ACADEMIC PRODUCTIVITY DURING THE PANDEMIC:
the effects of gender, race and parenthood

Data raised by the **Parent in Science** Movement during the COVID-19's social isolation period in Brazil.

PARENT IN SCIENCE

2020

INITIAL CONSIDERATIONS

Unquestionably, COVID-19's pandemic has been affecting the overall productivity across the entire international academic community. The question is: is it affecting everyone in the same way?
Seeking to make sense of the current scenario, the Parent in Science Movement has raised data from the Brazilian academic community, over the months of April and May/2020. Nearly 15 thousand scientists, comprising graduate students, postdoctoral fellows and full professors/researchers, answered the surveys.

Through the analysis of these data, we were able to build a full picture of the pandemic's impact on the lives of the ones behind the engines of Brazil's science. From the perspectives of gender, race and parenthood status, we have succeeded in tackling the matter's central issues. The result is a comprehensive picture of the impacted groups amongst Brazilian academia, which we hope to be able to influence the designing of actions and policies towards the mitigation of the deepening gaps of gender and race in science.

Please note that some of the nuances raised by the surveys could not be analyzed due to the low number of respondents of specific profiles. An example is the issue of caregiving to children with special needs. We appreciate that this moment has been particularly critical for these families, considering the restricted access to their routines of treatments/therapies and reduced supporting networks. Unfortunately, we were unable to assemble sufficient numbers to analyze the matter properly. However, we reiterate the importance of bringing this matter to light in the academic and scientific discussion spheres.
We adopted official IBGE categories in the questionnaires: branca (White), preta (Black), parda, amarela (Asian) and indigena (Indigeneous). In Brazil, there is a common distinction between people who identify as Black (dark-skin Black people) and parda (light-skin Black people). In all results presented in the report, the Black category refers to both IBGE categories (preta and parda) together. In addition, it was not possible to run any of analysis on the groups 'Indigenous' and 'Asian', due to an insufficient cohort of respondents who claimed as being part of these groups.

Findings in this publication were organized by respondents' categories: professors/researchers, graduate students, postdoctoral fellows. The analysis on the impacts over the ability to submit scientific papers are described in more detail, as we believe that it is the parameter that will lead to the heaviest long-term consequences in scientists academic tenure tracks.

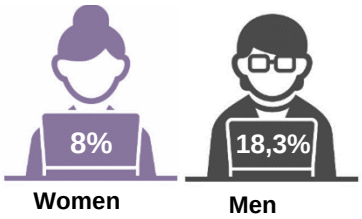
At the end of the publication, we present practical implications and recommendations aimed at mitigating the pandemic's effects on the scientific community moving forward. We believe it is crucial to act immediately: there is no room for setbacks in the ongoing fight for making science a more diverse, equal and inclusive environment.

We should not - and will not - allow COVID-19's pandemic to aggravate the existing disparities between genders, races and parenthood status in academia.

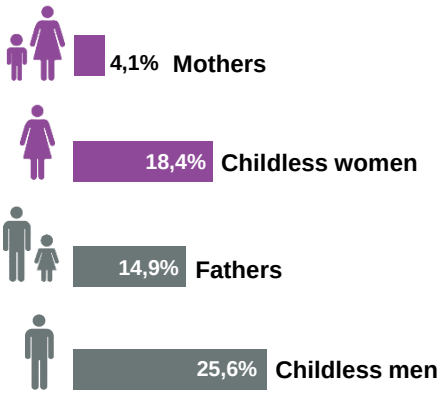
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

PARENT IN SCIENCE

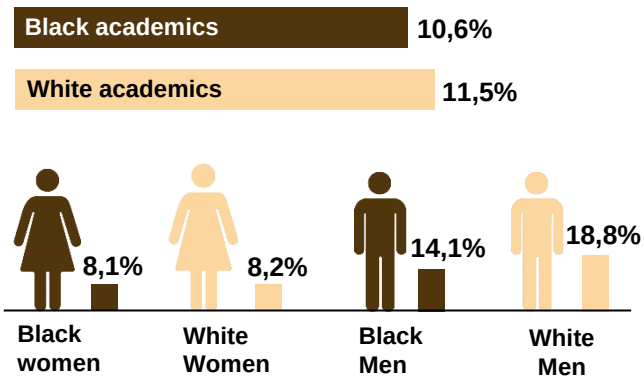
Professors/Researchers able to perform academic work remotely*

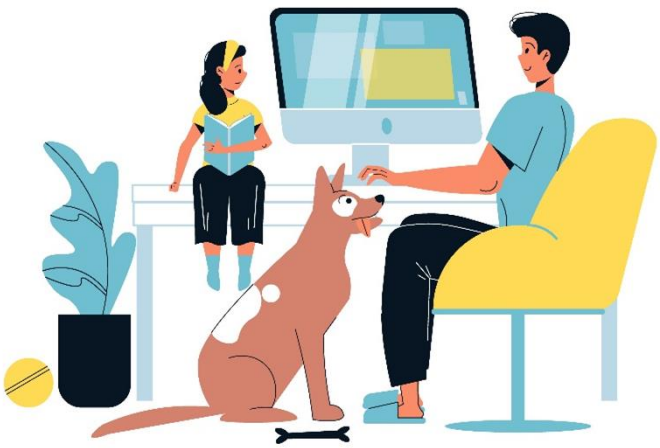


Gender + Parenthood Effect

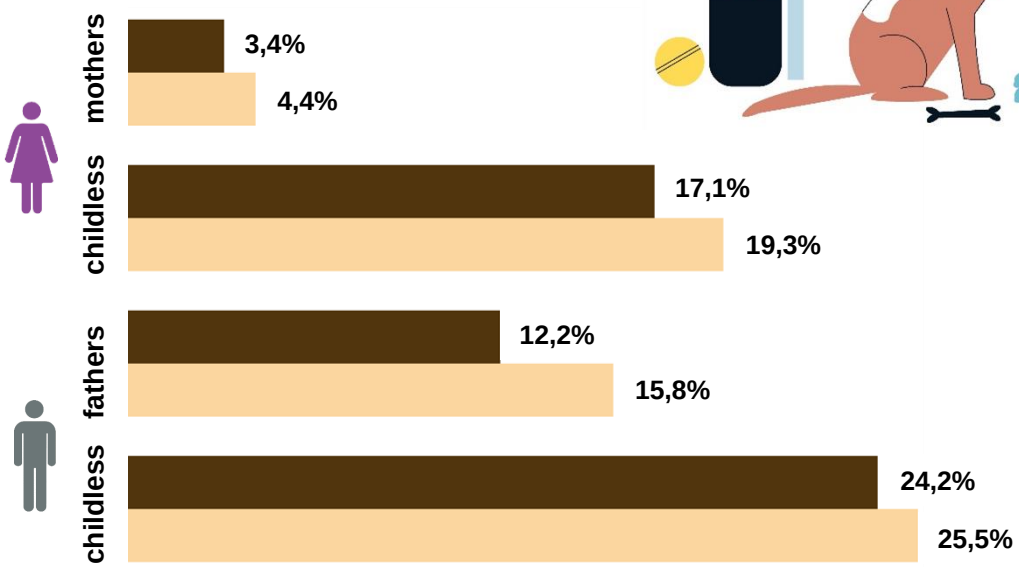


Race + Gender Effect





Gender + Parenthood + Race Effect



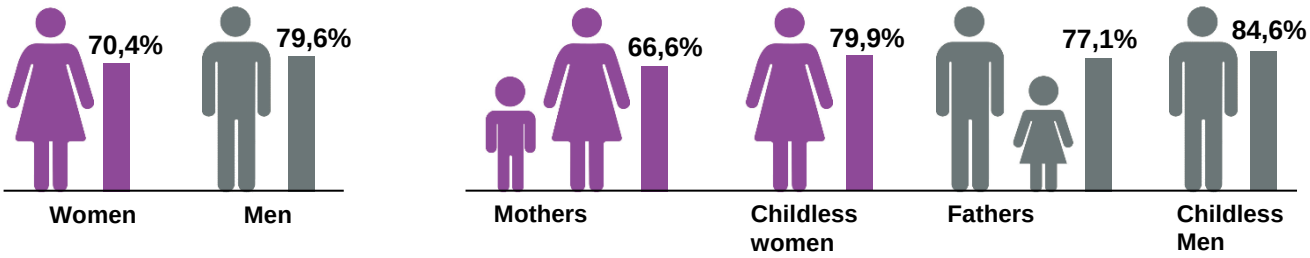
*compatible with the work done before the pandemic.

BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

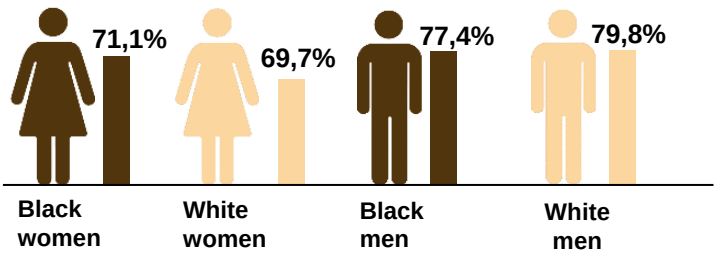
PARENT IN SCIENCE

Professors/researchers able to meet deadlines

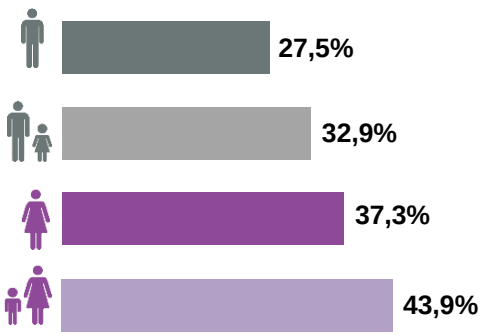
Deadlines related to funding applications and/or reports submission



Race + Gender Effect

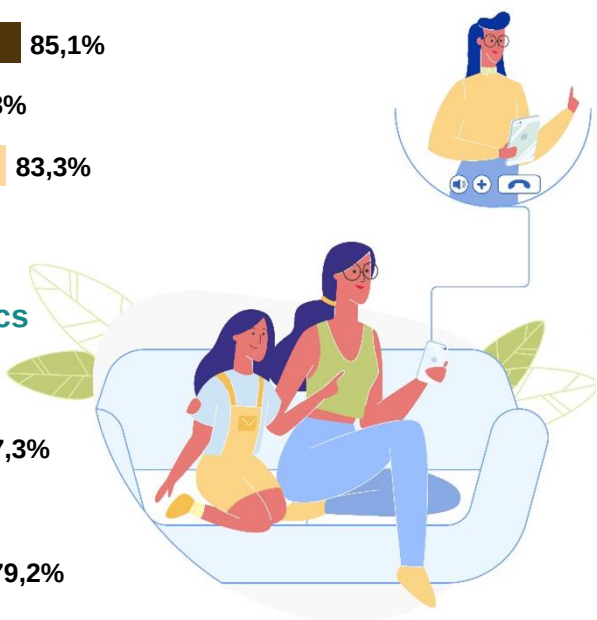


Who benefited from deadlines extensions ?



Parenthood + Race effect for Male academics

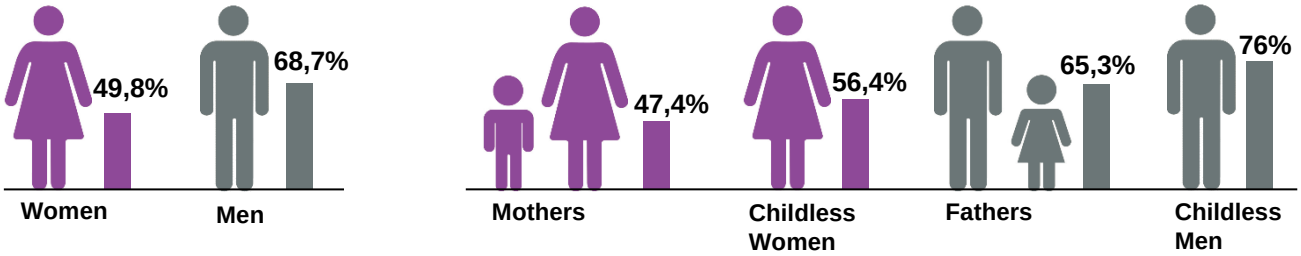
Parenthood + Race effect for Female academics



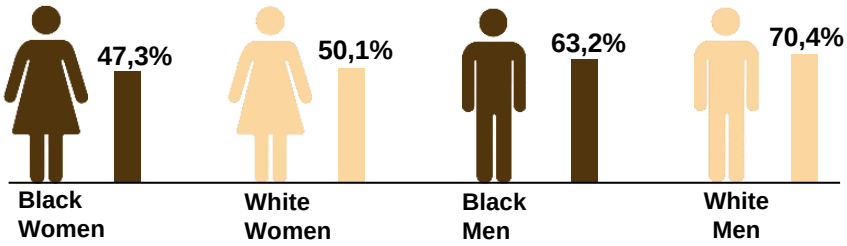
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

PARENT IN SCIENCE

Professors/researchers able to submit scientific papers as planned

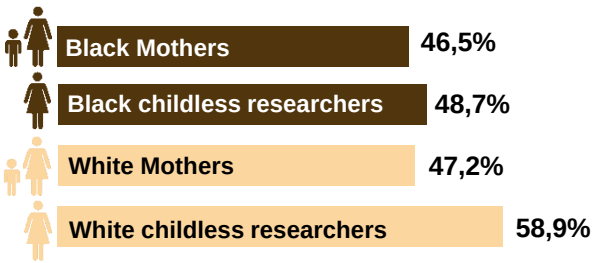


Race + Gender Effect

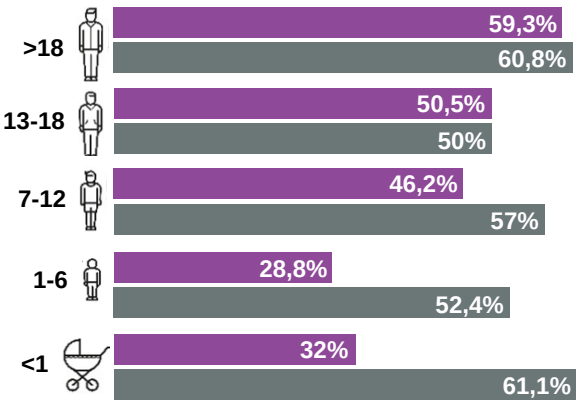


Race + Parenthood effect for Male academics

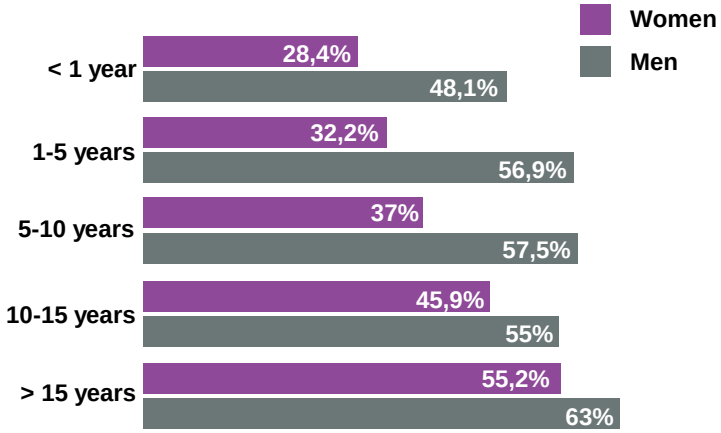
Race + Parenthood effect for Female academics



Ability to submit scientific papers against children's age



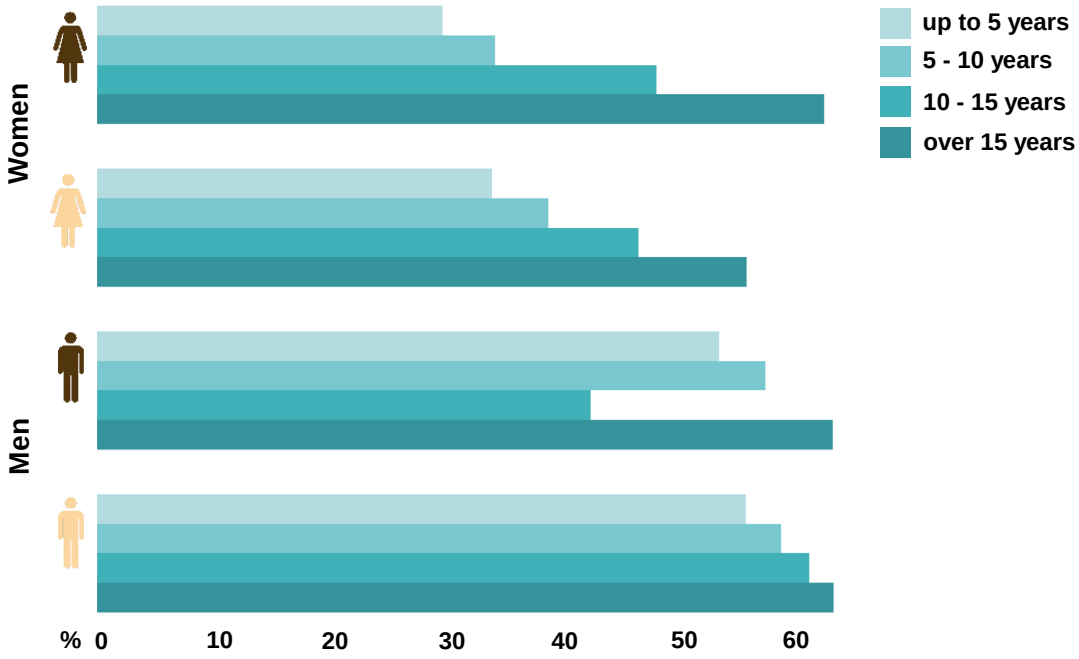
Ability to submit scientific papers against tenure track



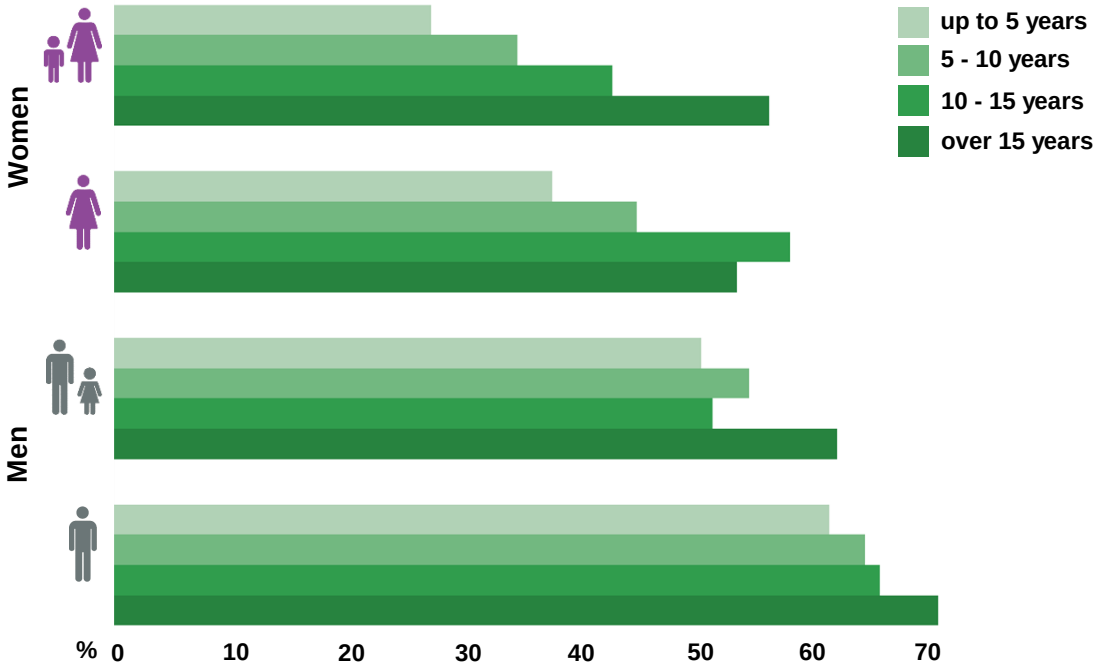
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

PARENT IN SCIENCE

Ability to submit scientific papers against tenure track: Race + Gender effect



Ability to submit scientific papers against tenure track : Gender + Parenthood effect

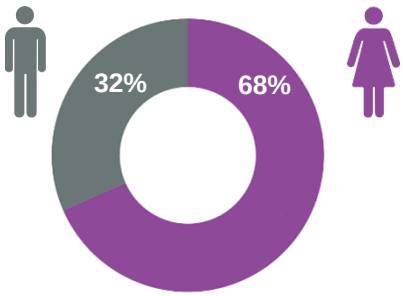


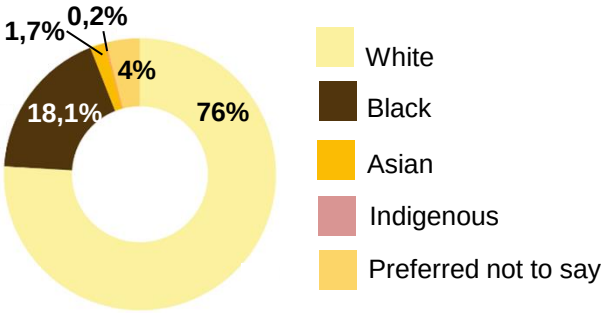
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

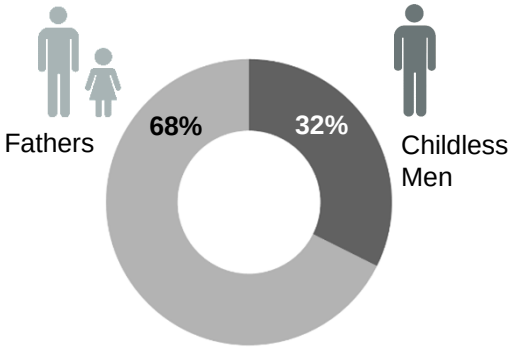
PARENT IN SCIENCE

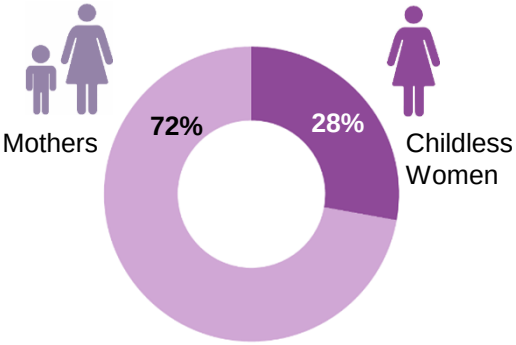
Who are the professors/researchers respondents?

3.629 professors/researchers from Brazilian Higher Education Institutions

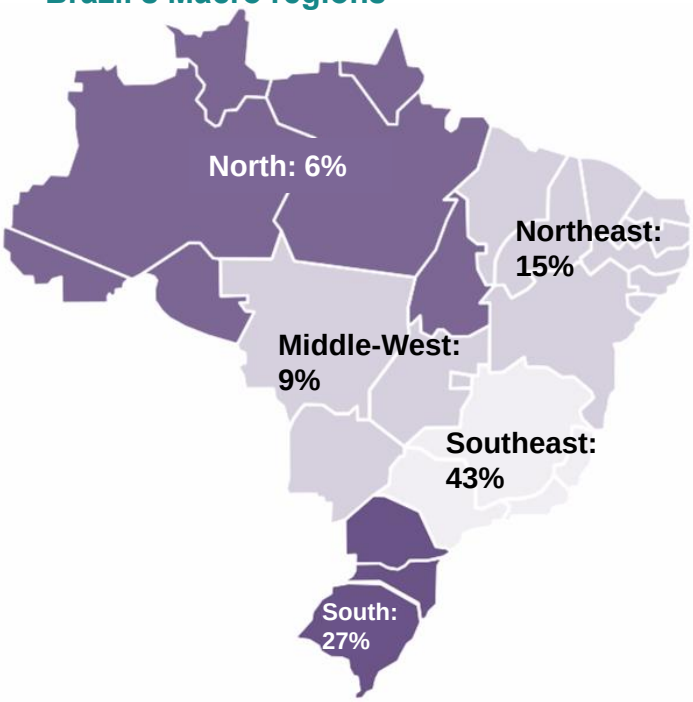




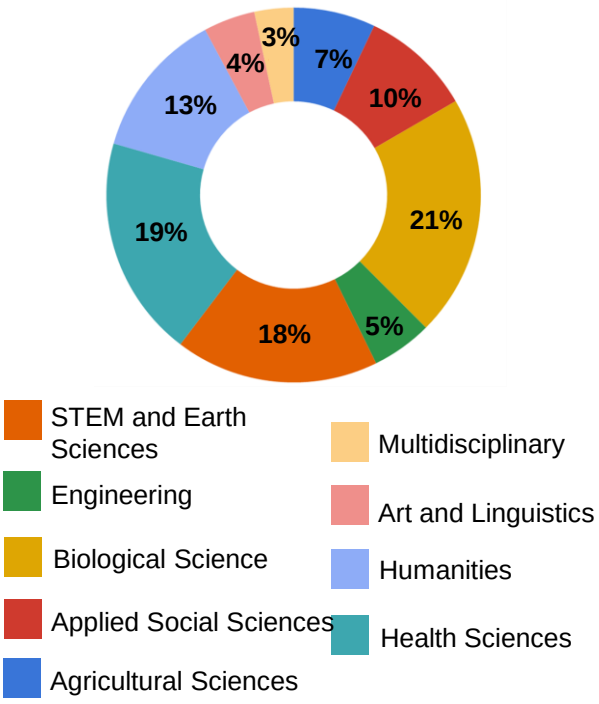




Brazil's Macro regions



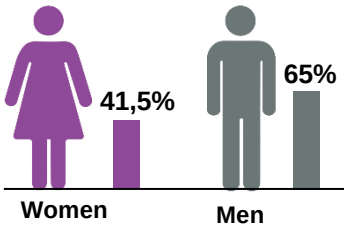
Areas of Knowledge

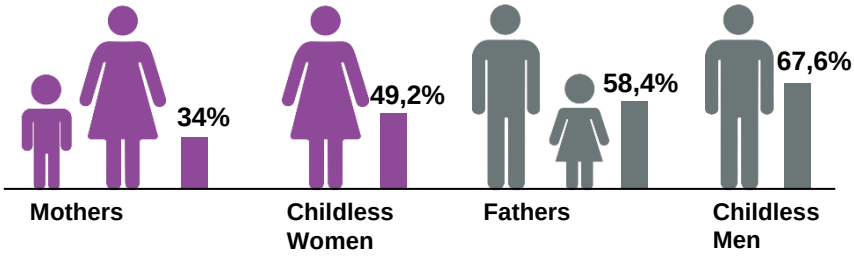


BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

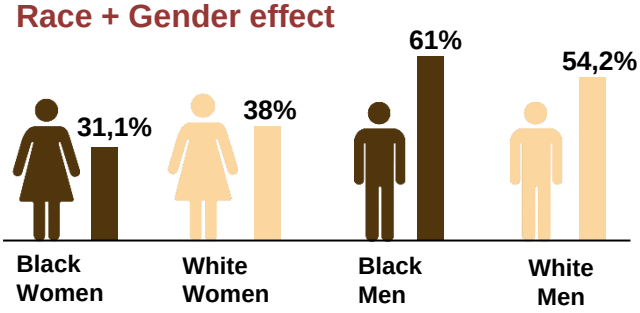
PARENT IN SCIENCE

Postdoctoral fellows able to submit scientific papers as planned

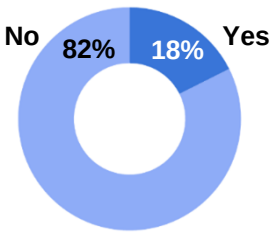


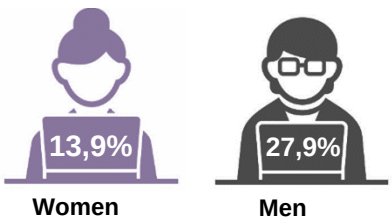


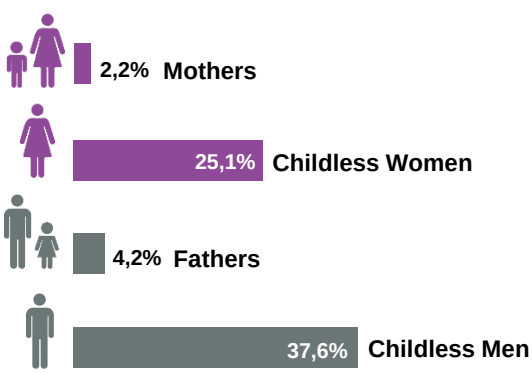
Race + Gender effect

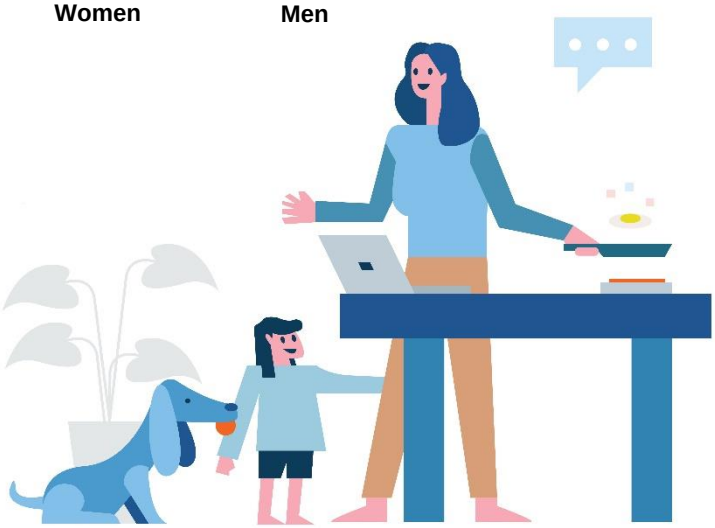


Postdoctoral fellows able to perform academic work remotely







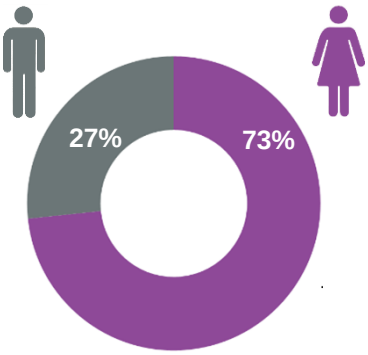


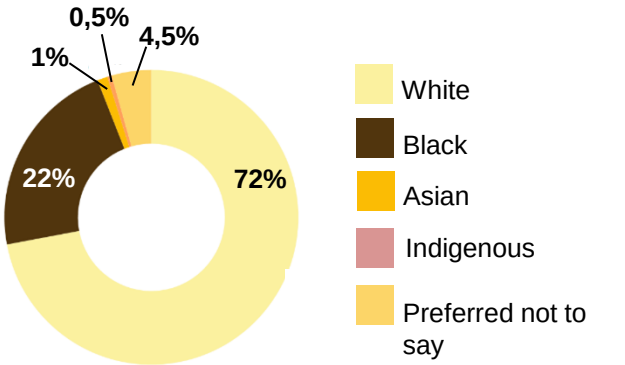
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

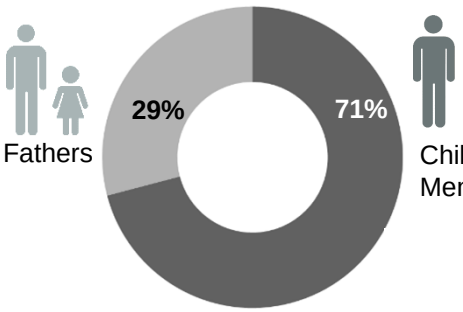
PARENT IN SCIENCE

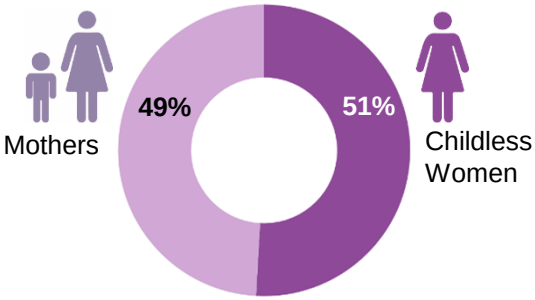
Who are the postdoctoral fellows respondents ?

619 postdoctoral fellows from Brazilian Higher Education Institutions

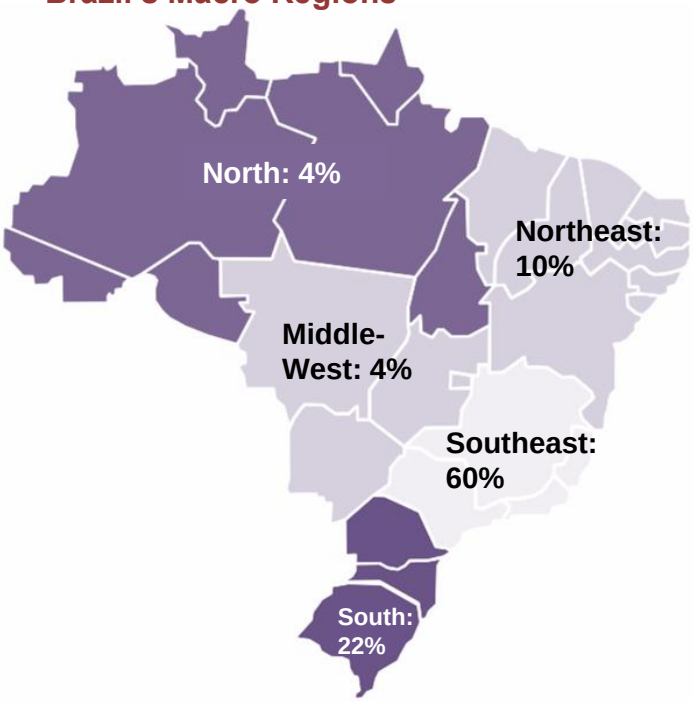




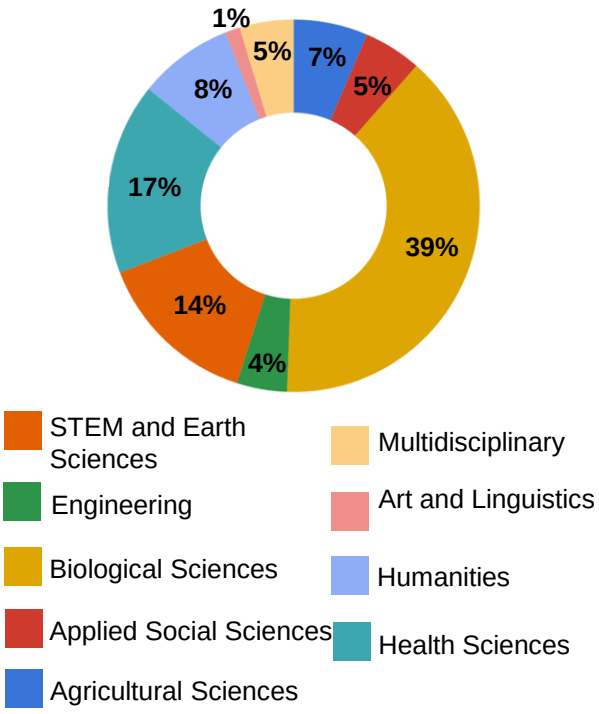




Brazil's Macro Regions



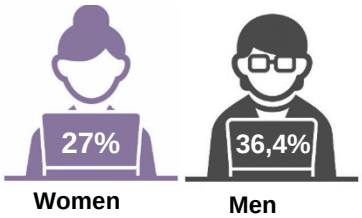
Areas of Knowledge



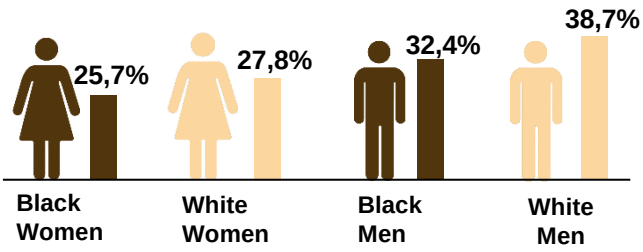
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

PARENT IN SCIENCE

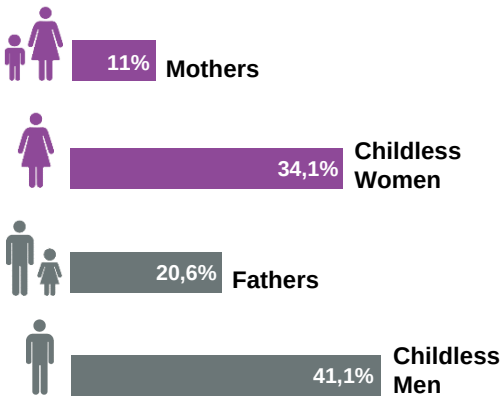
Graduate students able to perform academic work remotely



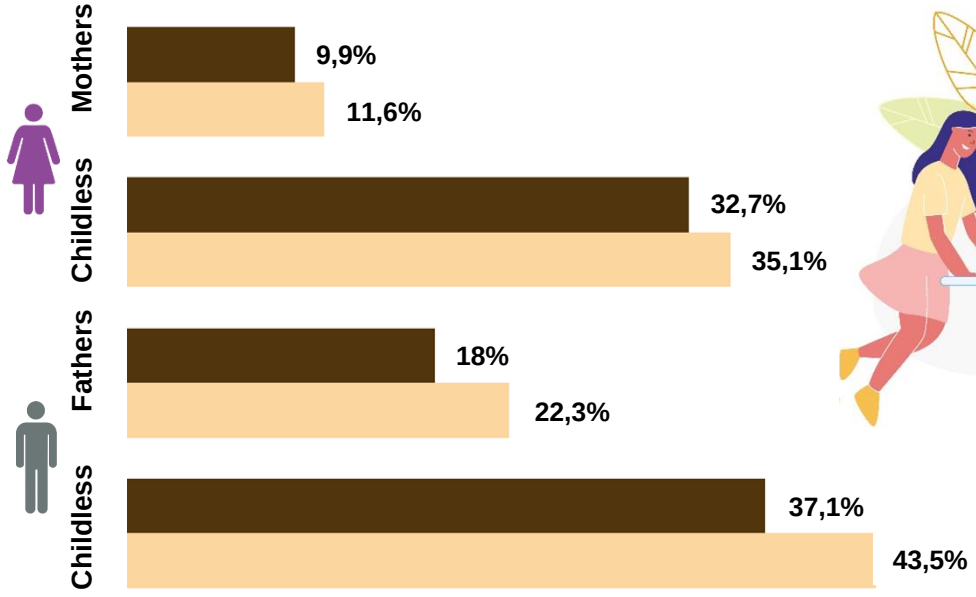
Gender + Race effect



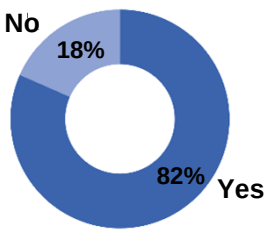
Parenthood + Gender effect

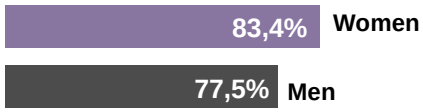


Parenthood +Race effect



Is the pandemic negatively affecting your dissertation/thesis progress?



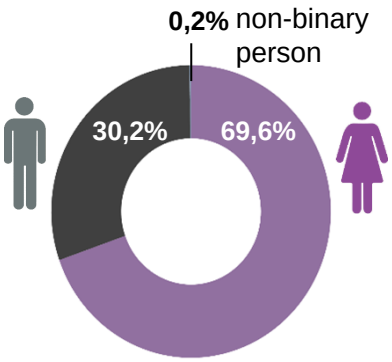


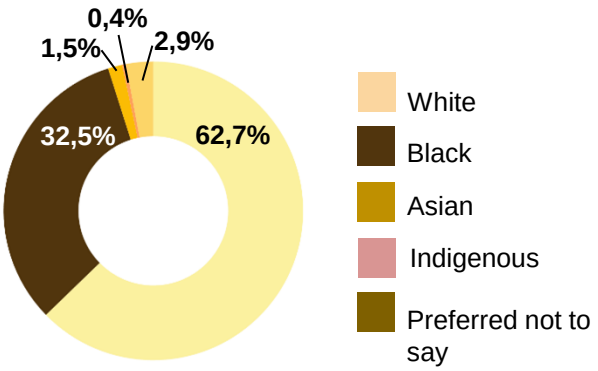
BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

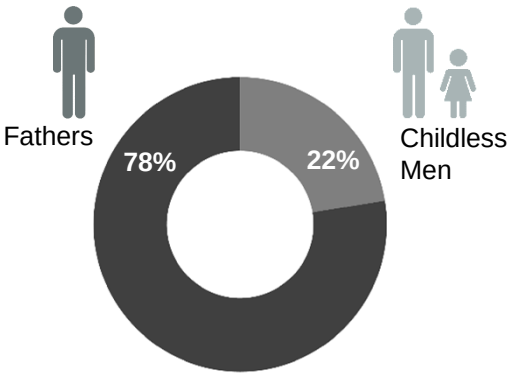
PARENT IN SCIENCE

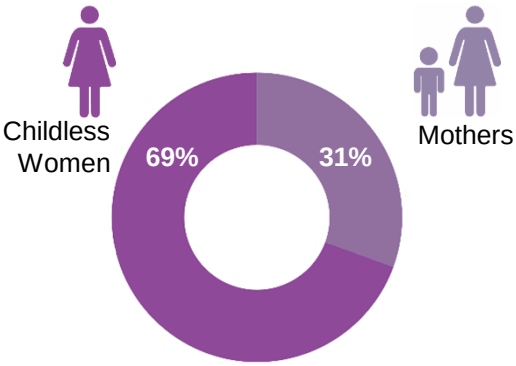
Who are the graduate students respondents?

9.970 graduate students, from both masters' and doctorate degrees at Brazilian Higher Education Institutions

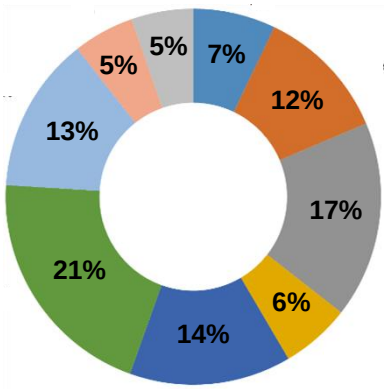






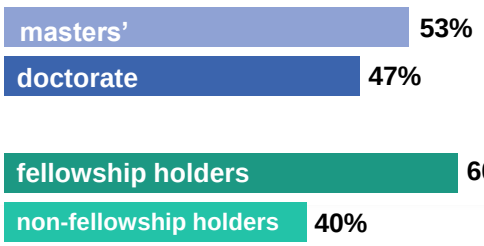


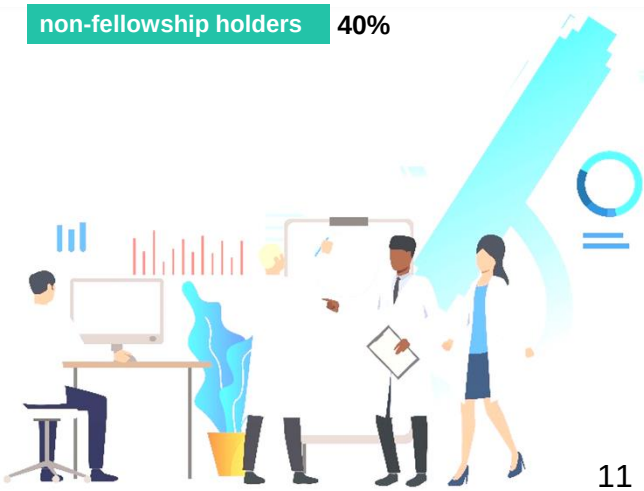
Areas of Knowledge



- STEM and Earth Sciences
- Health Sciences
- Engineering
- Applied Social Sciences
- Agricultural Sciences
- Biological Sciences
- Art and Linguistics
- Humanities
- Multidisciplinary

Degree





BRAZILIAN ACADEMIC PRODUCTIVITY DURING THE PANDEMIC

PARENT IN SCIENCE

Findings

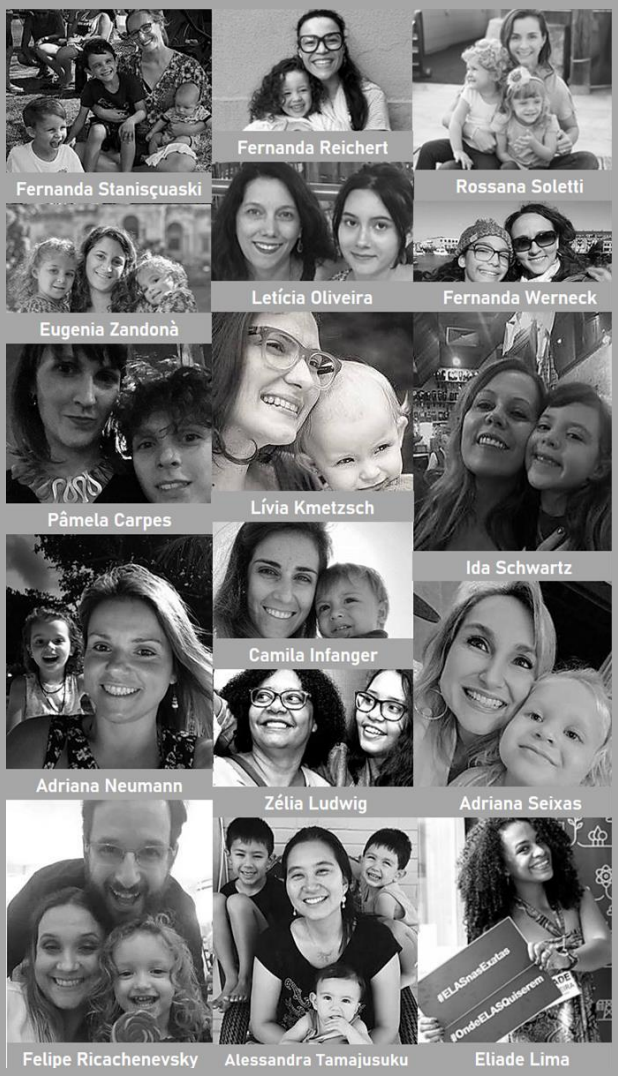
- In regards to the ability to submit scientific papers, the groups Black Women (Mothers or Childless) and White Mothers (especially the ones whose children younger than 12yo) represent the most affected ones by the pandemic's circumstances
- In regards to the analysis of overall academic productivity, comprising both analyzed factors, the group Men, especially childless ones, represent the least affected ones by the pandemic's circumstances.

Findings presented in this publication endorse the discussion around gender, race and parenthood as major influencing factors in the underrepresentation of women in science. Moreover, we intended to provide with our findings a relevant theoretical framework to support public policies designing towards the inclusion of parents, especially mothers, in academia. The need for affirmative actions towards diversity, inclusion and equality in science becomes even more urgent in times of COVID-19 pandemic.

Recommendations

Based on the findings presented, we've listed below some recommendations for research funding agencies and higher education institutions:

- Extensions in the submission deadlines in funding calls
- Flexible reporting deadlines
- Promotion of grants aimed at the most affected groups, in order to reduce gender and race disparities
- Assessment of longer periods in promotion processes, in order to dilute moments of low productivity
- Family-friendly meetings' hours
- Redistribution, when possible, of teaching load and admin related activities in order to alleviate the impact on the most affected groups.



Equipe Parent in Science:

Adriana Neumann/UFRGS
Adriana Seixas/UFCSPA
Alessandra Tamajusuku/UNIPAMPA
Camila Infanger/ESPM
Eliade Lima/UNIPAMPA
Eugênia Zandonà/UERJ
Felipe Ricachenevsky/UFRGS
Fernanda Reichert/UFRGS
Fernanda Stanisçuaski/UFRGS
Fernanda Werneck/INPA
Ida Schwartz/UFRGS
Letícia Oliveira/UFF
Lívia Kmetzsch/UFRGS
Pâmela Carpes/UNIPAMPA
Rossana Soletti/UFRGS
Zélia Ludwig/UFJF

The Parent in Science movement was founded in 2016, by the researcher Fernanda Staniscuaski, from Universidade Federal do Rio Grande do Sul (UFRGS). Its objective is to raise the discussion around parenthood within Brazil's scientific ecosystem. The board of the group is formed by 15 mothers and 1 father - all of us active professors and researchers based in Brazil. Together we join efforts to promote investigations, discussions and actions towards our objective.

Parent in Science movement was pioneer in raising and publishing of data on the impacts of motherhood in the academic career of Brazilian scientists.

Our actions led to concrete changes and relevant milestones in the struggle for the inclusion of parents, especially mothers, in Brazil's science scene. As a result, a number of funding grants and fellowship calls contemplate specifically designed criteria for the accommodation of academic mothers' needs, such as the consideration of maternity leave period in the assessment of scientists productivity records. An important achievement was the agreement consolidated between the major Brazilian governmental funding agency, CNPq, which involves the inclusion in researchers official profile the information regarding the maternity leave periods.

We believe that movements like ours are essential to make science truly diverse and to create an environment that embraces the various intersections of gender and race existing in the academic community.

Reach us on:

www.parentinscience.com

facebook.com/parentinscience

parentinscience@gmail.com

@parentinscience

Parent in Science at Youtube

@parentinscience

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