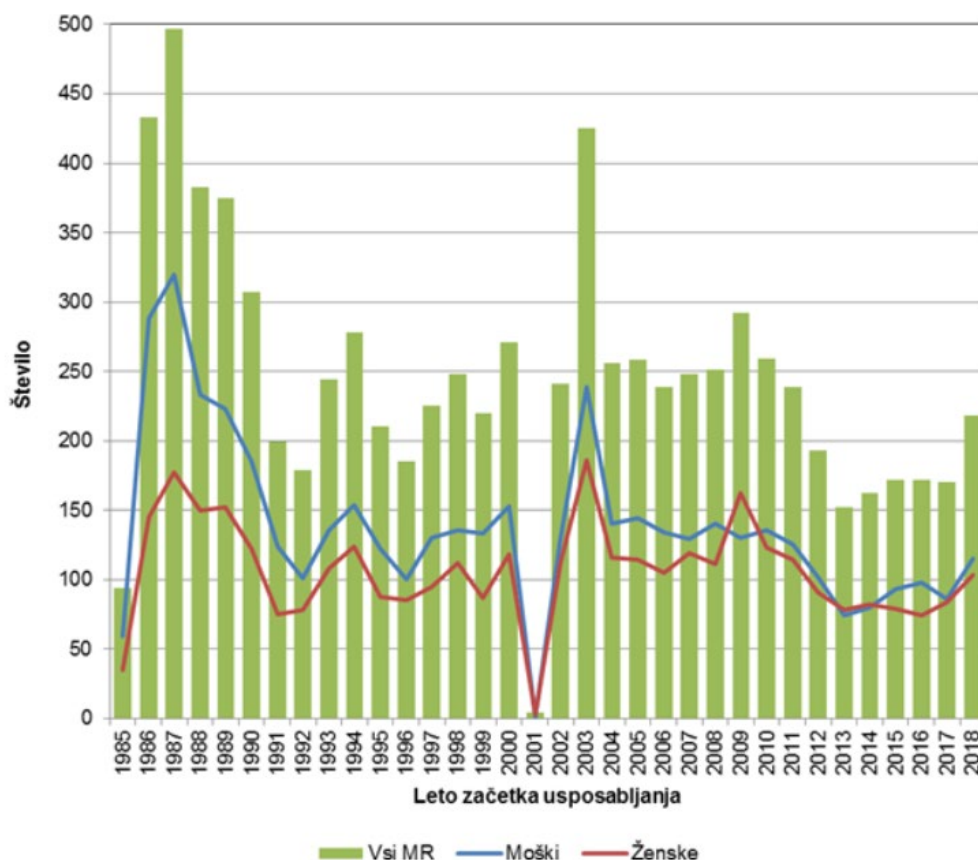


This document represents a contribution of the Young Academy of Slovenia to the presentation that dr. Filomena Parada, Eurodoc Advisory Board Member, will be making on October 7, 2019, at the OECD Expert Group meeting on postdocs precariousness.

**EURODOC: What are the key issues relating to the precariousness of the working conditions offered to postdocs in your country that your National Association is addressing?**

The key issue relating to the precariousness of the working conditions offered to postdocs in Slovenia is a **structural imbalance between the number of doctoral and postdoctoral positions**. A number of doctoral candidates are funded by our national funding body, the Slovenian Research Agency (ARRS), through a funding instrument called Young Researchers<sup>1</sup>. The instrument runs since 1985 and funds their salaries, social contributions, as well as material and non-material costs. The number of Young Researcher positions fluctuates year by year, depending on the budget that the Government allocates to R&D every year, but there have been **roughly 150–300 new Young Researchers enrolled every year since 1991** (Figure 1).

Pričetek financiranja mladih raziskovalcev v letu 2001 je bil prestavljen v začetek leta 2002. Enako je bilo v letu 2002. V letu 2003 pa sta se začeli financirati dve generaciji mladih raziskovalcev.

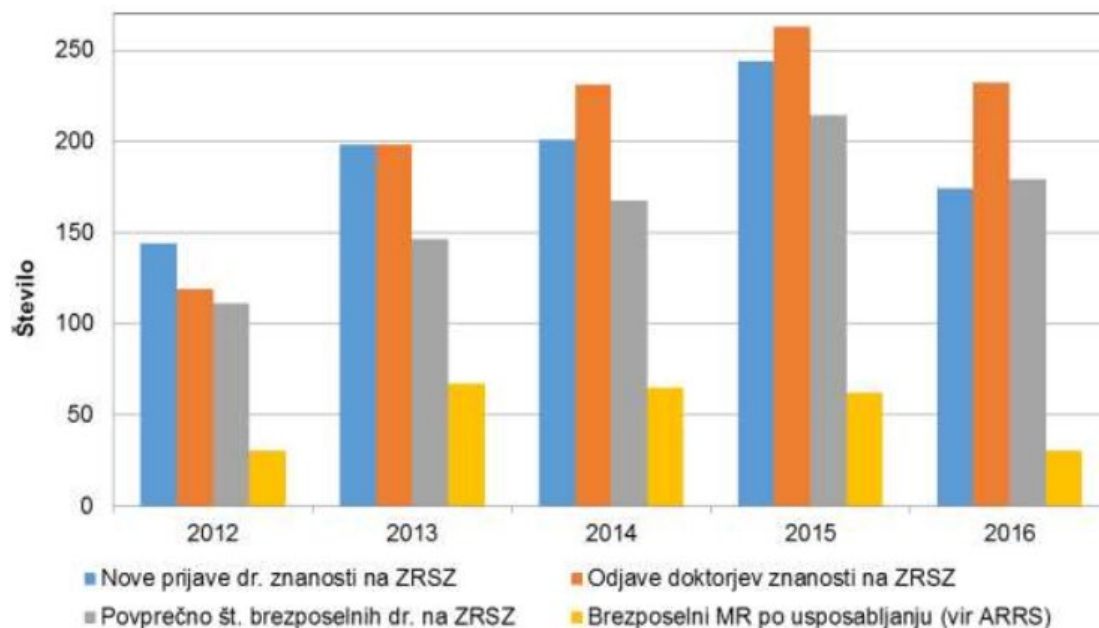


**Figure 1.** A snapshot of the ARRS's website showing the number of new Young Researchers enrolled in doctoral training between 1985 and 2019. x-axis: the year of enrolment; y-axis: the number of researchers segregated by sex. Blue line – male, red line – female, green bars – total. Source: <https://www.arrs.si/sl/analize/obseq01/mr.asp> (in Slovenian).

<sup>1</sup> Young Researchers: <http://www.arrs.gov.si/en/mr/>

This means there are roughly 600–1200 young researchers of all generations in training every year, which does not include doctoral students funded by other funding schemes (please refer to the report for Slovenia within the [EURODOC survey on the structure of the doctorates across Europe](#)). The latter number is hard to come by because few Slovenian doctoral schools make their records public. However, the University of Ljubljana reports on approximately 1500–2200 enrolled doctoral students of all generations per year in the period of 2011–2018<sup>2</sup>. Some of these are Young Researchers (please note that this is only a funding scheme and all Young Researchers must be enrolled in one of the Slovenian doctoral schools, which are run by universities and some institutes), so we can conclude that there are **up to 3000 doctoral students of all generations in training every year in Slovenia**, of which up to a half are Young Researchers.

The ARRS's records show that **roughly 180–360 Young Researchers finished their training every year in the period of 2012–2016**, whereas the data for those without the Young Researcher status are unknown. In the same period, between 150 and 250 of PhDs registered as unemployed every year at the Employment Service of Slovenia for the first time, of which 25 to 60 were Young Researchers (Figure 2). Registered unemployment lasted on average for 7–13 months for STEM PhDs and 13–26 months for those from social sciences and humanities.<sup>3</sup>

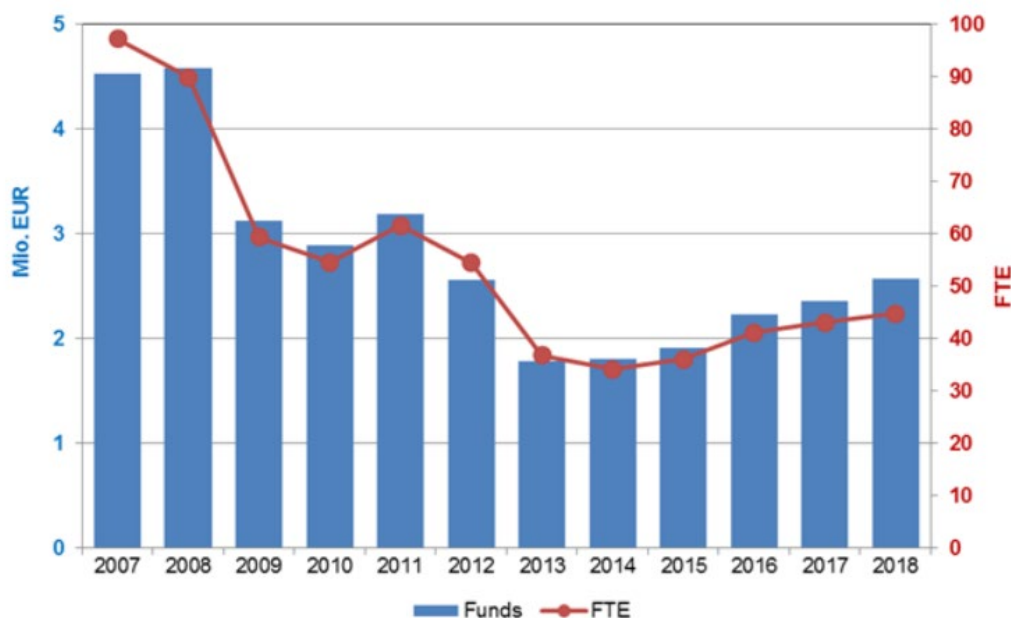


**Figure 3.** A chart from the ARRS's analysis of the employment status of former Young Researchers after graduation (2012–2016) showing the number of PhDs registering as unemployed at the Employment Service of Slovenia for the first time (blue), the number of PhDs ending the registration (orange), the average number of unemployed PhDs (grey), and the number of unemployed Young Researchers (yellow) per year in the period of 2012–2016. Source: <https://www.arrs.si/sl/analize/publ/inc/Analiza-dr.pdf> (in Slovenian).

<sup>2</sup> The number of doctoral students enrolled at the University in Ljubljana between 2011 and 2018: <https://www.uni-lj.si/mma/vpisani%20za%20objavo%20na%20spletu%202016-17+17-18/2018032907364649/> (in Slovenian)

<sup>3</sup> The analysis of the employment status of former Young Researchers after graduation (2012–2016): <https://www.arrs.si/sl/analize/publ/inc/Analiza-dr.pdf> (in Slovenian)

On the other hand, ARRS offers **only 30–60 postdoctoral grants per year** through its public tender since 2009 (Figure 2), which is roughly 30% of the yearly new Young Researcher positions, less than 15% of the total yearly nation-wide new PhD enrolments, and less than 25% of all newly unemployed PhDs (of which the majority are new graduates). Moreover, only candidates who are already employed at a research institution where they would like to continue the postdoc can apply for a postdoctoral grant. This hinders the application of unemployed PhDs and obstructs the transition between institutions. In particular, it limits the reintegration of those who are studying or working abroad and would like to return to Slovenia. In addition, the time between the publication of the call results and the start of the funding is usually so short (11 days in 2019, for instance) that it leaves candidates in limbo. If the project they are employed on ends before the start of the new project, they do not know whether they should start looking for another job or apply for other funding. If they are employed on an ongoing project, they will have to leave that project abruptly, and their institution will be left with very little time to find a replacement.



**Figure 3.** A snapshot of the ARRS's website showing the number of postdoctoral researchers employed full-time (FTE, red line) between 2007 and 2018 after obtaining the ARRS's 2-year postdoctoral grant at a public tender.  
 Source: <https://www.arrs.si/sl/analize/obseq01/po-dr.asp> (in Slovenian).

There is a complementary funding scheme for postdocs run since 2015 by the Ministry of Education, Science and Sports, titled "Public Tender for the Stimulation of Early-Career Researchers"<sup>4</sup>, which, for example, enabled funding to 47 postdocs in 2019.<sup>5</sup> However, this scheme only funds applicative projects within the priority areas of the Slovenian Smart Specialisation Strategy (S4). They require industrial partnerships and thus do not accept proposals for basic research, limiting particularly those in social sciences and humanities.

<sup>4</sup> »Public Tender for the Stimulation of Early-Career Researchers 2.1« prepared by the Ministry of Education, Science and Sports: <https://tinyurl.com/y52fya5v> (in Slovenian)

<sup>5</sup> The results of the »Public Tender for the Stimulation of Early-Career Researchers 2.1« for 2018/19: <https://tinyurl.com/yvuosuz2> (in Slovenian)

The consequence of this structural imbalance is a **severe shortage of institutional postdoctoral positions for newly-graduated PhDs in Slovenia and cutthroat competition in national tenders**. A recent book from dr. Franci Demšar, former head of the ARRS, offers a hint that this was a deliberate political decision in the 1990s (after Slovenia gained independence from Yugoslavia) to force PhDs to seek jobs in industry and thus increase the share of PhDs in the national industrial workforce.<sup>6</sup> Whereas this functions for STEM PhDs to some extent, it does not apply to those coming from social sciences and humanities.

**The academic fate of the newly-graduated PhDs thus heavily depends on the goodwill of their supervisors.** If supervisors have enough project money (national and international grants) and are on good terms with their students, they can offer them a short-term contract, usually for no more than a year. Changing the funding source from contract to contract and several short-term renewals are a norm, although this practice is illegal in Slovenia under the general Employment Relationships Act (all civil servants should be offered a permanent contract after working at the same post for two years or more).<sup>7</sup> This situation continues until the postdoc secures his/her own project or leaves academia. As an alternative, the newly-graduated PhDs can leave the country by obtaining international fellowships such as Marie Curie grants or securing foreign institutional postdoctoral positions. This is also highly desirable if not necessary because all Slovenian academic institutions require a certain period of living and working abroad as one of their criteria for academic promotion (usually at the level of associate professor and higher). However, since career prospects are better abroad than in Slovenia, **many of those who leave do not return, which leads to brain drain**.

Those postdocs who manage to obtain a position in Slovenian academic system, either by securing their own grants or becoming employed on other projects, become civil servants and thus have **all rights and duties covered by the general Employment Relationships Act**. The gross salary (before tax) of a postdoc is between the 36<sup>th</sup> and 41<sup>st</sup> salary grade in Slovenian public administration<sup>8</sup> (1.737,79–2.114,29 € without benefits since 2016). There have been accounts of early-career researchers (at the level of teaching/research assistant/associate and assistant professor) working in covert employment relationships through work contracts, copyright contracts, and sole traderships, but these are exceptions rather than the norm.

**However, one group is particularly disadvantaged in this system: young mothers.** Many women decide to have a baby during their PhD study (usually Young Researchers who are protected better than other PhD students; please refer to the report for Slovenia within the [EURODOC survey on the structure of the doctorates across Europe](#)). The reason is that the employment contract for Young Researchers lasts four years, and this period is prolonged for each maternity leave (which usually lasts one year) without any consequences – it is important to note that maternity leaves in Slovenia are covered by the national budget, not by employers. As mentioned earlier, a typical employment contract after finishing the PhD lasts for one year or even less. Since many women do not want to risk being pregnant and thus losing a job, they prefer to find a job outside academia and dedicate their time to the family instead of the academic career.

---

<sup>6</sup> The monograph by dr. Franci Demšar and Jasna Kontler-Salamon titled »Slovenska znanost: akademska igra ali adut družbenega napredka« (»Slovenian Science: An Academic Game or an Ace of the Social Progress«): <http://www.hippocampus.si/slovenska-znanost/> (in Slovenian)

<sup>7</sup> The Slovenian Employment Relationships Act: <https://tinyurl.com/y6y34ejm> (in English)

<sup>8</sup> Salary grades of Slovenian academic employees: [https://www.uradni-list.si/files/RS\\_-2008-060-02579-OB~P001-0000.pdf](https://www.uradni-list.si/files/RS_-2008-060-02579-OB~P001-0000.pdf) (in Slovenian)

Another problem is the obvious imbalance in working conditions between early-career and senior researchers. In the past, researchers (who are now in senior positions) used to receive permanent contracts immediately after thesis defence and were promoted to higher academic levels much faster and under substantially lower criteria. However, early-career researchers are nowadays exposed to several renewals of short-term contracts and receive **up to three or even four-times lower income than senior researchers**. This is mostly the consequence of **various benefits that senior researchers accrue in addition to their basic gross salaries** (46<sup>th</sup>–51<sup>st</sup> salary grade in Slovenian public administration for associate professors, e.g., 2.572,34–3.129,66 € before tax and without benefits, and 50<sup>th</sup>–55<sup>th</sup> salary grade for full professors, e.g., 3.009,28–3.661,25 € before tax and without benefits). These benefits comprise the positional bonus (“položajni dodatek”), bonus for teaching and/or research overload (“pedagoška nadobremenitev” and “raziskovalna nadobremenitev”), bonus for the length of service (“dodatek na delovno dobo”), bonus for mentorship, bonus for overtime, and sometimes copyright contracts for teaching part-time and doctoral courses or consultation.<sup>9</sup>

Older researchers are also more likely to be in decision-making positions (for instance, the Scientific Committee of the Research Centre of the Slovenian Academy of Sciences and Arts does not include any researchers under 45 years of age), and there has been **a recent trend at several Slovenian research organisations to tighten the promotion criteria**. In some cases, the promotion criteria were made stricter particularly for lower academic ranks, whereas they were loosened for higher academic ranks, for example regarding the time needed to be spent working abroad (as can be seen from comparing the current book of rules of the Research Centre of the Slovenian Academy of Sciences and Arts with the previous one). At some other institutions, such as the National Institute of Chemistry, the greatest tightening was implemented in the promotion criteria to the rank of senior research associate (“višji znanstveni sodelavec”). **Typically, the criteria for researchers promoted under old rules are not re-evaluated.**

Another residue of the reform of Slovenian academic system after 1991 is the **rigidity of the so-called programme groups**<sup>10</sup>, which represent the most stable funding source in Slovenia and are again most often occupied by senior researchers (who, as mentioned earlier, were promoted under less strict criteria than younger generations). Each programme group leader decides freely on who can join the programme and who is not eligible. These criteria are often tailored to older and already privileged researchers. Programme group leaders are also typically the most competitive in the national grant tenders due to the number of papers published (sometimes only as a result of guest/gift authorships) and the number of accrued SICRIS<sup>11</sup> points, which are an entry criterion to tenders. For example, 40% of programme group leaders also received short-term grants in the 2017/18 national tender, outperforming many less established researchers who would need their own projects to gain research independence. It is hoped that these issues will be solved by the new amendment of Slovenia's Research and Development Activity Act and the obligations adopted by ARRS after signing the San Francisco Declaration on Research Assessment (DORA) in July 2019.

---

<sup>9</sup> Video of a roundtable on precariousness in Slovenian higher education featuring our member, dr. Jernej Zupanc (2016): <https://www.zupanc.net/okrogla-miza-prekariat-v-visokem-solstvu-youtube/> (in Slovenian)

<sup>10</sup> Research programme is a special, long-term funding instrument for research organisations that exists in Slovenia: <http://www.arrs.gov.si/en/progproj/rprog/> (in English).

<sup>11</sup> SICRIS, Slovenian Current Research Information System: <https://www.sicris.si/public/jqm/memo.aspx?lang=eng&opdescr=presentation&opt=6&subopt=1> (in English)



**EURODOC: Can you provide concrete case examples/situations, in particular the implications of those same issues your National Association is addressing?**

As mentioned earlier, the main implications of the given situation are:

1. **high chance of long-term unemployment** (more than a year) after finishing the PhD studies;
2. **brain drain** (Slovenian PhDs moving abroad in search of job opportunities);
3. **structural shortage of postdoctoral positions in academia, resulting in a heavy outflow of PhDs into industry** (however, this option is more easily accessible to STEM PhDs than to those from social sciences and humanities);
4. **the “leaky pipeline”** contributing to the lack of women at senior academic levels;
5. **structural power imbalance** between early-career researchers and senior researchers;
6. **generational conflict** between precariously employed early-career researchers and securely employed senior researchers with a sometimes drastic difference in income.

We are aware of several anecdotal cases of individuals experiencing the issues described above, but we do not wish to disclose their stories in detail in order to protect their identities. In general, we can mention:

1. individuals pursuing a postdoc abroad to fulfil the future requirements for promotion within the academic ranks but then failing to secure a grant or employment upon returning to Slovenia;
2. individuals experiencing several years-long unemployment before securing employment either in academia or elsewhere;
3. individuals having to make a living with atypical forms of employment (work contracts, copyright contracts, and sole traderships) either inside (e.g., in covert employment relationship) or outside academia for years before securing a typical employment relationship again;
4. individuals having to accept work way below their education level (including physical labour, waiting tables, retail, sales representation) before returning to academia;
5. individuals forming their own companies to be able to continue their research (e.g., dr. Špela Gorički with her [Scriptorium Biologorum – Biološka pisarna d.o.o.](#));
6. individuals having to sue their research organisation to secure a permanent employment contract;
7. women being discriminated because of maternity leaves;
8. individuals willingly moving abroad without the plan to ever return to Slovenia.

Contributors (in alphabetical order):

- dr. Peter Kumer, Research Centre of the Slovenian Academy of Sciences and Arts
- dr. Majda Pavlin, Slovenian National Building and Civil Engineering Institute
- dr. Tea Romih, National Institute of Chemistry
- dr. Ana Slavec, InnoRenew CoE

Ljubljana, September 28, 2019