

Career Trajectories and Time to Promotion for Researchers Affiliated With the Argentine National Research Council (CONICET)

María Guillermina D'Onofrio & Juan Rogers

September 17-19, 2015 ATLANTA, GEORGIA USA

Purpose

To share some findings about
the **features in the research background**
and **career trajectory**

that have an **effect on the chances of**
entering and being promoted up its career
hierarchy

Outline

- I. Evaluation System in Argentina
- II. Analytic Model, Methodology & Data
- III. Findings

I. Evaluation System at CONICET in Argentina

1. Researchers as Public Servants + **Recruitment** by Competitive Examination
2. **Hierarchy** of 5 stages



3. “Non-Competitive” **Mechanism** for Promotion
4. CONICET main office + **Evaluators** from over than 20 Disciplinary Committees
5. Different **Minimum Periods of Permanence** at each hierarchy level (and a Maximum Period of Permanence at the 1st level)

II. Analytic Model, Methodology & Data

- **Whole population** of the 599 researchers:

Who were at the **Early levels** of the Research Career in 2012

+

Who belong to one of **2 Evaluation Committees**:

✓ the Disciplinary Committee on
Biochemistry and Molecular
Biology

✓ the Disciplinary Committee on
Industrial Engineering and
Biotechnology

- **Data: the researcher CVs** entered into the CVar
database

+

CONICET records + information from SCOPUS and the SCImago Journal Rank
indicators

- **Analytic Model**

1. Participation in postdoctoral research abroad
2. Position in a typology of research focus
3. Timing of promotion to current level
4. Years at current level
5. ≠ measures of S&T productivity during 2008-2012
6. Mentoring of PhD students
7. Prizes or awards
8. Research grants outside CONICET
9. Specialty (Molecular Biology or Biotechnology) & Evaluation Committee the researcher belongs to



**Logit
regression
model
&
Classification
tree**
to compute:

*Probability of
promotion in
2013 or 2014
in the
CONICET
Career System*

III. Findings

1. First transition: from the first rank to the second one

40% of Assistant Researchers in 2012 were promoted to Adjunct Researcher in the following 2 years

(Median age of 308 Assistant Researchers: 36-37 years)

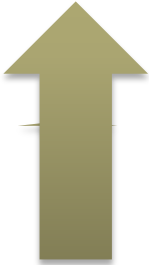
2. Second transition: from the second rank to the third one

26% of Adjunct Researchers in 2012 were promoted to Independent Researcher in the following 2 years


(Median age of 291 Adjunct Researchers: 43-44 years)

By the Logit Regression Model

1st transition

- 
- # of years at current level: 193%,
 - # of research articles in top ranked journals (SCOPUS 1st quartile): 54%,
 - # of mentored PhD students: 72%,
 - if the researcher belongs to the Industrial Engineering and Biotechnology Evaluation Committee, this increases probabilities by 135%,
 - the S&T service-oriented profile (in a basic-science-oriented Council): 93%, and
 - # of technological registers: 411% ($\approx 11\%$ of this promoted population)

2nd transition

- 
- # of mentored PhD students: 73%,
 - # of research articles in top ranked journals (SCOPUS 1st quartile): 36%,
 - the S&T management-oriented profile (directing a scientific institute or lab): 63%,
 - the timing before being promoted to the current level: 66%, and
 - # of technological registers: 41%

By the Classification Tree technique

1st transition

4 years or
more at
current
level



4 or more
articles
published
over the last
5 years



More
chances
(**88%**) to
promote to
Adjunct
Researcher

Early
scientific
productivity

2nd transition

3 to 10
years at
current
level



6 or more
articles in top
ranked journals
published over
the last 5 years



More
chances
(**76%**) to
promote to
Independent
Researcher

Early scientific
productivity with
high-visibility

Closing remarks

1. Differential effects of the minimum and maximum periods of permanence on peer evaluation
2. Significant relevance of the academic profile
3. Differences between Evaluation Committees and specialties that researchers belong to
4. Low relevance of a postdoctoral experience abroad and obtained research grants outside CONICET

Thank you for your attention!

Contact:

mgdonofrio@mincyt.gob.ar
mgdonofrio@gmail.com