Grant Allocation Disparities from a Gender Perspective

The GRANteD project: How gender bias in research funding is analysed

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GRANteD Stakeholder conference

Vienna, 24/02/2020

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Overview

- Success rates

- Factors to explain differences in success rates (state of the art)

- The GRANteD project: how we address bias

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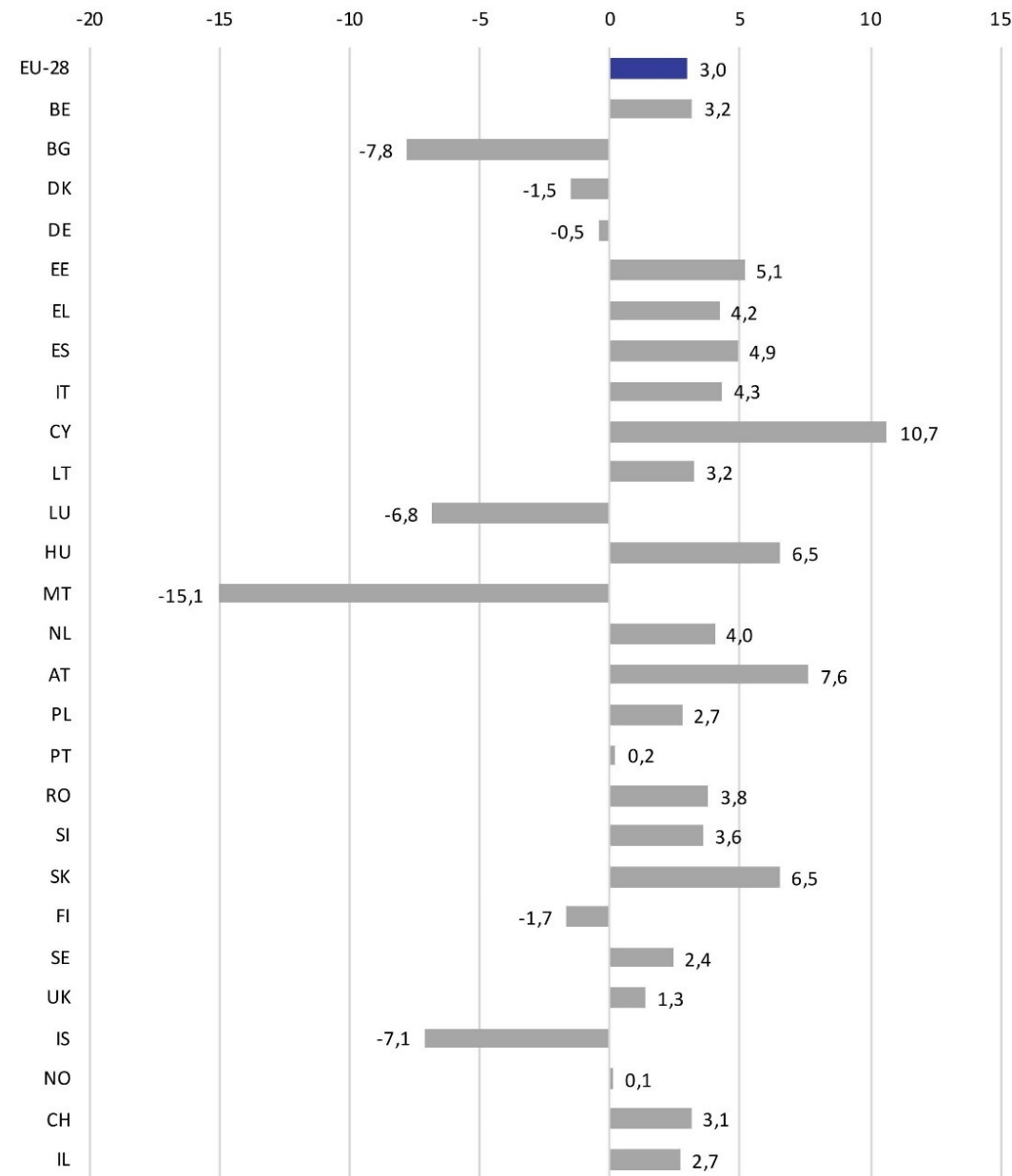
Different success rates

- Grant allocation outcomes for men and women differ

- Success rates (ratio applicants - grantees) are in average higher for men

- Success differences vary between countries, disciplines, panels

StG 2014, Life Sciences (LS) panels, ERC

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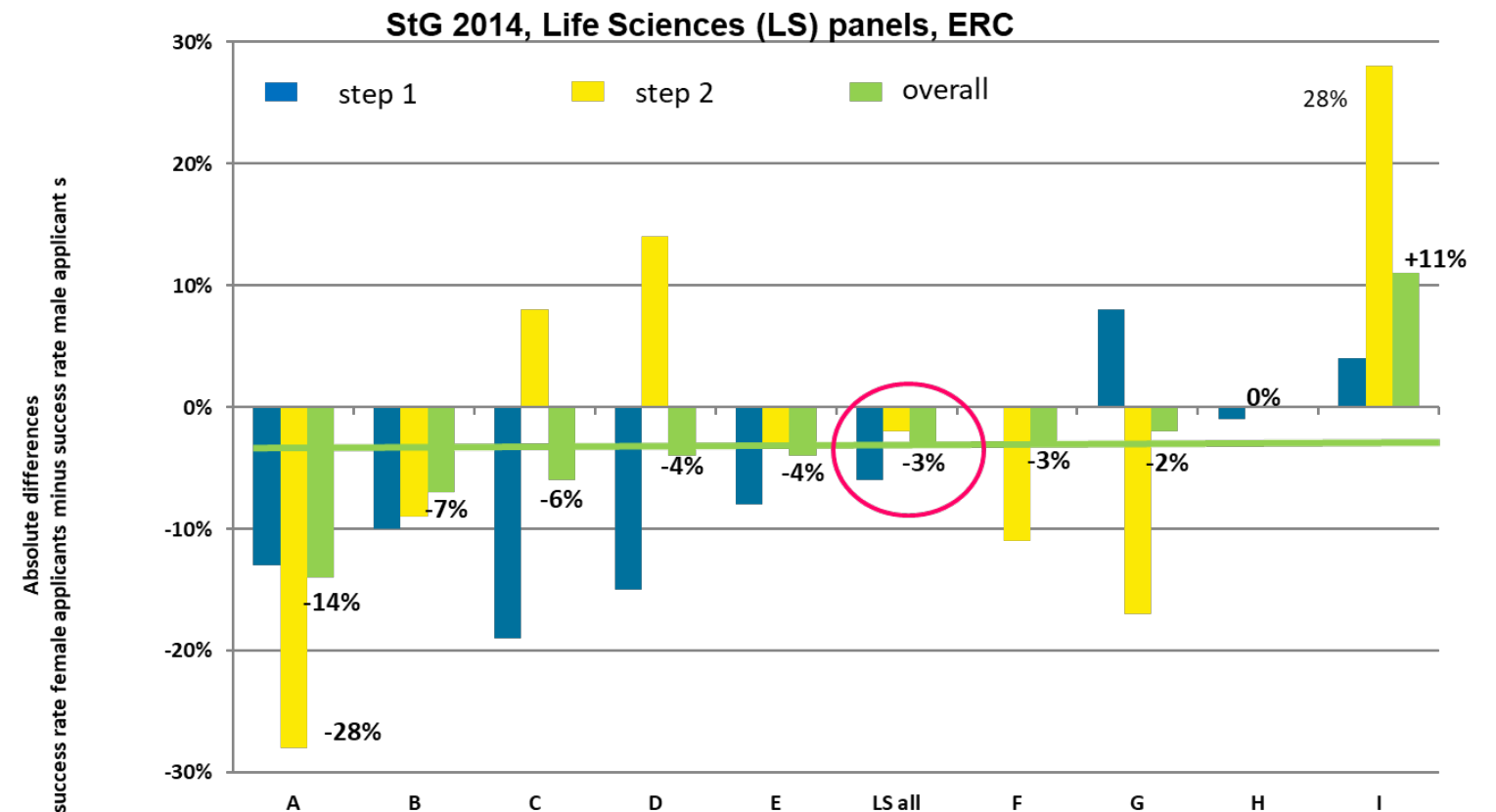
Different success rates EU-28
(She Figures 2018)

In a few countries women have higher success rates.

Figure 7.13 Research funding success rate differences between women and men, 2017

Country	Value
EU-28	3,0
BE	3,2
BG	-7,8
DK	-1,5
DE	-0,5
EE	5,1
EL	4,2
ES	4,9
IT	4,3
CY	10,7
LT	3,2
LU	-6,8
HU	6,5
MT	-15,1
NL	4,0
AT	7,6
PL	2,7
PT	0,2
RO	3,8
SI	3,6
SK	6,5
FI	-1,7
SE	2,4
UK	1,3
IS	-7,1
NO	0,1
CH	3,1
IL	2,7

Notes: EU-28 aggregate was calculated without CZ, IE, FR and LV; Exceptions to reference year: LT, PT: 2007; EL: 2009; HR: 2010; BG: 2012; BE(FR): 2013; SI: 2015; FI, IS, IT; LU, UK, BE(FL): 2016; In IL, institutes do not differentiate between team leaders and team members; Data unavailable for: CZ, IE, HR, FR, LV, TR, AL, BA, ME, MK, RS, AM, FO, GE, MD, TN, UA.
Other: Values were calculated from headcounts and only from the institutes that provided both applicants and beneficiaries; positive values represent that success rate is higher for men while negative values that success rate is higher for women.

Source: WiS (Women in Science), DG Research and Innovation.

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How to explain different success rates

What we expect: When **applications** of male and female applicants are **equally excellent**, success **rates are equal** too (science as meritocratic system).

If success rates differ by sex, how can this be explained?

- Limitations of peer review system as selection mechanism (Lamont 2009)
- Peer review is not really better than random selection (Klaus/Alamo 2018)
- Being selected is like winning the lottery: unpredictable

What factors might explain unpredictable outcomes of grant allocation?

Four basic hypotheses ...

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H1: Women are perceived as less excellent, as they publish less.

- Excellence is often measured by publications. Research reveals that women publish less due to **different resources**: women have lower positions in science system which fewer resources, (van den Besselaar/Sandström 2017) fewer network-ties, less research time (Holliday etal 2014, van den Brink 2018)

- Women need **more publications and network-ties** to receive same scores as men (Wenneras/Wold 1997, Bagilhol/Goode 2001, Sabatier etal 2006)

- What are best **indicators** to measure performance/excellence/merit?
Some classical indicators might be gendered (Nielsen 2018, Abramo etal 2007).

Keynote1
NWO, FWF, TU/e

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H2: Reviewers have gender stereotypes, thus female and male applicants are treated differently.

- Stereotypes: assumptions about how we expect men and women to be (Heilman 2001)

  Keynote2, VBA, FWF

- **Women share gender stereotypes**: male <u>and</u> female faculty members prefer male candidates to equally qualified female candidates (Moss-Racusin etal 2012, Steinpreis etal 1999) => More women in panels does not necessarily mean less gender stereotypes.

- **Norms of a masculine science system**: characteristics relevant for success are more attributed to men (confidence, competitiveness, assertiveness) women are less able not meet these norms; or face double bind situation

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H3: Each panel decision follows its own rules, this makes grant allocation outcomes not predictable.

- When **assessment processes** are designed nonspecifically, there is room to practice them subjectively (Langfeldt 2004): gender bias might come in!

- When **assessment criteria** are not or only vaguely defined, this allows subjective judgements (O'Connor/O'Hagan 2015, Van den Brink/Benschop 2011; Ridgeway 2011): gender bias might come in!

- **Gender policies** are also practiced differently and thus have different impact on structural change in RFOs (Leender etal 2019). Reviewers can become actors for change to a more gender fair research system (Blommeart /Van den Brink 2020). Female reviewers might distance themselves from gender policies to align with dominant norms (Rhoton 2011).

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H4: Women apply less, as they are less supported.

- Lower application rates reflect differences in science system **before applying**: individual (career motivation, self confidence), structural: academic position

- **Organisational support** and encouragement differ for women:

  - Mentoring: important, often less effective for women (Harris etal 2013; Husu 2001); Male supervisors tend to promote men more often (Van den Brink/ Benschop 2013)

- Image of ideal scientist provides **less fit-in** for women: lower probability to be granted => reasonable decision not to apply: self exclusion?

Keynote2

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GRANteD project

- Funding: H2020 call SwafS-10-2018 **Analysing gender gaps and biases in the allocation of grants**
  Research is needed to **better understand the remaining institutional barriers** which contribute to maintaining the gender gaps in research funding, as well as the **policy changes required** to remove such barriers.

- Project time: 01/2019 – 02/2023
- 5 partners

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GRANteD consortium

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TERESA MOM CONSULTANCY BV (TMC), Netherlands
Peter van den Besselaar

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GRANteD aims

Scientific analysis	• **increase the understanding** of the complex issue of gender bias in grant allocation; provide empirical evidence!
Collaboration with 5 RFOs	• find out **what happens in ongoing** grant allocation **processes** (practices) • develop tailored recommendations
Co-creation	• integrate stakeholders' experiences • raise awareness for gender bias in RFO

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GRANteD – integrating various data

Existing funding data
- existing data sets on grants (ERC, Veni, Noether, Swedish Research Council, Ramon y Cajal)
- Swedish register data to study career impact of grants

Data from 5 RFOs
- evaluation data, reviewers' reports, proposal texts
- Applicant survey; policy documents, IAT
- Interviews RFO staff/reviewers, panel observation

Co-creating formats
- 2 Stakeholder Conferences
- Stakeholder Committee: 4 meetings
- Scientific Advisory Board: 5 meetings

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GRANteD research interest (1): Individual level

We analyze gender disparities and gender bias along different phases: pre-application, application, <u>assessment</u>, post-granting

- Who applies (individual characteristics)?
  - **Control for past-performance of applicants**
  - Networks with reviewers: cognitive distance, organisational proximity
  - Support and encouragement in home institution (grantees vs non-grantees)
- Who assesses (individual characteristics)?
  - Criteria for selecting reviewers
  - Composition of review panels

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GRANteD research interest (2): RFO, panels

- RFO: Which policies are in place in RFOs? Are they effective?
  - Formal regulations on assessment process and assessment criteria
  - Policies aiming for gender equality

- Panels as decision making bodies: How is negotiation and selection process **organised in practice**?
  - Conflict of interest, final decision making, relevance of gender

- How is quality/merit/excellence assessed?
  - Assessment criteria applied in practice, systematically?
  - After funding decision: test if the best have been selected

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GRANteD research interest (3): Social processes, overall questions

- Which panel dynamics can be observed?
  - Role of panel chair, power position of reviewers, distribution of talking time
- (In which way) Do gender stereotypes play a role?
  - Applicants: how reserach idea is presented in application
  - Panels: discourse in panel meetings
  - Reviewers: word use in evaluation reports, IAT (implicit association test)

- Is there gender bias? If yes, which factors explain it?
- What is the relevance of gender in respect to other biases (institution)?
- How do grantees perform compared to non-grantees (career, publications?

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GRANteD status quo

- Literature review, RFO policy mapping: done

- Conceptional framework: almost developed

- Core-RFOs: selected, approached, negotiation processes ongoing, field work starts 04/2020

- Work on register data: ongoing

- Work on existing data sets: ongoing

All these research streams are integrated to get empirical evidence on factors explaining gender bias. We keep you informed!

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Any questions?

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Thanks!

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