

#### Class of 2018

PhD Post-Graduate Information

# DES SCIENCES

# PhD degree

**POUR L'INGÉNIEUR** Doctoral School: ENGINEERING SCIENCES

The situation of our doctors, and more specifically, their professional integration, was observed on December 1st 2017, one year after the date of their defense, and on December 1st 2019, three years after their defense. This study was carried out using a questionnaire designed by the Ministry of Higher Education, Research and Innovation (MESRI), which oversees all French universities.

Number of PhD holders surveyed: 44

Number of respondents: 28

Response rate:

64%

#### **Contents**

- 1 Profile of respondents
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### 1 - Profile of respondents

#### All PhD holders

Sex				
	Ν	%		
Female	6	14%		
Male	38	86%		
Total	44	100%		

# Nationality

	• • •	70
French	22	50%
Foreign	22	50%
Total	11	100%

#### Age

Average = 30 years Standard deviation = 5

	Ν	%
Under 24 years	0	0%
24 to 29 years	28	64%
30 to 34 years	9	20%
35 to 39 years	2	5%
40 to 44 years	4	9%
45 years and over	1	2%
Total	44	100%

#### **▶** Responding PhD holders

Female

Male

**Total** 

Sex

22

21%

79%

100%

#### **Nationality**

	N	%
French	16	57%
Foreign	12	43%
Total	28	100%

#### Age

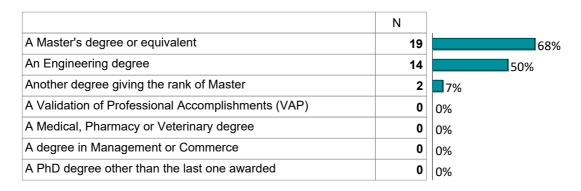
Average = 29 years Standard deviation = 5

	N	%
Under 24 years	0	0%
24 to 29 years	21	75%
30 to 34 years	4	14%
35 to 39 years	0	0%
40 to 44 years	3	11%
45 years and over	0	0%
Total	28	100%

<u>NOTE</u>: The profile of respondents is similar to that of the PhD holders surveyed, with the exception of foreign doctors, who are underrepresented among the respondents.

# 2 - Studies before PhD program

#### ► Last degree(s) awarded before PhD program

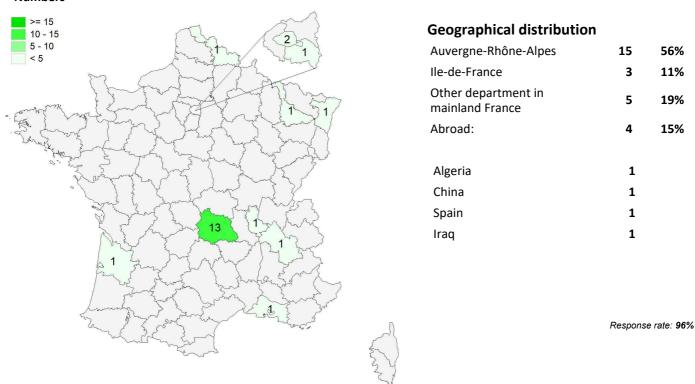


Response rate 100%

#### ► Location of last degree received

46% of doctors received their last degree from another institution than UCA.

#### **Numbers**



#### Professional status before receiving PhD

- 11 doctors were employed before the PhD program.
- At enrollment, 2 doctors had a job unrelated to their PhD project, 1 of whom held on to it during the program.



#### **▶** PhD Specialization

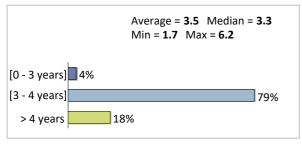
	Female	Male	Total
Automation, Signal Processing	-	1	1
Electrical Engineering, Power Electronics	1	3	4
Information Technology and Applications	1	8	9
Information Technology, Automation	-	1	1
Mechanics of Solids, Materials, and Surfaces	1	3	4
Mechanics, Energetics, Process Engineering, Civil Engineering	3	5	8
Science and Techniques of Physical and Sport Activities	-	1	1
Total	6	22	28

Response rate: 100%

#### **▶** Dual-Degree Thesis Program

One doctor awarded a dual-degree was a foreign national. He carried out his PhD program in collaboration with a research laboratory in his home country.

#### **▶** Duration of PhD program\*



Response rate 100%

#### PhD funding

	N	
Specific funding	26	
ATER position	3	11%
Personal resources	1	4%
No funding	1	4%
Job unrelated to PhD project	0	0%
Total	27	

Response rate: 96%

#### Sources of specific funding

	N		PhD funding co	ntract ty	mac
State funding	13	52%		•	pes
Regional government	8	32%		N	
European Commission Funding	2	8%	Doctoral	14	56%
Foreign funding	2		Temporary job	10	40%
	_	8%	Scholarship	5	20%
CIFRE	2	8%	Permanent job	1	4%
Both private and public funding (excluding CIFRE)	2	8%		•	
Private funding from French-based organization	1	4%	Includes concurr (e.g. temp. + sch		acts
French public research funding agencies	0	0%	(c.g. temp. · sen	·	sponse rate: 89%

Response rate: 89%

<sup>\*</sup>Deviation between the defense date and the registration date in number of years



#### Career Plan

	N	
Teaching or research in a public or private institution of higher education	11	41%
Working in R&D at a company	8	30%
Working in public research	3	11%
None	2	7%
Creating a company	1	4%
Pursuing or progressing in job held before PhD	1	4%
Working in a company excluding R&D	1	4%
Working in the public sector excluding research and higher education	0	0%
Career change	0	0%
Other	0	0%
Total	27	

Response rate: 96%

#### ► CNU Qualification (National Council of Universities)

**48**% of doctors applied for a CNU qualification. **54**% of them received the qualification.

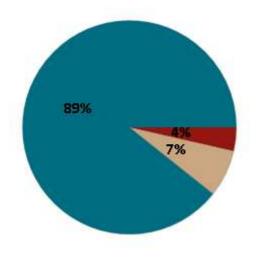
	Female	Male	Total
Received CNU qualification	2	5	7
Applied, awaiting response	-	4	4
Did not receive CNU qualification	-	2	2
Did not apply	4	10	14
Total	6	21	27

Response rate: 96%

#### Continuing studies

No doctor enrolled in a program or civil service exam after their PhD.

#### Situation of PhD holders on December 1st 2019



		Female	Male	Total
	Employed	5	20	25
i	Employed after 1/12/2019	-	-	0
i	Job Seeker	-	1	1
i	Other	1	1	2
	Total	6	22	28

- ▶ 89% doctors from the class of 2018 were employed on December 1st 2019.
- ▶ 1 PhD holder had been seeking employment for the past 10 months.
  - **2** PhD holders were in another situation on December 1st 2019. One was creating a company and the other was awaiting a residency permit.

#### **KEY FIGURES**

	Employed PhD holders							
		Contract type		Sector		Other key figures		
Employment rate (1)	<i>Cadre</i> rate <sup>(2)</sup>	Permanent <sup>(3)</sup>	Post-doctoral contracts (4)	Other contracts <sup>(5)</sup>	Research <sup>(6)</sup>	Not research <sup>(7)</sup>	Median time spent before 1st job <sup>(8)</sup>	Median gross salary <sup>(8)</sup>
96%	100%	72%	28%	0%	60%	40%	< 1 month	€2,952

- (1) Number of employed PhD holders/ (Number of employed PhD holders + Number of job seeking PhD holders)
- (2) Cadres of the following categories: civil servant, administrative, IT, company head, accredited profession, higher education teachers and scientific professions, secondary and school teachers
- (3) Number of PhD holders with a stable contract: permanent, civil servant, company head, accredited profession/Number of employed PhD holders
- (4) Number of PhD holders with a post-doctoral contract/Number of employed PhD holders
- (5) Number of employed PhD holders with another contract: temporary, interim, adjunct position, ATER/Number of employed PhD holders
- $(6) \ \ Number of employed \ PhD \ holders \ in \ a \ company \ working \ in \ research/Number \ of \ employed \ PhD \ holders$
- (7) Number of employed PhD holders in a company not working in research/Number of employed PhD holders
- (8) Median=value separating the top 50% of respondents and the 50% bottom respondents



## **Employment held on December 1st 2019**

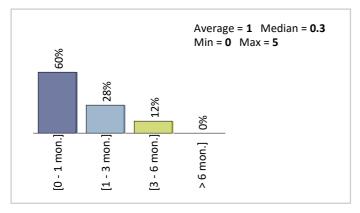
#### **Current employment contract type**

	Female	Male	Total
Permanent	3	15	18
Temporary (excl. post-doctoral)	-	-	0
Post-doctoral contract	2	5	7
ATER position	-	-	0
Adjunct position	-	-	0
Autre	-	-	0
Total	5	20	25

Response rate: 100%

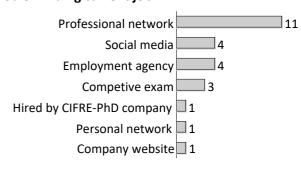
- **72%** of PhD holders were still working at the first job obtained after their PhD defense.
- All PhD holders worked full-time.
- Temporary contracts varied between 12 and 24 months, with the median duration being 16 months.
- > 72% of PhD holders currently had a stable job.

#### Time spent before 1st job



Response rate: 100%

#### Method of finding current job



Response rate: 100%

#### Skills required for job

	N	1
Staff management	18	78%
International work	16	70%
Project management	9	39%
Budget management	6	26%

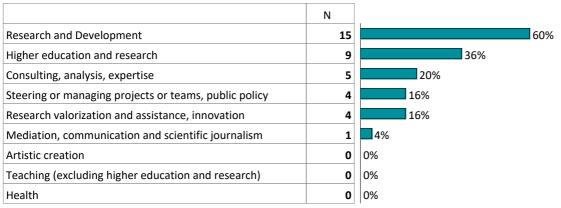
Response rate: 92%

#### Method of applying for current job



Response rate: 100%

#### Functions held at current job



Response rate: 100%



#### **Employment by activity sector**

Teaching, research, R&D

Specialized activities, scientific or technical, including IT, excluding R&D

Industries, construction, production and distribution of energy and water

Response rate: 100%

#### **Company categories**

	Nb	% cit.
Private company	12	48%
Civil service	10	40%
Public company	2	8%
A non-profit association or organization	1	4%
Your own	_	0%
Other	-	0%
International organization or non-EU organization	-	0%
Individual with an accredited or independent profession	-	0%
Total	25	100%

Response rate: 100%

#### **Company size**

	N	I
0 employees	0	0%
1-9 employees	2	8%
10-249 employees	9	36%
250-4,999 employees	6	24%
>5,000 employees	8	32%
Total	25	

Response rate: 100%

#### **Employment status**

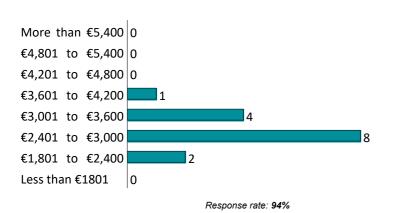
	Female	Male	Total
Higher education teacher, scientific profession	3	7	10
Secondary school teacher	-	-	0
School teacher, instructor, or equivalent	-	-	0
Category A civil servant	-	-	0
Company head, retailer, or equivalent	-	-	0
Engineer or company technical cadre	2	12	14
Administrative or commercial cadre	-	1	1
Accredited profession, legal and technical	-	-	0
Accredited profession, medical	-	-	0
Information, arts and entertainment profession	-	-	0
Intermediate profession, administrative and commercial	-	-	0
Salaried employee	-	-	0
Total	5	20	25

Response rate: 100%



#### Salaries of PhD holders (excluding bonuses)

92% of doctors were satisfied with their salary.



	Total
Average	€2,911
Min	€2,214
Max	€3,690
Median	€2,952

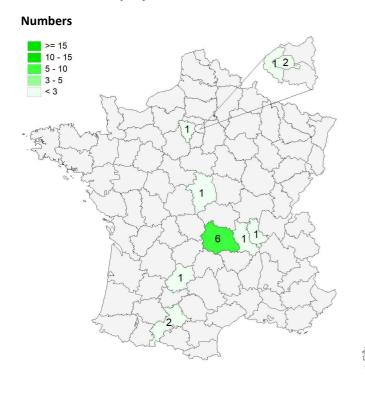
The gross monthly salary of PhD holders (excluding bonuses) varied between €2,214 and €3,690. The median gross salary was €2,952\*.

Salaries are calculated based on full-time employment. The salaries of PhD holders working abroad were not taken into account.

#### **Bonuses**

**4** PhD holders specified the annual gross amount of the bonuses they received. These bonuses varied between **€600** and **€2,500**, with the median amount being **€1,950**.

#### Location of employment



#### Geographical distribution of jobs

Auvergne-Rhône-Alpes	8	32%
Ile-de-France	4	16%
Other department in mainland France	4	16%
Overseas France	0	0%
Abroad:	9	36%

# Geographical distribution of foreign jobs by country

Burkina Faso	1	11%
China	1	11%
United States	1	11%
Gabon	1	11%
United Kingdom	1	11%
Singapore	1	11%
Switzerland	3	33%

Response rate: 100%



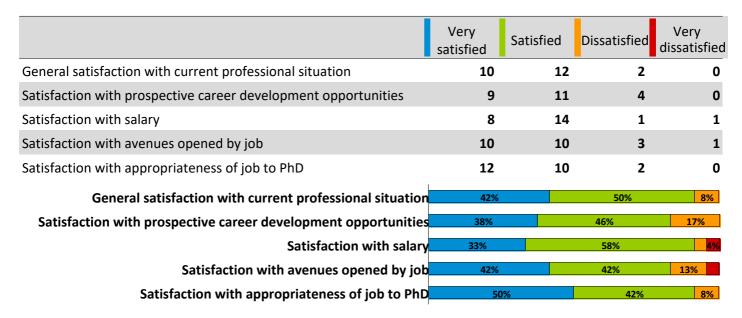
#### List of jobs occupied

		Female	Male	Total
	Researcher	2	4	6
	Research Engineer	0	5	5
	University Lecturer and Researcher	1	3	4
	Data scientist	0	2	2
	Research and Development Engineer	1	1	2
Cadre job	Reliability Project Manager	0	1	1
•	Civil Engineer	0	1	1
	Geotechnical Engineer	1	0	1
	Software Engineer	0	1	1
	Robotics Engineer	0	1	1
	Associate Professor	0	1	1
Total		20	5	25

Response rate: 100%

#### **▶** Job Satisfaction

**92%** of doctors were satisfied with their job in general.



Response rate: 96%

**68%** of doctors declared that a PhD was required to perform their current job and **92%** of doctors were satisfied with the appropriateness of the job to the PhD.



#### **GLOSSARY**

**ATER:** Attaché Temporaire d'Enseignement et de Recherche (Temporary teaching and research assistant).

**CNU:** National Council of Universities to become an associate or full professor.

**CIFRE:** Work placement agreement placing a PhD student in a company.

**Dual-Degree Thesis Program:** A dual-degree thesis is a program to promote global engagement for PhD students and to develop scientific collaboration between foreign and French research teams.

**Doctoral contract:** The doctoral contract is the main type of funding granted to PhD students. The doctoral contract is open to all PhD students who have been enrolled for less than six months in their first year, with no age requirement.

**Post-doctoral contract:** A post-doctoral contract is a temporary work contract in the public and private research sphere, in France or abroad.

**PhD** degree: The PhD is the highest degree in higher education, training students for research by conducting research. In this respect, it is considered a professional research experience. It leads to the creation of new knowledge.

**ED:** Doctoral school

**ED LSHS:** Doctoral School of LITERATURE, HUMAN AND SOCIAL SCIENCES

**ED SVSAE:** Doctoral School of LIFE, HEALTH, AGRONOMY, AND ENVIRONMENTAL SCIENCES

**ED SEJPG:** Doctoral School of ECONOMIC, LAW, POLITICAL AND MANAGEMENT SCIENCES

**ED SF:** Doctoral School of FUNDAMENTAL SCIENCES

**ED SPI:** Doctoral School of ENGINEERING SCIENCES

**MCU:** Maître de Conférence Universitaire (Associate Professor)

