>49.12</td>
<td>15.81</td>
<td>35.25</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation groups</th>
<th>Indefinite protected employment contract</th>
<th>Other indefinite</th>
<th>Fixed term employment contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>University and Higher Education Teaching Professionals</td>
<td>12.84</td>
<td>11.15</td>
<td>36.02</td>
</tr>
<tr>
<td>Senior managers and legislators</td>
<td>48.49</td>
<td>23.23</td>
<td>28.28</td>
</tr>
<tr>
<td>Science Professionals</td>
<td>35.4</td>
<td>15.09</td>
<td>15.51</td>
</tr>
<tr>
<td>Other Professionals</td>
<td>34.85</td>
<td>17.46</td>
<td>47.69</td>
</tr>
<tr>
<td>Associate professionals</td>
<td>21.35</td>
<td>13.66</td>
<td>54.38</td>
</tr>
<tr>
<td>Other occupations</td>
<td>35.24</td>
<td>8.33</td>
<td>56.43</td>
</tr>
</tbody>
</table>

Employment status has an impact on scientists’ earnings


Log income regression coefficients and CIs

- Measuring research careers ≠ measuring academic careers ≠ measuring publishing careers
  - There are core research careers in all sectors
  - There are careers where research skills can be used intensively
  - And there are others...
- OECD efforts curtailed by high specificity of national policies and measurement priorities
  - Do we want a “PISA” of science and research careers and are we prepared to support it?
- Early research careers: Shared responsibility for education and research policy
- Clarity of policy questions the fundamental issue. Also a framework for establishing what principles characterise sustainable systems

Some issues for discussion on policy evidence about research careers
Thank you

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